GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

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NARRATIVE

TO: Jeng-Hon Su

FROM: Dawn Wu

DATE: October 25, 2022

Facility Name:	**Shaw Industries, Inc. – Plant RP**
AIRS No.:	047-00029
Location:	Ringgold, GA (Catoosa County)
Application #:	28574
Date of Application:	September 26, 2022

Background Information

Shaw Industries, Inc. – Plant RP (hereinafter "facility") manufactures luxury vinyl tile (LVT) by means of extrusion, calendaring, and laminating processes. The facility previously had four production lines each consisting of a dry blending mixer, an extruder, and a calendar roll system, which form the base layers of the vinyl flooring. The materials are blended in the dry blending mixers, where particulate matter (PM) emissions are controlled by bin vent filters. The blended material is then sent to the extruders, where it is heated to about 180ºC using electric heaters. A small amount of VOC and HAP is emitted from the extruders to the atmosphere.

The extruded rope-shaped material is fed to a calendaring roller system that is heated using hot oil circuits. The hot oil is heated in three natural gas-fired hot oil heaters (25-MMBtu/hr, 21-MMBtu/hr, and 25-MMBtu/hr). The sheet leaving the calendaring roller system has the proper width and texture for the specific flooring desired for the product. Once the base flooring layer is manufactured, various wear and printed layers are laminated together with the base layer in one of the two laminators followed by a top-side embossing system.

The final step is the application of a UV cure coating application. The vinyl flooring is then cooled, trimmed, profiled, packaged, and stored. In addition to the three hot oil heaters, utilities for the process include four cooling towers.

In 2020, the facility added a fifth production line that included four outdoor silos, a mixing and blending process, a double belt press, and a board trim/edge profiling system. The fifth production line is essentially the same as the other four lines except for a double belt press replacing the extruding/calendar.

The primary materials used to manufacture LVT include suspension polyvinyl chloride (PVC) resin, stabilizers, pigments, and filler. The materials are delivered by truck and loaded into the seven silos (three for PVC resin and four for calcium carbonate), or, for the other materials, delivered in totes or supersacks. The PM emissions from the silos and the supersacks are controlled by bin vent filters.

Purpose of Application

On September 26, 2020, Shaw Industries, Inc. – Plant RP submitted an expedited SIP Permit Application (assigned Application No. 28574) for installing 2 SPC extrusion lines and associated emission units.

The facility proposed to add the following equipment in 2022:
► Two (2) SPC Extrusion Lines
► SPC Granulator
► SPC Pulverizer
► SPC Grinder
► Profiler Pulverizers
► Truck Loadout System
► Transient Dust Collection System
► Silos

Updated Equipment List

Emission Units			Associated Control Devices	
ID No.	**Description**	**Installation Date**	**Source Code**	**Description**
SILO1	Material Handling Silo 1	2014	BVF1	Bin Vent Filter 1
SILO2	Material Handling Silo 2	2014	BVF2	Bin Vent Filter 2
SILO3	Material Handling Silo 3	2014	BVF3	Bin Vent Filter 3
SILO4	Material Handling Silo 4	2014	BVF4	Bin Vent Filter 4
SILO5	Material Handling Silo 5	2014	BVF5	Bin Vent Filter 5
SILO6	Material Handling Silo 6	2014	BVF6	Bin Vent Filter 6
SILO7	Material Handling Silo 7	2014	BVF7	Bin Vent Filter 7
SILO8	Material Handling Silo 8	2017	SILO8	Bin Vent Filter
SILO9	Material Handling Silo 9	2017	SILO9	Bin Vent Filter
SILO10	Material Handling Silo 10	2017	SILO10	Bin Vent Filter
SILO11	Material Handling Silo 11	2017	SILO11	Bin Vent Filter
SILO12	Regrind Silo 12	2019	SILO12	Bin Vent Filter
SILO13	Regrind Silo 13	2019	SILO13	Bin Vent Filter
SILO14	Pulverizer Silo 14	2020	SILO14	Bin Vent Filter
SILO15*	**Material Handling Silo 15**	**2022**	**SILO15**	**Bin Vent Filter**
SILO16*	**Material Handling Silo 16**	**2022**	**SILO16**	**Bin Vent Filter**
LVT1	Extruding/Calendaring Line 1	2014	--	--
LVT2	Extruding/Calendaring Line 2	2014	--	--
CTR1	Calendar Edge Trim System	2016	CTR1	Baghouse
LTR1	Laminate Edge Trim System	2016	LTR1	Baghouse

