



401 KAR 52:020

Application for Minor Title V Permit Revision

Pratt Paper (KY), LLC

Pratt (Henderson Corrugating), LLC

August 2023

Permit No. V-21-034 R1

Minor Permit Revision

Prepared For:

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PRATT PAPER (KY), LLC / PRATT (HENDERSON CORRUGATING), LLC
TITLE V PERMIT V-22-034 R1
APPLICATION FOR MINOR PERMIT REVISION

SUMMARY

Pratt Industries, Inc. (Pratt) submits this application for a minor permit revision pursuant to 401 KAR 52:020, Section 14 to incorporate into Permit V-21-034 R1 several technical corrections to equipment design and capacity based on as-purchased equipment specifications. Pratt also proposes to include the pre-approved installation and operation of temporary rental boilers.

The noted technical corrections are due to minor differences in the specifications of the as-purchased equipment from the expected equipment specifications as permitted in the original application and issued revised permit.

The proposed rental boilers will operate temporarily to enable uninterrupted facility operation during downtime of the Mill Boiler (EU 01). Pratt proposes allowing the rental boilers to operate up to 1,000 hours per year. As the rental boilers will only operate while the Mill Boiler is down for routine maintenance or unplanned outages, the change in annual emissions from operating the rental boilers will be negligible.

Pratt submitted a complete permit application pursuant to 401 KAR 52:020 on August 19, 2021 for minor new source construction approval and a Title V operating permit for a new paperboard mill and corrugating facility in Henderson, Kentucky. Permit V-21-034 was proposed on October 24, 2021 and issued as final on January 17, 2022. Pratt submitted a minor permit revision pursuant to 401 KAR 52:020, Section 14 in March 2022 to incorporate several changes in equipment design and capacity. Permit V-21-034 R1 was issued as final on August 12, 2022.

The changes summarized below do not trigger any new regulatory applicability. In particular, with the technical corrections, the stationary source [Pratt Paper (KY) and Pratt (Henderson Corrugating)] remains a minor Prevention of Significant Deterioration (PSD) source. A comparison of the entire stationary source and the nested source (Mill Boiler) to their respective major PSD source emission threshold(s) is shown in Table 2. As discussed in further detail below, the site wide potential to emit (PTE) contribution for the Mill Boiler and rental boilers is the maximum of the Mill Boiler operating at 8,760 hrs/yr or the Mill Boiler operating at 7,760 hrs/yr and the Rental Boilers operating at 1,000 hrs/yr. The proposed technical corrections and rental boilers result in slight differences in overall emissions site wide, but the site wide PTE remains less than 250 tpy for all regulated pollutants.

Changes to equipment design and/or capacity include:

- The maximum capacity of Emissions Unit (EU) 06 Natural Gas-Fired Emergency Generator increased from 368 horsepower (2.83 MMBtu/hr) to 448 hp (3.42 MMBtu/hr). Generator supplier emission guarantees for NO_x, CO, and VOC were lower for the proposed engine.

- The maximum capacity of EU 07 Diesel Fuel-Fired Fire Pump Engine decreased from 410 horsepower (2.87 MMBtu/hr) to 327 hp (2.29 MMBtu/hr). Generator supplier emission guarantees for NO_x, CO, and VOC were lower for the proposed engine.
- The maximum capacity of EU 09 Flexo-Folder-Gluer (FFG) #1 decreased from 237.6 lbs/hr ink and 59.4 lbs/hr glue to 107.6 lbs/hr ink and 26.9 lbs/hr glue.
- The maximum capacity of EU 10 FFG #2 increased from 131.3 lbs/hr ink and 32.8 lbs/hr glue to 188.8 lbs/hr ink and 47.2 lbs/hr glue.
- The maximum capacity of EU 11 FFG #3 increased from 180.0 lbs/hr ink and 45.0 lbs/hr glue to 203.4 lbs/hr ink and 50.9 lbs/hr glue.
- The maximum capacity of EU 13 Rotary Die Cutter (RDC) #2 increased from 237.6 lbs/hr ink to 247.5 lbs/hr ink.
- The maximum capacity of EU 14 RDC #3 decreased from 237.6 lbs/hr ink to 217.8 lbs/hr ink.
- The FW Pump Diesel Tank (insignificant activity 2) changed from 300 gallons to 410 gallons.
- The storage capacity of the Mill Starch Silos (insignificant activity 3) decreased from two 194-ton silos to two 176-ton silos.
- Pratt has installed the capability to unload starch to the Mill Starch Silos from both railcars and truck trailers.
- The maximum annual starch throughput of the Mill Starch Silos increased from 35,040 tons to 39,420 tons.
- The Fiber Yard Diesel Tank (insignificant activity 5) changed from 2,000 gallons to 4,000 gallons.
- The storage capacity of the Corrugator Starch Silo (insignificant activity 6) decreased from one 125-ton silo to one 110-ton silo.

New equipment to be permitted:

- EU 16, three rental boilers each with a natural gas-fired heat input capacity of 90.2 MMBtu/hr. These boilers will operate in a temporary manner for a maximum of 1,000 hrs/yr each during Mill Boiler downtime.

Table 1 summarizes the emissions units that will be installed at the new mill and corrugating facility. Emissions units affected by this application are highlighted.

Table 1. Summary of Permitted Emissions Units

Unit ID	Source Description	Design Capacity or Throughput
01	Mill Boiler #1 – process steam boiler	428.0 MMBtu/hr natural gas and biogas fired boiler
16	Rental Boilers	Three 90.2 MMBtu/hr natural gas fired boilers
IA3	Mill Starch Silos – bulk storage	Two 176-ton silos, 39,420 tons/yr of starch throughput
02	Stock Prep and Hydropulping	2,268 tons per day, 827,820 tons per year of recycled paper
03	Paper Machine	2,182 ADTFP per day and 796,430 ADTFP per year
06	Emergency Generator	448 hp natural gas-fired engine generator
07	Fire Pump	327 hp diesel engine driven fire water pump
05	Mill Air Make-Up units	Six 10.2 MMBtu/hr, one 0.8 MMBtu/hr direct ng fired units
IA4	WWTP Cooling Tower – effluent cooling	1,200 gpm contact water cooling tower
04	WWTP – anaerobic reactor/digester	1.7 million gpd, 1,008,000 ft ³ /day biogas generation
08	Corrugator Boiler #1 – process steam	33.3 MMBtu/hr natural gas fired boiler
IA6	Corrugated Starch Silo – bulk storage	110-ton silo, 26,280 tons of starch throughput per year
IA7	Corrugator	110 in. wide, 1,500 feet per minute
IA8	Corrugated Trim Collection System	825,000 ft ² /hr of trim collected and baled
09	Flexo-Folder-Gluer (FFG) #1 - conversion	36x83, 4-color flexographic printer-folder-gluer
10	FFG #2 - conversion	46x114, 4-color flexographic printer-folder-gluer
11	FFG #3 - conversion	50x113, 4-color flexographic printer-folder-gluer
12	Rotary Die Cutter (RDC) #1 - conversion	66x120, rotary die cutter with 4-color flexographic printer
13	RDC #2 - conversion	66x125, rotary die cutter with 3-color flexographic printer
14	RDC #3 - conversion	66x110, rotary die cutter with 4-color flexographic printer
15	Corrugator Air Make-Up units	Eight 3.23 MMBtu/hr direct natural gas-fired units
FUG1	Paved Roads and Parking Areas	174,000 vehicle miles traveled per year

Note: IA1, IA2, and IA5 are miscellaneous chemical storage tanks and diesel storage tanks.

REGULATORY BASIS

Pratt is located in Henderson County, Kentucky. Henderson County is classified as having ambient air quality better than the National Ambient Air Quality Standards (NAAQS) and is designated as attainment or unclassifiable for all criteria pollutants – PM₁₀, PM_{2.5}, SO₂, NO_x, CO, ozone (O₃), and lead.

Pratt is and will remain defined as a minor stationary source for purposes of State and Federal major new source review (NSR) regulations governing attainment pollutants –PSD. The new mill and corrugating facility along with the mill boiler as a support facility were reviewed as a parent source with their primary activity not included in the list of 28 PSD source categories whereby major stationary source status is defined at 250 tpy potential emissions for any one

attainment pollutant. The proposed paperboard mill does not fall under the listed PSD source category of ‘Kraft pulp mills.’ The new mill uses 100 percent recycled fiber to produce paperboard and uses no virgin pulp in the process.

The new mill will also have a nested emissions unit, EU 01 – Mill Boiler #1, that is a listed PSD source category (fossil fuel boilers, or combinations thereof, with a heat input greater than 250 MMBtu/hr). For the nested boiler on its own, major stationary source status is defined at 100 tpy potential emissions for any one attainment pollutant.

Table 2 below, summarizes the unrestricted potential to emit for the new mill and corrugating facility (including nested Mill Boiler #1) and for only Mill Boiler #1 compared to the major PSD source thresholds. As can be observed, the unrestricted potential to emit for the proposed recycle mill and corrugating facility and Mill Boiler #1 are well below the respective major PSD source thresholds.

Table 2. Comparison of Unrestricted PTE to Major PSD Source Thresholds

Source	Unrestricted Potential to Emit								
	PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	VOC ¹	lead	H ₂ S	GHG ²
Entire Mill/Corrugator ^{3,4}	22.19	22.19	1.42	53.56	104.81	196.88	0.001	229.4	423,196
Major PSD Source	250	250	250	250	250	250	250	250	100,000
Mill Boiler #1	9.37	9.37	1.10	33.74	69.36	7.50	0.001	-	219,354
Major PSD Source	100	100	100	100	100	100	100	100	100,000

¹ For attainment areas, NO_x and VOC regulated precursor pollutants for ozone.

² Major stationary source and PSD applicability is not defined based solely on greater than threshold GHG emissions.

³ Not including fugitive emissions from plant roadways and parking areas.

⁴ The site wide PTE contribution for the Mill Boiler and Rental boilers is the maximum of the Mill Boiler operating at 8,760 hrs/yr or the Mill Boiler operating at 7,760 hrs/yr and the Rental Boilers operating at 1,000 hrs/yr.

AIR EMISSION ESTIMATES

Air emission estimates for the equipment planned for the new mill and corrugating facility were prepared as part of this application and the spreadsheet calculations are included as an attachment. Tables 3a and 3b summarize the proposed annual emission rates for each affected emissions unit. Individual HAP emissions are summarized in Table 3c. Detailed discussions regarding each emissions unit affected by this minor permit revision follow below.

Insignificant Activity (IA) 3 – Mill Starch Silos

Starch will be used in the paper-making process at a maximum rate of 4.5 tons per hour. Annual starch throughput will be 39,420 tons. Bulk starch will be stored in two 176-ton silos. Starch will be pneumatically transferred from a hopper truck or railcar to the silos. Entrained dust in the air displaced from the silos when filling will be captured by bin vent filters.

Table 3a - Summary of Unrestricted/Uncontrolled PTE

EU/Source Description	Unrestricted/Uncontrolled Potential to Emit, Tons Per Year										
	PM	PM10	PM2.5	SO2	NOX	CO	VOC	CO2e	H2S	Single HAP	Total HAPs
Pratt Paper (KY), LLC											
01 Mill Boiler #1/16 Rental Boilers	9.37	9.37	9.37	1.10	35.30	70.92	7.73	219,354		3.31	3.47
IA3 Mill Starch Silos	4.83	4.83	4.83								
02 Stock Prep/Hydropulping							6.21				
03 Paper Machine							119.46				
05 Mill Air Make-Up Units	0.51	2.02	2.02	0.16	1.09	22.36	1.46	31,776		0.48	0.50
06 Emergency Generator	0.008	0.017	0.017	0.0005	0.49	0.99	0.25	100		0.018	0.027
07 Fire Pump	0.020	0.024	0.024	0.0001	0.48	0.13	0.016	93		0.001	0.003
IA4 WWTP Cooling Tower	0.26	0.26	0.26								
04 WWTP anaerobic digester/reactor								141,557	229.4		
Pratt (Henderson Corrugating), LLC											
08 Corrugator Boiler #1	0.27	1.09	1.09	0.09	5.11	1.09	0.47	17,073		0.26	0.27
IA6 Corrugator Starch Silo	3.23	3.23	3.23								
IA8 Corrugated Trim Collection	0.49	0.49	0.49								
09 FFG #1							5.77			0.33	0.46
10 FFG #2							10.13			0.58	0.81
11 FFG #3							10.91			0.62	0.87
12 RDC #1							11.45			0.73	0.73
13 RDC #2							11.92			0.76	0.76
14 RDC #3							10.49			0.67	0.67
15 Corrugator Air Make Units	0.21	0.84	0.84	0.07	11.10	9.32	0.61	13,243		0.20	0.21
TOTAL SITE NONFUGITIVE EMISSIONS	19.21	22.19	22.19	1.42	53.56	104.81	196.88	423,196	229.4	4.24	8.77
FUG1 Paved Roadways (Mill/Corrugator)	8.93	1.79	0.44								
TOTAL SITE EMISSIONS	28.14	23.97	22.63	1.42	53.56	104.81	196.88	423,196	229.4	4.24	8.77

Note: Facility-wide highest single HAP is n-hexane from boilers and AMUs; single HAP listed for EUs 06 and 07 is formaldehyde; single HAP listed for EUs 09-14 is glycol ethers.

Note: 01 Mill Boiler #1/16 Rental Boilers is the maximum emissions from either running the Mill Boiler at 8,760 hours/year or the Mill Boiler at 7,760 hours/year and the Rental Boilers at 1,000 hours/year.

Table 3b - Summary of Restricted/Controlled PTE

EU/Source Description	Restricted/Controlled Potential to Emit , Tons Per Year										
	PM	PM10	PM2.5	SO2	NOX	CO	VOC	CO2e	H2S	Single HAP	Total HAPs
Pratt Paper (KY), LLC											
01 Mill Boiler #1/16 Rental Boilers	9.37	9.37	9.37	1.10	35.30	70.92	7.73	219,354		3.31	3.47
IA3 Mill Starch Silos	0.05	0.05	0.05								
02 Stock Prep/Hydropulping							6.21				
03 Paper Machine							119.46				
05 Mill Air Make-Up Units	0.23	0.92	0.92	0.07	0.50	10.21	0.67	14,509		0.22	0.23
06 Emergency Generator	0.008	0.017	0.017	0.0005	0.49	0.99	0.25	100		0.018	0.027
07 Fire Pump	0.020	0.024	0.024	0.0001	0.48	0.13	0.016	93		0.001	0.003
IA4 WWTP Cooling Tower	0.26	0.26	0.26								
04 WWTP anaerobic digester/reactor	1.93	1.93	1.93	6.80	5.02	5.92	2.23	22,762	0.07		
Pratt (Henderson Corrugating), LLC											
08 Corrugator Boiler #1	0.27	1.09	1.09	0.09	5.11	1.09	0.47	17,073		0.26	0.27
IA6 Corrugator Starch Silo	0.03	0.03	0.03								
IA8 Corrugated Trim Collection	0.005	0.005	0.005								
09 FFG #1							5.77			0.33	0.46
10 FFG #2							10.13			0.58	0.81
11 FFG #3							10.91			0.62	0.87
12 RDC #1							11.45			0.73	0.73
13 RDC #2							11.92			0.76	0.76
14 RDC #3							10.49			0.67	0.67
15 Corrugator Air Make Units	0.10	0.39	0.39	0.03	5.07	4.26	0.28	6,047		0.09	0.096
TOTAL SITE NONFUGITIVE EMISSIONS	12.28	14.09	14.09	8.09	51.97	93.52	197.98	279,939	0.07	3.88	8.39
FUG1 Paved Roadways (Mill/Corrugator)	2.23	0.45	0.11								
TOTAL SITE EMISSIONS	14.51	14.54	14.20	8.09	51.97	93.52	197.98	279,939	0.07	3.88	8.39

Note: Facility-wide highest single HAP is n-hexane from boilers and AMUs; single HAP listed for EUs 06 and 07 is formaldehyde; single HAP listed for EUs 09-14 is glycol ethers.

Note: 01 Mill Boiler #1/16 Rental Boilers is the maximum emissions from either running the Mill Boiler at 8,760 hours/year or the Mill Boiler at 7,760 hours/year and the Rental Boilers at 1,000 hours/year.

