

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1177-AOP-R13 AFIN: 02-00028

1. PERMITTING AUTHORITY:

Arkansas Department of Environmental Quality
 5301 Northshore Drive
 North Little Rock, Arkansas 72118-5317

2. APPLICANT:

Georgia-Pacific Chemicals LLC
 124 Paper Mill Road
 Crossett, Arkansas 71635

3. PERMIT WRITER:

Kimberly O'Guinn

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Other Basic Inorganic Chemical Manufacturing
 NAICS Code: 325180

5. SUBMITTALS:

Date of Application	Type of Application (New, Renewal, Modification, Deminimis/Minor Mod, or Administrative Amendment)	Short Description of Any Changes That Would Be Considered New or Modified Emissions
10/18/2011	Minor Modification	Replace RCI UFC/Formaldehyde Manufacturing Process Regenerative Thermal Oxidizer (RTO) with a new RTO
12/19/2011	Modification	None. To revise emission calculation at various sources
8/6/2012	Renewal	New: Haul Road New: Fugitive Equipment Leaks New: Liquid Resin Manufacturing Cooling Tower New: Formaldehyde Production Cooling Tower New: Derivative Plant Cooling Tower

Date of Application	Type of Application (New, Renewal, Modification, Deminimis/Minor Mod, or Administrative Amendment)	Short Description of Any Changes That Would Be Considered New or Modified Emissions
10/17/2013	Minor Modification	Modified: Group certain resin tanks in the Liquid Resin Manufacturing Plant
8/8/2014	Minor Modification	Group all Tall Oil Fractionation Plant Tanks Replace Tall Oil Rosin Storage Tank, Tank 7 with Tank 63 Group all Rosin Size Plant tanks New: 12,500 gal molten maleic anhydride (MMA) tank with wet scrubber New: MMA fugitive emissions
1/23/2015	Minor Modification	New: Non-Bulk Packaging System

6. REVIEWER'S NOTES:

Georgia Pacific Chemicals LLC, formerly Georgia-Pacific Resins, Inc., located on Highway 82 & Papermill Road, Crossett, Arkansas 71635 submitted applications to modify the existing permit.

October 2011 a minor modification was submitted to replace the existing RCI UFC/Formaldehyde Manufacturing Process Regenerative Thermal Oxidizer (SN-11) with a new regenerative thermal oxidizer (RTO). This modification will not result in an increase in emission because the new RTO will have a lower heat input burner and a higher percent volatile organic compound control efficiency than the existing RTO.

November 11, 2011 a minor modification was submitted to temporarily install a natural gas/fuel oil fired 80 MMBtu Package Boiler (SN-141) to provide back-up steam until the facility is tied in to the Paper Mill for the extra steam supply. The fuel oil capabilities of the boiler will not be connected; therefore only natural gas will be permitted to be burned. During the comment period of this permit the facility informed the Department that the Package Boiler (SN-141) has been removed from the facility.

December 19, 2011 a modification was submitted to add HAPs to various sources that were determined not to be de minimis and to correct permitted emissions rates based on more recent test data and/or more accurate calculation methodology, where necessary. VOC permitted emission rates are also being updated for certain sources, as applicable based on the HAP related revisions.

August 6, 2012 a renewal application was submitted to renew the facility's existing permit. No physical modifications were proposed in this renewal application; however, GP propose to make several modifications to the permit as described below. Emission rates have been re-evaluated to

reflect updated emission factors, additional stack test data, and more accurate calculation methodologies, as applicable.

The following is a summary of the requested changes with this renewal application.

