

## PUBLIC NOTICE

Drew Foam Companies, Inc. has applied to the Tennessee Department of Environment and Conservation, Division of Air Pollution Control for renewal of their existing major source (Title V) operating permit subject to the provisions of Tennessee Air Pollution Control Regulations 1200-03-09-.02(11) (Title V Regulations). A major source operating permit is required by both the Federal Clean Air Act and Tennessee's air pollution control regulations. However, it should be noted that this facility has a current major source operating permit.

The Title V operating renewal permit is identified as follows: Division identification number 74-0102/578647. The applicant is Drew Foam Companies, Inc. (Facility ID 74-0102; Division renewal permit no. 578647) with a site address of 3050 Barry Drive, Portland, TN. They seek to renew their major source operating permit for custom molded foam products production.

EPA has agreed to treat this draft permit as a proposed Part 70 significant permit modification and to perform its 45-day review provided by the law concurrently with the public notice period. If any substantive comments are received, EPA's 45-day review period will cease to be performed concurrently with the public notice period. In this case, EPA's 45-day review period will start once the public notice period has been completed and EPA receives notification from the Tennessee Air Pollution Control Division that comments have been received and resolved. The status regarding EPA's 45-day review of these permits and the deadline for submitting a citizen's petition can be found at the following website address:

<https://www.epa.gov/caa-permitting/tennessee-proposed-title-v-permits>

Copies of the application materials and draft/proposed permit are available for public inspection during normal business hours at the following locations:

Tennessee Department of Environment and Conservation  
Nashville Environmental Field Office  
Division of Air Pollution Control  
711 R.S. Gass Boulevard  
Nashville, TN 37216

and

Tennessee Department of Environment and Conservation  
Division of Air Pollution Control  
Davy Crockett Tower, 7<sup>th</sup> Floor  
500 James Robertson Parkway  
Nashville, TN 37243

Also, if you require a copy of the draft/ proposed permit it is available electronically by accessing the TDEC Air Pollution Control Public Participation Opportunity (APC PPO) page:

<http://www.tn.gov/environment/ppo-public-participation/ppo-public-participation/ppo-air.html>

Questions concerning the source may be addressed to Katherine Stephens at (615) 770-1108 or by e-mail at [Katherine.Stephens@tn.gov](mailto:Katherine.Stephens@tn.gov).

Interested parties are invited to review these materials and comment. In addition, a public hearing may be requested at which written or oral presentations may be made. To be considered, written comments or requests for a public hearing must be received no later than 4:30 PM on June 20, 2024. To assure that written comments are received and addressed in a timely manner, written comments must be submitted using one of the following methods:

1. **Mail, private carrier, or hand delivery:** Address written comments to Ms. Michelle W. Owenby, Director, Division of Air Pollution Control, Davy Crockett Tower, 500 James Robertson Parkway, 7<sup>th</sup> Floor, Nashville, Tennessee 37243.
2. **E-mail:** Submit electronic comments to [air.pollution.control@tn.gov](mailto:air.pollution.control@tn.gov).

A final determination will be made after weighing all relevant comments.

Individuals with disabilities who wish to review information maintained at the above-mentioned depositories should contact the Tennessee Department of Environment and Conservation to discuss any auxiliary aids or services needed to facilitate such review. Such contact may be in person, by writing, telephone, or other means, and should be made no less than ten days prior to the end of the public comment period to allow time to provide such aid or services. Contact the Tennessee Department of Environment and Conservation ADA Coordinator, Davy Crockett Tower, 500 James Robertson Parkway, 6<sup>th</sup> Floor, Nashville, TN 37243, 1-(866)-253-5827. Hearing impaired callers may use the Tennessee Relay Service, 1-(800)-848-0298.

**From:** [Air.Pollution.Control](#)  
**To:** [APC Permuting](#)  
**Subject:** FW: [EXTERNAL] Drew Foam Companies, Inc - Title V Renewal Application (Permit Number: 564022)  
**Date:** Tuesday, November 3, 2020 2:33:25 PM  
**Attachments:** [CN-1397 \(APC-Index\)\(IndexForms\)\(Signature\).pdf](#)  
[CN-1397 \(APC-Index\)\(IndexForms\)\(Sig\).pdf](#)  
[CN-1426 \(APC-31\)\(Cert\).pdf](#)  
[CN-1424 \(APC-29\)\(EmissSumm\).pdf](#)  
[CN-1422 \(APC-27\)\(CompDemoMethod\)\(EPSBeadOpacity\).pdf](#)  
[CN-1421 \(APC-26\)\(CompDemoMethod\)\(EPDBeadVOC\).pdf](#)  
[CN-1414 \(APC-19\)\(CompDemoCert\)\(BoilerOpacity\).pdf](#)  
[CN-1414 \(APC-19\)\(DemoCompCert\)\(EPSBeadOpacity\).pdf](#)  
[CN-1414 \(APC-19\)\(DemoCompCert\)\(EPS BeadVOC\).pdf](#)  
[CN-1401 \(APC-4\)\(FuelBurnEq\).pdf](#)  
[CN-1400 \(APC-3\)\(BoilerStack\).pdf](#)  
[CN-1400 \(APC-3\)\(Molder\).pdf](#)  
[CN-1400 \(APC-3\)\(ExpanderStackID\).pdf](#)  
[CN-1399 \(APC-2\)\(Process & PFD\).pdf](#)  
[CN-1398 \(APC-1\)\(Fac ID\).pdf](#)  
[Drew \(TN\)\(Calcs\)\(wBASF\).pdf](#)  
[CN-1430 \(APC-35\)\(Checklist\).pdf](#)  
[Drew \(AirModShapeMolds\)\(CvrLtr\).pdf](#)  
[Drew \(TN\)\(NatGasCalcs\)\(SEP20\).pdf](#)  
[Drew \(TN\)\(Calcs\)\(wBASF\)\(NOV20\).pdf](#)  
[CN-1399 \(APC-2\)\(AddInfo\)\(PFD\).pdf](#)

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-----Original Message-----

**From:** Jeff Haynes <jmhaynes@yellville.net>  
**Sent:** Tuesday, November 3, 2020 14:27  
**To:** Air.Pollution.Control <Air.Pollution.Control@tn.gov>  
**Cc:** Tawanna Reid <Tawanna.Reid@tn.gov>; JHaynes@eccci.com  
**Subject:** [EXTERNAL] Drew Foam Companies, Inc - Title V Renewal Application (Permit Number: 564022)

Dear Sir/Ma'am:

Drew Foam Companies, Incorporated (Drew Foam) operates an expandable polystyrene (EPS) manufacturing facility located at 3050 Barry Drive, in Portland, Tennessee as a Major source under the authority of air operating permit 564022 (permit). As a requirement of the permit, the facility is required to submit an air operating renewal application every five (5) years, if continued operations are anticipated. The attached application has been generated to meet this requirement. If you should have any questions or require any additional information, please feel free to call, or email me at jhaynes@eccci.com / (870)404-2398 as needed. Standing by for questions.

respectfully,

Jeff Haynes, MS, REM, CSEM  
ECCI  
13000 Cantrell Road  
Little Rock, Arkansas 72223  
Office (501) 975-8100  
Mobile (870) 404-2398  
jhaynes@eccci.com



## TITLE V PERMIT APPLICATION INDEX OF AIR POLLUTION PERMIT APPLICATION FORMS


Section 1: Identification and Diagrams		
This application contains the following forms:	APC Form 1, Facility Identification	1
	APC Form 2, Operations and Flow Diagrams	1 + 3 additional info page

Section 2: Emission Source Description Forms		
		Total number of this form
This application contains the following forms (one form for each incinerator, printing operation, fuel burning installation, etc.):	APC Form 3, Stack Identification	3
	APC Form 4, Fuel Burning Non-Process Equipment	1
	APC Form 5, Stationary Gas Turbines or Internal Combustion Engines	0
	APC Form 6, Storage Tanks	0
	APC Form 7, Incinerators	0
	APC Form 8, Printing Operations	0
	APC Form 9, Painting and Coating Operations	0
	APC Form 10, Miscellaneous Processes	0
	APC Form 33, Stage I and Stage II Vapor Recovery Equipment	0
	APC Form 34, Open Burning	0

Section 3: Air Pollution Control System Forms		
		Total number of this form
This application contains the following forms (one form for each control system in use at the facility):	APC Form 11, Control Equipment - Miscellaneous	0
	APC Form 13, Adsorbers	0
	APC Form 14, Catalytic or Thermal Oxidation Equipment	0
	APC Form 15, Cyclones/Settling Chambers	0
	APC Form 17, Wet Collection Systems	0
	APC Form 18, Baghouse/Fabric Filters	0

(OVER)

Section 4: Compliance Demonstration Forms		
		Total number of this form
This application contains the following forms (one form for each incinerator, printing operation, fuel burning installation, etc.):	APC Form 19, Compliance Certification - Monitoring and Reporting - Description of Methods for Determining Compliance	3
	APC Form 20, Continuous Emissions Monitoring	0
	APC Form 21, Portable Monitors	0
	APC Form 22, Control System Parameters or Operating Parameters of a Process	0
	APC Form 23, Monitoring Maintenance Procedures	0
	APC Form 24, Stack Testing	0
	APC Form 25, Fuel Sampling and Analysis	0
	APC Form 26, Record Keeping	1
	APC Form 27, Other Methods	1
	APC Form 28, Emissions from Process Emissions Sources / Fuel Burning Installations / Incinerators	0
	APC Form 29, Emissions Summary for the Facility or for the Source Contained in This Application	1
	APC Form 30, Current Emissions Requirements and Status	0
	APC Form 31, Compliance Plan and Compliance Certification	1
APC Form 32, Air Monitoring Network	0	

Section 5: Statement of Completeness and Certification of Compliance	
<p>I have reviewed this application in its entirety and to the best of my knowledge, and based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate, and complete. I have provided all the information that is necessary for compliance purposes and this application consists of _____ pages and they are numbered from page ____ to ____ . The status of this facility's compliance with all applicable air pollution control requirements, including the enhanced monitoring and compliance certification requirements of the Federal Clean Air Act, is reported in this application along with the methods to be used for compliance demonstration.</p>	
 Name and Title of Responsible Official	Telephone Number with Area Code
Joanna Bergeron Controller	870-460-4936
Signature of Responsible Official	Date of Application
	4NOV20
(For definition of responsible official, see instructions for APC Form 1)	



## TITLE V PERMIT APPLICATION FACILITY IDENTIFICATION

SITE INFORMATION			
1. Organization's legal name <b>Drew Foam Companies, Incorporated</b>		For APC Use Only	APC company point no.
2. Site name (if different from legal name)			APC Log/Permit no.
3. Site address (St./Rd./Hwy.) <b>3050 Barry Drive</b>		NAICS or SIC Code	
City or distance to nearest town <b>Portland</b>		Zip code <b>37148</b>	County name <b>Robertson</b>
4. Site location (in Lat./Long)	Latitude <b>36°35'33.06" N</b>	Longitude <b>86°35'47.70" W</b>	
CONTACT INFORMATION (RESPONSIBLE OFFICIAL)			
5. Responsible official contact <b>Joanna Bergeron</b>		Phone number with area code <b>870-460-4936</b>	
6. Mailing address (St./Rd./Hwy.) <b>1093 Hwy 278 East</b>		Fax number with area code <b>870-367-1564</b>	
City <b>Portland</b>	State <b>TN</b>	Zip code <b>37148</b>	Email address <b>jbergeron@DREWFOAM.COM</b>
CONTACT INFORMATION (TECHNICAL)			
7. Principal technical contact <b>Jim Karasek</b>		Phone number with area code <b>870-460-4954</b>	
8. Mailing address (St./Rd./Hwy.) <b>1093 Hwy 278 East</b>		Fax number with area code <b>870-367-1564</b>	
City <b>Monticello</b>	State <b>AR</b>	Zip code <b>71655</b>	Email address <b>jkarasek@drewfoam.com</b>
CONTACT INFORMATION (BILLING)			
11. Billing contact <b>Donna Ogden</b>		Phone number with area code <b>870-460-4930</b>	
12. Mailing address (St./Rd./Hwy.) <b>1093 Hwy 278 East</b>		Fax number with area code <b>870-367-1564</b>	
City <b>Monticello</b>	State <b>AR</b>	Zip code <b>71655</b>	Email address <b>dogden@drewfoam.com</b>
TYPE OF PERMIT REQUESTED			
13. Permit requested for:			
Initial application to operate :	<input type="checkbox"/>	Minor permit modification :	<input type="checkbox"/>
Permit renewal to operate :	<input checked="" type="checkbox"/>	Significant modification :	<input type="checkbox"/>
Administrative permit amendment :	<input type="checkbox"/>	Construction permit :	<input type="checkbox"/>

(OVER)

**HAZARDOUS AIR POLLUTANTS, DESIGNATIONS, AND OTHER PERMITS ASSOCIATED WITH FACILITY**

14. Is this facility subject to the provisions governing prevention of accidental releases of hazardous air contaminants contained in Chapter 1200-03-32 of the Tennessee Air Pollution Control regulations?  Yes  No

If the answer is Yes, are you in compliance with the provisions of Chapter 1200-03-32 of the Tennessee Air Pollution Control regulations?  Yes  No

15. If facility is located in an area designated as "Non-Attainment" or "Additional Control", indicate the pollutant(s) for the designation.

n/a

16. List all valid Air Pollution permits issued to the sources contained in this application [identify all permits with most recent permit numbers and emission source reference numbers listed on the permit(s)].