Table 3c - Summary of Unrestricted/Uncontrolled Individual HAPs

EU/Source Description	Unrestricted/Uncontrolled Potential to Emit , Tons Per Year						
	n-hexane	formaldehyde	methanol	benzene	glycol ethers	vinyl acetate	acetaldehyde
Pratt Paper (KY), LLC							
01 Mill Boiler #1/16 Rental Boilers	3.31	0.14		0.004			
05 Mill Air Make-Up Units	0.48	0.02		0.001			
06 Emergency Generator		0.018	0.003	0.001			0.002
07 Fire Pump		0.001		0.001			0.000
Pratt (Henderson Corrugating), LLC							
08 Corrugator Boiler #1	0.26	0.011		0.0003			
09 FFG #1		0.009	0.008		0.33	0.10	0.013
10 FFG #2		0.016	0.014		0.58	0.17	0.023
11 FFG #3		0.017	0.015		0.62	0.18	0.025
12 RDC #1					0.73		
13 RDC #2					0.76		
14 RDC #3					0.67		
15 Corrugator Air Make Units	0.20	0.008		0.0002			
TOTAL SITE EMISSIONS	4.24	0.24	0.04	0.007	3.69	0.45	0.06

Note: The highest two individual HAPs and benzene are only shown above for the boilers and AMUs.

Note: 01 Mill Boiler #1/16 Rental Boilers is the maximum emissions from either running the Mill Boiler at 8,760 hours/year or the Mill Boiler at 7,760 hours/year and the Rental Boilers at 1,000 hours/year.

Particulate emissions were estimated using an emission factor for a corn starch silo from AP-42 Section 9.9.7 given in terms of PM emissions per ton of starch transferred and a 99 percent bin vent filter control efficiency. Potential annual PM emissions were based on an hourly starch usage rate of 4.5 tons/hr and 8,760 hrs/yr. PM₁₀ and PM_{2.5} emissions were assumed equal to PM emissions.

EU 06 – Emergency Generator

The Emergency Generator is a 448 horsepower (hp) natural gas-fired generator engine. The rated heat input for the reciprocating internal combustion engine (RICE) from natural gas is about 3.42 MMBtu/hr.

Potential emissions for the Emergency Generator are based on 500 hrs/yr of operation in accordance with U.S. EPA policy. Emissions factors for PM, PM₁₀, PM_{2.5}, SO₂, and HAPs were taken from AP-42, Table 3.2-3 for 4-stroke rich engines. Emission factors for NO_x, CO, and VOC were provided by an equipment manufacturer and are equal to or better than the Tier 3 standards required for new spark-ignition RICE provided in 40 CFR Part 60, Subpart JJJJ.

EU 07 – Fire Pump

The Fire Pump is a 327 horsepower (hp) diesel-fired engine driven water pump used for fire protection. The rated heat input for the compression-ignition RICE from diesel fuel oil is about 2.29 MMBtu/hr.

Potential emissions for the Fire Pump are based on 500 hrs/yr of operation in accordance with U.S. EPA policy. Emission factors for filterable PM, NO_x, CO, and VOC were provided by an equipment manufacturer and are equal to the Tier 3 standards required for new compression-ignition RICE provided in 40 CFR Part 60, Subpart IIII. Emissions factors for the condensable fraction of PM₁₀ and PM_{2.5}, were taken from AP-42 Table 3.4-2. SO₂ emissions are based AP-42 Table 3.4-1 and burning diesel with 15 ppm sulfur. HAP emission factors were taken from AP-42, Table 3.3-2

EU 09-11, 13, 14 – Corrugated Sheet Converting Equipment

Several pieces of equipment will be operated to convert sheet produced by the corrugator to corrugated printed folded box products and printed corrugated sheet depending on customer specifications. Two types of equipment will be installed: flexo-folder-glue (FFGs) and rotary die cutters (RDCs). FFGs will cut, print ink, and apply glue to sheet and then fold the boxboard. RDCs will only print ink and cut the sheet. Each FFG and RDC will have multiple flexographic printing decks to accommodate multiple color printing.

Pratt uses high-solids, waterborne inks containing about 1 percent by weight VOC or less. Cold set glues and adhesives are used which contain 0.5 percent by weight or less VOC.

Potential VOC and HAP emissions from the converting equipment is based on the capacity of each machine in terms of in²/hr or ft²/hr of corrugated sheet along with the application rate for inks (2.0 lbs/million in²) and glue (0.5 lbs/MM in²).

The revised potential emissions from the corrugated sheet converting equipment are presented in Table 4. The overall potential VOC and HAP emissions from the group decreased as a result of the final equipment capacities.

Table 4 - Corrugating Sheet Converting Equipment PTE Comparison

EU/Source Description	Restricted/Controlled Potential to Emit, Tons Per Year		
	VOC	Single HAP	Total HAPs
Pratt Paper (KY), LLC			
09 FFG #1	12.75	0.73	1.01
10 FFG #2	7.05	0.40	0.56
11 FFG #3	9.66	0.55	0.77
12 RDC #1	11.45	0.73	0.73
13 RDC #2	11.45	0.73	0.73
14 RDC #3	11.45	0.73	0.73
Equipment Total as Permitted	63.80	3.87	4.53
09 FFG #1	5.77	0.33	0.46
10 FFG #2	10.13	0.58	0.81
11 FFG #3	10.91	0.62	0.87
12 RDC #1	11.45	0.73	0.73
13 RDC #2	11.92	0.76	0.76
14 RDC #3	10.49	0.67	0.67
Equipment Total as Installed	60.68	3.69	4.29
Change from Equipment as Installed	-3.12	-0.18	-0.24

EU 16 – Rental Boilers

The proposed three rental boilers are gaseous fuel fired boilers each rated at 90.2 MMBtu/hr heat input and will be used to provide process steam to the paper machine pre- and after-dryer cylinders during unplanned downtime and routine maintenance of the Mill Boiler. The rental boilers will fire pipeline quality natural gas under normal operating conditions.

The rental boilers will only operate for 1,000 hrs/yr to supply process steam to the facility while the Mill Boiler is down. The rental boilers will not operate concurrently with the Mill Boiler. This presents two scenarios for estimating emissions, one scenario where the Mill Boiler operates for 8,760 hrs/yr and a second scenario where the Mill Boiler operates for 7,760 hrs/yr and the rental boilers operate for 1,000 hrs/yr. The emissions for the Mill Boiler/rental boilers used in the site wide PTE represent the worst-case emissions from each scenario. As presented in Table 5, the NO_x and CO emissions increase by 1.56 tpy each when operating the rental boilers, however, potential emissions decrease for the other pollutants under that operating scenario.

The potential emissions of filterable PM, CO, NO_x, and VOC from natural gas combustion were estimated based on emission factors provided by the boiler manufacturer. Potential PM₁₀, PM_{2.5}, SO₂ and HAP emissions from natural gas combustion were based on emission factors taken from AP-42, Section 1.4. GHG (CO₂e) emissions for the combustion of natural gas were estimated using default emission factors for CO₂, methane (CH₄) and nitrous oxide (N₂O) were obtained from EPA GHG Mandatory Reporting rules at 40 CFR Part 98, Subpart C, Tables C-1 and C-2. [Note: GHG emissions from fuel combustion by all proposed equipment were estimated using default factors from 40 CFR Part 98.]

REGULATORY ANALYSIS

The following regulatory requirements as they pertain to emissions units affected by this minor permit revision were reviewed for any change in applicability and are further described on Form DEP7007V included in this application.

401 KAR 59:015. New Indirect Heat Exchangers

The rental boilers are affected facilities and subject to the requirements of 401 KAR 59:015. The boilers will comply with the limits for particulate emissions, opacity, and SO₂ emissions through the use of inherently clean-burning gaseous fuel.

401 KAR 59:212. New Graphic Arts Facilities Using Rotogravure and Flexography

Pratt qualifies as an affected facility under this State rule pursuant Section (1)(b) – it will be a major VOC source located in an O₃ attainment county. The inks that will be used on the FFGs and RDCs, emissions units 09 through 11, 13, 14, are exempt from the VOC content limits in Section 3 of the rule. The high-solids, waterborne inks are exempt from the numeric VOC limits in Section 3 by meeting the exemption criteria of either Section 6(1) or (4).

- Under Section 6(1), the waterborne inks are approximately 65 percent by volume water and 1.5 percent by volume VOC; VOC represents less than 2.5 percent of the total volume of volatile material. The exemption criterion is 25 percent by volume of the total volatile material.
- Under Section 6(4), the inks are up to 1.1 percent by weight VOC and 48 percent by weight solids; VOC represents 0.02 pound per pound of solids. The exemption criterion is 0.5 lb VOC/lb solids.

Table 5 - Mill Boiler #1 and Rental Boilers PTE Comparison

EU/Source Description	Restricted/Controlled Potential to Emit, Tons Per Year									
	PM	PM10	PM2.5	SO2	NOX	CO	VOC	CO2e	Single HAP	Total HAPs
Pratt Paper (KY), LLC										
01 Mill Boiler #1 (at 8,760 hrs/yr)	9.37	9.37	9.37	1.10	33.74	69.36	7.50	219,354	3.31	3.47
01 Mill Boiler #1 (at 7,760 hrs/yr)	8.30	8.30	8.30	0.98	29.89	61.44	6.64	194,313	2.93	3.07
16 Rental Boilers (at 1,000 hrs/yr)	0.14	1.03	1.03	0.08	5.41	9.47	1.08	15,835	0.24	0.26
Total Mill Boiler/Rental Boilers	8.44	9.33	9.33	1.06	35.30	70.92	7.73	210,148	3.17	3.33
Increase from Mill Boiler and Rentals	-0.93	-0.04	-0.04	-0.04	1.56	1.56	0.23	-9,205	-0.13	-0.14

Major New Source Review - Prevention of Significant Deterioration (401 KAR 51:017)

As described above, Pratt will be a minor stationary source for purposes of State and federal major NSR regulations governing attainment pollutants – Prevention of Significant Deterioration or PSD. Table 2 above summarizes the unrestricted potential to emit for the new mill and corrugating facility (including nested Mill Boiler #1) and for only Mill Boiler #1 compared to the major PSD source thresholds. The unrestricted potential to emit for the proposed site and Mill Boiler #1 are well below the respective new major PSD source thresholds.

New Source Performance Standards (40 CFR Part 60) (401 KAR 60:005)

The rental boilers will not be an affected source under 40 CFR 60, Subpart Dc - New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units. Temporary boilers are exempt from this subpart per 40 CFR 60.40c(i). The rental boilers will be portable, will not be attached to a foundation, and will not remain on location for more than 180 consecutive days in accordance with the Subpart Dc definition of temporary boiler.

The mill will include a natural gas-fired emergency generator and a diesel engine driven fire pump during emergency periods of power interruption. The emergency generator is subject to 40 CFR 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. Per §60.4233(d), the generator must comply with the emission standards in Table 1 of Subpart JJJJ. The emergency generator is rated at 448 hp and is therefore subject to the following emission standards: 2.0 g/hp-hr for NO_x, 4.0 g/hp-hr for CO, and 1.0 g/hp-hr for VOC. Per the manufacturer's information, the proposed emergency generator will achieve 2.0 g/hp-hr NO_x, 4.0 g/hp-hr CO, and 1.0 g/hp-hr VOC.

The diesel engine-driven fire pump is subject to 40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. Per §60.4205(c), the generator must comply with the emission standards in Table 4 of Subpart IIII. The diesel engine is rated at 327 hp and is therefore subject to the following emission standards: 3.0 g/hp-hr for HC+NO_x, 2.6 g/hp-hr for CO, and 0.15 g/hp-hr for PM. Per the manufacturer's information, the proposed diesel engine will achieve 2.73 g/hp-hr HC+NO_x, 0.70 g/hp-hr for CO, and 0.11 g/hp-hr PM.

National Emission Standards for Hazardous Air Pollutants (40 CFR Part 63) (401 KAR 63:002)

The new recycle mill and corrugating facility will be a minor (area) source of hazardous air pollutants (HAPs). Unrestricted potential HAP emissions are 4.24 tpy for the highest single HAP (n-hexane from natural gas combustion) and 8.77 tpy for combined HAPs.

40 CFR 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Internal Combustion Engines provides emission limitations and operating limitations for stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. The natural gas-fired emergency generator and diesel engine-driven fire pump are each subject to an applicable NSPS subpart. Per §63.6593(c), because of NSPS

applicability, the proposed emergency generator and fire pump are not subject to any requirement under the General Provisions of Subpart A and Subpart ZZZZ.

40 CFR 63, Subpart JJJJJ, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources provides emission limitations and work practice standards for HAPs emitted from industrial, commercial, and institutional boilers located at area sources of HAP. Temporary boilers are exempt from this subpart per §63.11195(h). The rental boilers will be portable, will not be attached to a foundation, and will not remain on location for more than 12 consecutive months in accordance with the Subpart JJJJJ definition of temporary boiler.

ATTACHMENT 1 – Application forms

ATTACHMENT 2 – Emission Calculations

ATTACHMENT 3 – Red-lined/Edited Permit V-21-034 R1 for Existing Emissions Units

ATTACHMENT 1
KDAQ APPLICATION FORMS

Division for Air Quality

300 Sower Boulevard
Frankfort, KY 40601
(502) 564-3999

DEP7007AI

Administrative Information

- Section AI.1: Source Information
- Section AI.2: Applicant Information
- Section AI.3: Owner Information
- Section AI.4: Type of Application
- Section AI.5: Other Required Information
- Section AI.6: Signature Block
- Section AI.7: Notes, Comments, and Explanations

Additional Documentation

Additional Documentation attached

Source Name: Pratt Paper (KY), LLC / Pratt (Henderson Corrugating), LLC

KY EIS (AFS) #: 21- 101-00167

Permit #: V-21-034 R1

Agency Interest (AI) ID: 169648

Date: Aug-23

Section AI.1: Source Information

Physical Location	Street:	6303/6305 State Highway 425 West		
Address:	City:	Henderson	County:	Henderson
			Zip Code:	42420
Mailing Address:	Street or P.O. Box:	6303/6305 Highway 425 West		
	City:	Henderson	State:	KY
			Zip Code:	42420

Standard Coordinates for Source Physical Location

Longitude: -87.630555 (decimal degrees) **Latitude:** 37.794444 (decimal degrees)

Primary (NAICS) Category: Paperboard Mills/ Corrugated and Solid Fiber Boxes **Primary NAICS #:** 322130 / 322211

Classification (SIC) Category:	<u>Paperboard Mills / Corrugated and Solid Fiber Boxes</u>	Primary SIC #:	<u>2631 / 2653</u>
Briefly discuss the type of business conducted at this site:	Pratt Paper (KY), LLC will manufacture paperboard (medium and linerboard) from 100 percent waste and recycled paper. Pratt (Henderson Corrugating), LLC will manufacture corrugated sheet from paper board and convert it to printed corrugated sheet or boxes.		
Description of Area Surrounding Source:	<input checked="" type="checkbox"/> Rural Area <input type="checkbox"/> Industrial Park <input type="checkbox"/> Residential Area <input type="checkbox"/> Urban Area <input type="checkbox"/> Industrial Area <input type="checkbox"/> Commercial Area	Is any part of the source located on federal land? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Number of Employees: <div style="border: 1px solid black; padding: 5px; display: inline-block;">est. 300</div>
Approximate distance to nearest residence or commercial property:	<u>approx. 2,300 feet</u>	Property Area:	<u>approx. 200 acres</u>
		Is this source portable?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
What other environmental permits or registrations does this source currently hold or need to obtain in Kentucky?			
NPDES/KPDES:	<input checked="" type="checkbox"/> Currently Hold	<input type="checkbox"/> Need	<input type="checkbox"/> N/A
Solid Waste:	<input type="checkbox"/> Currently Hold	<input type="checkbox"/> Need	<input checked="" type="checkbox"/> N/A
RCRA:	<input type="checkbox"/> Currently Hold	<input type="checkbox"/> Need	<input checked="" type="checkbox"/> N/A
UST:	<input type="checkbox"/> Currently Hold	<input type="checkbox"/> Need	<input checked="" type="checkbox"/> N/A
Type of Regulated Waste Activity:	<input type="checkbox"/> Mixed Waste Generator <input type="checkbox"/> Generator <input type="checkbox"/> Recycler <input type="checkbox"/> Other: _____ <input type="checkbox"/> U.S. Importer of Hazardous Waste <input type="checkbox"/> Transporter <input type="checkbox"/> Treatment/Storage/Disposal Facility <input checked="" type="checkbox"/> N/A		

Section A1.2: Applicant Information

Applicant Name: Pratt Paper (KY), LLC

Title: (if individual) Edward J. Kersey, General Manager

Mailing Address: **Street or P.O. Box:** 6303 Highway 425 West
City: Henderson **State:** KY **Zip Code:** 42420

Email: (if individual) ekersey@prattindustries.com

Phone: 404-583-1506

Technical Contact

Name: Rachel Hamby

Title: Corporate Environmental Compliance Manager

Mailing Address: **Street or P.O. Box:** 1800C Sarasota Business Parkway
City: Conyers **State:** GA **Zip Code:** 30013

Email: rhamby@prattindustries.com

Phone: 615-618-5126

Air Permit Contact for Source

Name: Steven G. Harnden

Title: Henderson Campus Environmental Manager

Mailing Address: **Street or P.O. Box:** 6303 Highway 425 West
City: Henderson **State:** KY **Zip Code:** 42420

Email: sharnden@prattindustries.com

Phone: 256-548-2019

Section AI.3: Owner Information

Owner same as applicant

Name: Pratt Industries, Inc.