Emission Units			Associated Control Devices	
ID No.	**Description**	**Installation Date**	**Source Code**	**Description**
SPC1-6	SPC Extrusion 1-6	2020	--	--
SPC7-8*	**SPC Extrusion 7-8**	**2022**	**--**	**--**
PP01	Punch and Pack 1	existing	--	--
PP02	Punch and Pack 2	existing	--	--
PFL2	Board Trim/Edge Profiling System 2	2020	PFL2	Baghouse
PFL3	Board Trim/Edge Profiling System 3	2016	PFL3	Baghouse
GRND1	Grinder System 1 (Big Bag Loading Dust Collection)	2016	GR1BH	Baghouse
GRND2	Grinder System 2 (Big Bag Loading Dust Collection)	2016	GR2BH	Baghouse
GRND3	Regrind System	2020	GR3BH	Baghouse
BB01	Big Bag Loading Dust Collection System 1 (Grinder System 1)	existing	BB01	Bin Vent
BB02	Big Bag Loading Dust Collection System 2 (Grinder System 2)	existing	BB02	Bin Vent
TRK1	Truck Loadout System 1	2020	BVF08	Bin Vent Filters
TRK2	Truck Loadout System 2		BVF09	
TRK3	Truck Loadout System 3		BVF10	
TRK4	Truck Loadout System 4		BVF11	
PL01	Pilot Line Extruder	2020	--	--
BAR1	Barberran	Existing	--	--
GRAN1*	**SPC Granulator**	**2022**	**GRAN1**	**Baghouse**
TRN1*	**Transient Dust Collection System**	**2022**	**TRN1**	**Baghouse**
PLV1*	**SPC Pulverizer**	**2022**	**PLV1**	**Baghouse**
PLV2*	**SPC Grinder**	**2022**	**PLV2**	**Baghouse**
PLV3*	**Profiler Pulverizer**	**2022**	**PLV3**	**Baghouse**
PLV4*	**Profiler Pulverizer**	**2022**	**PLV3**	**Baghouse**
TTL1-6*	**Tank Truck Loading**	**2022**	**TTL1-6**	**Filter Receivers**
ENG	Emergency Generator	1995	None	None
CTW1	Cooling Tower	2014	--	--
CTW2	Cooling Tower		--	--
CTW3	Cooling Tower		--	--
CTW4	Cooling Tower		--	--

*Proposed within current application

Fuel Burning Equipment

Source Code	Input Heat Capacity (MMBtu/hr)	Description	Installation Date	Construction Date
BH01	25	Hot Oil Heater 1	2014	2014
BH02	21	Hot Oil Heater 2	2014	2014
BH03	25	Hot Oil Heater 3	2014	2014

Emissions Summary

VOC and HAP emissions are estimated by multiplying usage (tph or gal/yr) by solvent VOC or HAP content.

Facility-Wide Emissions
(in tons per year)

Pollutant	Potential Emissions			Actual Emissions		
	Before Mod.	After Mod.	Emissions Change	Before Mod.	After Mod.	Emissions Change
$PM/PM_{10}/PM_{2.5}$	54.68	66.82	12.14	<54.68	<66.82	≤12.14
NOx	48.70	48.70	0	<48.70	<48.70	0
SO_2	0.25	0.25	0	<0.25	<0.25	0
CO	26.69	26.69	0	<26.69	<26.69	0
VOC	35.91	37.65	1.74	<35.91	<37.65	≤1.74
Max. Individual HAP	0.55	0.55	0	<0.55	<0.55	0
Total HAP	0.65	0.79	0.14	<0.65	<0.79	≤0.14
Total GHG (if applicable)	38,600	38,600	0	<38,600	<38,600	0

PTE Summary (in tons per year)