564022

EPS Bead Processing  
Polystyrene Bead Storage Area, Expander, Expanded Polystyrene Bead Storage, Molding Operations, Billet Drying and Storage Area, Boiler. .

17. Page number :

Revision number:

Date of revision:

1



## TITLE V PERMIT APPLICATION OPERATIONS AND FLOW DIAGRAMS

1. Please list, identify, and describe briefly process emission sources, fuel burning installations, and incinerators that are contained in this application. Please attach a flow diagram for this application.

1. Polystyrene Bead Storage: Non-point source, EPS beads received and stored in pre-expanded state for future processing
2. Expander: Point source (2 stacks), EPS beads expanded via low-pressure steam
3. Expanded Bead Storage: Non-point source, expanded EPS beads stored in bags/aged
4. Molding Operations: Point source (1 stack), EPS expanded beads molded into various blocks (aka billets)/shapes via low-pressure steam
5. Billet Drying/Storage: Non-point source, billets are dried via ambient air prior prior to processing
6. Billet Processing: Non-point source, billets are processed through various cutting machines which consist of high resistance electrical wires, knives, and band saws according to customer specifications.
7. Regrind Station; Non-point source, billet pieces generated from processing activities, are sent to the Regrind that exhausts within the plant and cuts the off-specification material into small pieces that are conveyed through transfer piping system to the Expanded Bead Storage Area Bag Storage area for reuse.
8. Hot Melt Adhesive/Stretch Wrapping: Non-point source, EPS parts are coated with a hot-melt adhesive through a rollerized process, joined, and allowed to cure to form a solid block of EPS. Additionally, a pre-laminated poly-vinyl material may be applied to the EPS parts.
9. Finished Product Storage: Non-point source, finished product is stored and prepped for loadout.
10. Boiler: Point Source, 3 mm Btu/Hr (max) natural gas fired boiler
11. Cooling Tower: Non-point source, Marley F-493 vertical cooling tower

2. List all insignificant activities which are exempted because of size or production rate and cite the applicable regulations.

1. Hot Wire Cutters
2. Poly Film Usage
3. Hot Melt Glue Usage
4. Regrinder Operations
5. Boiler (Nat Gas Fired)
6. Cooling Tower
7. Scrap Densifier

3. Are there any storage piles?

YES \_\_\_\_\_ NO   X  

4. List the states that are within 50 miles of your facility.

Kentucky

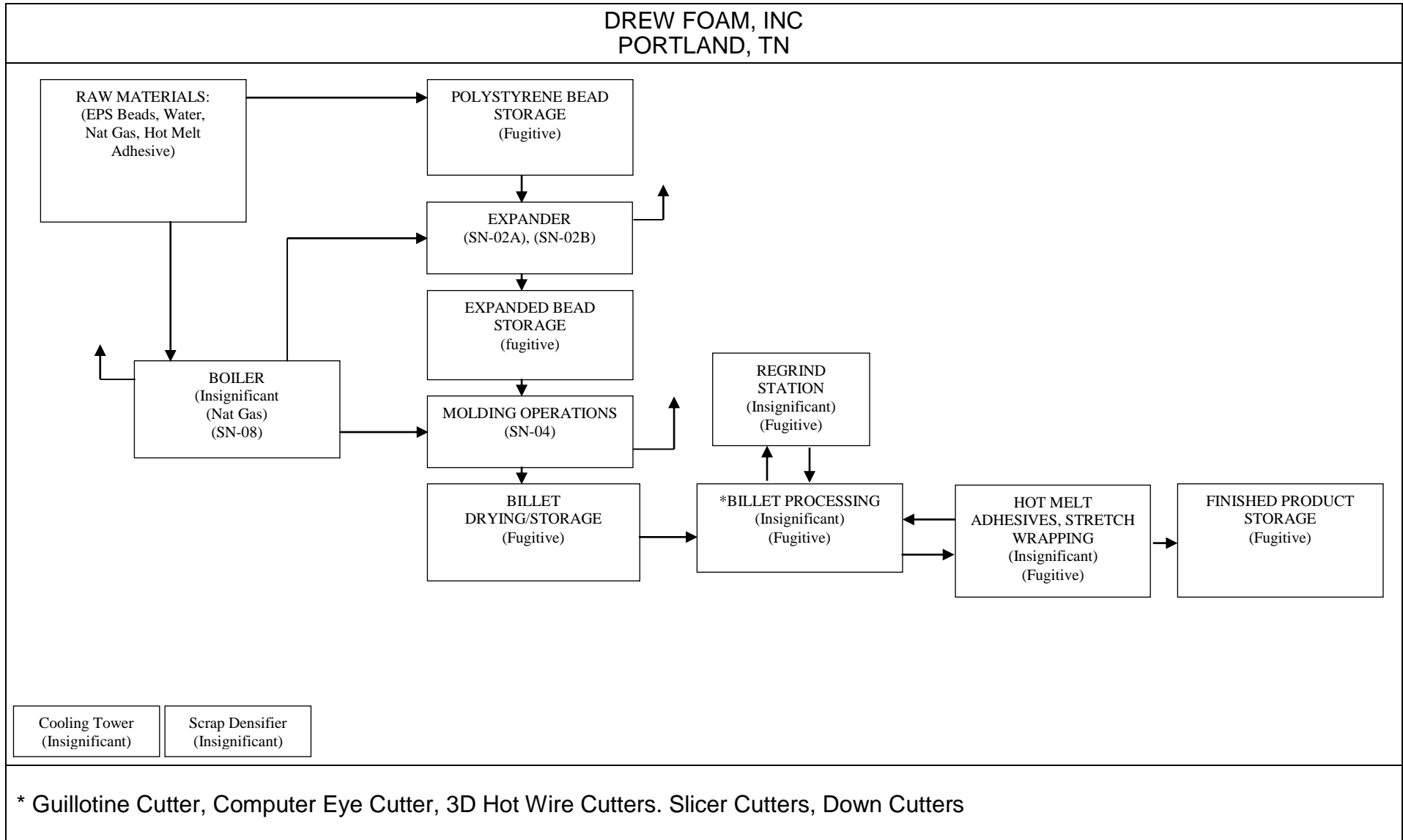
5. Page number:

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Revision Number:

Date of Revision:

**PROCESS FLOW DIAGRAM**







**TITLE V PERMIT APPLICATION  
STACK IDENTIFICATION**

GENERAL IDENTIFICATION AND DESCRIPTION		
1. <b>Facility name:</b> Drew Foam Companies, Incorporated		
2. <b>Emission source (identify):</b> Expander & Expanded Bead Storage		
STACK DESCRIPTION		
3. Stack ID (or flow diagram point identification): Expander & Expanded Bead Storage (2-stack)		
4. Stack height above grade in feet: each stack: 30		
5. Velocity (data at exit conditions): 0.26 _____ (Actual feet per second)	6. Inside dimensions at outlet in feet: 0.5	
7. Exhaust flowrate at exit conditions (ACFM): 76	8. Flow rate at standard conditions (DSCFM): 76	
9. Exhaust temperature: 100 _____ Degrees Fahrenheit (°F)	10. Moisture content (data at exit conditions): 0 _____ Percent      insig _____ Grains per dry standard cubic foot (gr./dscf.)	
11. Exhaust temperature that is equaled or exceeded during ninety (90) percent or more of the operating time ( <u>for stacks subject to diffusion equation only</u> ): n/a _____ (°F)		
12. If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., Opacity, SO <sub>2</sub> , NO <sub>x</sub> , etc.)? n/a		
Complete the appropriate APC form(s) 4, 5, 7, 8, 9, or 10 for each source exhausting through this stack.		
BYPASS STACK DESCRIPTION		
13. Do you have a bypass stack? _____ Yes <input checked="" type="checkbox"/> No		
If yes, describe the conditions which require its use & complete APC form 4 for the bypass stack. Please identify the stack number(s) of flow diagram point number(s) exhausting through this bypass stack.		
14. Page number: 3	Revision Number:	Date of Revision:



**TITLE V PERMIT APPLICATION  
 STACK IDENTIFICATION**

GENERAL IDENTIFICATION AND DESCRIPTION	
1. <b>Facility name:</b> Drew Foam Companies, Incorporated	
2. <b>Emission source (identify):</b> Molder	
STACK DESCRIPTION	
3. Stack ID (or flow diagram point identification): Molder	
4. Stack height above grade in feet: 33	
5. Velocity (data at exit conditions): 9.9 (Actual feet per second)	6. Inside dimensions at outlet in feet: 0.84
7. Exhaust flowrate at exit conditions (ACFM): 1059	8. Flow rate at standard conditions (DSCFM): 1059
9. Exhaust temperature: 105 Degrees Fahrenheit (°F)	10. Moisture content (data at exit conditions): 0 Percent      insig Grains per dry standard cubic foot (gr./dscf)
11. Exhaust temperature that is equaled or exceeded during ninety (90) percent or more of the operating time ( <u>for stacks subject to diffusion equation only</u> ):  n/a (°F)	
12. If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., Opacity, SO <sub>2</sub> , NO <sub>x</sub> , etc.)?  n/a	
Complete the appropriate APC form(s) 4, 5, 7, 8, 9, or 10 for each source exhausting through this stack.	
BYPASS STACK DESCRIPTION	
13. Do you have a bypass stack?  <div style="text-align: center;"> <input type="checkbox"/> Yes      <input checked="" type="checkbox"/> No         </div> <p>If yes, describe the conditions which require its use &amp; complete APC form 4 for the bypass stack. Please identify the stack number(s) of flow diagram point number(s) exhausting through this bypass stack.</p>	
14. Page number: 4	Revision Number:
Date of Revision:	



**TITLE V PERMIT APPLICATION  
 STACK IDENTIFICATION**

GENERAL IDENTIFICATION AND DESCRIPTION	
1. <b>Facility name:</b> Drew Foam Companies, Incorporated	
2. <b>Emission source (identify):</b> Boiler (Natural Gas Fired)	
STACK DESCRIPTION	
3. Stack ID (or flow diagram point identification): Boiler	
4. Stack height above grade in feet: 36	
5. Velocity (data at exit conditions): 15.0 (Actual feet per second)	6. Inside dimensions at outlet in feet: 1.66
7. Exhaust flowrate at exit conditions (ACFM): 1950	8. Flow rate at standard conditions (DSCFM): 2000
9. Exhaust temperature: 450 Degrees Fahrenheit (°F)	10. Moisture content (data at exit conditions): 0 Percent      insig Grains per dry standard cubic foot (gr./dscf)
11. Exhaust temperature that is equaled or exceeded during ninety (90) percent or more of the operating time ( <u>for stacks subject to diffusion equation only</u> ): n/a (°F)	
12. If this stack is equipped with continuous pollutant monitoring equipment required for compliance, what pollutant(s) does this equipment monitor (e.g., Opacity, SO <sub>2</sub> , NO <sub>x</sub> , etc.)? n/a	
Complete the appropriate APC form(s) 4, 5, 7, 8, 9, or 10 for each source exhausting through this stack.	
BYPASS STACK DESCRIPTION	
13. Do you have a bypass stack? <div style="text-align: center; margin-top: 10px;"> <input type="checkbox"/> Yes      <input checked="" type="checkbox"/> No         </div> <p>If yes, describe the conditions which require its use &amp; complete APC form 4 for the bypass stack. Please identify the stack number(s) of flow diagram point number(s) exhausting through this bypass stack.</p>	
14. Page number: 5	Revision Number:
Date of Revision:	



