



STATEMENT OF BASIS
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BAQ Air Permitting Division

Company Name: Agency Air Number: Permit Number:	Ingevity South Carolina LLC - Charleston Chemical Plant 0560-0164 TV-0560-0164 v2.0	Permit Writer: Date:	Wilson Pang DRAFT
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DATE APPLICATION RECEIVED: February 15, 2006
Revised on January 13, 2011:
2nd Revision received February 10, 2023

DATE OF LAST INSPECTION: March 18, 2024 – No violations observed.

PROJECT DESCRIPTION

The last modification of the facility's Title V permit was issued August 2nd, 2005 and included various changes in equipment, collocation history, and regulations. The facility submitted an application requesting a Title V Operating Permit Renewal on February 15, 2006. This is the facility's first renewal application and the facility has been under the application shield. This project is for the renewal of the Title V permit.

FACILITY DESCRIPTION

SIC CODE: 2861 – Gum and Wood Chemicals, 2899 – Chemicals and Chemicals Preparations
NAICS CODE: 325194 – Cyclic Crude, Intermediate, and Gum and Wood Chemical Manufacturing

Ingevity SC, LLC, Charleston Chemical Plant (Ingevity) produces lignin and tall oil products from feedstocks procured from outside vendors. The South Plant refines tall oil into rosin and fatty acid and also produces derivatives of these products. The South Plant is comprised of the following major areas: S&W Refinery, Kettle Area, and B&G Refinery. The North Plant receives lignin from offsite and produces lignin based products including dispersants and asphalt product emulsifiers.

SINGLE SOURCE DETERMINATION

The facility sent in a separate source determination request on May 2, 2008 to evaluate the source status of North Charleston Mill (Mill – TV-0560-0008), COGEN South (COGEN – TV-0560-0244) and Ingevity (formerly ChemPlant – TV-0560-0164). BAQ responded in writing to this request with a single-source applicability determination letter on May 20, 2008. The response details that the facilities are not under common control and will be considered a separate sources. See letter named 0560-0008.RE-2008 colloc determine.doc

With the closing of the Charleston Mill and COGEN South facilities, the single source determination is no longer valid or needed.

CHANGES SINCE LAST OP ISSUANCE

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Issue Date	Change Type	Description
8/11/05	0560-0164.43X	BAQ approved rental and use of a 600 cfm diesel compressor without construction permitting .
8/18/05	0560-0164.14f.ltr	Request to make minor time-saving changes to the Asphalt Additive Plant. BAQ granted permission for the change without revising or reopening the TV permit based on SC Regulation 61-62.70(7)(e)(5).



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11/8/05	Collocation Determination	BAQ, with EPA concurrence, has determined facilities 0560-0008, 0560-0164, 0560-0264, and 0560-0244 are collocated for Title V, Title III, and PSD.
12/08/05	0560-0164.44X	BAQ receives request to use new raw material, 15% HCl, at the Asphalt plant for product neutralization and grants exemption.
12/5/05	Collocation Rereview	BAQ determined that facility 0560-0264 is a R&D facility and is exempt from Title V permitting. BAQ began review of the PSD collocation status of the complex.
2/15/06	0560-0164.45X.ltr	Request to change contents of tanks OT4, OT8, and OT24 to allow plant to recover high quality fatty rosin acids by re-running streams. BAQ granted permission for the change without revising or reopening the TV permit based on SC Regulation 61-62.70(7)(e)(6).
3/27/06	0560-0164.46X	Request to conduct trials to produce 2250 gallons of oxidized lignin-extracted spent liquor (OLESL) for development purposes. BAQ granted permission for the change without revising or reopening the TV permit based on SC Regulation 61-62.70(7)(e)(6).
3/30/06	Collocation Determination	BAQ revised the previous collocation determination and has determined that 0560-0008 and 0560-0164 are not collocated for PSD. 0560-0008, 0560-0164, and 0560-0244 remain collocated for Title III and Title V.
5/01/06	0560-0164.47X	Request to return tank PT25 to black liquor storage from a change in 2002. BAQ accepted proposed changes without changing the Title V permit.
6/08/07	Collocation Determination	MeadWestvaco planned to sell 0560-0008 and 0560-0244. Once sold, BAQ determined that these plants will not be collocated for permitting purposes because they lack common control.
8/21/07	Minor Modification	Facility requested modification for the inclusion of construction permit 0560-0164dh.
10/25/07	Construction Permit 0560-0164-DI.R1	Construction permit issued for the permission to burn a tall, derived fuel (TODT) in seven existing boilers (OH01-OH08) and an existing dryer (PSD1H).
12/11/07	Construction Permit 0560-0164-DJ	Construction permit issued for the modification on an existing loading rack to collect and treat fugitive HAP emissions.
5/06/08	Minor Modification	Facility requested modification for the inclusion of construction permit 0560-0164dj.
5/21/08	Collocation Determination	MeadWestvaco planned to sell 0560-0008 and 0560-0244 but maintained ownership of the chemical plant including