ID No.	$PM/PM_{10}/PM_{2.5}$	NOx	SO_2	CO	VOC	HAP (Hexane)	Combined HAP	Total GHG
SILO1	0.113/0.096/0.096							
SILO2	0.113/0.096/0.096							
SILO3	0.113/0.096/0.096							
SILO4	0.113/0.096/0.096							
SILO5	0.113/0.096/0.096							
SILO6	0.113/0.096/0.096							
SILO7	0.113/0.096/0.096							
SILO8	0.113/0.096/0.096							
SILO9	0.113/0.096/0.096							
SILO10	0.113/0.096/0.096							
SILO11	0.113/0.096/0.096							
SILO12	0.113/0.096/0.096							

ID No.	$PM/PM_{10}/PM_{2.5}$	NOx	SO_2	CO	VOC	HAP (Hexane)	Combined HAP	Total GHG
SILO13	0.113/0.096/0.096							
SILO14	0.113/0.096/0.096				X			
SILO15*	0.113/0.096/0.096							
SILO16*	0.113/0.096/0.096							
LVT1					10.18		0.032	
LVT2					0.788		0.016	
CTR1	0.863/0.734/0.734							
LTR1	0.863/0.734/0.734							
SPC1-6					1,815		0.036	
SPC7-8*					0.956		0.019	
PP01					0.201			
PP02					0.201			
PFL2	18.396/15.637/15.637				7.601			
PFL3	18.396/15.637/15.637				7.601			
GRND1	1.398/1.189/1.189							
GRND2	1.689/1.436/1.436							
GRND3	1.915/1.627/1.627							
BB01	0.113/0.096/0.034							
BB02	0.113/0.096/0.034							
TRK1	0.113/0.096/0.034							
TRK2	0.113/0.096/0.034							
TRK3	0.113/0.096/0.034							
TRK4	0.113/0.096/0.034							
PL01					0.449			
BAR1	2.000/2.000/2.000				5.0			
GRAN1*	2.027/1.723/0.608							
TRN1*	0.488/0.415/0.146							
PLV1*	1.689/1.436/0.507							
PLV2*	3.754/3.191/1,126							
PLV3*	3.191/2.712/0.957							
PLV4*								
TTL1-6*	0.761/0.647/0.228							
ENG	0.117	4.026	0.067	0.923	0.118	0.001	0.110	193
CTW1	1.096							
CTW2	1.096							
CTW3	1.096							
CTW4	1.096							
BH01	0.847	15.729	0.064	9.075	0.968	0.193	0.203	36,276
BH02	0.711	13.213	0.054	7.623	0.813	0.162	0.170	
BH03	0.847	15.729	0.064	9.075	0.968	0.193	0.203	
Total	**66.82/58.13/51.21**	**48.70**	**0.25**	**26.69**	**37.65**	**0.55**	**0.79**	**36,469**

PM emission factors in terms of airflow (scfm) and grains per standard cubic foot (gr/scf) are converted to hours and multiplied by hours per year, assuming continuous operation (8,760 hr/yr), to estimate potential emissions in tons per year (tpy).

Potential PM Emissions (gr/hr) = Airflow (scfm) x Emission factor (gr/scf) x Conversion factor (60 min/1 hr)
Potential PM Emissions (ton/yr) = Potential PM Emissions (gr/hr) x 8760 hr/yr/ (Conversion factor (1 lb = 7000 gr) x Conversion factor (1ton = 2000lb))

Please note that potential PM emissions for the entire facility presented in this narrative and SIP Permit No. 3996-047-0029-S-02-1 narrative are lower than those in the narrative that explained SIP Permit No. 3996-047-0029-S-02-0 based on the following reasons:

- Some emission units were never built while some emission units were removed.

- Many emission units would exhaust indoor. In the S-02-1 narrative, the facility started treating these emission units as fugitive sources, and discontinue to include their emissions. Their PM emission will settle down inside the building eventually.

Regulatory Applicability

40 CFR 60 Subpart Dc Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

All of Heaters BH01, BH02, and BH03 are constructed after June 9, 1989, and each has a maximum design heat input rate between 10 and 100 MMBtu/hr. According to 40 CFR 60.40c(a), they are all subject to 40 CFR 60 Subpart Dc. Since all three heaters are capable of firing natural gas only, the only applicable requirement in this subpart is specified in 40 CFR 60.48c(g)(2), which requires that the facility record fuel consumption by the heaters on a monthly basis.