Title: Michael L. Holmes, Vice President, Environmental and Regulatory Affairs

Mailing Address: **Street or P.O. Box:** 1800C Sarasota Business Parkway
City: Conyers **State:** GA **Zip Code:** 30013

Email: mholmes@prattindustries.com

Phone: 404-314-7709

List names of owners and officers of the company who have an interest in the company of 5% or more.

Name	Position
Anthony Pratt	Owner
_____	_____
_____	_____
_____	_____

Section AI.4: Type of Application

Current Status: Title V Conditional Major State-Origin General Permit Registration None

Requested Action: Name Change Initial Registration Significant Revision Administrative Permit Amendment
(check all that apply) Renewal Permit Revised Registration Minor Revision Initial Source-wide Operating Permit
 502(b)(10)Change Extension Request Addition of New Facility Portable Plant Relocation Notice
 Revision Off Permit Change Landfill Alternate Compliance Submittal Modification of Existing Facilities
 Ownership Change Closure

Requested Status: Title V Conditional Major State-Origin PSD NSR Other:

Is the source requesting a limitation of potential emissions? Yes No

<p>Pollutant: Requested Limit:</p> <p><input type="checkbox"/> Particulate Matter _____</p> <p><input type="checkbox"/> Volatile Organic Compounds (VOC) _____</p> <p><input type="checkbox"/> Carbon Monoxide _____</p> <p><input type="checkbox"/> Nitrogen Oxides _____</p> <p><input type="checkbox"/> Sulfur Dioxide _____</p> <p><input type="checkbox"/> Lead _____</p>	<p>Pollutant: Requested Limit:</p> <p><input type="checkbox"/> Single HAP _____</p> <p><input type="checkbox"/> Combined HAPs _____</p> <p><input type="checkbox"/> Air Toxics (40 CFR 68, Subpart F) _____</p> <p><input type="checkbox"/> Carbon Dioxide _____</p> <p><input type="checkbox"/> Greenhouse Gases (GHG) _____</p> <p><input type="checkbox"/> Other _____</p>
---	--

For New Construction:

Proposed Start Date of Construction: **Proposed Operation Start-Up Date:** *(MM/YYYY)*

(MM/YYYY) _____ _____

For Modifications:

Proposed Start Date of Modification: **Proposed Operation Start-Up Date:** *(MM/YYYY)*

(MM/YYYY) _____ _____

Applicant is seeking coverage under a permit shield. Yes No **Identify any non-applicable requirements for which permit shield is sought on a separate attachment to the application.**

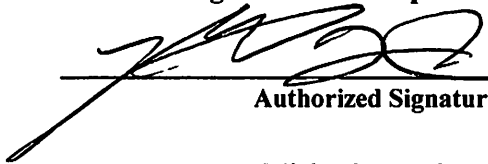
Section AI.5 Other Required Information

Indicate the documents attached as part of this application:

- | | |
|--|---|
| <input checked="" type="checkbox"/> DEP7007A Indirect Heat Exchangers and Turbines | <input type="checkbox"/> DEP7007CC Compliance Certification |
| <input type="checkbox"/> DEP7007B Manufacturing or Processing Operations | <input checked="" type="checkbox"/> DEP7007DD Insignificant Activities |
| <input type="checkbox"/> DEP7007C Incinerators and Waste Burners | <input checked="" type="checkbox"/> DEP7007EE Internal Combustion Engines |
| <input type="checkbox"/> DEP7007F Episode Standby Plan | <input type="checkbox"/> DEP7007FF Secondary Aluminum Processing |
| <input type="checkbox"/> DEP7007J Volatile Liquid Storage | <input type="checkbox"/> DEP7007GG Control Equipment |
| <input checked="" type="checkbox"/> DEP7007K Surface Coating or Printing Operations | <input type="checkbox"/> DEP7007HH Haul Roads |
| <input type="checkbox"/> DEP7007L Mineral Processes | <input type="checkbox"/> Confidentiality Claim |
| <input type="checkbox"/> DEP7007M Metal Cleaning Degreasers | <input type="checkbox"/> Ownership Change Form |
| <input checked="" type="checkbox"/> DEP7007N Source Emissions Profile | <input type="checkbox"/> Secretary of State Certificate |
| <input type="checkbox"/> DEP7007P Perchloroethylene Dry Cleaning Systems | <input type="checkbox"/> Flowcharts or diagrams depicting process |
| <input type="checkbox"/> DEP7007R Emission Offset Credit | <input type="checkbox"/> Digital Line Graphs (DLG) files of buldings, roads, etc. |
| <input type="checkbox"/> DEP7007S Service Stations | <input type="checkbox"/> Site Map |
| <input type="checkbox"/> DEP7007T Metal Plating and Surface Treatment Operations | <input type="checkbox"/> Map or drawing depicting location of facility |
| <input checked="" type="checkbox"/> DEP7007V Applicable Requirements and Compliance Activities | <input type="checkbox"/> Safety Data Sheet (SDS) |
| <input type="checkbox"/> DEP7007Y Good Engineering Practice and Stack Height Determination | <input type="checkbox"/> Emergency Response Plan |
| <input type="checkbox"/> DEP7007AA Compliance Schedule for Non-complying Emission Units | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> DEP7007BB Certified Progress Report | |

Section AI.6: Signature Block

I, the undersigned, hereby certify under penalty of law, that I am a responsible official*, and that I have personally examined, and am familiar with, the information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the information is on knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false or incomplete information, including the possibility of fine or imprisonment.



Authorized Signature

Michael L. Holmes

Type or Printed Name of Signatory

9/1/23

Date

VP, Environmental & Regulatory Affairs

Title of Signatory

*Responsible official as defined by 401 KAR 52:001.

Section A1.7: Notes, Comments, and Explanations
Application is submitted to make technical corrections to equipment capacities and minor changes to authorized emission levels. Pratt also proposes to revise the permit to pre-approve installation/operation of three rental natural gas-fired boilers to operate in place of the Mill Boiler (EU 01), when its down due to an emergency or routine maintenance.

Division for Air Quality 300 Sower Boulevard Frankfort, KY 40601 (502) 564-3999	<h2 style="margin: 0;">DEP7007A</h2> <h3 style="margin: 0;">Indirect Heat Exchangers and Turbines</h3> <p style="margin: 5px 0 0 20px;">___ Section A.1: General Information</p> <p style="margin: 5px 0 0 20px;">___ Section A.2: Operating and Fuel Information</p> <p style="margin: 5px 0 0 20px;">___ Section A.3: Notes, Comments, and Explanations</p>	<b style="text-align: center;">Additional Documentation ___ Complete DEP7007AI, DEP7007N, DEP7007V, and DEP7007GG. ___ Manufacturer's specifications
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Source Name:	Pratt Paper (KY), LLC / Pratt (Henderson Corrugating), LLC
KY EIS (AFS) #:	21-101-00167
Permit #:	V-21-034 R1
Agency Interest (AI) ID:	169648
Date:	Aug-23

Section A.1: General Information

Emission Unit #	Emission Unit Name	Process ID	Process Name	Identify General Type: <small>Indirect Heat Exchanger, Gas Turbine, or Combustion Turbine</small>	Indirect Heat Exchanger Configuration	Manufacturer	Model No./Serial No.	Proposed/Actual Date of Construction Commencement <small>(MM/YYYY)</small>	SCC Code	SCC Units	Control Device ID	Stack ID
16	Rental Boilers #1-3		Rental Boilers #1-3	Indirect Heat Exchanger	N/A	TBD	TBD	TBD	10200601	MMCF	N/A	S009-S011

Section A.2: Operating and Fuel Information

Emission Unit #	If multipurpose unit, identify the percentage of use by purpose				Rated Capacity Heat Input (MMBTU/hr)	Rated Capacity Power Output		Describe Operating Scenario (only if this unit will be used in different configurations)	Classify Fuel as Primary or Secondary	Identify Fuel Type: Coal, Natural Gas, Wood, Biomass, Landfill/Digester Gas, Fuel Oil # (specify 1-6), or Other	Heat Content (HHV)		Maximum Operating Hours	Ash Content (%)	Sulfur Content (%)
	Space Heat	Process Heat	Power	Emergency			(Specify units: hp, MW, or lb steam/hr)					(Specify units: Btu/lb, Btu/gal, or Btu/scf)			
16		100			3 at 90.2	-	-	-	Primary	Natural Gas	1,020	Btu/scf	1,000	NA	NA

Section A.3: Notes, Comments, and Explanations
None

DEP7007K

Surface Coating or Printing Operations

Additional Documentation

Division for Air Quality

300 Sower Boulevard
Frankfort, KY 40601
(502) 564-3999

- Section K.1: Process Information
- Section K.2: Coating Operations
- Section K.3: Other Operations
- Section K.4: Coatings/Printing Materials as Applied
- Section K.5: HAP-containing Coatings/Printing Materials
- Section K.6: Notes, Comments, and Explanations

- Complete DEP7007AI, DEP7007N, DEP7007V, and DEP7007GG.
- Attach SDS or Technical Sheets for all Coating/Printing Materials
- Attach a flow diagram

Source Name: Pratt Paper (KY), LLC / Pratt (Henderson Corrugating), LLC

KY EIS (AFS) #: 21- 101-00167

Permit #: V-21-034 R1

Agency Interest (AI) ID: 169648

Date: Aug-23

Section K.1: Process Information

Emission Unit #: 09, 10, 11, 12, 13, 14

Emission Unit Name: Fleographic printer-folder-gluers (FFGs) and rotary die cutters (RDCs)

Coating/Printing Line Name: 09 - FFG #1, 10 - FFG#2, 11 - FFG #3, 12 - RDC#1, 13 - RDC #2, 14 - RDC #3

Proposed/Actual Date of Construction: (MM/YYYY) Jan-23

List Applicable Regulations: The inks used on FFG#1-3 and RDC#1-3 are subject to the requirements 401 KAR 59:212. New graphic arts facilities using rotogravure and flexography. These emission units are exempt from the VOC emission limits by the inks meeting the exemption criteria of Section 6(1) and 6(4). Also subject to 401 KAR 63:020. Potentially hazardous matter or toxic substances. No requirements.

Describe Overall Process: Flexo Folder-Gluer machines (FFG) include multi-color flexographic printing decks and gluing and folding equipment to produce folded boxes. Rotary Die Cutters (RDC) include multi-color flexographic printing decks and die cutters to produce printed corrugated sheets, no glues are used.

Describe Coatings/Printing Materials: Water-based flexographic printing inks, water-based glues and adhesives.

Identify the Material that is Coated/Printed: Metal Vinyl Plastics Wood Foil Paper Other Substrate

Provide detailed description of material coated/printed: Unconverted corrugated sheet

Provide approximate dimensions and range of sizes of parts being coated or printed: Corrugated sheets range in size from 36 in. x 83 in. to 66 in. x 125 in. See equipment-specific emission calculations for actual dimensions and line speeds.

Identify the Type of Operation: Continuous Batch Other:

Describe Surface Preparation/Pretreatment Steps: None

For Coating Operations: Spray Flow Dip tank Electrodeposition Brush Powder Roller Coat Other:

For Printing Operations: (Select all that apply) Web Rotogravure Heatset Lithographic Other: Sheetfed Letterpress Non-heatset Flexographic

Describe Final Product: Converted corrugated sheet and boxes

Check the category that most closely describes this unit:

- Large Appliance Coating
- Beverage Can Coating
- Fabric, Vinyl, or Paper Coating
- Publication Rotogravure Printing
- Graphic Arts using Rotogravure and Flexographic Printing
- Auto or Light-Duty Truck Coating
- Miscellaneous Metal Parts Coating
- Boat Manufacturing/ Ship Repair
- Coating of Plastic Parts for Business Machines
- Metal Furniture Coating
- Magnet Wire Insulation Coating
- Pressure Sensitive Tape and Label Coating
- Flexible Vinyl and Urethane Coating and Printing
- Metal Coil Coating
- Flat Wood Panel Coating
- Magnet Tape Coating
- Other: Glue application

Section K.2: Coating Operations

K.2A: For Spray Coating

Gun/Booth ID	Describe Function	Type	Mode	Maximum Design Application Rate <i>(gal/hr or lb/hr)</i>	Describe how maximum rate was determined
		<input type="checkbox"/> Conventional Air Gun <input type="checkbox"/> Airless <input type="checkbox"/> HVLP <input type="checkbox"/> Electrostatic <input type="checkbox"/> LVLP <input type="checkbox"/> Aerosol Spray Can <input type="checkbox"/> Other	<input type="checkbox"/> Manual <input type="checkbox"/> Automatic		<input type="checkbox"/> Testing <input type="checkbox"/> Equipment Specification Sheet <input type="checkbox"/> Estimation
		<input type="checkbox"/> Conventional Air Gun <input type="checkbox"/> Airless <input type="checkbox"/> HVLP <input type="checkbox"/> Electrostatic <input type="checkbox"/> LVLP <input type="checkbox"/> Aerosol Spray Can <input type="checkbox"/> Other	<input type="checkbox"/> Manual <input type="checkbox"/> Automatic		<input type="checkbox"/> Testing <input type="checkbox"/> Equipment Specification Sheet <input type="checkbox"/> Estimation
		<input type="checkbox"/> Conventional Air Gun <input type="checkbox"/> Airless <input type="checkbox"/> HVLP <input type="checkbox"/> Electrostatic <input type="checkbox"/> LVLP <input type="checkbox"/> Aerosol Spray Can <input type="checkbox"/> Other	<input type="checkbox"/> Manual <input type="checkbox"/> Automatic		<input type="checkbox"/> Testing <input type="checkbox"/> Equipment Specification Sheet <input type="checkbox"/> Estimation

If spray guns are used simultaneously, describe:

K.2B: For Brush Coating

Describe Function:

Maximum Coating Application Rate:
(gal/hr)

K.2C: For Roller Coating

Roller Coat ID	Describe Function	Maximum Coating Application Rate <i>(gal/hr)</i>	Describe how maximum rate was determined
			<input type="checkbox"/> Testing <input type="checkbox"/> Estimation <input type="checkbox"/> Equipment Specification Sheet
			<input type="checkbox"/> Testing <input type="checkbox"/> Estimation <input type="checkbox"/> Equipment Specification Sheet
			<input type="checkbox"/> Testing <input type="checkbox"/> Estimation <input type="checkbox"/> Equipment Specification Sheet

K.2D: For Powder Coating

Powder Coat ID	Describe Function	Maximum Coating Application Rate <i>(gal/hr or lb/hr)</i>		Describe how maximum rate was determined
				<input type="checkbox"/> Testing <input type="checkbox"/> Estimation <input type="checkbox"/> Equipment Specification Sheet
				<input type="checkbox"/> Testing <input type="checkbox"/> Estimation <input type="checkbox"/> Equipment Specification Sheet
				<input type="checkbox"/> Testing <input type="checkbox"/> Estimation <input type="checkbox"/> Equipment Specification Sheet
				<input type="checkbox"/> Testing <input type="checkbox"/> Estimation <input type="checkbox"/> Equipment Specification Sheet

If powder coating material is recycled, describe:

K.2E: For Flow Coating

Flow Coat ID	Describe Function	Maximum Coating Application Rate <i>(gal/hr or lb/hr)</i>		Describe how maximum rate was determined
				<input type="checkbox"/> Testing <input type="checkbox"/> Estimation <input type="checkbox"/> Equipment Specification Sheet
				<input type="checkbox"/> Testing <input type="checkbox"/> Estimation <input type="checkbox"/> Equipment Specification Sheet
				<input type="checkbox"/> Testing <input type="checkbox"/> Estimation <input type="checkbox"/> Equipment Specification Sheet
				<input type="checkbox"/> Testing <input type="checkbox"/> Estimation <input type="checkbox"/> Equipment Specification Sheet

K.2F: For Dip Tank/Electrodeposition Coating

Tank ID	Describe Function	Maximum Make-up Rate <i>(gal/hr or lb/hr)</i>		Describe how maximum rate was determined
				<input type="checkbox"/> Testing <input type="checkbox"/> Estimation <input type="checkbox"/> Equipment Specification Sheet
				<input type="checkbox"/> Testing <input type="checkbox"/> Estimation <input type="checkbox"/> Equipment Specification Sheet
				<input type="checkbox"/> Testing <input type="checkbox"/> Estimation <input type="checkbox"/> Equipment Specification Sheet
				<input type="checkbox"/> Testing <input type="checkbox"/> Estimation <input type="checkbox"/> Equipment Specification Sheet

Section K.3: Other Operations

K.3A: For Finishing

Describe Finishing Processes:
 Complete Form DEP7007B as applicable

K.3B: For Curing/Drying

Describe Curing/Drying Processes:	Description	Rated Capacity (MMBtu/hr)	Fuel	Control Device/Stack ID

K.3C: For Purge

Type: _____

Daily Usage: _____ gal/day

K.3D: For Clean-up

Type: Manual Automatic

Daily Usage: _____ hrs/day

Operating Hours: _____

K.3E: For Other Equipment

Describe Processes:

Section K.4: Coatings/Printing Materials As Applied

Include SDS or Technical Sheets for all coating/printing materials used.