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		the Crude Tall Oil plant. These facilities are considered not collocated as the facilities lack common control.
5/23/08	RDCME Approval 0560-0164.re	Routine Control Device Maintenance Exemption approval for several tanks and scrubbers. Incorporates a condition into operating permit.
7/10/08	Construction Permit 0560-0164-DK	Construction permit issued for existing process tanks (PT260/PT267) to service methanol or methanol containing products and to establish federally enforceable limits to limit the PTE of HAPs.
8/5/08	0560-0164.15f.ltr	Request to replace 1200 gph homogenizer with 2400 gph homogenizer at the Dispersed Size Plant, increasing production. BAQ accepted proposed changes without changing the Title V permit.
8/29/08	Minor Modification	Facility requested modification for the inclusion of construction permit 0560-0164dk.
5/04/10	Construction Permit 0560-0164-DL	Construction permit issued for the installation of three tanks and two new packed-bed scrubbers.
7/29/10	0560-0164.16f	Request operational flexibility to replace 3 existing vessels, CR01, OK03, and OT21. BAQ approved flexibility based on operational flexibility condition (7.0B).
8/09/10	Construction Permit 0560-0164-DM	Construction permit issued for the installation of a new packed-bed scrubber (RP08) for existing tank (OT80).
12/09/10	0560-0164.17f	Request operational flexibility to replace existing tank, CT20. BAQ approved flexibility based on operational flexibility condition (7.0B).
12/21/10	RCDME Modification 0560-0164.re	Routine Control Device Maintenance Exemption (RCDME) modification to include tank PT112 and control device PS08. Facility no longer subject to 40 CFR 63 Subpart FFFF but facility has elected to maintain RCDME for compliance.
3/25/11	0560-0164.18f	Request operational flexibility to replace and upgrade materials of RTO01 and control device RP06 for structural reasons. BAQ approved flexibility based on operational flexibility condition (7.0B)
7/01/11	Construction Permit 0560-0164-DN	Construction permit issued for the installation of two atmospheric storage tanks .
5/16/12	Minor Modification	Facility requested modification for the incorporation of construction permit 0560-0164dn.
12/12/12	0560-0164.19f	Request operational flexibility to replace process tank CT270, storage tanks PT15 and PT16, and batch reactor OK05. BAQ approved flexibility based on operational flexibility condition (7.0B)



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4/30/13	RCDME Modification 0560-0164.re	RCDME modification to limit scrubbers up to 240.0 hours per year of shutdown while the tanks are in operation.
5/15/13	0560-0164.48X	Request to conduct trial batch in blend tank PT190. BAQ granted permission for three trial batches without revising or reopening the TV permit based on SC Regulation 61-62.70(7)(e)(6).
7/29/13	0560-0164.20f	Request operational flexibility to replace storage tank PT213. BAQ approved flexibility based on operational flexibility condition (7.0B).
8/07/13	0560-0164.21f	Request operational flexibility to build a continuous unit for sodium and potassium salts. BAQ approved flexibility based on operational flexibility condition (7.0B).
12/05/13	0560-0164.22f	Request operational flexibility to change service on storage tank PT10 from paraffinnic solvent to butyl blend and to replace tank OT10. BAQ approved flexibility based on operational flexibility condition (7.0B).
3/26/14	0560-0164.49X	Request to add a new 12,000 gallon pressure reactor and four new 39,600 gallon storage tanks. BAQ granted permission for the change without revising or reopening the TV permit based on SC Regulation 61-62.70(7)(e)(6).
8/25/14	0560-0164.23f	Request operational flexibility to replace storage tank OT19 of the same size. BAQ approved flexibility based on operational flexibility condition (7.0B).
1/26/15	0560-0164.24f	Request operational flexibility replace storage tanks PT214 and PT215 with tanks of same size. BAQ approved flexibility based on operational flexibility condition (7.0B).
1/27/15	0560-0164.24f.R1	Revision of letter stating tanks PT214 and PT215 will function the same as previous tanks. BAQ approved flexibility based on operational flexibility condition (7.0B).
4/30/15	0560-0164.50X	Request to return PT117 to lignin service until 9/1/15. BAQ approved flexibility based on operational flexibility condition (7.0B).
5/20/15	0560-0164.51X	Request to return PT201 to lignin service until 9/1/15. BAQ approved flexibility based on operational flexibility condition (7.0B).
6/22/15	0560-0164.25f	Request to relocate OT61 vent to RTO01. BAQ approved request based on SC Regulation 61-62.1(II)(A)(1)(b).
9/01/15	Facility Name Change	MeadWestvaco South Carolina, LLC, the owner and operator of the Charleston Chemical plant, changed facility name to Ingevity South Carolina, LLC.
9/03/15	0560-0164.52X	Request to continue lignin service in PT117 indefinitely. BAQ approved flexibility based on operational flexibility