40 CFR 60 Subpart VVV Standards of Performance for Polymeric Coating of Supporting Substrates Facilities

The facility is not subject to 40 CFR 60, Subpart VVV "Standards of Performance for Polymeric Coating of Supporting Substrates." This Federal rule applies to coating operations and onsite coating mix preparation equipment used to prepare coatings for the polymeric coating of supporting substrates, but the facility does not have these types of operations. In 40 CFR 60.741, the rule defines a coating operation as, "any coating applicator(s), flashoff area(s), and drying oven(s) located between a substrate unwind station and a rewind station that coats a continuous web to produce a substrate with a polymeric coating." At the facility, the core and base substrates are mixed using a shear mixer, which generates heat to mix the constituents, and then the mixture is extruded to a rope shape and fed to a calendaring roller system that rolls the material into a sheet. The facility is not a polymeric coating operation, but rather an extrusion and laminating process. The UV coating applied to the final product contains no VOC or HAP and is not an elastomer, polymer, or prepolymer.

40 CFR 60 Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

According to 40 CFR 60.4200(a)(2)(i), 40 CFR 60 Subpart IIII applies to owners and operators of stationary compressed ignition internal combustion engines (CI ICE) that commence construction after July 11, 2005, where the stationary CI ICE are manufactured after April 1, 2006, and are not fire pump engines. The emergency generator (ID No. ENG) engine was installed in April 1995 and is therefore not subject to 40 CFR 60 Subpart IIII.

40 CFR 63 Subpart ZZZZ National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

40 CFR 63.6585 states that 40 CFR 63 Subpart ZZZZ is applicable to all stationary reciprocating internal combustion engines (RICE) at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand. Therefore, the emergency generator (ID No. ENG) engine is subject to 40 CFR 63 Subpart ZZZZ.

Since the facility is an areas source for HAP emissions, and ENG was installed before June 12, 2006, per 40 CFR 63.6590(a)(1)(iii) and 40 CFR 63.6595(a)(1), ENG is an existing stationary RICE and must comply with all applicable 40 CFR 63 Subpart ZZZZ requirements as follows by May 3, 2013:

- 40 CFR 63.6603(a) subjects all of the existing RICE to the requirements in Table 2d and the operating requirements in Table 2b to 40 CFR 63 Subpart ZZZZ. Since the facility is an area source for HAP emissions, ENG is not subject to any requirements in Table 2b. An existing CI RICE is subject to the management practice standards specified in Item 4 of Table 2d.

  The management practice standards specified in Item 4 of Table 2d are:

  - Change oil and filter every 500 hours of operation or annually, whichever comes first;
  - Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
  - Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

- 40 CFR 63.6605(a) states that the above applicable requirements would apply to ENG at all times.

- 40 CFR 63.6605(b) requires that the facility operate and maintain ENG, including associated monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the facility to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

- 40 CFR 63.6625(e)(3), 40 CFR 63.6640(a), and Item 9 of Table 6 to Subpart ZZZZ all require that the facility operate and maintain Engine ENG according to the engine manufacturer's emission-related written instructions or develop their own maintenance plan, which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

- According to 40 CFR 63.6625(f), ENG must have its own non-resettable hour meter.

- 40 CFR 63.6625(h) requires that the facility minimize ENG's time spent at idle during startup and minimize ENG's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

- 40 CFR 63.6625(i) allows the facility to, for ENG, have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Table 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2d. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content.

- Note that 40 CFR 63.6640(f)(1) contains no time limit for the use of ENG in emergency situations. However, Georgia Rules for Air Quality Control 391-3-1-.03(6)(b)11.(v)I. limits the cumulative operating time under emergency situations to 500 hours during any period of twelve (12) consecutive months.

- 40 CFR 63.6640(f)(1)(i) limits the hours of operation for ENG to 100 hours per year for maintenance checks and readiness testing. According to Mr. Cloud, the facility does not plan to use ENG for emergency demand response or non-emergency situations other than maintenance checks and readiness testing. Therefore, the proposed Permit does not include the options provided in 40 CFR 63.6640(f)(1)(ii), (1)(iii), (3), and (4) and the associated ultra-low fuel sulfur content requirements specified in 40 CFR 63.6604(b).

- 40 CFR 63.6655(d) requires that the facility keep the records required in Table 6 to Subpart ZZZZ to show continuous compliance with each applicable emission or operating limitation. Item 9.a.i. of Table 6 requires records that demonstrate continuous compliance with the requirements specified in Condition 2.10.