**TITLE V PERMIT APPLICATION  
 FUEL BURNING NON-PROCESS EQUIPMENT**

GENERAL IDENTIFICATION AND DESCRIPTION				
1. <b>Facility name:</b> Drew Foam Companies, Incorporated				
2. <b>Stack ID or flow diagram point identification (s):</b> Boiler				
FUEL BURNING EQUIPMENT DESCRIPTION				
3. List all fuel burning equipment that is at this fuel burning installation (please complete an APC 4 form for each piece of fuel burning equipment). Boiler				
4. Fuel burning equipment identification number: SN-08 (from previous air permit renewal application circa 2010)				
5. Fuel burning equipment description: 3 million BTU/Hr (max) natural gas fired boiler Model #: Hurst S2-G-200-150				
6. Year of installation or last modification of fuel burning equipment. Pre-2010				
7. Furnace type: External Natural Gas Fired			8. Manufacturer model number (if available): S2-G-200-150	
9. Location of this fuel burning installation in UTM coordinates: UTM Vertical: <u>4049798.7m</u> UTM Horizontal: <u>16S 536081.6m</u>				
10. Normal operating schedule: <u>8</u> Hrs./Day <u>5</u> Days/Wk. <u>260</u> Days/Yr.				
FUELS, CONTROLS, AND MONITORING DESCRIPTION				
11. Maximum rated heat input capacity (in million BTU/Hour) 3.0			12. If wood is used as a fuel, specify the amount of wood used as a fraction of total heat input. n/a	
13. Fuels:	Primary fuel	Backup fuel #1	Backup fuel #2	Backup fuel #3
Fuel name	Natural Gas	n/a		
Actual yearly consumption	15.0 mm ft3	n/a		
14. If emissions from this fuel burning equipment are controlled for compliance, please specify the type of control: n/a				
15. If emissions from this fuel burning equipment are monitored for compliance, please specify the type of monitoring: n/a				
16. Describe any fugitive emissions associated with this process, such as outdoor storage piles, open conveyors, material handling operations, etc. (please attach a separate sheet if necessary). n/a				
17. Page number: 6		Revision Number:		Date of Revision:



**TITLE V PERMIT APPLICATION  
 COMPLIANCE CERTIFICATION - MONITORING AND REPORTING  
 DESCRIPTION OF METHODS USED FOR DETERMINING COMPLIANCE**

All sources that are subject to 1200-03-09-.02(11) of the Tennessee Air Pollution Control Regulations are required to certify compliance with all applicable requirements by including a statement within the permit application of the methods used for determining compliance. This statement must include a description of the monitoring, recordkeeping, and reporting requirements and test methods. In addition, the application must include a schedule for compliance certification submittals during the permit term. These submittals must be no less frequent than annually and may need to be more frequent if specified by the underlying applicable requirement or the Technical Secretary.

**GENERAL IDENTIFICATION AND DESCRIPTION**

1. Facility name: Drew Foam Companies, Incorporated
2. Process emission source, fuel burning installation, or incinerator (identify): Boiler / Opacity
3. Stack ID or flow diagram point identification(s): Boiler

**METHODS OF DETERMINING COMPLIANCE**

4. This source as described under Item #2 of this application will use the following method(s) for determining compliance with applicable requirements (and special operating conditions from an existing permit). Check all that apply and attach the appropriate form(s)
- Continuous Emission Monitoring (CEM) - APC 20  
 Pollutant(s): \_\_\_\_\_
- Emission Monitoring Using Portable Monitors - APC 21  
 Pollutant(s): \_\_\_\_\_
- Monitoring Control System Parameters or Operating Parameters of a Process - APC 22  
 Pollutant(s): \_\_\_\_\_
- Monitoring Maintenance Procedures - APC 23  
 Pollutant(s): \_\_\_\_\_
- Stack Testing - APC 24  
 Pollutant(s): \_\_\_\_\_
- Fuel Sampling & Analysis (FSA) - APC 25  
 Pollutant(s): \_\_\_\_\_
- Recordkeeping - APC 26  
 Pollutant(s): \_\_\_\_\_
- Other (please describe) - APC 27  
 Pollutant(s): Consumption of pipeline quality natural gas only

5. Compliance certification reports will be submitted to the Division according to the following schedule:
- Start date: Annually, 1 January 2021
- And every 365 days thereafter.

6. Compliance monitoring reports will be submitted to the Division according to the following schedule:
- Start date: Semi-annually, 1 January 2021
- And every 180 days thereafter.

7. Page number: 9                                  Revision number: \_\_\_\_\_                                  Date of revision: \_\_\_\_\_



**TITLE V PERMIT APPLICATION  
 COMPLIANCE CERTIFICATION - MONITORING AND REPORTING  
 DESCRIPTION OF METHODS USED FOR DETERMINING COMPLIANCE**

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**GENERAL IDENTIFICATION AND DESCRIPTION**

1. Facility name: Drew Foam Companies, Incorporated
2. Process emission source, fuel burning installation, or incinerator (identify): Plantwide Non-Fuel Burning - VOC sources.
3. Stack ID or flow diagram point identification(s): EPS Bead Processing (Plantwide EPS bead storage, molding, processing see PFD)

**METHODS OF DETERMINING COMPLIANCE**

4. This source as described under Item #2 of this application will use the following method(s) for determining compliance with applicable requirements (and special operating conditions from an existing permit). Check all that apply and attach the appropriate form(s)
- Continuous Emission Monitoring (CEM) - APC 20  
 Pollutant(s): \_\_\_\_\_
- Emission Monitoring Using Portable Monitors - APC 21  
 Pollutant(s): \_\_\_\_\_
- Monitoring Control System Parameters or Operating Parameters of a Process - APC 22  
 Pollutant(s): \_\_\_\_\_
- Monitoring Maintenance Procedures - APC 23  
 Pollutant(s): \_\_\_\_\_
- Stack Testing - APC 24  
 Pollutant(s): \_\_\_\_\_
- Fuel Sampling & Analysis (FSA) - APC 25  
 Pollutant(s): \_\_\_\_\_
- Recordkeeping - APC 26  
 Pollutant(s): Mass balance - with the applicable BASF emissions factors applied
- Other (please describe) - APC 27  
 Pollutant(s): \_\_\_\_\_

5. Compliance certification reports will be submitted to the Division according to the following schedule:
- Start date: Annually, 1 January 2021
- And every 365 days thereafter.

6. Compliance monitoring reports will be submitted to the Division according to the following schedule:
- Start date: Semi-annually, 1 January 2021
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All sources that are subject to 1200-03-09-.02(11) of the Tennessee Air Pollution Control Regulations are required to certify compliance with all applicable requirements by including a statement within the permit application of the methods used for determining compliance. This statement must include a description of the monitoring, recordkeeping, and reporting requirements and test methods. In addition, the application must include a schedule for compliance certification submittals during the permit term. These submittals must be no less frequent than annually and may need to be more frequent if specified by the underlying applicable requirement or the Technical Secretary.