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		condition (7.0B).
9/30/15	0560-0164.53X	Request to continue lignin service in PT201 indefinitely. BAQ approved flexibility based on operational flexibility condition (7.0B).
4/08/16	0560-0164.54X	Request to change the service of PT201 from lignin product storage to modifies fatty acid service. BAQ approved flexibility based on operational flexibility condition (7.0B).
5/23/16	0560-0164.55X	Request to replace OT24 to an 18,000 gallon tank without changing throughput and content. BAQ approved flexibility based on operational flexibility condition (7.0B).
7/25/16	0560-0164.26f	Request operational flexibility to rout/burn of vent stream OT61. BAQ approved flexibility based on SC Regulation 61-62.1(II)(A)(1)(b).
8/15/16	0560-0164.28f	Request permission to return PT117 to oilfield service. BAQ approved flexibility based on operational flexibility condition (7.0B).
8/15/16	0560-0164.27f	Request operational flexibility to replace Crude Plant Reactor No. 1 (CR01) with identical unit. BAQ approved flexibility based on operational flexibility condition (7.0B).
1/09/18	0560-0164.28f	Request permission to replace existing tank PT03. BAQ approved flexibility based on operational flexibility condition (7.0B).
3/18/18	0560-0164.29f	Request permission to use two (2) new chemicals in the Asphalt Plant. BAQ approved flexibility based on operational flexibility condition (7.0B)
7/13/18	Minor Modification	Request to remove 40 CFR 63 Subpart HHHHH applicability language and work practice standards from the permit.
5/04/18	Construction Permit 0560-0164-DO	Construction permit issued for the installation of process and storage tanks for the production of Dispersed Size Product.
8/24/18	0560-0164.56X	Request to install two (2) 8,000 gallon short-term for the Asphalt Plant. BAQ approved flexibility based on operational flexibility condition (7.0B).
10/5/18	0560-0164.30f	Request to re-route Reactors OK03, OK04, and OK05 from (RTO01/RP06) to existing configurations, designated RV01/RP01, RV02/RP02, and RV03/RP03.
10/15/18	0560-0164.31f	Request for the addition of heat tracing to Reactors PK150 and PK160 as a process improvement measure. BAQ approved flexibility based on operational flexibility condition (7.0B).



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10/30/18	0560-0164.57X	Request regarding the temporary usage of Asphalt Plant Reactor PK150 for the manufacture of lignosulfonates. The Bureau approves this request as on Off-Permit Change pursuant to the requirements in 61-62.70.7(e)(6).
2/26/19	Construction Permit 1200-0024-DP	Construction permit issued for the installation of a new batch process tank (PT111) in EU03.
8/30/19	0560-0164.58X	Request to install temporary operation of a steam boiler (6.7 MMBtu/hr). BAQ approves this request per SC Regulation 61-62.1, Section II.B.3 and the Bureau maintained Air Permitting Exemptions List.
8/30/19	0560-0164.59X	Request to install temporary portable generators. The temporary portable generators are exempt from construction permit requirements per SC Regulation 61-62.1, Section II.B.3 and the Bureau maintained Air Permitting Exemptions List.
10/25/19	0560-0164.60X	Request for the manufacturing of three trial batches of a dust suppressant. BAQ approved this exemption request per SC Regulation 61-62.1, Section II.B.3 and the Bureau maintained Air Permitting Exemptions List.
06/27/23	2023-06-27_0560-0164	Install of two portable watertube boilers (75 and 60 million BTU/hr) to provide process steam. The low NO _x will burn natural gas and No. 2 Fuel Oil during instances of curtailment.
09/09/24	CP-50000242	A construction application was sent to install the watertube boilers and to remove No.2 fuel oil from fuel burning sources