- 40 CFR 63.6655(e)(2) requires that the facility keep records of the maintenance conducted on ENG.

- For the operation of ENG, 40 CFR 62.6655(f) requires that the facility keep and maintain records of hours of operation for each emergency and non-emergency operation purpose.

40 CFR 63 Subpart JJJJJJ National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

The facility is an area (minor) source for HAP emissions, all of the boilers onsite are potentially subject to 40 CFR 63 Subpart JJJJJJ, according to 40 CFR 63.11193. According to 40 CFR 63.11195(e), a gas-fired boiler as defined in 40 CFR 63 Subpart JJJJJJ (under 40 CFR 63.11237) is not subject to this subpart and to any requirements in this subpart. Since the hot oil heaters (ID Nos.BH01, BH02, and BH03) are capable of firing only natural gas, all three heaters meet the definition of gas-fired boilers and are therefore not subject to 40 CFR 63 Subpart JJJJJJ. Condition 2.1 requires all three boilers fire exclusively on natural gas. This is a 40 CFR 63 Subpart JJJJJJ avoidance limit.

Applicable Georgia State Rules

All of the processes are subject to the visible emission limit (40 percent opacity) specified in Georgia Air Quality Control Rule 391-3-1-.02(2)(b) "Visible Emissions" and the PM emission limits specified in Georgia Air Quality Rule 391-3-1-.02(2)(e) "Particulate Emission from Manufacturing Processes." Since all of them are constructed after July 2, 1968, their allowable PM emission rates are specified by Georgia Rule 391-3-1-.02(2)(e)1.(i), which is stated as follows:

$E = 4.1 * P^{0.67}$ for process input weight rate up to and including 30 tons per hour.

$E = 55 * P^{0.11} – 40$ for process input weight rate above 30 tons per hour.

Where E equals the allowable PM emission rate in pounds per hour and P equals process input weight rate in tons per hour.

Due to the nature of the operation, the Division believes that LVT1 and LVT2 would generate negligible PM and visible emissions; their compliance with the GA Rule (b) and (e) emission standards are expected. All the other processes are equipped with either bin vent filters or baghouses, their compliance with the GA Rule (b) and (e) emission standards are also expected.

Hot Oil Heaters BH01, BH02, and BH03 are subject to Georgia Rule 391-3-1-.02(2)(d), "Fuel Burning Equipment." Since the heaters are constructed after 1972, Georgia Rule 391-3-1-.02(2)(d)3. limits the opacity of the emissions from these heaters to twenty (20) percent. Also, the allowable PM emission rates from these heaters are specified by Georgia Rule 391-3-1-.02(2)(d)2.(ii), as follows:

$P = 0.5 * (10 / R)^{0.5}$

Where P equals the allowable PM emission rate in pounds per million BTU and R equals the heat input in million BTUs per hour.

Since all three heaters fire exclusively on natural gas, and natural gas is a clean fuel, compliance with the GA Rule (d) PM and visible emission limits are expected for the heaters.

Hot Oil Heaters BH01, BH02, and BH03 and Emergency Generator ENG are subject to the 2.5-percent fuel sulfur content limit specified in Georgia Rule 391-3-1-.02(2)(g)(2). The limits for BH01, BH02, and BH03 are subsumed in Conditions 2.1 of the SIP permit. Since all three heaters fire exclusively on natural gas, and natural gas contains minimal amount of sulfur, compliance with the GA Rule (g) fuel sulfur content is expected for all of heaters and engine.

Permit Conditions

Please note that emergency engines are exempted from permitting. Without any specific reasons, emergency engines are normally not included in a permit. Therefore, the proposed new permit has removed all of the existing conditions for the emergency generator. The facility will continue be responsible of complying with all applicable 40 CFR 63 Subpart ZZZZ requirements.

Condition 2.1 requires that the facility burn only natural gas in the hot oil heaters (ID Nos. BH01, BH02, and BH03). This subsumes the GA Rule (g) fuel sulfur limit.

Condition 2.2 subjects all processes (ID Nos. MIX1 through MIX5, LVT1 through LVT5, ETRM1 through ETRM4, PFL1 through PFL3, GRND1, and GRND2) to the GA Rule (b) visible emission standard.