**GENERAL IDENTIFICATION AND DESCRIPTION**

1. Facility name: Drew Foam Companies, Incorporated
2. Process emission source, fuel burning installation, or incinerator (identify): Plantwide Non-Fuel Burning - Opacity sources.
3. Stack ID or flow diagram point identification(s): EPS Bead Processing (Plantwide EPS bead storage, molding, processing see PFD)

**METHODS OF DETERMINING COMPLIANCE**

4. This source as described under Item #2 of this application will use the following method(s) for determining compliance with applicable requirements (and special operating conditions from an existing permit). Check all that apply and attach the appropriate form(s)
  - Continuous Emission Monitoring (CEM) - APC 20  
Pollutant(s): \_\_\_\_\_
  - Emission Monitoring Using Portable Monitors - APC 21  
Pollutant(s): \_\_\_\_\_
  - Monitoring Control System Parameters or Operating Parameters of a Process - APC 22  
Pollutant(s): \_\_\_\_\_
  - Monitoring Maintenance Procedures - APC 23  
Pollutant(s): \_\_\_\_\_
  - Stack Testing - APC 24  
Pollutant(s): \_\_\_\_\_
  - Fuel Sampling & Analysis (FSA) - APC 25  
Pollutant(s): \_\_\_\_\_
  - Recordkeeping - APC 26  
Pollutant(s): \_\_\_\_\_
  - Other (please describe) - APC 27  
Pollutant(s): Opacity Matrix (2013)

5. Compliance certification reports will be submitted to the Division according to the following schedule:  
 Start date: Annually, 1 January 2021  
 And every 365 days thereafter.

6. Compliance monitoring reports will be submitted to the Division according to the following schedule:  
 Start date: Semi-annually, 1 January 2021  
 And every 180 days thereafter.

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**TITLE V PERMIT APPLICATION  
 COMPLIANCE DEMONSTRATION BY RECORDKEEPING**

Recordkeeping shall be acceptable as a compliance demonstration method provided that a correlation between the parameter value recorded and the applicable requirement is established.

**GENERAL IDENTIFICATION AND DESCRIPTION**

1. Facility name: Drew Foam Companies, Inc	2. Stack ID or flow diagram point identification(s): EPS Bead Processing (Plantwide EPS bead storage, molding, processing see PFD)
3. Emission source (identify): Plantwide Non-Fuel Burning VOC sources.	

**MONITORING AND RECORDKEEPING DESCRIPTION**

4. Pollutant(s) or parameter being monitored: VOC
5. Material or parameter being monitored and recorded: EPS bead throughput
6. Method of monitoring and recording: Mass balance with the applicable BASF emissions factor(s) applied.

7. Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated): Monthly, with a rolling 12-month total summary
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**TITLE V PERMIT APPLICATION  
 COMPLIANCE DEMONSTRATION BY OTHER METHOD(S)**

**GENERAL IDENTIFICATION AND DESCRIPTION**

1. Facility name: Drew Foam Companies, Inc.	2. Stack ID or flow diagram point identification(s): Plantwide Non-Fuel Burning - Opacity sources.
--	---

3. Emission source (identify):  
 EPS Bead Processing (Plantwide EPS bead storage, molding, processing see PFD)

**MONITORING DESCRIPTION**

4. Pollutant(s) or parameter being monitored:  
 PM 10, PM 2.5

5. Description of the method of monitoring:  
 Permittee will compliance with the 20% opacity standard through the use of the Opacity Matrix (2013).

6. Compliance demonstration frequency (specify the frequency with which compliance will be demonstrated):  
 Continually

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**TITLE V PERMIT APPLICATION  
 EMISSION SUMMARY FOR THE FACILITY OR FOR THE  
 SOURCES CONTAINED IN THIS APPLICATION**

**GENERAL IDENTIFICATION AND DESCRIPTION**

1. Facility name: Drew Foam Companies, Inc.

**EMISSIONS SUMMARY TABLE – CRITERIA AND SELECTED POLLUTANTS**

2. Complete the following emissions summary for regulated air pollutants at this facility or for the sources contained in this application.

Air Pollutant	Summary of Maximum Allowable Emissions		Summary of Actual Emissions	
	Tons per Year	Reserved for State use (Pounds per Hour- Item 4, APC 28)	Tons per Year	Reserved for State use (Pounds per Hour- Item 4, APC 28)
Particulate Matter (TSP)	n/a		0.11	
Sulfur Dioxide	n/a		0.008	
Volatile Organic Compounds	n/a		240.00	
Carbon Monoxide	n/a		1.09	
Lead				
Nitrogen Oxides	n/a		1.29	
Total Reduced Sulfur				
Mercury				
Asbestos				
Beryllium				
Vinyl Chlorides				
Fluorides				
Gaseous Fluorides				
Greenhouse Gases in CO <sub>2</sub> Equivalents				

( Continued on next page )





**TITLE V PERMIT APPLICATION  
 COMPLIANCE PLAN AND COMPLIANCE CERTIFICATION**

**GENERAL IDENTIFICATION AND DESCRIPTION**

1. Facility name:

**Drew Foam Companies, Inc.**

2. List all the process emission source(s) or fuel burning installation(s) or incinerator(s) that are part of this application.

1. Polystyrene Bead Storage
2. Expander
3. Expanded Bead Storage
4. Molding Operations

**COMPLIANCE PLAN AND CERTIFICATION**

3. Indicate that source(s) which are contained in this application are presently in compliance with all applicable requirements, by checking the following:

A. Attached is a statement of identification of the source(s) currently in compliance. We will continue to operate and maintain the source(s) to assure compliance with all the applicable requirements for the duration of the permit.

B. APC 30 form(s) includes new requirements that apply or will apply to the source(s) during the term of the permit. We will meet such requirements on a timely basis.

4. Indicate that there are source(s) that are contained in this application which are not presently in full compliance, by checking both of the following:

A. Attached is a statement of identification of the source(s) not in compliance, non-complying requirement(s), brief description of the problem, and the proposed solution.

B. We will achieve compliance according to the following schedule:

Action

Deadline

n/a - all sources in compliance at this time.

Progress reports will be submitted:

Start date: n/a

and every 180 days thereafter until compliance is achieved.