VOID EQUIPMENT

The following emission units/equipment have been deemed VOID and will be removed from the current operating permit. A comprehensive record of voided equipment for the site can be found in ePermitting under Program Components.

Emission Unit ID	EU Description	Equipment ID	Equipment Description	Reason for VOID Status	Date Removed
01	Crude Plant	All	Equipment associated with Crude Plant	Removed from service	11/1/2023
02	South Plant	PL02	Lignin Belt Filter	Removed from service	6/2/2023
		PP01	Caustic Scrubber	Removed from service	6/2/2023
03	North Plant	PT31	350 gallon Tank 31	Removed from	6/2/2023



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Emission Unit ID	EU Description	Equipment ID	Equipment Description	Reason for VOID Status	Date Removed
			NaOH Tank	service	
		PT32	3,000 gallon Tank 32 TRS Scrubber Blowdown	Removed from service	6/2/2023
		PWW1	10,365 gallon Weak White Liquor Tank	Removed from service	6/2/2023

SOURCE TEST REQUIREMENTS

Ingevity does not currently have source testing requirements. The last source testing occurred in 2008 and an email correspondence from July 2013 between DHEC and Ingevity stated that all source testing requirements have been satisfied. No further source testing is required at this time.

EMISSIONS

FACILITY WIDE EMISSIONS				
Pollutant	Uncontrolled	Controlled	PTE	
	TPY	TPY	TPY	
PM	2076.40	40.40	2076.40	
PM ₁₀	2076.40	40.40	2076.40	
PM _{2.5}	2076.40	40.40	2076.40	
SO ₂	0.70	0.70	0.70	
NO _x	87.40	87.40	87.40	
CO	104.30	104.30	104.30	
VOC	628.8	158.2	628.8	
Total HAPs	604.10	23.40	<25.0	
Methanol (H,T,V)	478.40	8.03	<10.0	
CO ₂ e	149546.0	--	149546.0	
Hydrogen Sulfide (T)	1490.0	24.75	1490.0	
Methyl Mercaptan (T,V)	283.90	14.43	283.90	

REGULATIONS

Applicable - Section II(E) (Synthetic Minor)

The facility is a major source for PSD for the following pollutants: VOC, SO₂, CO, NO_x, PM, PM₁₀, PM_{2.5}. The facility has established Synthetic Minor Emission Limitations to limit the facility's potential to emit and therefore Avoid PSD regulations.

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The facility has previously established a federally enforceable site-wide limit on HAP. Any single HAP emission shall be less than 10.0 tpy and combined total HAP emissions shall be less than 25.0 tpy. The facility will continue operations under the federally enforceable site-wide HAP emissions limit.

See table entitled "Explanation of Synthetic Minor and PSD Limits" below.

Explanation of Synthetic Minor and PSD Limits					
Permit ID	Equipment ID	Permit Issue Date	Pollutant	Emission Limit (TPY)	Explanation
0560-0164-DK	All	02/21/08	HAPs	Less than 10.0 tpy (individual) Less than 25.0 tpy (total)	The facility is a synthetic minor source for HAPs established in construction permit 0560-0164-DK. The facility has a federally enforceable facility-wide emission limit of less than 10.0 tpy for single HAPs and less than 25.0 tpy for total HAPs.
0560-0164-DI.R1	Any that burns TODF	10/25/07	SO ₂	Less than 40.0 tpy	Sulfur content for TODF should not exceed 0.07% sulfur content for PSD Avoidance
0560-0164-DG	OK03 OK04 OK05	12/07/04	VOCs	Less than 9.0 tpy Less than 12.5 tpy	PSD Avoidance
0560-0164-DG	RTO01 RP06	12/07/04	SO ₂	Less than 40.0 tpy	PSD Avoidance
0560-0164.5tv	Facility-Wide	August 2, 2005	Benzene	Less than 1 Mg/yr	40 CFR 61 Subpart FF
0560-0164-CQ.R1	EU01: Crude Plant	October 23, 2000	VOCs	Less than 122.0 tpy	Ingevity no longer operates equipment associated with EU01. This limit will be removed with the issuance of this permit.
0560-0164-CQ.R1	EU01: Crude Plant	October 23, 2000	TRS (as H ₂ S)	Less than 29.0 tpy	Ingevity no longer operates equipment associated with EU01. This limit will be removed with the issuance of this permit.
0560-0164-CU.R1	PSD1H	December 11, 2000	PM, PM ₁₀ , PM _{2.5}	Less than 26.0 tpy	PSD Avoidance