1. Remove the following sources that are no longer in service:
 - a. Crude Tall Oil Acidulation Plant Scrubber (SN-12)
 - b. Phenol Storage Tank (SN-60)
 - c. Three UF Resin Storage Tanks (SN-85, SN-88, and SN-89)
 - d. Wet Strength Resin Storage Tank (SN-101)
2. Rename source SN-137 from "Formaldehyde/UFC Loading Station" to "UFC Railcar Loading Station".
3. Incorporate previously requested modifications from Minor Modification Applications submitted October 17, 2011 and November 11, 2011 and a Major Modification Application submitted December 16, 2011.
4. Include the following sources that were not previously evaluated and included in the Title V permit:
 - a. Haul Roads (SN-145)
 - b. Fugitive Equipment Leaks (SN-146)
 - c. Liquid Resin Manufacturing Cooling Tower (SN-142)
 - d. Formaldehyde Production Cooling Tower (SN-143)
 - e. Derivative Plant Cooling Tower (SN-144)
5. Removed Specific Condition 6b which specifies limits when the plant is producing any formaldehyde containing rosin. GP Crossett no longer produces formaldehyde containing rosin
6. Add additional start-up, shutdown, and malfunction (SSM) wording to Specific Condition Nos. 14, 27, 39, 53, and 112.
7. Bubble emission limits for the Liquid Resin Storage Tanks (i.e., SN-21, SN-22, SN-23, SN-30, SN-31, SN-66, SN-67, SN-68, SN-69, SN-71, SN-73, SN-74, SN-77, SN-78, SN-79, SN-80, SN-81, SN-90, SN-91, SN-97, SN-98, SN-99, SN-100, and SN-102).
8. Bubble the emission limits for the Tall Oil Fractionation Plant Storage Tanks (i.e., SN-14, SN-15, SN-16, SN-20, SN-24, SN-32, SN-33, SN-34, SN-35, SN-36, SN-37, SN-40, SN-42, SN-43, SN-44, SN-45, SN-46, SN-47, SN-48, SN-49, SN-50, SN-51, SN-52, and SN-53, SN-54, SN-55, SN-56, SN-57, SN-58, SN-107, SN-108, SN-109, SN-110, SN-111, SN-113, and SN-119).
9. Bubble the emission limits for the Rosin Size Plant storage tanks (SN-26, SN-41, SN-118, SN-120, SN-121, SN-122, SN-123, SN-126).
10. Hazardous air pollutants were evaluated pursuant to the ADEQ's permittee guidance (dated July 2012) and emissions limits were proposed for all sources as appropriate.
11. Add GHG emission limits for sources SN-01, SN-03, SN-05, SN-07, SN-10, SN-11, SN-129, SN-140 and SN-141.

October 17, 2013 a minor modification was submitted to group certain resin tanks used in the Liquid Resin Manufacturing Plant and bubble the emission limits to allow the plant flexibility.

August 8, 2014 a minor modification application was submitted to

- Group all tanks used in the Tall Oil Fractionation Plant Tanks and replace the Tall Oil Rosin Storage Tank, Tank 7 (SN-52) with Tank 63 (formerly permitted as Neutral Rosin Adduct Storage Tank, SN-25) which will be modified to the same height and capacity of Tank 7. Tank 63 will be part of the Rosin Size Plant Sources. The facility requests to designate the modified Tank 63 as SN-52.
- Group all tanks used in the Rosin Size Plant to allow the plant more flexibility to store a variety of products. Revise the process description for Tank 11 (SN-120), Tank 13 (SN-121), and Tank 14 (SN-122). The facility no longer store Novaflo[®] 50 in Tanks 11 and 13 and 70% DUF in Tank 14. This modification will allow the facility to store an amidoamine intermediate in Tank 11 (SN-120), XTOL[®] 692 from the C-1 Cooker in Tank 14 (SN-122). Tank 13 (SN-121) will be used as a blending tank to blend XTOL[®] 692 and amidoamine to make an emulsifier, GP[®] 768G42.
- Install a new 12,500 gal storage tank that will store molten maleic anhydride (MMA). This is a Group 2 tank under the MON Rule, because the vapor pressure is less than 1.0 psi, GP Chemicals will voluntarily control working losses from the tank when it is being filled using a small packaged wet scrubber (SN-147).
- Include MMA fugitive emissions into the fugitive emission limit in SN-146

September 22, 2014 the facility submitted an addendum to the Title V Renewal application to correct the heat input for the spray dryer burner (SN-03) and revised the associated emission limits. The burner was originally permitted in 1983 at 10.0 MMBtu/hr but it is actually 15.4 MMBtu/hr. The original burner has not been modified, reconstructed, or replaced. GP has data from previous compliance and engineering tests while the spray dryer process unit was operating at or above 90% production capacity showing that emissions from the spray dryer were below permitted levels even with the larger burner. The facility also submitted revised calculations for the fugitive emissions from plant wide LDAR equipment within the affected sources regulated by HON, West Strength MACT, Resin MACT and MON LDAR programs identified as SN-146.

January 23, 2015 the facility submitted a minor modification to install a non-bulk packaging system (SN-148) that bags the finished product from the spray dry unit. The system will be equipped with a new dust collector to minimize particulate emissions.