Trade Name of Material	Description <i>(Identify as coating, ink, fountain solution, blanket wash, cleaning solvent, thinning solvent, auto wash, manual wash, etc.)</i>	Emission Unit/Coating ID where material is used	SCC Code	SCC Code Units	Density <i>(lb/gal)</i>	Solid Content <i>(lb/gal)</i>	VOC Content <i>(lb/gal)</i>	Emission Factor for PM* <i>(lb/SCC)</i>	Transfer Efficiency <i>(%)</i>	Emission Factor for VOC <i>(lb/SCC)</i>	Capture Efficiency <i>(%)</i>	Control Device/ Stack ID
Flexo inks (Poteet)	flexographic printing ink	09-14	40500311	tons of solvent	10.5 avg	5.0 48 wt. pct.	0.12 1.1 wt. pct.	n/a	100	2,000	n/a	n/a
Glue (Specialty Adhesives)	glue/adhesive	09-11	40200701	tons of solvent	9.1 avg	5.0 55 wt. pct.	0.05 0.5 wt. pct.	n/a	100	2,000	n/a	n/a

*Emission factor for particulate matter (PM) should not include transfer efficiency.

Section K.5: Hazardous Air Pollutant-containing Coatings/Printing Materials

List each individual hazardous air pollutant (HAP) contained in each material.

Trade Name of Material	HAP Name	HAP CAS #	Identify Solid (S) or Volatile (V)	HAP % by weight	HAP Emission Factor (lb/SCC)	Control Device/ Stack ID
Poteet inks	glycol ethers	n/a	V	0.07	n/a	n/a
Specilty Adhesives	vinyl acetate	108-05-4	V	0.082	n/a	n/a
Specilty Adhesives	formaldehyde	50-00-0	V	0.008	n/a	n/a
Specilty Adhesives	acetaldehyde	75-07-0	V	0.0112	n/a	n/a
Specilty Adhesives	methanol	67-56-1	V	0.007	n/a	n/a

Section K.6: Notes, Comments, and Explanations
None

Division for Air Quality

300 Sower Boulevard
Frankfort, KY 40601
(502) 564-3999

DEP7007N

Source Emissions Profile

- Section N.1: Emission Summary
- Section N.2: Stack Information
- Section N.3: Fugitive Information
- Section N.4: Notes, Comments, and Explanations

Additional Documentation

Complete DEP7007AI

Source Name: [Pratt Paper \(KY\), LLC / Pratt \(Henderson Corrugating\), LLC](#)

KY EIS (AFS) #: 21- 101-00167

Permit #: [V-21-034 R1](#)

Agency Interest (AI) ID: [169648](#)

Date: [Aug-23](#)

N.1: Emission Summary

Emission Unit #	Emission Unit Name	Process ID	Process Name	Control Device Name	Control Device ID	Stack ID	Maximum Design Capacity (SCC Units/hour)	Pollutant	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Source (e.g. AP-42, Stack Test, Mass Balance)	Capture Efficiency (%)	Control Efficiency (%)	Hourly Emissions		Annual Emissions		
													Uncontrolled Potential (lb/hr)	Controlled Potential (lb/hr)	Uncontrolled Potential (tons/yr)	Controlled Potential (tons/yr)	

Potential emission calculations for all significant emission units and insignificant activities are attached

Section N.2: Stack Information

UTM Zone:

Stack ID	Identify all Emission Units (with Process ID) and Control Devices that Feed to Stack	Stack Physical Data			Stack UTM Coordinates		Stack Gas Stream Data		
		Equivalent Diameter (ft)	Height (ft)	Base Elevation (ft)	Northing (m)	Easting (m)	Flowrate (acfm)	Temperature (°F)	Exit Velocity (ft/sec)
S006	Emergency Generator engine exhaust stack	TBD	TBD	TBD	TBD	TBD	2,194	1,415	TBD
S007	Fire Pump engine exhaust stack	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
S009	Temporary Rental Boiler 1 Stack	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
S010	Temporary Rental Boiler 2 Stack	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
S011	Temporary Rental Boiler 3 Stack	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

Section N.3: Fugitive Information

UTM Zone:

Emission Unit #	Emission Unit Name	Process ID	Area Physical Data		Area UTM Coordinates		Area Release Data	
			Length of the X Side <i>(ft)</i>	Length of the Y Side <i>(ft)</i>	Northing <i>(m)</i>	Easting <i>(m)</i>	Release Temperature <i>(°F)</i>	Release Height <i>(ft)</i>
NA - None								

Section N.4: Notes, Comments, and Explanations
None

Division for Air Quality

 300 Sower Boulevard
 Frankfort, KY 40601
 (502) 564-3999

DEP7007V
Applicable Requirements and Compliance
Activities

Additional Documentation

 ___ Complete DEP7007AI

- ___ Section V.1: Emission and Operating Limitation(s)
- ___ Section V.2: Monitoring Requirements
- ___ Section V.3: Recordkeeping Requirements
- ___ Section V.4: Reporting Requirements
- ___ Section V.5: Testing Requirements
- ___ Section V.6: Notes, Comments, and Explanations

Source Name: Pratt Paper (KY), LLC / Pratt (Henderson Corrugating), LLC

KY EIS (AFS) #: 21- 101-00167

Permit #: V-021-034 R1

Agency Interest (AI) ID: 169648

Date: Aug-23

Section V.1: Emission and Operating Limitation(s)

Emission Unit #	Emission Unit Description	Applicable Regulation or Requirement	Pollutant	Emission Limit (if applicable)	Voluntary Emission Limit or Exemption (if applicable)	Operating Requirement or Limitation (if applicable)	Method of Determining Compliance with the Emission and Operating Requirement(s)
06	Emer. Generator	401 KAR 60:005					
		40 CFR 60, JJJJ	PM, NOX, CO, HC	see rule			install certified engine
		401 KAR 63:002					
		40 CFR 63, ZZZZ	HAPs	n/a			Subpart JJJJ compliance
07	Fire Pump	401 KAR 60:005					
		40 CFR 60, IIII	PM, NOX, CO, HC	see rule			install certified engine
		401 KAR 63:002					
		40 CFR 63, ZZZZ	HAPs	see rule			Subpart IIII compliance

Emission Unit #	Emission Unit Description	Applicable Regulation or Requirement	Pollutant	Emission Limit (if applicable)	Voluntary Emission Limit or Exemption (if applicable)	Operating Requirement or Limitation (if applicable)	Method of Determining Compliance with the Emission and Operating Requirement(s)
09	FFG #1	401 KAR 59:212	VOC	None			exempt per Section 6
		401 KAR 63:020	HAPs	None			
10	FFG #2	401 KAR 59:212	VOC	None			exempt per Section 6
		401 KAR 63:020	HAPs	None			
11	FFG #3	401 KAR 59:212	VOC	None			exempt per Section 6
		401 KAR 63:020	HAPs	None			
13	RDC #2	401 KAR 59:212	VOC	None			exempt per Section 6
		401 KAR 63:020	HAPs	None			
14	RDC #3	401 KAR 59:212	VOC	None			exempt per Section 6
		401 KAR 63:020	HAPs	None			
16	Rental Boilers	401 KAR 59:015	PM	0.1 Lb/MMBtu			PTE < limit
		401 KAR 59:015	Opacity	20% opacity			Method 9
		401 KAR 59:015	SO2	0.8 lb/MMBtu			PTE < limit
		401 KAR 60:005					
		40 CFR 60, Dc					exempt per 40 CFR 60.40c(i)
		40 CFR 63, JJJJJ					exempt per 40 CFR 63.11195(h)

Section V.2: Monitoring Requirements					
Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Monitored	Description of Monitoring
06	Emer. Generator	PM, NOX, CO, HC	40 CFR 60, Subpart JJJJ	Operating hours	Install non-resettable hour meter and required maintenance practices
07	Fire Pump	PM, NOX, CO, HC	40 CFR 60, Subpart IIII	Operating hours	Install non-resettable hour meter and required maintenance practices

Section V.3: Recordkeeping Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Recorded	Description of Recordkeeping
06	Emerg. Generator	NA	40 CFR 60, Subpart JJJJ	Operating hours	Records of required maintenance and operating hours
07	Fire Pump	NA	40 CFR 60, Subpart IIII	Operatring hours	Records of required maintenance and operating hours

Section V.4: Reporting Requirements					
Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Reported	Description of Reporting

Section V.5: Testing Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Tested	Description of Testing

Section V.6: Notes, Comments, and Explanations
None

Division for Air Quality
300 Sower Boulevard
Frankfort, KY 40601
(502) 564-3999

DEP7007DD

Insignificant Activities

- Section DD.1: Table of Insignificant Activities
 Section DD.2: Signature Block
 Section DD.3: Notes, Comments, and Explanations

Source Name: Pratt Paper (KY), LLC / Pratt (Henderson Corrugating), LLC

KY EIS (AFS) #: 21- 101-00167

Permit #: V-21-034 R1

Agency Interest (AI) ID: 169648

Date: Aug-23

Section DD.1: Table of Insignificant Activities

*Identify each activity with a unique Insignificant Activity number (IA #); for example: 1, 2, 3... etc.

Insignificant Activity #	Description of Activity including Rated Capacity	Serial Number or Other Unique Identifier	Applicable Regulation(s)	Calculated Emissions
IA1	Bulk process chemical tanks	See attached summary list	63:020	Negligible, non-VOC materials
IA2	FW Pump Diesel Tank (410 gal)	Fire System Diesel Tank	63:020	Negligible
IA3	Starch Silos with bin vent filters	Mill Starch Silos, see DD.3	59:010	Attached
IA5	Fiber Yard Diesel Tank (4,000 gal)	Vehicle Diesel Tank	63:020	Negligible
IA6	Starch Silo with bin vent filter	Corrugator Starch Silo, see DD.3	59:010	Attached

Insignificant Activity #	Description of Activity including Rated Capacity	Serial Number or Other Unique Identifier	Applicable Regulation(s)	Calculated Emissions
IA7	Corrugator (110 in., 1,500 fpm)	Corrugator	None	Non-emission source
IA8	Corrugated Trim Collection System	Trim Collection System	59:010	Attached

Section DD.2: Signature Block

I, THE UNDERSIGNED, HEREBY CERTIFY UNDER PENALTY OF LAW, THAT I AM A RESPONSIBLE OFFICIAL, AND THAT I HAVE PERSONALLY EXAMINED, AND AM FAMILIAR WITH, THE INFORMATION SUBMITTED IN THIS DOCUMENT AND ALL ITS ATTACHMENTS. BASED ON MY INQUIRY OF THOSE INDIVIDUALS WITH PRIMARY RESPONSIBILITY FOR OBTAINING THE INFORMATION, I CERTIFY THAT THE INFORMATION IS ON KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE OR INCOMPLETE INFORMATION, INCLUDING THE POSSIBILITY OF FINE OR IMPRISONMENT.

By:



Authorized Signature

Michael L. Holmes

Type/Print Name of Signatory

9/1/23

Date

VP, Environmental & Regulatory Affairs

Title of Signatory

Section DD.3: Notes, Comments, and Explanations

IA3 - Mill Starch Silos; two 176-ton silos with individual bin vent filters. Starch can be unloaded to the silos from truck or railcar.

IA6 - Corrugator Starch Silo; one 110-ton silo with bin vent filter. Starch can be unloaded to the silo from truck only.

Division for Air Quality

 300 Sower Boulevard
 Frankfort, KY 40601
 (502) 564-3999

DEP7007EE

Internal Combustion Engines

- Section EE.1: General Information
- Section EE.2: Operating Information
- Section EE.3: Design Information
- Section EE.4: Fuel Information
- Section EE.5: Emission Factor Information
- Section EE.6: Notes, Comments, and Explanations

Additional Documentation

Complete DEP7007AI, DEP7007N, DEP7007V, and DEP7007GG

Attach EPA certification of the engine

Source Name: Pratt Paper (KY), LLC / Pratt (Henderson Corrugating), LLC

KY EIS (AFS) #: 21- 101-00167

Permit #: V-21-034 R1

Agency Interest (AI) ID: 169648

Date: Aug-23

Section EE.1: General Information

Emission Unit #	Emission Unit Name	Control Device ID	Stack ID	Manufacturer	Model Number	Model Year	Date of Manufacture	Proposed/Actual Date of Construction Commencement (MM/YYYY)	Date Reconstructed/Modified	List Applicable Regulations
06	Emergency Generator	NA	S006	Generac	SG300	2022	2022	03/2022	NA	See EE.6
07	Fire Pump Engine	NA	S007	Clarke	JW6H-UFADF0	2022	2022	03/2022	NA	See EE.6

Section EE.2: Operating Information

Emission Unit #	Engine Purpose (Identify if Non-Emergency, Emergency, Fire/Water Pump, Black-start engine for combustion turbine, Engine Testing)	Hours Operated	Is this engine a rental? <i>(Yes/No)</i>	Rental Time Period <i>(hrs)</i>	Alternate Operating Scenarios (Describe any operating scenarios in which the engine may be used in a different configuration)
06	Emergency Generator	500	No	NA	No
07	Fire Pump Engine	500	No	NA	No

Section EE.3: Design Information

Emission Unit #	Engine Type (Identify all that apply: Commercial, Institutional, Stationary, Non-Road)	Ignition Type (Identify if either Compression or Spark Ignition)	Engine Family (Identify all that apply: 2-stroke, 4-stroke, Rich Burn, Lean Burn)	Maximum Engine Power (bhp)	Maximum Engine Speed (rpm)	Total Displacement (L)	Number of Cylinders
06	Stationary	Spark	4-stroke, rich burn	448	1800	14.2	6
07	Stationary	Compression	4-stroke	327	1760	9	6

Section EE.4: Fuel Information

Emission Unit #	Identify if Primary, Secondary, or Tertiary Fuel	Fuel Type (Identify if Diesel, Gasoline, Natural Gas, Liquefied Petroleum Gas (LPG), Landfill/Digester Gas, or Other)	Fuel Grade	Percent Time Used (%)	Maximum Fuel Consumption	Heat Content	Sulfur Content (%)	SCC Code	SCC Units
06	Primary	Natural Gas	Pipeline gas	100	3,420 ft3/hr	1,020 Btu/ft3	Neg.	20200202	MMCF
07	Primary	Diesel	ULSD	100	16.6 gal/hr	138,000 Btu/gal	0.0015	20200101	1,000 gal.

Section EE.5: Emission Factor Information

Emission factors expressed here are based on the potential to emit.

Emission Unit #	Fuel	Pollutant	Emission Factor	Emission Factor Units	Source of Emission Factor
07	Diesel	PM10	0.04	lbs/MMBtu	Equipment manufacturer for filterable and AP-42, Table 3.4-2 for condensible
		NOx	2.64	g/hp-hr	Equipment manufacturer
		CO	0.70	g/hp-hr	Equipment manufacturer
		SOx	1.50E-04	lbs/MMBtu	AP-42, Table 3.4-1
		VOC	0.09	g/hp-hr	Equipment manufacturer
06	Natural gas	PM10	1.94E-02	lbs/MMBtu	AP-42, Table 3.2-3
		NOx	2.00	g/kW-hr	Equipment manufacturer
		CO	4.00	g/kW-hr	Equipment manufacturer
		SOx	5.88E-04	lbs/MMBtu	AP-42, Table 3.2-3
		VOC	1.00	g/kW-hr	Equipment manufacturer

Section EE.6: Notes, Comments, and Explanations

From page EE.1

Emission unit 06 is affected by 40 CFR Part 60, Subpart JJJJ and 40 CFR Part 63, Subpart ZZZZ.

Emission unit 07 is affected by 40 CFR Part 60, Subpart IIII and 40 CFR Part 63, Subpart ZZZZ.