Applicable - Standard No. 1 (Emissions from Fuel Burning Operations)

The 75.0 million BTU/hr and 60.0 million BTU/hr natural gas-fired boilers will be subject to opacity, PM, and SO₂ limits imposed by this standard.



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Heaters (OH01, OH02, OH03, OH04, OH07, OH08) Spray dryer (PSD1H) , and Boiler (PH02) are subject to this standard. The heaters and boiler burn natural gas and are subject to a 20% opacity limit.

ID	PM Allowable (lb/hr)	SO ₂ Allowable (lb/hr)	Uncontrolled Emissions		Controlled Emissions	
			PM (lb/hr)	SO ₂ (lb/hr)	PM (lb/hr)	SO ₂ (lb/hr)
OT75	45.0	172.50	0.56	0.044	--	--
OT60	36.0	138.0	0.45	0.035	--	--
OH01 (3.0 million BTU/hr)	1.80	6.90	0.07	0.213	--	--
OH02 (2.14 million BTU/hr)	1.28	4.92	0.05	0.152	--	--
OH03 (2.14 million BTU/hr)	1.28	4.92	0.05	0.152	--	--
OH04 (2.14 million BTU/hr)	1.28	4.92	0.05	0.152	--	--
OH07 (15.0 million BTU/hr)	9.0	20.70	0.35	1.07	--	--
OH08 (30.0 million BTU/hr)	18.0	69.0	0.71	2.13	--	--
PSD1H (45.0 million BTU/hr)	27.0	103.5	1.06	3.20	--	--
PH02 (10.6 million BTU/hr)	6.36	24.38	0.25	0.75	--	--

Applicable - Standard No. 3 (state only) (Waste Combustion and Reduction)

The thermal oxidizer is subject to the Industrial Incinerator requirements of this standard. The thermal oxidizer burns vent gases and will be subject to the same requirements. According to SC Reg 61-62.1, Section 1 – Definition #101(f),

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the fuel being burned is considered to be a Type 5 waste. A combustor burning this type of waste best fits into SC Reg 61-62.1, Section 1 – Definition #45, Industrial Incinerator.

Applicable requirements in this Standard for Industrial Incinerators are:

1. Opacity shall not exceed 20%
2. PM emissions shall not exceed 0.5 lbs/ Million Btu total heat input. The total heat input value from waste and virgin fuel used for production shall not exceed the Btus used to affect the combustion of the waste and shall not include any Btu input from auxiliary burners located outside of the primary combustion chamber such as those found in secondary combustion chambers, tertiary combustion chambers or afterburners unless those auxiliary burners are fired with waste. In the case where waste is fired in the auxiliary burners located outside of the primary combustion chamber, only the Btu value of the fuel for the auxiliary burner which is from waste shall be added to the total heat input value.

No reporting is required because PM potential to emit emissions do not exceed the allowable emission rate for this standard.

Requested Renewable Energy Exemption (REE) from Std 3 requirements for tall oil derived fuel (TODF). This exemption was granted with the issuance of construction permit 0560-0164.di on the basis that a proximate and ultimate analyses of TODF showed that the composition is similar to No.2 Fuel Oil, which has been permitted to be burned. It was determined later that a sulfur content limit of 0.074% was needed to avoid PSD applicability for SO₂. To avoid the significant increase value for SO₂ of 40.0 tpy, the facility back calculated that the sulfur content should not exceed 0.074% and will be required to analyze the TODF annually for compliance. The facility switched to only burning natural gas as fuel in CP-50000242 and no longer requires this exemption as they no longer burn renewables for energy recovery.