Condition 2.3 subjects BH01, BH02, and BH03 to the GA Rule (d) PM and visible emission limits.

Condition 2.4 subjects all processes to the GA Rule (e) PM emission standards.

Condition 2.5 subjects BH01, BH02, and BH03 to 40 CFR 60 Subpart A and Subpart Dc.

Conditions 3.1 and 3.2 contains the GA Rule (n) requirements for minimizing fugitive emissions.

Condition 4.2 requires that all bin vent filters and baghouses be operated whenever the associated emission units are in operation. Note that the $PM/PM_{10}/PM_{2.5}$ PTE for these emission units are calculated using vendor guaranteed outlet grain loading (after-control PM emission) rates. With the bin vent filters and baghouses, the facility-wide $PM/PM_{10}/PM_{2.5}$ PTE is less than 100 tpy. The uncontrolled PTE would be much greater than the $PM/PM_{10}/PM_{2.5}$ Title V major source thresholds, 100 tpy. Therefore, this requirement is a Title V avoidance limit.

Condition 4.3 requires that the facility maintain an adequate supply of filter bags at the facility so they will be available to replace any defective bags in the bin vent filters.

Condition 4.4 requires that the facility develop and implement a written operation and maintenance plan for the air pollution control devices.

Condition 5.2 requires a daily visible emissions inspection of all equipment controlled by baghouses, where any visible emissions, mechanical failures, malfunctions, or occasions where equipment controlled by baghouses is operating but the associated control device is not operating must be recorded in a log. Visible emissions or other issues not resolved within 24 hours will be considered an excursion, and instances where equipment is operating but the associated control devices are not operating will also be considered excursions, which must be noted in the log. This condition is associated with Condition 4.2 and its purpose is to ensure compliance with Condition 4.2, so the facility's $PM/PM_{10}/PM_{2.5}$ emissions are kept below the Title V threshold of 100 tpy.

Condition 7.1 contains the 40 CFR 60 Subpart Dc fuel consumption record requirements.

Condition 7.2 requires that the facility keep records of the visible emission and bin vent filter/baghouse inspections required by Condition 5.2. This condition is necessary to determine compliance with Conditions 4.2 and 5.2.

Finally, Condition 8.3 revokes all existing SIP permit and amendment. The facility is issued a new SIP permit for this modification because most emission units are assigned new ID numbers.

Toxic Impact Assessment

Georgia EPD regulates the emissions of toxic air pollutant (TAP) emissions through a program approved under the provisions of the GRAQC 391-3-1-.02(2)(a)3(ii). A TAP is defined as any substance that may have an adverse effect on public health, excluding any specific substance that is covered by a State or Federal ambient air quality standard. Procedures governing the Georgia EPD's review of toxic air pollutant emissions as part of air permit reviews are contained in the agency's Guideline for Ambient Impact Assessment of Toxic Air Pollutant Emissions (Guideline).

The Guideline requires existing facilities to conduct a toxic impact assessment (TIA) when new equipment is added that emits a TAP or emissions of a TAP increase due to modification of existing equipment. While the facility is installing new equipment with emissions of vinyl chloride, the total emission rate of vinyl chloride has decreased since the last application (Application No 24121). Based on modeling conducted as part of this application, vinyl chloride emissions from the facility at an emission rate of 0.22 tpy would pass the modeling requirements. As stated in Application No. 27693, the emissions of vinyl chloride have decreased onsite through process changes.

Emissions of vinyl chloride onsite result from the calendaring and SPC lines. The HAP emissions from the LVT1, LVT2, and SPC lines are all vinyl chloride. No other processes onsite result in emissions of vinyl chloride. The HAP emissions increase for this project is 0.019 tpy. Based on the email of 11/21/2022 from the facility, the resin in use at these processes emit vinyl chloride at a rate of 0.103 tons per year.

As such, Shaw believes that an updated TIA is not required at this time.

Summary & Recommendations

I recommend that Permit No. 3996-047-0029-S-03-0 be issued to the facility. A SIP public advisory was issued on October 5, 2022, and comments were due by November 4, 2022. No Comments were received. Mountain District (Cartersville) Office is responsible for inspections and complaints/investigations.