During the comment period of the draft permit, several comments were received from the public in regards to HAPs emitted from the facility. On November 13, 2015, GP Chemicals conducted an air quality analysis, based on a request from ADEQ, to determine if emissions of formaldehyde would potentially exceed the presumptively acceptable impact level (PAIL). Per ADEQ guidance, this is accomplished by conducting an air dispersion modeling analysis. Other HAPs emitted from the facility were screened by ADEQ and it was determined no further action is required at this time.

Several sources modeled for formaldehyde differ from the current permitted emission rates and the most recent Title V submittals. Thus, On January 29, 2016 the facility submitted a request to modify emissions. In order to decrease emissions from the facility, GP Chemicals proposed to install enforceable emission controls on the Urea Formaldehyde Concentrate (UFC) railcar

loading station (SN-137). The existing control device to be used will be SN-11, RCI UFC/Formaldehyde Manufacturing Process Oxidizer. In addition, GP Chemicals proposed to lower emission limits for the spray dryer (SN-03), liquid resin manufacturing tank source group, wastewater treatment (SN-134), and equipment leaks (SN-146).

The emission reduction for the railcar loading station will be achieved by controlling emissions with the RCI control device, SN-11. Emissions for the spray dryer (SN-03) were calculated based on the most recent stack data of 2.2 lb/hr formaldehyde. Equipment Leaks (SN-146) were not listed as a source in the previous air permit (#1177-AOP-R12), but emission estimates for this application are being updated. Emission changes for the wastewater treatment (SN-134) are based on a change in methodology due to removal of the wastewater pond.

In addition to revising the formaldehyde emission limits GP Chemicals is also updating the estimates for other HAP emissions from the railcar unloading, liquid resin tanks, wastewater treatment, and equipment leak sources as these calculations were updated as part of the formaldehyde refinements.

Total permitted emissions will increase by 13.8 tons/year (tpy) PM₁₀, 14.1 tpy PM, and 36.5 tpy CO. Total permitted emissions will decrease by 9.5 tpy SO₂, 5.8 tpy NO_x, 43.9 tpy VOC, 44.1798 tpy total HAPs and 7.30 tpy of Air Contaminants (Ammonia, Hydrogen Sulfide, Sulfuric Acid, Formic Acid, and TRS).

7. COMPLIANCE STATUS:

The following summarizes the current compliance of the facility including active/pending enforcement actions and recent compliance activities and issues.

At this time there are no active or pending enforcement actions for the facility.

8. PSD APPLICABILITY:

a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N

b) Is the facility categorized as a major source for PSD? N

- *Single pollutant ≥ 100 tpy and on the list of 28 or single pollutant ≥ 250 tpy and not on list, or*
- *CO₂e potential to emit ≥ 100,000 tpy and ≥100 tpy/≥250tpy of combined GHGs?*

If yes, explain why this permit modification is not PSD.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
SN-141		40 CFR Part 60, Subpart Dc

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
See Table in Plantwide Condition #18	Record keeping only	40 CFR Part 60, Subpart Kb
SN-11 and equipment in formaldehyde production	HAP	40 CFR Part 63, Subpart F, G, H (HON Rule)
SN-11 and equipment in wet strength resin production	HAP	40 CFR Part 63, Subpart W
SN-11 and equipment in Amino/Phenolic Resin Production	HAP	40 CFR Part 63, Subpart SS, UU, WW, OOO
SN-05, SN-129, SN-42, SN-51, SN-25, SN-120, SN-121, SN-122, SN-41, SN-06, SN-123, SN-126, SN-134	HAP	40 CFR 63, Subpart FFFF
Facility		40 CFR 61, Subpart FF
SN-140		40 CFR Part 63, Subpart ZZZZ

10. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

11. AMBIENT AIR EVALUATIONS:

a) Reserved.

b) Non-Criteria Pollutants:

1st Tier Screening (PAER)

Estimated hourly emissions from the following sources were compared to the Presumptively Acceptable Emission Rate (PAER) for each compound. The Department has deemed the PAER to be the product, in lb/hr, of 0.11 and the Threshold Limit Value (mg/m^3), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

Pollutant	TLV (mg/m^3)	PAER (lb/hr) = $0.11 \times \text{TLV}$	Proposed lb/hr	Pass?
Acetaldehyde	45.04	4.95	2.70	Yes
Acrolein	0.23	0.03	0.02	Yes
Methanol	262.09	28.83	31.11	No