Applicable - Standard No. 4 (Emissions from Process Industries)

Sources listed under Unit ID 02, 03, 04, and 05 will be subject to opacity limits per section IX. PM limits are presented in the Table entitled “Standard 4 Allowable” preceding this regulatory section. Equipment listed in the table will be subject to process weight rate limits.

Lignin Processing equipment was initially subject to S.C. Regulation 61-62.5, Standard No. 4, Section VIII but is longer applicable due to a mistake as the equipment does not emit PM.

Process	Max Process Weight Rate (tons/hr)	PM Allowable at Max (lb/hr)	Uncontrolled Emissions PM (lb/hr)	Controlled Emissions PM (lb/hr)	Monitoring
OK03, OK04, OK05	2.375 (each)	7.32 (each)	0.84 (each)	--	Uncontrolled emissions are below allowable, No additional monitoring required



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Process	Max Process Weight Rate (tons/hr)	PM Allowable at Max (lb/hr)	Uncontrolled Emissions PM (lb/hr)	Controlled Emissions PM (lb/hr)	Monitoring
Spray Drying (PSD1H)	18.0	28.43	168.87	25.33	Controlled by ID PS01: The owner/operator shall continue to operate and maintain pressure drop gauges on each module. Pressure drop readings shall be recorded daily during source operation.
Lignin Packaging (PL01)	6.02	13.65	1360	13.60	Controlled by ID PF01: The owner/operator shall continue to operate and maintain pressure drop gauges on each module. Pressure drop readings shall be recorded daily during source operation.

Not Applicable - Standard No. 5 (Volatile Organic Compounds)

None of the processes, which are regulated by the regulation, apply.

Not Applicable - Standard No. 5.2 (Control of Oxides of Nitrogen (NO_x))

This standard applies to any stationary source that emits or has the potential to emit NO_x generated from fuel combustion, is over 10 million BTU/hr rated input, and constructed after June 25, 2004.

The hot oil heaters, boilers, and spray dryer were all constructed prior to 2004 and are not subject at this time. They are each classified as an existing source as specified by Section I(a)(2). Section IV(a) states that existing sources are not subject to Standard 5.2 until their burner assemblies are replaced and none of the burner assemblies have been replaced.



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Applicable - Standard No. 7 (Prevention of Significant Deterioration)

Standard No. 7 applies to a facility's emissions if the facility is classified as a "major" source. This facility would be a major source for PSD, because it is one of the 28 major source categories, if the facility has pollutants that exceed 100.0 tpy. The facility is currently a major source under PSD regulations.

The facility took process specific PSD avoidance limits in the past. Ingevity is maintaining these limits at this time. Ingevity has not established facility-wide federally enforceable limits. This project does not increase PSD pollutant emissions above significant modification level thresholds.

Applicable - 61-62.6 (Control of Fugitive Particulate Matter)

This facility is subject to the state-wide fugitive emissions requirements of Section III.

40 CFR 60 and 61-62.60 (New Source Performance Standards (NSPS))

Not Applicable - Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984))

This facility has several equipment potentially subject to this regulation because they are storage vessels with a capacity greater than or equal to 75 cubic meters (m³) that stores volatile organic liquids (VOL). Additionally, each potentially applicable storage tank has been constructed, reconstructed, or modified since July 23, 1984. However, all tanks greater than 75 m³ and less than 151m³ use materials that are stored less than 3.5 kPa. This standard does not apply.

Applicability of NSPS Subpart Kb to Vessels		
Equipment ID	Subject to NSPS Kb?	Explanation
OT64, OT88, OT89, OT91, OT92, DSDISPTT, DSBIOTT, DSDEFTT, DSADDPOT, PT111, PT112, PT114, , PT151, PT161, PT162, PT165, PT166, PT167, PT190, PT250, PT251, PT252, PT253, PT254, PT260, PT261, PT262, PT263,	No	In accordance with §60.110b (a), the volume of each of these tanks is less than 75m ³ (19,813 gallons).