ATTACHMENT 2
EMISSION CALCULATIONS

PRATT PAPER (KY), LLC
POTENTIAL EMISSION CALCULATIONS

Emissions unit ID: EU 01 Mill Boiler #1
Source description: Mill Boiler #1 - 428.0 MMBtu/hr natural gas-fired boiler

Maximum heat input	428.0	MMBtu/hr		
Annual heat input	3,749,280	MMBtu/yr		
Natural gas heat content	1,020	Btu/ft ³	8,760	hrs/yr
Max. hourly usage	419,608	ft ³ /hr		
Annual usage	3,675.76	million ft ³ /yr		

Pollutant	Emission factor	Units	Potential emission rates	
			lbs/hr	tpy
PM	0.005	lb/MMBtu	2.14	9.37
PM10	0.005	lb/MMBtu	2.14	9.37
PM2.5	0.005	lb/MMBtu	2.14	9.37
SO2	0.6	lb/million ft ³	0.25	1.10
NOX	0.018	lb/MMBtu	7.70	33.74
CO	0.037	lb/MMBtu	15.84	69.36
VOC	0.004	lb/MMBtu	1.71	7.50
lead	0.0005	lb/million ft ³	2.10E-04	9.19E-04
benzene	2.10E-03	lb/million ft ³	8.81E-04	3.86E-03
dichlorobenzene	1.20E-03	lb/million ft ³	5.04E-04	2.21E-03
formaldehyde	0.075	lb/million ft ³	3.15E-02	0.14
n-hexane	1.80	lb/million ft ³	0.755	3.31
naphthalene	6.10E-04	lb/million ft ³	2.56E-04	1.12E-03
toluene	3.40E-03	lb/million ft ³	1.43E-03	6.25E-03
total PAH	8.82E-05	lb/million ft ³	3.70E-05	1.62E-04
metal HAPs	5.60E-03	lb/million ft ³	2.35E-03	0.01
Total HAPs	-	-	0.792	3.47
CO2	116.89	lb/MMBtu	-	219,127
CO2e (CO2)	1	GW potential	-	219,127
CH4	2.21E-03	lb/MMBtu	-	4.14
CO2e (CH4)	25	GW potential	-	103.57
N2O	2.21E-04	lb/MMBtu	-	0.414
CO2e (N2O)	298	GW potential	-	123.46
Total CO2e	-	-	-	219,354

Notes:

- GHG emission factors for natural gas are based on default factors taken from EPA GHG Mandatory Reporting at 40 CFR Part 98, Subpart C, Tables C-1 and C-2.
- PM (filterable and condensable), NOx, CO, and VOC emission factors provided by the boiler manufacturer.
- All other natural gas emission factors taken from AP-42, Section 1.4 (7/98).
- Metal HAPS emission factor does not include the separate emission factor given for lead.

PRATT PAPER (KY), LLC
POTENTIAL EMISSION CALCULATIONS

Emissions unit ID: EU 01 Mill Boiler #1
Source description: Mill Boiler #1 - 428.0 MMBtu/hr natural gas-fired boiler

Maximum heat input	428.0	MMBtu/hr		
Annual heat input	3,321,280	MMBtu/yr		
Natural gas heat content	1,020	Btu/ft ³	7,760	hrs/yr
Max. hourly usage	419,608	ft ³ /hr		
Annual usage	3,256.16	million ft ³ /yr		

Pollutant	Emission factor	Units	Potential emission rates	
			lbs/hr	tpy
PM	0.005	lb/MMBtu	2.14	8.30
PM10	0.005	lb/MMBtu	2.14	8.30
PM2.5	0.005	lb/MMBtu	2.14	8.30
SO2	0.6	lb/million ft ³	0.25	0.98
NOX	0.018	lb/MMBtu	7.70	29.89
CO	0.037	lb/MMBtu	15.84	61.44
VOC	0.004	lb/MMBtu	1.71	6.64
lead	0.0005	lb/million ft ³	2.10E-04	8.14E-04
benzene	2.10E-03	lb/million ft ³	8.81E-04	3.42E-03
dichlorobenzene	1.20E-03	lb/million ft ³	5.04E-04	1.95E-03
formaldehyde	0.075	lb/million ft ³	3.15E-02	0.12
n-hexane	1.80	lb/million ft ³	0.755	2.93
naphthalene	6.10E-04	lb/million ft ³	2.56E-04	9.93E-04
toluene	3.40E-03	lb/million ft ³	1.43E-03	5.54E-03
total PAH	8.82E-05	lb/million ft ³	3.70E-05	1.44E-04
metal HAPs	5.60E-03	lb/million ft ³	2.35E-03	9.12E-03
Total HAPs	-	-	0.792	3.07
CO2	116.89	lb/MMBtu	-	194,112
CO2e (CO2)	1	GW potential	-	194,112
CH4	2.21E-03	lb/MMBtu	-	3.67
CO2e (CH4)	25	GW potential	-	91.75
N2O	2.21E-04	lb/MMBtu	-	0.367
CO2e (N2O)	298	GW potential	-	109.37
Total CO2e	-	-	-	194,313

Notes:

- GHG emission factors for natural gas are based on default factors taken from EPA GHG Mandatory Reporting at 40 CFR Part 98, Subpart C, Tables C-1 and C-2.
- PM (filterable and condensable), NOx, CO, and VOC emission factors provided by the boiler manufacturer.
- All other natural gas emission factors taken from AP-42, Section 1.4 (7/98).
- Metal HAPS emission factor does not include the separate emission factor given for lead.

PRATT PAPER (IN), LLC (FACILITY ID 127-00094)

EMISSION CALCULATIONS - NEW BOILERS

Source description: EU 16 Temporary rental boilers - three units at 90.2 MMBtu/hr each, natural gas-fired

Maximum heat input (per unit)	90.2	MMBtu/hr		
Number of boilers	3			
Maximum heat input (total)	270.66	MMBtu/hr		
Annual heat input	270,660	MMBtu/yr		
Natural gas heat content	1,000	Btu/ft ³	1,000	hrs/yr - each
Max. hourly usage	270,660	ft ³ /hr		
Annual usage	270.66	million ft ³ /yr		

Pollutant	Emission factor	Units	Potential emission rates	
			lbs/hr	tpy
PM	0.001	lb/MMBtu	0.27	0.14
PM10	7.6	lb/million ft ³	2.06	1.03
PM2.5	7.6	lb/million ft ³	2.06	1.03
SO2	0.6	lb/million ft ³	0.16	0.08
NOX	0.04	lb/MMBtu	10.83	5.41
CO	0.07	lb/MMBtu	18.95	9.47
VOC	0.008	lb/MMBtu	2.17	1.08
lead	0.0005	lb/million ft ³	1.35E-04	6.77E-05
benzene	2.10E-03	lb/million ft ³	5.68E-04	2.84E-04
dichlorobenzene	1.20E-03	lb/million ft ³	3.25E-04	1.62E-04
formaldehyde	0.075	lb/million ft ³	0.02	0.01
n-hexane	1.80	lb/million ft ³	0.49	0.24
naphthalene	6.10E-04	lb/million ft ³	1.65E-04	8.26E-05
toluene	3.40E-03	lb/million ft ³	9.20E-04	4.60E-04
total PAH	8.82E-05	lb/million ft ³	2.39E-05	1.19E-05
metal HAPs	5.60E-03	lb/million ft ³	1.52E-03	7.58E-04
Total HAPs	-	-	0.51	0.26
CO2	116.89	lb/MMBtu	31,637	15,819
CO2e (CO2)	1	GW potential	31,637	15,819
CH4	2.21E-03	lb/MMBtu	0.60	0.30
CO2e (CH4)	25	GW potential	14.95	7.48
N2O	2.21E-04	lb/MMBtu	0.06	0.030
CO2e (N2O)	298	GW potential	17.83	8.91
Total CO2e	-	-	31,670	15,835

Notes:

1. GHG emission factors for natural gas are based on default factors taken from EPA GHG Mandatory Reporting at 40 CFR Part 98, Subpart C, Tables C-1 and C-2.
2. PM (filterable), NOX, CO, and VOC emission factors provided by the boiler manufacturer.
3. PM10/PM2.5 and all other natural gas emission factors taken from AP-42, Section 1.4 (7/98).
4. Metal HAPS emission factor does not include the separate emission factor given for lead.

PRATT PAPER (KY), LLC
POTENTIAL EMISSION CALCULATIONS

Emissions unit ID: IA3 Mill Starch Silos

Source description: Starch Silos - two 176-ton starch silos with bin vent filters

Operating Parameters and Calculation Basis

Maximum starch usage rates	4.5	tons/hr
	39,420	tons/year (at 8,760 hrs/yr)

Unloading into silo - pneumatic conveying from truck or railcar into silos

Per truck load (nominal avg)	25	tons/truck
Truck unload rate (nominal)	22.5	tons/hr
Truck unload time	1.1	hrs/truck
Per railcar load (nominal avg)	100	tons/railcar
Railcar unload rate (nominal)	90	tons/hr
Railcar unload time	1.1	hrs/railcar
Worst case hourly unload rate	113	tons/hr (one truck and one railcar)

Emission Calculation Basis

Uncontrolled PM emission factor	0.245	lbs/ton of starch transferred	Derived from AP-42, Section 9.9.7
Bin vent control efficiency	99	percent (nominal)	System design
Controlled PM emission factor	2.45E-03	lbs/ton of starch transferred	

Potential Emissions

EU ID	Total Uncontrolled PTE		Total Controlled PTE	
	lbs/hr	tpy	lbs/hr	tpy
PM	27.56	4.83	0.28	0.05
PM10	27.56	4.83	0.28	0.05
PM2.5	27.56	4.83	0.28	0.05

Notes

1. PM = PM10 = PM2.5.
2. PM emission factor derived from AP-42 Table 9.9.7-1 for a Starch Storage Silo. The PM emission factor given (0.0014 lb/ton of corn) was converted to an uncontrolled factor assuming a nominal 99 pct. control efficiency for a fabric filter. The factor was then converted to a per ton of starch by the yield relationships: 1 bushel of corn weighs 56 lbs; 1 bushel of corn yields 32 lbs of starch.
3. Uncontrolled and controlled hourly emission rates assume one truck and one railcar can be unloaded at the same time.

PRATT PAPER (KY), LLC
POTENTIAL EMISSION CALCULATIONS

Emissions unit ID: EU 02 Stock Prep
Source description: Stock Prep - hydropulping and stock prep

Operating Parameters and Calculation Basis

Max paper machine production rates	2,182	ADTFP/day
	796,430	ADTFP/yr (at 365 days/yr)
Max recycled pulp/fiber usage rates	2,520	ADTP/day
	919,800	ADTP/yr
	2,268	ODTP/day
	827,820	ODTP/yr

ADTFP = air-dried tons of finished product

ADTP = air dried tons of pulp

ODTP = oven-dried tons of pulp; ODTP = 90 pct. of ADTP

Emission Calculation Basis

VOC emissions are based on information from an industry group (NCASI) for the summation of OCC prep area/hydropulping production

VOC emission factor 0.015 lb/ODTP (VOC EF as-methane adjusted to VOC as-propane)

Potential Emissions

Pollutant	Total PTE	
	lbs/hr	tpy
VOC	1.42	6.21

PRATT PAPER (KY), LLC
POTENTIAL EMISSION CALCULATIONS

Emissions unit ID: EU 05 Mill AMUs
Source description: Air Make-Up Units, 6 direct-fired units rated at 10.2 MMBtu/hr each and one 0.8 MMBtu/hr room heater

Maximum heat input	10.2	MMBtu/hr per unit		
	6	units		
Total heat input	62.0	MMBtu/hr, including 0.8 MMBtu/hr room heater		
Annual heat input	543,120	MMBtu/yr		
Natural gas heat content	1,020	Btu/ft ³	8,760	hrs/yr
Max. hourly usage	60,784	ft ³ /hr		
Annual usage	532.47	million ft ³ /yr		

Pollutant	Emission factor	Units	Potential emission rates	
			lbs/hr	tpy
PM	1.9	lb/million ft ³	0.12	0.51
PM10	7.6	lb/million ft ³	0.46	2.02
PM2.5	7.6	lb/million ft ³	0.46	2.02
SO2	0.6	lb/million ft ³	0.04	0.16
NOX	0.004	lb/MMBtu	0.25	1.09
CO	84	lb/million ft ³	5.11	22.36
VOC	5.5	lb/million ft ³	0.334	1.46
lead	0.0005	lb/million ft ³	3.0E-05	1.3E-04
benzene	2.10E-03	lb/million ft ³	1.3E-04	5.6E-04
dichlorobenzene	1.20E-03	lb/million ft ³	7.3E-05	3.2E-04
formaldehyde	0.075	lb/million ft ³	4.6E-03	0.02
n-hexane	1.80	lb/million ft ³	1.1E-01	0.48
naphthalene	6.10E-04	lb/million ft ³	3.7E-05	1.6E-04
toluene	3.40E-03	lb/million ft ³	2.1E-04	9.1E-04
total PAH	8.82E-05	lb/million ft ³	5.4E-06	2.3E-05
metal HAPs	5.60E-03	lb/million ft ³	3.4E-04	1.5E-03
Total HAPs	-	-	0.115	0.50
CO2	116.89	lb/MMBtu	-	31,743
CO2e (CO2)	1	GW potential	-	31,743
CH4	2.21E-03	lb/MMBtu	-	0.60
CO2e (CH4)	25	GW potential	-	15.00
N2O	2.21E-04	lb/MMBtu	-	0.060
CO2e (N2O)	298	GW potential	-	17.88
Total CO2e	-	-	-	31,776

Notes:

1. GHG emission factors for natural gas are based on default factors taken from EPA GHG Mandatory Reporting at 40 CFR Part 98, Subpart C, Tables C-1 and C-2.
2. Ultra low NOx burner NOx emission factor provided by the equipment supplier
3. All other emission factors taken from AP-42, Section 1.4 (7/98).
4. Metal HAPS emission factor does not include the separate emission factor given for lead.

PRATT PAPER (KY), LLC
POTENTIAL EMISSION CALCULATIONS

Emissions unit ID: EU 05 Mill AMUs
Source description: Air Make-Up Units, 6 direct-fired units rated at 10.2 MMBtu/hr each and one 0.8 MMBtu/hr room heater

Maximum heat input	10.2	MMBtu/hr per unit		
	6	units		
Total heat input	62.0	MMBtu/hr, including 0.8 MMBtu/hr room heater		
Annual heat input	248,000	MMBtu/yr		
Natural gas heat content	1,020	Btu/ft ³	4,000	hrs/yr
Max. hourly usage	60,784	ft ³ /hr		
Annual usage	243.14	million ft ³ /yr		

Pollutant	Emission factor	Units	Potential emission rates	
			lbs/hr	tpy
PM	1.9	lb/million ft ³	0.12	0.23
PM10	7.6	lb/million ft ³	0.46	0.92
PM2.5	7.6	lb/million ft ³	0.46	0.92
SO2	0.6	lb/million ft ³	0.04	0.07
NOX	0.004	lb/MMBtu	0.25	0.50
CO	84	lb/million ft ³	5.11	10.21
VOC	5.5	lb/million ft ³	0.334	0.67
lead	0.0005	lb/million ft ³	3.0E-05	6.1E-05
benzene	2.10E-03	lb/million ft ³	1.3E-04	2.6E-04
dichlorobenzene	1.20E-03	lb/million ft ³	7.3E-05	1.5E-04
formaldehyde	0.075	lb/million ft ³	4.6E-03	0.01
n-hexane	1.80	lb/million ft ³	1.1E-01	0.22
naphthalene	6.10E-04	lb/million ft ³	3.7E-05	7.4E-05
toluene	3.40E-03	lb/million ft ³	2.1E-04	4.1E-04
total PAH	8.82E-05	lb/million ft ³	5.4E-06	1.1E-05
metal HAPs	5.60E-03	lb/million ft ³	3.4E-04	6.8E-04
Total HAPs	-	-	0.115	0.23
CO2	116.89	lb/MMBtu	-	14,494
CO2e (CO2)	1	GW potential	-	14,494
CH4	2.21E-03	lb/MMBtu	-	0.27
CO2e (CH4)	25	GW potential	-	6.85
N2O	2.21E-04	lb/MMBtu	-	0.027
CO2e (N2O)	298	GW potential	-	8.17
Total CO2e	-	-	-	14,509

Notes:

1. GHG emission factors for natural gas are based on default factors taken from EPA GHG Mandatory Reporting at 40 CFR Part 98, Subpart C, Tables C-1 and C-2.
2. Ultra low NOX burner NOX emission factor provided by the equipment supplier
3. All other emission factors taken from AP-42, Section 1.4 (7/98).
4. Metal HAPS emission factor does not include the separate emission factor given for lead.