5. State the compliance status with any applicable compliance assurance monitoring and compliance certification requirements that have been promulgated under section 114(a)(3) of the Clean Air Act as of the date of submittal of this APC 31.

n/a

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Revision number:

Date of revision:



**TITLE V PERMIT APPLICATION  
 APPLICATION COMPLETENESS CHECK LIST**

**Note to Applicants: The Application Completeness Check List is required by Division Rule 1200-03-09-.02(11)(d)1(ii)(I) and is used by Division staff to determine whether or not an application is complete. This checklist will be used to resolve any dispute between the applicant and the Division regarding the completeness of an application.**

<b>Section 1: Identification and Diagrams (APC 1 and APC 2)</b>		
<b>Requirement</b>	<b>Complete</b>	<b>Incomplete</b>
Site Information	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Contact Information (Responsible Official)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Contact Information (Technical)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Contact Information (Billing)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Type of Permit Requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Accidental Release Information	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nonattainment/Additional Control Area Designation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
List of Valid Permits	<input checked="" type="checkbox"/>	<input type="checkbox"/>
List and description of process emission sources, fuel burning installations, and incinerators	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flow diagram attached?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
List of Insignificant Activities	<input checked="" type="checkbox"/>	<input type="checkbox"/>
List of Storage Piles	<input checked="" type="checkbox"/>	<input type="checkbox"/>
List of States within 50 Miles	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Section 2: Emission Source Description Forms</b>		
Forms are complete as received:		<input type="checkbox"/>
Forms are incomplete (one or more application forms not submitted)		<input type="checkbox"/>
Forms are incomplete (missing information on the following application forms):	APC Form 3, Stack Identification	<input checked="" type="checkbox"/>
	APC Form 4, Fuel Burning Non-Process Equipment	<input checked="" type="checkbox"/>
	APC Form 5, Stationary Gas Turbines or Internal Combustion Engines	<input type="checkbox"/>
	APC Form 6, Storage Tanks	<input type="checkbox"/>
	APC Form 7, Incinerators	<input type="checkbox"/>
	APC Form 8, Printing Operations	<input type="checkbox"/>
	APC Form 9, Painting and Coating Operations	<input type="checkbox"/>
	APC Form 10, Miscellaneous Processes	<input type="checkbox"/>
	APC Form 33, Stage I and Stage II Vapor Recovery Equipment	<input type="checkbox"/>
	APC Form 34, Open Burning	<input type="checkbox"/>

<b>Section 3: Air Pollution Control System Forms</b>			
Forms are complete as received:		<input type="checkbox"/>	
Forms are incomplete (one or more application forms not submitted)		<input type="checkbox"/>	
Forms are incomplete (missing information on the following application forms):	APC Form 11, Control Equipment - Miscellaneous	<input type="checkbox"/>	
	APC Form 13, Adsorbers	<input type="checkbox"/>	
	APC Form 14, Catalytic or Thermal Oxidation Equipment	<input type="checkbox"/>	
	APC Form 15, Cyclones/Settling Chambers	<input type="checkbox"/>	
	APC Form 17, Wet Collection Systems	<input type="checkbox"/>	
	APC Form 18, Baghouse/Fabric Filters	<input type="checkbox"/>	
<b>Section 4: Compliance Demonstration Forms</b>			
Forms are complete as received:		<input type="checkbox"/>	
Forms are incomplete (one or more application forms not submitted)		<input type="checkbox"/>	
Forms are incomplete (missing information on the following application forms):	APC Form 19, Compliance Certification - Monitoring and Reporting - Description of Methods for Determining Compliance	<input checked="" type="checkbox"/>	
	APC Form 20, Continuous Emissions Monitoring	<input type="checkbox"/>	
	APC Form 21, Portable Monitors	<input type="checkbox"/>	
	APC Form 22, Control System Parameters or Operating Parameters of a Process	<input type="checkbox"/>	
	APC Form 23, Monitoring Maintenance Procedures	<input type="checkbox"/>	
	APC Form 24, Stack Testing	<input type="checkbox"/>	
	APC Form 25, Fuel Sampling and Analysis	<input type="checkbox"/>	
	APC Form 26, Recordkeeping	<input checked="" type="checkbox"/>	
	APC Form 27, Other Methods	<input checked="" type="checkbox"/>	
	APC Form 28, Emissions from Process Emissions Sources / Fuel Burning Installations / Incinerators	<input type="checkbox"/>	
	APC Form 29, Emissions Summary for the Facility or for the Source Contained in This Application	<input checked="" type="checkbox"/>	
	APC Form 30, Current Emissions Requirements and Status	<input type="checkbox"/>	
	APC Form 32, Air Monitoring Network	<input type="checkbox"/>	
<b>Section 5: Statement of Completeness and Certification of Compliance</b>			
Requirement	Complete	Incomplete	Not Applicable
Certification of Truth, Accuracy, and Completeness (Form APC 1, Section 5)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
General Identification and Description (Form APC 31, Items 1 and 2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Compliance Certification for Sources Currently in Compliance (Form APC 31, Item 3A)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Compliance Certification for New Applicable Requirements (Form APC 31, Item 3B)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Identification of Sources Currently Not in Compliance (Form APC 31, Item 4A)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Compliance Schedule for Sources Currently Not in Compliance (Form APC 31, Item 4B)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Compliance Certification for Enhanced Monitoring (Form APC 31, Item 5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Section 6: Miscellaneous Information		
Item	Included	Not Included
For Title V modifications, is a description of the modification included?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Request for Permit Shield	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Calculations on which emissions-related information are based	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Identification of alternative operating scenarios, as applicable	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Explanation of any proposed exemptions from otherwise applicable requirements	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other information needed for completeness (explain in comments)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Section 7: Comments**

Describe any missing information below or in a separate attachment:

**Section 8: Application Completeness**

Application is Complete	<input type="checkbox"/>
Application is Incomplete	<input type="checkbox"/>

## Instructions for Form APC 35

The following minimum requirements for Title V applications are established by 40 CFR §70.5(c), and the information described below must be included in the application. An application may not omit information needed to determine the applicability of, or to impose, any applicable requirement<sup>1</sup>, or to evaluate the fee amount required under the approved fee schedule. **Sources subject to Title IV of the Clean Air Act (Acid Rain Program) must use nationally-standardized forms for Acid Rain portions of permit applications and compliance plans.**

**General Information** – applications must include the following information:

- (1) Identifying information, including company name and address (or plant name and address if different from the company name), owner's name and agent, and telephone number and names of plant site manager/contact.
- (2) A description of the source's processes and products by SIC Code, including those associated with any proposed alternative operating scenarios<sup>2</sup>.
- (3) The following information to the extent it is needed to determine or regulate emissions: fuels, fuel use, raw materials, production rates, and operating schedules.
- (4) A list of insignificant activities. Tennessee Air Pollution Control Regulations (TAPCR) 1200-03-09-.04(5)(g) includes a list of insignificant activities that do not need to be included in permit applications. However, insignificant activities that are exempted because of size or production rate but are not listed in 1200-03-09-.04(5)(g) must be included in the application.