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PT264, PT265, PT266, PT300, PT301		
OT43, OT74, OT90, OT93, OT94, PT117, PT255, PT256, PT257, PT258, PT259	No	The volume of each of these tanks is greater than 75 m ³ and less than 151m ³ (39,890 gallons). However, the vapor pressures of the materials stored are less than 3.5kPa. In accordance with §60.110b (b), this standard does not apply.
OT96, OT97	No	The volume of each of these tanks is greater than 151m ³ . However, the vapor pressures of the materials stored are less than 15.0 kPa. In accordance with §60.110b (b), this standard does not apply.

Applicable - Subpart Dc (*Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*)

This regulation applies to fossil-fuel-fired, or fossil-fuel and wood-residue fired steam generating units for which construction, modification or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 100 million BTU/hr or less, but greater than or equal to 10 million BTU/hr. IDs OT75, OT60, and PH02 have construction dates after the applicability date of this rule and will be subject to this subpart.

The facility shall comply with recordkeeping and reporting requirements [60.48c(g)(2)]. The facility is required to submit a notification of the date of actual startup in [60.48c(a)]. These boilers will only burn natural-gas and will not be subject to the PM or SO₂ emissions standards ([60.42c] and [60.43c]), testing methods ([60.44c] and [60.45c]), or emissions monitoring requirements ([60.46c] and [60.47c]).

Not Applicable - Subpart FFF (*Standards of Performance for Flexible Vinyl and Urethane Coating and Printing*)

This subpart applies to facilities that operate rotogravure printing line used to print or coat flexible vinyl or urethane products. This facility does produce inks but does not have rotogravure printing operations.

Not Applicable - Subpart VVV (*Standards of Performance for Polymeric Coating of Supporting Substrates Facilities*)

This subpart applies to each coating operation and any onsite coating mix preparation equipment used to prepare coating for polymeric coating of supporting substrates. Ingevity makes a coating but will not apply the coating to any substrate. Additionally, this subpart does not apply to coating mix prep equipment used to manufacture coatings at one plant for shipment or sale to another plant or company.



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Applicable - Subpart FF (*National Emission Standard for Benzene Waste Operations*)

This facility is currently subject to this subpart. However, total annual benzene release from this facility to waste water (TABQ) is below 1.0 Mg/yr. Therefore, only recordkeeping and reporting applies.

Not Applicable - Subpart J (*National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene*)

This regulation is primarily for plants that manufacture benzene. "In benzene service" means that a piece of equipment either contains or contacts a fluid (liquid or gas) that is at least 10% benzene by weight as determined according to the provisions of §61.245(d). The provisions of §61.245(d) also specify how to determine that a piece of equipment is not in benzene service. At this facility, benzene is generated in the kettles as a side-reaction and is present only in ppm quantities, significantly less than the 10% specified above. Therefore, this subpart does not apply.

Not Applicable - Subpart V (*National Emission Standard for Equipment Leaks (Fugitive Emission Sources)*)

The facility is not required to follow the provisions of this subpart for Subpart FF or provisions of 40 CFR 60 subparts.

40 CFR 63 and 61-62.63 (*National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories*)

Not Applicable - Subpart FFFF (*National Emission Standards For Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing*)

The facility is not a major source of hazardous air pollutants (HAP) emissions. The facility took a synthetic minor limit for HAPs with the issuance of construction permit 0560-0164dk.

Not Applicable - Subpart HHHH (*National Emission Standards for Hazardous Air Pollutants for Wet-Formed Fiberglass Mat Production*)

The facility does not operate a drying and curing oven at a wet-formed fiberglass mat production facility and is not located within a major source of HAPs.

Not Applicable - Subpart HHHHH (*National Emission Standards for Hazardous Air Pollutants: Miscellaneous Coating Manufacturing*)

Due to the withdrawal of the EPA's "once in always in" policy, this facility is no longer subject to. See letter from Kathleen Haddock dated 7/13/18.

Not Applicable - Subpart VVVVV (*National Emission Standards For Hazardous Air Pollutants For Chemical Manufacturing Area Sources*)

Based upon a letter received from the facility on March 26, 2010, it has been determined that this facility is not subject to Subpart because although the facility does process and/or generate urban HAP and is an organic HAP area source, the HAP concentrations in the process fluids are significantly below 0.1% for carcinogens and 1 percent for non-carcinogens.

Not Applicable - Subpart BBBB (*National Emissions Standards for Hazardous Air Pollutants for Area Sources: Chemical Preparations Industry*)



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This facility does not use any of the target HAPs found in this regulation.