PRATT PAPER (KY), LLC
POTENTIAL EMISSION CALCULATIONS

Emissions unit ID: EU 06 Emergency Generator, Generac SG3000
Source description: WWTP Emergency Generator - 448 hp natural gas-fired emergency generator

Maximum rating	448.0	horsepower		
	334.1	kW		
	3.42	MMBtu/hr		
Natural gas heat content	1,000	Btu/ft ³	500	hrs/yr
Max. hourly usage	3,420	ft ³ /hr		
Annual usage	1.71	million ft ³ /yr		

Pollutant	Emission factor	Units	Potential emission rates	
			lbs/hr	tpy
PM	9.50E-03	lb/MMBtu	3.2E-02	8.1E-03
PM10	1.94E-02	lb/MMBtu	6.6E-02	0.02
PM2.5	1.94E-02	lb/MMBtu	6.6E-02	0.02
SO2	5.88E-04	lb/MMBtu	2.0E-03	5.0E-04
NOX	2.0	g/hp-hr	1.97	0.49
CO	4.0	g/hp-hr	3.95	0.99
VOC	1.0	g/hp-hr	0.99	0.25
acetaldehyde	2.79E-03	lb/MMBtu	9.5E-03	2.4E-03
acrolein	2.63E-03	lb/MMBtu	9.0E-03	2.2E-03
benzene	1.58E-03	lb/MMBtu	5.4E-03	1.4E-03
1,3 butadiene	6.63E-04	lb/MMBtu	2.3E-03	5.7E-04
formaldehyde	2.05E-02	lb/MMBtu	7.0E-02	1.8E-02
methanol	3.06E-03	lb/MMBtu	1.0E-02	2.6E-03
total PAH	1.41E-04	lb/MMBtu	4.8E-04	1.2E-04
toluene	5.58E-04	lb/MMBtu	1.9E-03	4.8E-04
xylene	1.95E-04	lb/MMBtu	6.7E-04	1.7E-04
Total HAPs	4.18E-02	lb/MMBtu	1.1E-01	0.03
CO2	116.89	lb/MMBtu	-	100
CO2e (CO2)	1	GW potential	-	100
CH4	2.20E-03	lb/MMBtu	-	1.9E-03
CO2e (CH4)	25	GW potential	-	0.047
N2O	2.20E-04	lb/MMBtu	-	1.88E-04
CO2e (N2O)	298	GW potential	-	0.056
Total CO2e	-	-	-	100

Notes:

- GHG emission factors for natural gas are based on default factors taken from EPA GHG Mandatory Reporting at 40 CFR Part 98, Subpart C, Tables C-1 and C-2.
- PM10 and PM2.5 include filterable and condensable particulate matter.
- PM, PM10, PM2.5 and SO2 emission factors taken from AP-42, Section 3.2 (7/00) Table 3.2-3
- NOX, CO, and VOC emission factors provided by the equipment manufacturer (EPA Model Year 2022 certificate).
- Emission factors for nine highest single HAPs and total HAPs taken from AP-42 Table 3.2-3.

PRATT PAPER (KY), LLC
POTENTIAL EMISSION CALCULATIONS

Emissions unit ID: EU 07 Fire Pump
Source description: Fire Pump - 327 hp diesel engine driven fire protection water pump

Maximum rating	327	horsepower (engine)		
	2.29	MMBtu/hr (estimated at 7,000 Btu/hp-hr per AP-42 Table 3.3-1)		
Diesel heat content	138,000	Btu/gal	500	hrs/yr
Diesel sulfur content	15	ppm		
Max. hourly usage	16.6	gal/hr		
Annual usage	8,293	gal/yr		

Pollutant	Emission factor	Units	Potential emission rates	
			lbs/hr	tpy
PM	0.11	g/hp-hr	0.08	0.02
PM10	0.04	lb/MMBtu	0.10	0.02
PM2.5	0.04	lb/MMBtu	0.10	0.02
SO2	1.50E-04	lb/MMBtu	3.4E-04	8.6E-05
NOX	2.64	g/hp-hr	1.90	0.48
CO	0.70	g/hp-hr	0.50	0.13
VOC	0.09	g/hp-hr	0.06	0.02
acetaldehyde	7.67E-04	lb/MMBtu	1.8E-03	4.4E-04
acrolein	9.25E-05	lb/MMBtu	2.1E-04	5.3E-05
benzene	9.33E-04	lb/MMBtu	2.1E-03	5.3E-04
1,3 butadiene	3.91E-05	lb/MMBtu	8.9E-05	2.2E-05
formaldehyde	1.80E-03	lb/MMBtu	4.1E-03	1.0E-03
naphthalene	8.48E-05	lb/MMBtu	1.9E-04	4.9E-05
total PAH	1.68E-04	lb/MMBtu	3.8E-04	9.6E-05
toluene	4.09E-04	lb/MMBtu	9.4E-04	2.3E-04
xylene	2.85E-04	lb/MMBtu	6.5E-04	1.6E-04
Total HAPs	4.18E-02	lb/MMBtu	1.0E-02	2.6E-03
CO2	162.71	lb/MMBtu	-	93
CO2e (CO2)	1	GW potential	-	93
CH4	6.60E-03	lb/MMBtu	-	3.8E-03
CO2e (CH4)	25	GW potential	-	0.094
N2O	1.32E-03	lb/MMBtu	-	7.55E-04
CO2e (N2O)	298	GW potential	-	0.225
Total CO2e	-	-	-	93

Notes:

- GHG emission factors for natural gas are based on default factors taken from EPA GHG Mandatory Reporting at 40 CFR Part 98, Subpart C, Tables C-1 and C-2.
- PM (filterable), NOX, CO, and VOC emission factors provided by the equipment manufacturer.
- PM10 and PM2.5 include filterable PM (per manufacturer) and condensible particulate matter (AP-42 Table 3.4-2)
- For the PM10 and PM2.5 factor, the filterable PM factor was converted from g/hp-hr to lb/MMBtu by multiplying by the ratio of 327 hp/2.29 MMBtu and dividing by 454 g/lb.
- SO2 emissions = 1.01 x S (decimal fraction of sulfur in diesel), per AP-42 Table 3.4-1.
- Emission factors for nine highest single HAPs and total HAPs taken from AP-42 Table 3.3-2.

PRATT PAPER (KY), LLC

POTENTIAL EMISSION CALCULATIONS

Emissions unit ID: IA4 WWTP Cooling Tower

Source description: WWTP Cooling Tower - direct contact water, potential emissions from TDS in wastewater from mill

Operating Parameters and Calculation Basis

Total flow rate	1,200	gal/min - equipment design specification
	72,000	gal/hr - calculated value
Cooling tower drift (percent of flow)	0.001	mfr's efficiency spec for drift eliminators/impingement baffle
Total cooling tower drift	0.72	gal/hr - calculated value
	6.0	lbs/hr - calculated value (density = 8.345 lbs/gal)
Operating hours	8,760	hrs/yr

Emission Calculation Basis

PM emissions calculated based on the total dissolved solids (TDS) content of mill wastewater and resulting drift.

Calculation method taken from AP-42, Section 13.4.

10,000 mg/L (ppm) - estimated worse-case TDS in mill water/wastewater

Potential Emissions

EU ID	Total PTE	
	lbs/hr	tpy
PM	0.06	0.26
PM10	0.06	0.26
PM2.5	0.06	0.26

Notes

1. PM = PM10 = PM2.5.
2. Example calculation = 0.71 gal/hr water drift x 3.785 L/gal x 10,000 mg/L TDS x 1 lb/454,000 mg; = 0.06 lb/hr PM

PRATT PAPER (KY), LLC

HYDROGEN SULFIDE CONCENTRATION AND EMISSIONS FROM REACTOR

Parameters on Exhaust from Reactor:

$$\begin{aligned} \text{Pressure} &= 1 \text{ atm} \\ \text{Concentration H}_2\text{S} &= 15,000 \text{ ppm H}_2\text{S} \\ \text{Temperature} &= 100 \text{ }^\circ\text{F} \text{ (35 }^\circ\text{C} = 95 \text{ }^\circ\text{F, roundup to 100 }^\circ\text{F)} \\ &= 560 \text{ }^\circ\text{R} \quad (= 100 \text{ }^\circ\text{F (35 }^\circ\text{C} = 95 \text{ }^\circ\text{F, roundup to 100 }^\circ\text{F)} + 460) \end{aligned}$$

Parameters on Exhaust from Scrubber (flow to flare):

$$\begin{aligned} \text{Pressure} &= 1 \text{ atm} \\ \text{Concentration H}_2\text{S} &= 250 \text{ ppm H}_2\text{S} \\ \text{Temperature} &= 80 \text{ }^\circ\text{F} \\ &= 540 \text{ }^\circ\text{R} \quad (= 80 \text{ }^\circ\text{F} + 460) \end{aligned}$$

Use Ideal Gas Law to determine H₂S Concentration

$$\begin{aligned} PV &= nRT \text{ or} \\ n &= PV/TR \text{ with} \\ \text{Universal Gas Constant (R)} &= 0.73024 \text{ (atm} \cdot \text{ft}^3\text{)/(lb}_{\text{mol}} \cdot \text{ }^\circ\text{R)} \\ \text{molecular weight of H}_2\text{S} &= 34.0 \text{ lbs/lbmol} \end{aligned}$$

Concentration of H₂S in Exhaust from Reactor

$$\begin{aligned} \text{Max. biogas generation} &= 700 \text{ acfm} \quad (1 \text{ atm, } 100 \text{ F)} \\ \text{Temp (T)} &= 560 \text{ }^\circ\text{R} \end{aligned}$$

$$\begin{aligned} \text{lb}_{\text{mol}} \text{ (per ft}^3 \text{ exhaust)} &= \text{Pressure} \cdot \text{Volume} \cdot \text{concentration} / (\text{T} \cdot \text{univ gas const)} \\ &= [1 \text{ atm} \cdot 15,000 \text{ ppm H}_2\text{S} / 10^6] / [560 \text{ }^\circ\text{R} \cdot 0.7302 \text{ (atm} \cdot \text{ft}^3\text{)/(lbmol} \cdot \text{ }^\circ\text{R)}] \\ &= 3.67\text{E-}05 \text{ lb}_{\text{mol}} \text{ (per ft}^3 \text{ reactor biogas exhaust)} \end{aligned}$$

$$\begin{aligned} \text{lbs H}_2\text{S (per ft}^3 \text{ exhaust)} &= \text{concentration (lb-mol/ft}^3\text{)} \cdot \text{molecular weight of H}_2\text{S} \\ &= 0.0000367 \text{ lbmol (per ft}^3 \text{ reactor biogas exhaust)} \cdot 34.0 \text{ lbs/lbmol} \\ &= 1.25\text{E-}03 \text{ lb H}_2\text{S/ft}^3 \text{ reactor biogas exhaust} \end{aligned}$$

H₂S Contained in the Biogas from the Reactor

$$\begin{aligned} \text{Flare input H}_2\text{S} &= \text{H}_2\text{S concentration} \cdot \text{biogas flow} \\ &= 0.00125 \text{ lb H}_2\text{S/ft}^3 \text{ reactor biogas exhaust} \cdot 700 \text{ acfm} \cdot 60 \text{ min/hr} \\ &= 52.4 \text{ lbs H}_2\text{S/hr} \\ &= 229.4 \text{ tons H}_2\text{S/yr} \quad (52.4 \text{ lbs H}_2\text{S/hr} \cdot 8,760 \text{ hr/yr} \cdot \text{ton}/2,000 \text{ lbs}) \end{aligned}$$

Concentration of H₂S in Exhaust from scrubbers (goes to flare)

$$\begin{aligned} \text{lb}_{\text{mol}} \text{ (per ft}^3 \text{ exhaust)} &= \text{Pressure} \cdot \text{Volume} \cdot \text{concentration} / (\text{T} \cdot \text{univ gas const)} \\ &= [1 \text{ atm} \cdot 250 \text{ ppm H}_2\text{S} / 10^6] / [540 \text{ }^\circ\text{R} \cdot 0.7302 \text{ (atm} \cdot \text{ft}^3\text{)/(lbmol} \cdot \text{ }^\circ\text{R)}] \\ &= 6.11\text{E-}07 \text{ lb}_{\text{mol}} \text{ (per ft}^3 \text{ reactor biogas exhaust)} \end{aligned}$$

$$\begin{aligned} \text{lbs H}_2\text{S (per ft}^3 \text{ exhaust)} &= \text{concentration (lb-mol/ft}^3\text{)} \cdot \text{molecular weight of H}_2\text{S} \\ &= 0.00000061 \text{ lbmol (per ft}^3 \text{ reactor biogas exhaust)} \cdot 34.0 \text{ lbs/lbmol} \\ &= 2.08\text{E-}05 \text{ lb H}_2\text{S/ft}^3 \text{ reactor biogas exhaust} \end{aligned}$$

PRATT PAPER (KY), LLC
POTENTIAL EMISSION CALCULATIONS

Emissions unit ID: EU 04 WWTP anaerobic digester/reactor
Source description: WWTP - scrubbers and flare used to control biogas/methane from anaerobic wastewater pretreatment process

	Percentage	Density, lb/ft3	HHV, Btu/ft3	Generation, ft3/hr
Biogas properties	100	0.064	637	42,000
methane	70	0.042	910	29,400
CO2	30	0.115	0	12,600
Flare efficiency =	98	pct. (for methane and H ₂ S oxidation)		
Max. biogas generation =	700	acfm	Temp T (°R) =	560
Daily biogas generation =	1,008,000	ft ³ /day		
Annual generation =	367.92	million ft ³ /yr	8,760	hrs/yr
Temp of scrubber exhaust =	80	°F	540	°R
Max. biogas flare inlet =	675	acfm		
H ₂ S conc out of scrubbers =	2.08E-05	lb H ₂ S/ft ³ biogas	<i>(previous page)</i>	
H ₂ S into Flare =	0.84	lbs H ₂ S/hr	<i>(= 675 acfm * 2.08 E-5 lbs H2S/ft3 * 60 min/hr)</i>	
H ₂ S into Flare =	3.69	tons H ₂ S/yr	<i>(= 0.84 lbs H2S/hr * 8,760 hrs/yr * ton/2,000 lbs)</i>	

Pollutant	Emission factor	Units	Uncontrolled PTE tpy	Controlled potential emission rates	
				lbs/hr	tpy
PM	15	lb/million ft ³ CH4		0.44	1.93
PM10	15	lb/million ft ³ CH4		0.44	1.93
PM2.5	15	lb/million ft ³ CH4		0.44	1.93
SO2	2.08E-05	lb H ₂ S/ft ³ biogas		1.55	6.80
H2S	2.08E-05	lb H ₂ S/ft ³ biogas	229.4	0.02	0.07
NOX	39	lb/million ft ³ CH4		1.15	5.02
CO	46	lb/million ft ³ CH4		1.35	5.92
VOC	12.1	lb/million ft ³ biogas		0.51	2.23
CO2 (in raw biogas)	-		6,347	-	6,347
CO2 (bg combustion)	116.89	lb/MMBtu		-	13,697
CO2e (CO2)	1	GW potential	6,347	-	20,044
CH4 (in raw biogas)	-		5,408		-
CH4 (post-flare)	-				108
CH4 (bg combustion)	2.21E-03	lb/MMBtu		-	0.26
CO2e (CH4)	25	GW potential	135,211	-	2,711
N2O (bg combustion)	2.21E-04	lb/MMBtu		-	0.026
CO2e (N2O)	298	GW potential	0	-	7.72
Total CO2e	-	-	141,557	-	22,762

Notes:

1. GHG emission factors for methane (natural gas) combustion are based on default factors taken from EPA GHG Mandatory Reporting at 40 CFR Part 98, Subpart C, Tables C-1 and C-2.
2. PM, NOX, and CO emission factors taken from AP-42, Draft Section 2.4, Table 2.4-4.
3. SO2 based on 98 pct. oxidation of H2S in caustic scrubber exhaust to SO2 in flare.
4. VOC emission factor based on San Diego APCD's Air Toxics Emissions Calculation Procedures for Flares, Digester Gas Fired, Enclosed

PRATT (HENDERSON CORRUGATING), LLC

POTENTIAL EMISSION CALCULATIONS

Emissions unit ID: EU 08 Corrugator Boiler #1

Source description: Corrugator Boiler #1 - 33.3 MMBtu/hr (800 hp) natural gas-fired boiler

Maximum heat input	33.3	MMBtu/hr		
Annual heat input	291,815	MMBtu/yr		
Natural gas heat content	1,020	Btu/ft ³	8,760	hrs/yr
Max. hourly usage	32,659	ft ³ /hr		
Annual usage	286.09	million ft ³ /yr		

Pollutant	Emission factor	Units	Potential emission rates	
			lbs/hr	tpy
PM	1.9	lb/million ft ³	0.06	0.27
PM10	7.6	lb/million ft ³	0.25	1.09
PM2.5	7.6	lb/million ft ³	0.25	1.09
SO2	0.6	lb/million ft ³	0.02	0.09
NOX	0.035	lb/MMBtu	1.17	5.11
CO	0.0075	lb/MMBtu	0.25	1.09
VOC	0.0032	lb/MMBtu	0.11	0.47
lead	0.0005	lb/million ft ³	1.63E-05	7.15E-05
benzene	2.10E-03	lb/million ft ³	6.86E-05	3.00E-04
dichlorobenzene	1.20E-03	lb/million ft ³	3.92E-05	1.72E-04
formaldehyde	0.075	lb/million ft ³	2.45E-03	0.01
n-hexane	1.80	lb/million ft ³	0.059	0.26
naphthalene	6.10E-04	lb/million ft ³	1.99E-05	8.73E-05
toluene	3.40E-03	lb/million ft ³	1.11E-04	4.86E-04
total PAH	8.82E-05	lb/million ft ³	2.88E-06	1.26E-05
metal HAPs	5.60E-03	lb/million ft ³	1.83E-04	8.01E-04
Total HAPs	-	-	0.062	0.27
CO2	116.89	lb/MMBtu	-	17,055
CO2e (CO2)	1	GW potential	-	17,055
CH4	2.21E-03	lb/MMBtu	-	0.32
CO2e (CH4)	25	GW potential	-	8.06
N2O	2.21E-04	lb/MMBtu	-	0.032
CO2e (N2O)	298	GW potential	-	9.61
Total CO2e	-	-	-	17,073

Notes:

- GHG emission factors for natural gas are based on default factors taken from EPA GHG Mandatory Reporting at 40 CFR Part 98, Subpart C, Tables C-1 and C-2.
- NOX, CO, and VOC emission factors provided by the boiler manufacturer.
- All other natural gas emission factors taken from AP-42, Section 1.4 (7/98).
- Metal HAPS emission factor does not include the separate emission factor given for lead.