Pollutant	TLV (mg/m ³)	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
Phenol	19.25	2.12	5.934	No
Lead Compounds	0.05	0.01	0.10	No
Cadmium	0.01	0.0011	0.07	No
Ammonia	17.41	1.92	22.78	No
Formaldehyde	1.5	0.165	4.03	No

2nd Tier Screening (PAIL)

AERMOD air dispersion modeling was performed on the estimated hourly emissions from the following sources, in order to predict ambient concentrations beyond the property boundary. The Presumptively Acceptable Impact Level (PAIL) for each compound has been deemed by the Department to be one one-hundredth of the Threshold Limit Value as listed by the ACGIH.

Pollutant	PAIL (µg/m ³) = 1/100 of Threshold Limit Value	Modeled Concentration (µg/m ³)	Pass?
Methanol	2621.0	55.81	Yes
Phenol	192.5	5.83	Yes
Lead Compounds	0.50	0.01	Yes
Cadmium	0.1	0.01	Yes
Ammonia	174.1	33.25	Yes
Formaldehyde	15.0	8.11	Yes

12. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
03	AP-42	<p>Natural Gas Emission (lb/MMScf)</p> <p>PM/PM₁₀/PM_{2.5} 7.6</p> <p>SO₂ 0.6</p> <p>NO_x 100</p> <p>CO 84</p> <p>VOC 5.5</p> <p>Pb 0.0005</p> <p>Formaldehyde 0.075</p> <p>Hexane 1.8</p> <p>Naphthalene 0.00061</p> <p>POM (Total) 0.000044</p> <p>Toluene 0.0034</p> <p>Cadmium 0.0011</p>			
	Testing	<p>Production Related Emissions (lb/hr)</p> <p>Acetaldehyde 1.19</p> <p>Formaldehyde 1.83</p> <p>Methanol 12.3</p> <p>Phenol 0.71</p> <p>Dimethyl Ether 0.48</p> <p>Total VOC 27.7</p> <p>PM/PM₁₀/PM_{2.5} 11.5</p> <p>Ammonia 0.02</p>			
05	Stack Testing	varied	Boiler	98%	Production Related PM/PM- ₁₀ /PM _{2.5} , NO _x , VOC/HAP & CO emissions based on stack test data
11	AP-42, Table 1.4-1, 1.4-2, 1.4-3, 1.4-4 (natural gas combustion)		Thermal Oxidizer	99%	

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
129	Manuf. Specs. AP-42 (natural gas combustion) Stack Testing	varied	Thermal Oxidizer	98%	Production Related PM/PM- ₁₀ /PM _{2.5} , NO _x , & CO emissions based on manufacturer specifications SO ₂ – stack testing
134		Emissions were calculated based on equation 7 found in USEPA Technical Guidance for Hazardous Analysis, Emergency Planning for EHS, December 1987 (Appendix G)			
136 137 138 139	AP-42, Section 5.2				
140	AP-42 Table 3.3-1, 3.3-2.	Lb/MMBtu PM: 0.31 SO ₂ : 0.29 NO _x : 4.41 CO: 0.95 VOC: 0.36 Acetaldehyde: 7.67x10 ⁻⁴ Benzene: 9.33x10 ⁻⁴ Formaldehyde: 1.18x10 ⁻³ Naphthalene: 8.48x10 ⁻⁵ Toluene: 4.09x10 ⁻⁴ Xylene: 2.85x10 ⁻⁴ Total POM: 1.68x10 ⁻⁴			
145	AP-42 13.2.1.3				
146		Emissions were estimated using emission factors and control efficiencies found in the document titles “Air Permit Technical Guidance for Chemical Sources – Equipment Leak Fugitives”, prepared by the Texas Commission on Environmental Quality, draft, October 2000			

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
148	Vendor		Dust collector	95%	Maximum air flow through the dust collector is 2,600 cfm Particulate emission from dust collector: 0.005 gr/cf

13. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
05, 129	SO ₂ , VOC	EPA Approved	Initial	Department Guidance
03	PM ₁₀ , VOC	EPA Approved	Initial	Department Guidance

14. MONITORING OR CEMS:

The permittee must monitor the following parameters with CEMS or other monitoring equipment (temperature, pressure differential, etc.)