Not Applicable - Subpart DDDDD (National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters)

This subpart applies to industrial, commercial, or institutional boiler or process heater as defined in § 63.7575 that is located at, or is part of, a major source of HAP. Ingevity has synthetic minor limits for HAPs and is not considered a major source for HAPs.

Not Applicable - Subpart JJJJJ (National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers Area Sources)

This subpart applies to industrial, commercial, or institutional boiler that is located at an area source of HAP except for boilers specified in § 63.11195. The facility has taken limits to be an area source. However, the facility's boilers are classified as gas-fired boilers which is included in § 63.11195; and therefore, does not apply to this subpart.

Applicable - 61-62.68 (Chemical Accident Prevention Provisions)

The 112 (r) chemical Formaldehyde, CAS #50-00-0 is stored at this facility at a quantity of 270,000 lbs. This meets the 112 (r) threshold quantity for this chemical, which is 15,000 lbs. Therefore Ingevity is subject to S.C. Regulation 61-62.68, Chemical Accident Prevention Provisions, due to in-process storage or use of a regulated substance in quantities above the specified threshold. A recent RMP recertification was submitted to EPA on 11/17/2023.

Not Applicable - 40 CFR 64 (Compliance Assurance Monitoring)

Compliance Assurance Monitoring (CAM) applies to a pollutant specific emission unit (PSEU) at a major source that applies to the following:

- 1) That unit is subject to an emission limitation or standard for the applicable regulated air pollutant.
- 2) The unit uses a control device to achieve compliance with any such emission limitation or standard.
- 3) The unit has potential pre-control device emissions or potential to emit (PTE) of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source.

The following are potentially applicable:

- EU02, Three (3) reactor kettles Thermal Oxidizer
- EU02, Three (3) reactor kettles Packed Bed Caustic Scrubber

The criteria emissions from the kettles exceed 100.0 tpy and there are control devices to control emissions to less than 100.0 tpy for the associated criteria pollutant. However, the type of monitoring CAM provides does not lend itself to determining compliance with an annual cap. The rule does not require direct measures of emissions that would be necessary for mass accumulation determination; and therefore; this facility does not have processes subject to CAM.

AMBIENT AIR STANDARDS REVIEW



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Applicable - Standard No. 2 (Ambient Air Quality Standards)

Compliance was demonstrated through modeling. See the most recent modeling summary.

Applicable - Standard No. 8 (state only) (Toxic Air Pollutants)

Compliance was demonstrated through modeling. See the most recent modeling summary.

PERIODIC MONITORING					
ID	Regulatory Requirement	Measured Parameter	Required Monitoring Frequency	Reporting Frequency	Monitoring Basis/ Justification
All - plantwide	Hazardous Air Pollutants	<10 TPY single, <25 TPY total	12-month rolling sum calculated on monthly basis	Semi-annual	NESHAP Avoidance
All - plantwide	Benzene Waste Operations	TAB \leq 1 Mg/yr	Continuous	On-site	Benzene Concentration/40 CFR 61 Subpart FF
OK03, OK04, OK05	VOC	9 TPY; 12.5 TPY	12-month rolling sum calculated on monthly basis	On-site	PSD Avoidance limit
PS01	Waste charge rates	N/A	Daily	On-site	Standard No.3, Section VI(C)(2)
PSD1H	PM, PM ₁₀ , PM _{2.5}	Less than 26.0 TPY	12-month rolling sum calculated on monthly basis	Semi-annual	PSD Avoidance
PH02 OH07 OH08	Fuel usage	No. 2 fuel oil (< 0.5% S)	Daily	Semi-annual	40 CFR 60 Subpart Dc
OT75 OT60	S.C. Regulation 61-62.5, Standard No. 5.2	Fuel Amount	Monthly	Maintain on Site	S.C. Regulation 61-62.5, Standard No. 5.2, Section IV
	40 CFR 60 Subpart Dc	All records	Daily	Maintain on site	40 CFR 60.48c(g)(1)

PUBLIC NOTICE

This Title V Permit will undergo a 30-day public notice period and a 45-day EPA comment period in accordance with SC Regulation 61-62.1, Section II(N) and SC Regulation 61-62.70.7(h).

SUMMARY AND CONCLUSIONS



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It has been determined that this source, if operated in accordance with the submitted application, will meet all applicable requirements and emission standards.

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