PRATT (HENDERSON CORRUGATING), LLC
POTENTIAL EMISSION CALCULATIONS

Emissions unit ID: EU 09 FFG #1

Source description: Bobst Expertline 8.20, 4-color flexographic printer-folder-gluer

Source Operation	Sheet Width	Sheet Length	Machine Speed	Throughput	
	inches	inches	sheets/min	MM in ² /hr	MM ft ² /yr
FFG #1	36	83	300	53.8	3,272

Material	Max Potential Material Usage		Volatiles weight %	Potential Emissions	
	lbs/MM in ²	lbs/year		lbs/hr	tons/yr
Ink VOC	2.0	942,296	1.1	1.18	5.18
Ink single HAP (GE)	-	-	0.07	0.08	0.33
Ink total HAPs	-	-	0.07	0.08	0.33
Glue VOC	0.50	235,574	0.50	0.13	0.59
Glue single HAP (VA)			0.082	0.02	0.10
Glue total HAPs	-	-	0.11	0.03	0.13

Total VOC (tons/yr)	5.77
Glycol ethers (tons/yr)	0.33
Vinyl acetate (tons/yr)	0.10
Total HAPs (tons/yr)	0.46

Other glue HAPs	weight pct.	tons/yr
acetaldehyde	0.0112	0.013
formaldehyde	0.0078	0.009
methanol	0.0067	0.008

PRATT (HENDERSON CORRUGATING), LLC
POTENTIAL EMISSION CALCULATIONS

Emissions unit ID: EU 10 FFG #2

Source description: Bobst 1228 45.6 x 113.7, 4-color flexographic printer-folder-gluer

Source Operation	Sheet Width	Sheet Length	Machine Speed	Throughput	
	inches	inches	sheets/min	MM in ² /hr	MM ft ² /yr
FFG #2	46	114	300	94.4	5,742

Material	Max Potential Material Usage		Volatiles weight %	Potential Emissions	
	lbs/MM in ²	lbs/year		lbs/hr	tons/yr
Ink VOC	2.0	1,653,748	1.1	2.08	9.10
Ink single HAP (GE)	-	-	0.07	0.13	0.58
Ink total HAPs	-	-	0.07	0.13	0.58
Glue VOC	0.50	413,437	0.50	0.24	1.03
Glue single HAP (VA)			0.082	0.04	0.17
Glue total HAPs	-	-	0.11	0.05	0.23

Total VOC (tons/yr)	10.13
Glycol ethers (tons/yr)	0.58
Vinyl acetate (tons/yr)	0.17
Total HAP (tons/yr)	0.81

Other glue HAPs	weight pct.	tons/yr
acetaldehyde	0.0112	0.023
formaldehyde	0.0078	0.016
methanol	0.0067	0.014

PRATT (HENDERSON CORRUGATING), LLC
POTENTIAL EMISSION CALCULATIONS

Emissions unit ID: EU 11 FFG #3

Source description: Ward 16000 G-Graphix 50 x 110, 4-color flexographic printer-folder-gluer

Source Operation	Sheet Width	Sheet Length	Machine Speed	Throughput	
	inches	inches	sheets/min	MM in ² /hr	MM ft ² /yr
FFG #3	50	113	300	101.7	6,187

Material	Max Potential Material Usage		Volatiles weight %	Potential Emissions	
	lbs/MM in ²	lbs/year		lbs/hr	tons/yr
Ink VOC	2.0	1,781,784	1.1	2.24	9.80
Ink single HAP (GE)	-	-	0.07	0.14	0.62
Ink total HAPs	-	-	0.07	0.14	0.62
Glue VOC	0.50	445,446	0.50	0.25	1.11
Glue single HAP (VA)			0.08	0.04	0.18
Glue total HAPs	-	-	0.11	0.06	0.24

Total VOC (tons/yr)	10.91
Glycol ethers (tons/yr)	0.62
Vinyl acetate (tons/yr)	0.18
Total HAP (tons/yr)	0.87

Other glue HAPs	weight pct.	tons/yr
acetaldehyde	0.0112	0.025
formaldehyde	0.0078	0.017
methanol	0.0067	0.015

PRATT (HENDERSON CORRUGATING), LLC
POTENTIAL EMISSION CALCULATIONS

Emissions unit ID: EU 12 RDC #1

Source description: Ward 66 x 120, 4-color rotary die cutter with flexographic printer

Source Operation	Sheet Width	Sheet Length	Machine Speed	Throughput	
	inches	inches	sheets/min	MM in ² /hr	MM ft ² /yr
RDC #1	66	120	250	118.8	7,227

Material	Max Potential Material Usage		Volatiles weight %	Potential Emissions	
	lbs/MM in ²	lbs/year		lbs/hr	tons/yr
Ink VOC	2.0	2,081,376	1.1	2.61	11.45
Ink single HAP	-	-	0.07	0.17	0.73
Ink total HAPs	-	-	0.07	0.17	0.73

Total VOC (tons/yr)	11.45
Glycol ethers (tons/yr)	0.73
Total HAPs (tons/yr)	0.73

Highest single HAP for inks is glycol ethers

PRATT (HENDERSON CORRUGATING), LLC
POTENTIAL EMISSION CALCULATIONS

Emissions unit ID: EU 13 RDC #2

Source description: Ward 66 x 125, 3-color rotary die cutter with flexographic printer

Source Operation	Sheet Width	Sheet Length	Machine Speed	Throughput	
	inches	inches	sheets/min	MM in ² /hr	MM ft ² /yr
RDC #2	66	125	250	123.8	7,528

Material	Max Potential Material Usage		Volatiles	Potential Emissions	
	lbs/MM in ²	lbs/year	weight %	lbs/hr	tons/yr
Ink VOC	2.0	2,168,100	1.1	2.72	11.92
Ink single HAP (GE)	-	-	0.07	0.17	0.76
Ink HAP	-	-	0.07	0.17	0.76

Total VOC (tons/yr)	11.92
Glycol ethers (tons/yr)	0.76
Total HAP (tons/yr)	0.76

Highest single HAP for inks is glycol ethers

PRATT (HENDERSON CORRUGATING), LLC
POTENTIAL EMISSION CALCULATIONS

Emissions unit ID: EU 14 RDC #3

Source description: Gopfert 66 x 110, 4-color rotary die cutter with flexographic printer

Source Operation	Sheet Width	Sheet Length	Machine Speed	Throughput	
	inches	inches	sheets/min	MM in ² /hr	MM ft ² /yr
RDC #3	66	110	250	108.9	6,625

Material	Max Potential Material Usage		Volatiles	Potential Emissions	
	lbs/MM in ²	lbs/year	weight %	lbs/hr	tons/yr
Ink VOC	2.0	1,907,928	1.1	2.40	10.49
Ink single HAP (GE)	-	-	0.07	0.15	0.67
Ink total HAPs	-	-	0.07	0.15	0.67

Total VOC (tons/yr)	10.49
Glycol ethers (tons/yr)	0.67
Total HAPs (tons/yr)	0.67

Highest single HAP for inks is glycol ethers

PRATT (HENDERSON CORRUGATING), LLC

POTENTIAL EMISSION CALCULATIONS

Emissions unit ID: EU 15 Corrugator AMUs

Source description: Air Make-Up Units, 8 direct-fired units rated at 3.23 MMBtu/hr each

Maximum heat input	3.23	MMBtu/hr per unit		
	8	units		
Total heat input	25.8			
Annual heat input	103,360	MMBtu/yr		
Natural gas heat content	1,020	Btu/ft ³	4,000	hrs/yr
Max. hourly usage	25,333	ft ³ /hr		
Annual usage	101.33	million ft ³ /yr		

Pollutant	Emission factor	Units	Potential emission rates	
			lbs/hr	tpy
PM	1.9	lb/million ft ³	0.05	0.10
PM10	7.6	lb/million ft ³	0.19	0.39
PM2.5	7.6	lb/million ft ³	0.19	0.39
SO2	0.6	lb/million ft ³	0.02	0.03
NOX	100	lb/million ft ³	2.53	5.07
CO	84	lb/million ft ³	2.13	4.26
VOC	5.5	lb/million ft ³	0.139	0.28
lead	0.0005	lb/million ft ³	1.3E-05	2.5E-05
benzene	2.10E-03	lb/million ft ³	5.3E-05	1.1E-04
dichlorobenzene	1.20E-03	lb/million ft ³	3.0E-05	6.1E-05
formaldehyde	0.075	lb/million ft ³	1.9E-03	0.004
n-hexane	1.80	lb/million ft ³	4.6E-02	0.09
naphthalene	6.10E-04	lb/million ft ³	1.5E-05	3.1E-05
toluene	3.40E-03	lb/million ft ³	8.6E-05	1.7E-04
total PAH	8.82E-05	lb/million ft ³	2.2E-06	4.5E-06
metal HAPs	5.60E-03	lb/million ft ³	1.4E-04	2.8E-04
Total HAPs	-	-	0.048	0.10
CO2	116.89	lb/MMBtu	-	6,041
CO2e (CO2)	1	GW potential	-	6,041
CH4	2.21E-03	lb/MMBtu	-	0.11
CO2e (CH4)	25	GW potential	-	2.86
N2O	2.21E-04	lb/MMBtu	-	0.011
CO2e (N2O)	298	GW potential	-	3.40
Total CO2e	-	-	-	6,047

Notes:

- GHG emission factors for natural gas are based on default factors taken from EPA GHG Mandatory Reporting at 40 CFR Part 98, Subpart C, Tables C-1 and C-2.
- All emission factors taken from AP-42, Section 1.4 (7/98).
- Metal HAPS emission factor does not include the separate emission factor given for lead.

PRATT (HENDERSON CORRUGATING), LLC

POTENTIAL EMISSION CALCULATIONS

Emissions unit ID: EU 15 Corrugator AMUs

Source description: Air Make-Up Units, 8 direct-fired units rated at 3.23 MMBtu/hr each

Maximum heat input	3.23	MMBtu/hr per unit		
	8	units		
Total heat input	25.8			
Annual heat input	226,358	MMBtu/yr		
Natural gas heat content	1,020	Btu/ft ³	8,760	hrs/yr
Max. hourly usage	25,333	ft ³ /hr		
Annual usage	221.92	million ft ³ /yr		

Pollutant	Emission factor	Units	Potential emission rates	
			lbs/hr	tpy
PM	1.9	lb/million ft ³	0.05	0.21
PM10	7.6	lb/million ft ³	0.19	0.84
PM2.5	7.6	lb/million ft ³	0.19	0.84
SO2	0.6	lb/million ft ³	0.02	0.07
NOX	100	lb/million ft ³	2.53	11.10
CO	84	lb/million ft ³	2.13	9.32
VOC	5.5	lb/million ft ³	0.139	0.61
lead	0.0005	lb/million ft ³	1.3E-05	5.5E-05
benzene	2.10E-03	lb/million ft ³	5.3E-05	2.3E-04
dichlorobenzene	1.20E-03	lb/million ft ³	3.0E-05	1.3E-04
formaldehyde	0.075	lb/million ft ³	1.9E-03	0.01
n-hexane	1.80	lb/million ft ³	4.6E-02	0.20
naphthalene	6.10E-04	lb/million ft ³	1.5E-05	6.8E-05
toluene	3.40E-03	lb/million ft ³	8.6E-05	3.8E-04
total PAH	8.82E-05	lb/million ft ³	2.2E-06	9.8E-06
metal HAPs	5.60E-03	lb/million ft ³	1.4E-04	6.2E-04
Total HAPs	-	-	0.048	0.21
CO2	116.89	lb/MMBtu	-	13,230
CO2e (CO2)	1	GW potential	-	13,230
CH4	2.21E-03	lb/MMBtu	-	0.25
CO2e (CH4)	25	GW potential	-	6.25
N2O	2.21E-04	lb/MMBtu	-	0.025
CO2e (N2O)	298	GW potential	-	7.45
Total CO2e	-	-	-	13,243

Notes:

- GHG emission factors for natural gas are based on default factors taken from EPA GHG Mandatory Reporting at 40 CFR Part 98, Subpart C, Tables C-1 and C-2.
- All emission factors taken from AP-42, Section 1.4 (7/98).
- Metal HAPS emission factor does not include the separate emission factor given for lead.

**PRATT PAPER (KY), LLC / PRATT (HENDERSON CORRUGATING), LLC
POTENTIAL EMISSION CALCULATIONS - ROADWAYS AND PARKING AREAS**

Emissions unit ID: FUG1 Paved Roadways
Source description: Paved Roadways and Parking Areas

Emission Calculation Basis

Number of trucks and round trip mileage estimated for new mill				Finished product trucks	20	tons (empty)
	Starch trucks	10	tons (empty)	Finished product load per truck	20	tons nominal
	Starch load per truck	30	tons nominal	Finished product trucks	40	tons (loaded)
	Starch trucks	40	tons (loaded)			
	Mill/corrugator starch truck number	6	trucks per day	Mill/corrugator finished product truck number	150	trucks per day
		2,200	trucks per year		54,750	trucks per year
	Mill starch truck route	1.75	miles - round trip	Mill/corrugator finished product truck route	1.50	miles - round trip
	WW treatment chemical trucks	20	tons (empty)	Drop lot spotter trucks	15	tons
	Chemical load per truck	20	tons nominal	Estimated mileage	50	miles per day
	WW treatment chemical trucks	40	tons (loaded)		18,250	miles per year
	WW treatment chemical truck throughput	15	trucks per month	Misc. (rejects, compost, etc.) trucks	20	tons (empty)
		180	trucks per year	Load per truck	20	tons nominal
	WW treatment chemical truck route	1.20	miles - round trip	Misc. trucks	40	tons (loaded)
	Waste paper trucks	20	tons (empty)	Misc. truck throughput	6	trucks per week
	Waste paper load per truck	20	tons nominal		312	trucks per year
	Waste paper trucks	40	tons (loaded)	Misc. truck route	1.75	miles - round trip
	Waste paper inbound truck throughput	125	trucks per day			
		45,625	trucks per year			
	Waste paper truck route	1.50	miles - round trip			

Paved Road And Parking Emission Calculation

AP-42 (01/2011 Version) Ch. 13.2.1, Equation (2):

$$E_{ext} = [k \times (sL)^{0.91} \times (W)^{1.02}] \times (1-P/4N)$$

E = particulate emission factor (lb/VMT)

k = particle size multiplier (lb/VMT) (AP-42 Table 13.2.1-1)

sL = road surface silt loading (g/m²)

W = Mean vehicle weight (tons)

P = number of wet days with at least 0.01 in of precipitation during the averaging period = 110

N = number of days in the averaging period = 365 (for annual)

**PRATT PAPER (KY), LLC / PRATT (HENDERSON CORRUGATING), LLC
POTENTIAL EMISSION CALCULATIONS - ROADWAYS AND PARKING AREAS**