SN	Parameter or Pollutant to be Monitored	Method (CEM, Pressure Gauge, etc.)	Frequency	Report (Y/N)
10, 11	Firebox Temperature	Temperature Monitoring Device	Continuous	Y
05, 129	Temperature	Temperature Monitoring Device	Continuous	Y
12	pH, Liquid flow rate	Monitoring Device	Weekly	Y
03, 05, 09, 13, 18, 19	Pressure Drop	Visual Inspection	Weekly	N

15. RECORDKEEPING REQUIREMENTS:

The following are items (such as throughput, fuel usage, VOC content, etc.) that must be tracked and recorded.

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
All Kb Tanks	Dimensions	N/A		N
10	Firebox Temperature	1600 °F	Continuous	Y
11	Combustion Chamber Temperature	910°C	Continuous	Y
11	Transfer rack design analysis and throughput	None	Annual	Y
11 and Subpart OOO processes	Leak Detection Requirements	None	Varied	Y
129	Temperature	1,410 °F	Daily	N
114	Throughput	500,000 gal	Monthly	Y
Facility	Production Rates	See Plantwide Conditions #13 and #25	Monthly	Y
12	Hours of Operation	4,400	Monthly	Y
12	pH	9.0 or greater	Weekly	Y
12	Liquid flow rate	80-120 gallons/min	Weekly	Y
70	Throughput	500,000 gal	Monthly	Y
135	Ammonia Throughput	1,300,000 gallons	Monthly	Y
05	Firebox Temperature	1100 °F	Daily	N
95	HAP	0.25 tpy single or combination	Monthly	Y
140	Hours of Operation	1,500	Monthly	Y

16. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
3, 6, 9,13, 18, 19, 148	5%	Department Guidance	Weekly Observations
5	20%/40%	Department Guidance	Weekly and per batch observations
10, 11	5%	Department Guidance	Natural Gas Combustion
129	20%	Department Guidance	Weekly Observations

17. DELETED CONDITIONS:

Former SC	Justification for removal
5, 44	Opacity Observation requirement is now cross-referenced to Plantwide Condition #15
6b	The facility no longer produced formaldehyde containing rosin
60-61	Emissions routed through SN-11
69 – 74	Package Boiler, SN-141, removed from service
75-76	Phenol Storage Tank, SN-60, removed from service
126-135	Crude tall Oil Acidulation Plant Scrubber, SN-12, removed from service

18. GROUP A INSIGNIFICANT ACTIVITIES:

Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
325hp Hydroblaster	1	0.15	0.14	0.17	0.44	2.01	0.002	
1,000 gal Dowtherm Storage Tank	3			0.00004				
4,000 gal Therminol Charging Tank	3			0.00029				
Sodium Hydroxide	4							

Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
Storage Tank								
Sodium Hydroxide Storage Tank	4							
Sodium Hydroxide Process Weigh Tank	4							
Sodium Hydroxide Process Weigh Tank	4							
Dilute Caustic Storage	4							
Sodium Hydroxide Storage Tank	4							
Sodium Hydroxide Storage Tank	4							
Potassium Hydroxide Storage Tank	4							
NaOH/KOH and Water Dilution Tank	4							
Urea Storage Silo	13	1.63						
Kettle Urea Feed Hoppers	13	1.63						
Epichlorohydrin Storage Tank	13			0.48			0.48	0.48
DETA Railcar Storage and Transfer to Trucks	13			0.09				
Phenol Storage Tank	13			0.12			0.12	0.12
Urea Solution Storage Tank	13			0.05				

Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
Wet Strength Resin and Urea Solution Dilute Tank	13			0.03				
Novacote and Glassmat Resin Blend Storage Tanks	13							
Onsite Storage of Epichlorohydrin: 2-7,200 gallon trailers	13			0.00001			0.0001	0.0001
RCI Distillate Tank	13			0.042			0.042	0.042
Hexamine Storage Tank	13			0.0008				
Column	13			0.18				
XTOL Light Distilled Head Storage tank	13			0.45				
Test Tank	13							
XTOL Railcar Loading	13			0.32				
Therminol Surge Tank	13			0.00007				
Crude Tall Oil Storage Tank	13			0.04				
Methanol Railcar Maintenance	13			0.27			0.27	0.27
Portable Pump with Diesel Engine	13	0.07	0.06	0.08	0.20	0.89	0.0008	0.0008
10 hp Self-Priming Water Pump	13	0.01	0.01	0.06	0.02	0.03		
208 hp Non-Road, Non-Stationary	13	0.06	0.05	0.07	0.17	0.77	0.0007	0.0007

Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
Emergency Generator								
111 hp Non-Road, Non-Stationary Diesel Fired Air Compressor	13	0.01	0.01	0.01	0.02	0.07	0.00006	0.00006
Ethylene Glycol Tank	13						0.00001	0.00001

19. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

List all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #
1177-AOP-R12

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 08-25-14

Georgia-Pacific Chemicals LLC
 Permit #1177-AOP-R13
 AFIN: 02-00028

\$/ton factor	23.89	Annual Chargeable Emissions (tpy)	703.28
Permit Type	Modification	Permit Fee \$	1000

Minor Modification Fee \$	500
Minimum Modification Fee \$	1000
Renewal with Minor Modification \$	500
Check if Facility Holds an Active Minor Source or Minor Source General Permit	<input type="checkbox"/>
If Hold Active Permit, Amt of Last Annual Air Permit Invoice \$	0
Total Permit Fee Chargeable Emissions (tpy)	-49.3
Initial Title V Permit Fee Chargeable Emissions (tpy)	

HAPs not included in VOC or PM:

Chlorine, Hydrazine, HCl, HF, Methyl Chloroform, Methylene Chloride, Phosphine, Tetrachloroethylene, Titanium Tetrachloride

Air Contaminants:

All air contaminants are chargeable unless they are included in other totals (e.g., H2SO4 in condensible PM, H2S in TRS, etc.)

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
PM		234.9	249	14.1	14.1	249
PM ₁₀		234.9	248.7	13.8		
SO ₂		109	99.5	-9.5	-9.5	99.5
VOC		263.6	219.7	-43.9	-43.9	219.7
CO		65.7	102.2	36.5		
NO _x		118.6	112.8	-5.8	-5.8	112.8
H ₂ S	<input checked="" type="checkbox"/>	1.3	0	-1.3	-1.3	0
H ₂ SO ₄	<input checked="" type="checkbox"/>	0.4	0	-0.4	-0.4	0

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
Total Iodine	<input checked="" type="checkbox"/>	3.75	3.8	0.05	0.05	3.8
Formic Acid	<input checked="" type="checkbox"/>	0.44	0.2	-0.24	-0.24	0.2
Nonylphenol	<input type="checkbox"/>	0	0	0		
Acetaldehyde	<input type="checkbox"/>	10.3	11.55	1.25		
Acrolein	<input type="checkbox"/>	0	0.03	0.03		
Chlorine	<input type="checkbox"/>	0	1.3	1.3		
Chloroform	<input type="checkbox"/>	0	0.76	0.76		
Ethylene Glycol	<input type="checkbox"/>	0	4.6	4.6		
Epichlorohydrin*	<input type="checkbox"/>	0.4	0.27	-0.13		
Formaldehyde*	<input type="checkbox"/>	52.8	13.7	-39.1		
Hexane	<input type="checkbox"/>	0	1.62	1.62		
Hydrogen Chloride	<input type="checkbox"/>	0	4.47	4.47		
Maleic Anhydride*	<input type="checkbox"/>	0.4	0.46	0.06		
Methanol*	<input type="checkbox"/>	118.7	108.1	-10.6		
O-Cresol*	<input type="checkbox"/>	0.4	0.05	-0.35		
Phenol*	<input type="checkbox"/>	17	11.1302	-5.8698		
Arsenic Compounds	<input type="checkbox"/>	0.4	0	-0.4		
Lead Compounds	<input type="checkbox"/>	0.4	0.4	0		
Cadium	<input type="checkbox"/>	0.4	0.07	-0.33		
Chromium	<input type="checkbox"/>	0.4	0	-0.4		
Manganese	<input type="checkbox"/>	1.05	0	-1.05		
Ammonia	<input checked="" type="checkbox"/>	18.14	15.83	-2.31	-2.31	15.83
TRS	<input type="checkbox"/>	3.1	0	-3.1		
Benzene	<input type="checkbox"/>	0.1	0	-0.1		
DME	<input checked="" type="checkbox"/>	2.45	2.45	0	0	2.45
Toluene	<input type="checkbox"/>	0.2	0	-0.2		
POM	<input type="checkbox"/>	0	0.08	0.08		
Total Other HAPs	<input type="checkbox"/>	0	0.18	0.18		