Vehicle	Pollutant	k	sL g/m ²	W tons	E _{ext} lb/VMT	Control Efficiency %	Total miles per year VMT	Uncontrolled Emissions TPY	Controlled Emissions TPY
Starch trucks	PM	0.011	0.30	25	9.07E-02	75%	3,850	0.17	0.04
WW treatment chemical trucks	PM	0.011	0.30	30	1.09E-01	75%	216	0.012	0.00
Drop lot trucks	PM	0.011	0.30	15	5.38E-02	75%	18,250	0.49	0.12
Miscellaneous trucks	PM	0.011	0.30	30	1.09E-01	75%	546	0.03	0.01
Waste paper trucks	PM	0.011	0.30	30	1.09E-01	75%	68,438	3.74	0.93
Finished product trucks	PM	0.011	0.30	30	1.09E-01	75%	82,125	4.48	1.12
Starch trucks	PM10	0.0022	0.3	25	1.81E-02	75%	3,850	0.03	0.009
WW treatment chemical trucks	PM10	0.0022	0.30	30	2.18E-02	75%	216	0.002	0.00
Drop lot trucks	PM10	0.0022	0.30	15	1.08E-02	75%	18,250	0.10	0.02
Miscellaneous trucks	PM10	0.0022	0.30	30	2.18E-02	75%	546	0.006	0.00
Waste paper trucks	PM10	0.0022	0.30	30	2.18E-02	75%	68,438	0.75	0.19
Finished product trucks	PM10	0.0022	0.30	30	2.18E-02	75%	82,125	0.90	0.22
Starch trucks	PM2.5	0.00054	0.30	25	4.45E-03	75%	3,850	0.009	0.002
WW treatment chemical trucks	PM2.5	0.00054	0.30	30	5.36E-03	75%	216	0.0006	0.00
Drop lot trucks	PM2.5	0.00054	0.30	15	2.64E-03	75%	18,250	0.02	0.01
Miscellaneous trucks	PM2.5	0.00054	0.30	30	5.36E-03	75%	546	0.001	0.00
Waste paper trucks	PM2.5	0.00054	0.30	30	5.36E-03	75%	68,438	0.18	0.05
Finished product trucks	PM2.5	0.00054	0.30	30	5.36E-03	75%	82,125	0.22	0.06

Total Emissions

Paved Roadways and Parking Areas	Annual PM Emissions		Annual PM10 Emissions		Annual PM2.5 Emissions	
	Uncontrolled (TPY)	Controlled (TPY)	Uncontrolled (TPY)	Controlled (TPY)	Uncontrolled (TPY)	Controlled (TPY)
TOTAL EMISSIONS	8.93	2.23	1.79	0.45	0.44	0.11

Notes

1. Pratt conducts routine vacuum sweeping of paved roadways. Fugitive dust control efficiency is assumed at 75 percent - see Ohio EPA RACM Manual Table 2.1.1-3.
2. Annual average silt loading taken from AP-42 Table 13.2.1-2 for ADT = 500 to 5,000. Assumes 9 months/yr at ubiquitous baseline (0.2 g/m²) and 3 months of ubiquitous winter baseline (0.6 g/m²).

PRATT (HENDERSON CORRUGATING), LLC
POTENTIAL EMISSION CALCULATIONS

Emissions unit ID: IA8 Trim Collection System

Source description: Product (corrugated trim) recovery cyclone with fabric filter and baler

Operating Parameters and Calculation Basis

Max corrugator throughput	825,000	ft2/hr	110 in. wide, 1,500 ft/min line speed
	7,227.0	MMSF/yr	MMSF = million ft2, at 8,760 hrs/yr
Percent Trim	10	pct.	Engineering Estimate/worst case
Maximum Paper Weight	117	lbs/1,000 ft2	corrugated sheet weight

Emission Calculation Basis

Uncontrolled PM emission factor	1.17E-05	lb PM/lb trim scrap
		San Joaquin Valley APCD emission factor
Fabric filter control efficiency	99	percent (nominal)

Potential Emissions

EU ID	Total Uncontrolled PTE		Total Controlled PTE	
	lbs/hr	tpy	lbs/hr	tpy
PM	0.11	0.49	0.001	0.005
PM10	0.11	0.49	0.001	0.005
PM2.5	0.11	0.49	0.001	0.005

Notes

1. PM = PM10 = PM2.5.
2. Uncontrolled emissions are from the product recovery cyclone and prior to the fabric filter.

ATTACHMENT 3
RED-LINED/EDITED PERMIT V-21-034 R1 FOR EXISTING EMISSIONS
UNITS

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**EU 06: Natural Gas-Fired Emergency Generator****Description:**

Certified ~~368 HP (2.83 MMBtu/hr)~~ 4-stroke, rich burn engine
Construction commenced: Proposed 01/2023

APPLICABLE REGULATIONS:

401 KAR 60:005 Section 2(2)(eeee) 40 C.F.R. 60.4230 through 60.4248, Tables 1 to 4 (Subpart JJJJ), Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.

401 KAR 63:002 Section 2(4)(eeee) 40 C.F.R. 63.6580 through 63.6675, Tables 1a to 8, and Appendix A (Subpart ZZZZ), National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. The requirements of 40 CFR 63 Subpart ZZZZ are met by meeting the requirements of 40 CFR 60 Subpart JJJJ. No further requirements apply under this part.

Note: D.C. Circuit Court [*Delaware v. EPA*, 785 F. 3d 1 (D.C. Cir. 2015)] has vacated the provisions in 40 CFR 60, Subpart JJJJ that contain the 100-hour exemption for operation of emergency engines for purposes of emergency demand response under 40 CFR 60.4243(d)(2)(ii)-(iii). The D.C. Circuit Court issued the mandate for the vacatur on May 4, 2016

1. Operating Limitations:

- a. The permittee must operate and maintain this engine to achieve the required emission limitations over the entire life of the engine [40 CFR 60.4234].
- b. The permittee shall operate the engine according to the definition of emergency engines in 40 CFR 60.4243(d). There is no time limit on the use of emergency stationary engines in emergency situations. If the engine is not operated according to the definition of emergency operation in 40 CFR 60.4243(d), especially regarding demand response operation, it cannot be considered an emergency engine and must meet all requirements for non-emergency engines. [40 CFR 60.4243(d)(1)]
- c. The permittee may operate the emergency stationary ICE for any combination of the purposes specified below for a maximum of 100 hours per calendar year. [40 CFR 60.4243(d)(2)]
 - i. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. 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 ICE beyond 100 hours per calendar year. [40 CFR 60.4243(d)(2)(i)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- ii. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (d)(2) of this section. Except as provided in paragraph (d)(3)(i) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 60.4243(d)(3)]
- iii. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity.
- d. If the SI ICE engine is equipped with an air-to fuel ratio controller (AFR), then the AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [to 40 CFR 60.4243 (g)]

2. Emission Limitations:

The permittee shall comply with the emission limitations in 40 CFR 60, Subpart JJJJ, Table 1 [40 CFR 60.4233(e)].

Table 1 to Subpart JJJJ of Part 60

Engine type and fuel	Maximum engine power	Manufacture date	Emission standards					
			g/HP-hr			ppmvd at 15% O ₂		
			NO _x	CO	VOC	NO _x	CO	VOC
Emergency	HP≥130	After 1/1/2009	2.0	4.0	1.0	160	540	86

Compliance Demonstration Method:

The permittee shall demonstrate compliance by purchasing an engine certified according to procedures specified in 40 CFR 60, Subpart JJJJ, and operating and maintaining the engines and control devices according to the manufacturer’s emission-related written instructions, and keeping records of conducted maintenance [40 CFR 60.4243(b)(1)].

3. Testing Requirements:

Testing shall be conducted at such times as may be required by the Cabinet in accordance with 401 KAR 50:045, Section 4.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

- a. The permittee shall install a non-resettable hour meter prior to startup of the engine [40 CFR 60.4237(b)].
- b. The permittee through the non-resettable hour meter shall monitor the hours of operation of the emergency generators on an annual basis [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

- a. The permittee must keep records of the following information [40 CFR 60.4245(a)]:
 - (1) All notifications submitted to comply with this subpart and all documentation supporting any notification.
 - (2) Maintenance conducted on the engine.
 - (3) Documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.
- b. The permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter [40 CFR 60.4245 (b)].
- c. The permittee must document how many hours are spent for non-emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation [40 CFR 60.4245 (b)].

6. Specific Reporting Requirements:

The permittee shall submit an annual report according to the requirements specified in 40 CFR 60.4245 (e).

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**EU 07: Diesel Fuel-Fired Fire Pump Engine****Description:**

Certified ~~410 HP, 2-Stroke~~ Diesel Fuel-Fired Engine
Construction commenced: Proposed 01/2023

APPLICABLE REGULATIONS:

401 KAR 60:005 Section 2(ddd), 40 C.F.R. 60.4200 to 60.4219, Tables 1 through 8 (Subpart III), Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

401 KAR 63:002 Section 2(eeee), 40 C.F.R. 63.6580 to 63.6675, Tables 1a through 8, and Appendix A (Subpart ZZZZ), National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. Pursuant to 40 CFR 63.6590 (c)(1), a new stationary RICE located at an area source must meet the requirements of Subpart ZZZZ by meeting the requirements of CFR part 60 subpart III, for compression ignition engines. No further requirements apply for such engines under Subpart ZZZZ.

Note: D.C. Circuit Court [*Delaware v. EPA*, 785 F. 3d 1 (D.C. Cir. 2015)] has vacated the provisions in 40 CFR 60, Subpart III that contain the 100-hour exemption for operation of emergency engines for purposes of emergency demand response under 40 CFR 60.4211(f)(2)(ii)-(iii). The D.C. Circuit Court issued the mandate for the vacatur on May 4, 2016.

1. Operating Limitations:

- a. Pursuant to 40 CFR 60.4207(b), the permittee shall use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.
 - 1) Sulfur content less than 15 ppm for NR diesel fuel.
 - 2) Cetane index or aromatic content, as follows:
 - i. A minimum cetane index of 40; or
 - ii. A maximum aromatic content of 35 volume percent.
- b. Pursuant to 40 CFR 60.4209(a), the permittee shall install a non-resettable hour meter prior to startup of the emergency stationary CI engine which does not meet the standards applicable to non-emergency engine.
- c. Pursuant to 40 CFR 60.4211(a), the permittee shall operate and maintain the stationary CI engine according to the manufacturer's emission-related written instructions, change only those emission-related settings that are permitted by the manufacturer, and meet the requirements of 40 CFR part 1068, as applicable.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations:

- a. Pursuant to 40 CFR 60.4205 (c), the permittee shall comply with the emission standards in table 4 of this subpart, for all pollutants.

	NMHC + NO _x	CO	PM
g/KW-hr (g/HP-hr)	4.0 (3.0)	3.5 (2.6)	0.20 (0.15)

Compliance Demonstration Method:

The permittee shall comply by purchasing an engine certified to the emission standards in 40 CFR 60.4205 (b). The engine must be installed and configured according to the manufacturer's emission-related specifications [40 CFR 60.4211 (c)].

- b. See Section D.

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

Pursuant to 40 CFR 60.4211(f), there is no time limit on the use of emergency stationary ICE in emergency situations, the permittee may operate emergency ICE for maintenance checks, readiness testing, and emergency demand response for a maximum of 100 hours per calendar year. Emergency ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing.

5. Specific Recordkeeping Requirements:

- a. Pursuant to 40 CFR 60.4214(b), the permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.
- b. The permittee shall maintain records of the hours of operation of the engine on a monthly basis.

6. Specific Reporting Requirements:

See Section F.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EU 09 [Flexo-Folder-Gluer (FFG) #1 – conversion]

Description:

Ink maximum rated capacity: ~~237.6 lbs/hr~~
 Glue maximum rated capacity: ~~59.4 lb/hr~~
 Construction Commenced: Proposed 01/2023

EU 10 [FFG #2 – conversion]

Description:

Ink maximum rated capacity: ~~131.3 lbs/hr~~
 Glue maximum rated capacity: ~~32.8 lb/hr~~
 Construction Commenced: Proposed 01/2023

EU 11 [FFG #3 – conversion]

Description:

Ink maximum rated capacity: ~~180 lbs/hr~~
 Glue maximum rated capacity: ~~45 lb/hr~~
 Construction Commenced: Proposed 01/2023

EU 12 [Rotary Die Cutter (RDC) #1 – conversion]

Description:

Ink maximum rated capacity: 237.6 lbs/hr
 Construction Commenced: Proposed 01/2023

EU 13 [RDC #2 – conversion]

Description:

Ink maximum rated capacity: ~~237.6 lbs/hr~~
 Construction Commenced: Proposed 01/2023

EU 14 [RDC #3 – conversion]

Description:

Ink maximum rated capacity: ~~237.6 lbs/hr~~
 Construction Commenced: Proposed 01/2023

APPLICABLE REGULATIONS:

401 KAR 59:212, New graphic arts facilities using rotogravure and flexography

401 KAR 63:020, Potentially hazardous matter or toxic substances

1. **Operating Limitations:**

The usage rate of materials used in all affected facilities shall be limited so as not to exceed the emission limitations in the section B (2) below.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**2. Emission Limitations:****a. 401 KAR 59:212:**

Pursuant to Regulation 401 KAR 59:212, Section 6 (1), the printing systems described above shall utilize water-borne inks whose volatile portion consist of seventy-five volume percent water and twenty-five (or lower) volume percent organic solvent in all printing units. This requirement exempts the permittee from complying with the VOC emission standard under Section 3 of this regulation.

Compliance Demonstration Method:

The permittee shall maintain records of the volatile organic content of each type of ink, coating, varnish, adhesive, primer, solvent, reducer, thinner, diluent, or any other material used at the printing units listed above. Determination of the volatile organic content shall be conducted according to any one of the following methods:

- i. The permittee shall determine the volatile organic content of each type of material using Method 24A of 40 CFR 60, appendix A. The Method 24A determination may be performed by the manufacturer of the material and the results provided to the permittee. If these volatile organic content cannot be determined using Method 24A, the permittee shall submit an alternate technique for determining the volatile content for approval by the Division.
- ii. The permittee may determine the volatile organic content of each type of material used based on the formulation data, and may rely on volatile content data provided by the material suppliers. In the event of any inconsistency between the formulation data and the results of Test Method 24A of 40 CFR 60, appendix A, the applicable test shall govern, unless the permittee can demonstrate to the satisfaction of the Division that the formulation data are correct.

b. 401 KAR 63:020

Based upon the emission rates of toxics and hazardous air pollutants determined by the Cabinet using information provided in the application and supplemental information submitted by the source, the Cabinet determines the affected facility to be in compliance with 401 KAR 63:020.

3. Testing Requirements:

- a. Testing shall be conducted at such times as may be required by the Cabinet in accordance with Regulations 401 KAR 59:005 Section 2(2) and 401 KAR 50:045 Section 3.
- b. Upon request, the permittee shall submit samples of the ink or any other VOC containing material inks and coatings used. The inks and coatings must meet the requirements specified under **Operating Limitations;** [Regulation 40 CFR 60, Appendix A, Method 24A, which has been incorporated by reference in 401 KAR 50:015].

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

See Compliance Demonstration Method in Section B (2).

5. Specific Recordkeeping Requirements:

a. 401 KAR 59:212 Section 4 (6):

Daily records shall be maintained by the source for the most recent two (2) year period.

These records shall be made available to the Cabinet or the U.S. EPA upon request.

These records shall include, but not be limited to, the following:

- i. Applicable administrative regulation number;
- ii. Application method and substrate type;
- iii. Amount and type of graphic arts material or solvent used at each point of application, including exempt compounds;
- iv. The VOC content as applied in each graphic arts material or solvent;
- v. The date for each application for graphic arts material or solvent;
- vi. The amount of surface preparation, cleanup, or washup solvent (including exempt compounds) used and the VOC content of each.

b. The permittee shall keep monthly usage rate of each ink, coating, varnish, adhesive, primer, solvent, reducer, thinner, diluents, or any other material used.

6. Specific Reporting Requirements:

a. The permittee shall report any ink usage that exceeds 25 volume percent organic solvent each month in the Semi-annual Monitoring Report.

b. See Section F.

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. Although these activities are designated as insignificant the permittee must comply with the applicable regulation. Process and emission control equipment at each insignificant activity subject to an opacity standard shall be inspected monthly and a qualitative visible emissions evaluation made. Results of the inspection, evaluation, and any corrective action shall be recorded in a log.

	<u>Description</u>	<u>Generally Applicable Regulation</u>
1.	Bulk Process Chemical Tanks	401 KAR 63:020
2.	FW Pump Diesel Tank (300 gal)	401 KAR 63:020
3.	Mill Starch Silos with bin vent filters	401 KAR 59:010
4.	WWTP Cooling Tower	401 KAR 59:010
5.	Fiber Yard Diesel Tank (2,000 gal)	401 KAR 63:020
6.	Corrugator Starch Silo with bin vent filter	401 KAR 59:010
7.	Corrugator (110 in., 1,500 fpm)	None
8.	Corrugated Trim Collection System	401 KAR 59:010