**Emissions-Related Information** – applications must include the following information:

- (1) All emissions of regulated air pollutants<sup>3</sup> from any emissions unit, except where such units are exempted. Emission rates must be reported in tons per year and in units that are consistent with the applicable standard reference test method. For applicants subject to a facility-wide emissions cap, emissions can be reported as an aggregate value for the entire facility, except where more specific information is needed (e. g., where it is necessary to assure compliance with an applicable requirement for a specific emissions unit).
- (2) Identification and description of all stacks/emission points (information required on Form APC 3).
- (3) Any limits on the source that affect emissions (e. g., operating hours or work practice standards).
- (4) Any information needed to identify or implement proposed alternative operating scenarios. The application must demonstrate that the facility has obtained all required authorizations for any proposed alternative operating scenarios or a certification that the facility has submitted all relevant materials to the permitting authority for obtaining the required authorizations.
- (5) Calculations on which emissions and/or stack information is based.

**Compliance Information** – applications must include the following information:

- (1) Identification and description of air pollution control equipment and compliance monitoring devices or activities.
- (2) A citation and description of all applicable requirements.

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<sup>1</sup> **Applicable requirements** include: approved State Implementation Plan (SIP) requirements, major New Source Review requirements, NSPS and MACT requirements, Acid Rain Program requirements, requirements established pursuant to §504(b) of the Clean Air Act (Title V compliance methods), and requirements for solid waste combustion (Clean Air Act Section 129). For a complete list, see the definition in TAPCR 1200-03-09-.02(11)(b).

<sup>2</sup> **Alternative operating scenarios** are authorized scenarios that subject an emissions unit to different applicable requirements, depending on the mode of operation.

<sup>3</sup> **Regulated air pollutant** means NO<sub>x</sub>, VOC, any pollutant subject to a National Ambient Air Quality Standard, any pollutant regulated by an NSPS or MACT standard, or any Class I or II substance regulated under Title VI of the Clean Air Act (ozone depleting substances).



- (3) A description of (or reference to) any test method used to determine compliance with applicable requirements.
- (4) An explanation of any proposed exemptions from otherwise applicable requirements.
- (5) Other specific information that may be necessary to implement and enforce other applicable requirements of the Clean Air Act (e. g., information related to stack height limitations developed pursuant to Clean Air Act section 123).

**Compliance Certification and Compliance Plan** – applications must include the following information:

- (1) A description of the compliance status of the source with respect to all applicable requirements, as follows:
  - (a) For applicable requirements with which the source is in compliance, a statement that the source will continue to comply with such requirements.
  - (b) For applicable requirements that will become effective during the permit term, a statement that the source will meet such requirements on a timely basis.
  - (c) For requirements for which the source is not in compliance at the time of permit issuance, submit the following information:
    - (i) A narrative description of how the source will achieve compliance with such requirements.
    - (ii) A schedule of compliance for sources that are not in compliance with all applicable requirements at the time of permit issuance. The schedule must include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the source will be in noncompliance at the time of permit issuance. This compliance schedule must be at least as stringent as the schedule contained in any enforcement order or consent decree to which the source is subject.
    - (iii) A schedule for submission of certified progress reports no less frequently than every six months.
- (2) A schedule for submission of compliance certifications during the permit term.
- (3) A statement indicating the source's compliance status with any applicable enhanced monitoring and compliance certification requirements of the Act.
- (4) A certification of the truth, accuracy, and completeness of the application.



13000 Cantrell • Little Rock, Arkansas 72223 • Phone 501.975.8100 • www.ecci.com

November 2, 2020

State of Tennessee Department of Environment and Conservation  
Division of Air Pollution Control  
William R. Snodgrass Tennessee Tower  
312 Rosa L. Parks Avenue, 15th Floor  
Nashville, TN 37243

Subject: Title V Operating Permit Renewal Application  
Re: Drew Foam Companies, Inc. – Portland, Tennessee  
Emission Source Reference No.: 74-0102;  
Permit Number: 564022

Dear Sir/Ma'am:

Drew Foam Companies, Incorporated (Drew Foam) operates an expandable polystyrene (EPS) manufacturing facility located at 3050 Barry Drive, in Portland, Tennessee as a Major source under the authority of air operating permit 564022 (permit).

As a requirement of the permit, the facility is required to submit an air operating renewal application every five (5) years, if continued operations are anticipated. The attached application has been generated to meet this requirement.

If you should have any questions or require any additional information, please feel free to call Mr. Jim Karasek of Drew Foam at (870) 460-4954, or me at (501) 975-8100.

Sincerely,

ECCI

A handwritten signature in black ink, appearing to read 'Jeff Haynes', written in a cursive style.

Jeff Haynes, BS, MS, REM  
Senior Environmental Scientist

## EMISSIONS CALCULATIONS

### 1. Plantwide EPS Processing - Particulate (PM-10, PM-2.5) Emissions (excluding natural gas boiler)(Insignificant Activity)

As part of the polystyrene block manufacturing process, pre-expansion, and post-expansion EPS beadstock is pneumatically transferred throughout the plant, and molded billets are cut, sawn, ground, and stored on-site. These processes are expected to generate particulate emissions (PM), however, these sources do not directly exhaust to the atmosphere, with the PM emissions falling to the floor to be swept up and contained. However, it is assumed that an insignificant portion of these emission will migrate to open doors exhaust vents and stacks. The emissions below conservatively assume that for each 1000 lbs of beads processed, 0.5 lbs of particulate emissions will be generated at PM, and of the emissions generated, 1% of that will migrate outside the plant. Since the EPS Processing PM sources within the plant are all fugitive in nature, and are directly related to the amount of EPS beadstock processed, their PM emissions have been combined herein.

Note: Maximum hourly emissions are limited by the mold processing times, which restrict bead throughput to 3482 lb/hr throughout the plant.

Throughputs (Polystyrene Beads) = 3,482 lb (hourly)

### Plantwide EPS Processing

Throughput (Polystyrene Beads) = 3,482 lb (hourly)

### PM-1-/PM-2.5 Emissions (excluding natural gas boiler)

Hourly = (3,482 lb/hr beads)(0.5 lbs PM emitted/1000 lbs beads processed)(1% PM to the atmosphere) = **0.008 lb/hr**

Annual = (0.008 lb PM/hr)( 8,760 hr/yr)(ton / 2,000 lbs) = **0.04 TPY**

2. Plantwide EPS Processing - Volatile Organic Compound (VOC) Emissions  
(excluding natural gas boiler)

Polystyrene beads have maximum pentane (VOC) content by weight of 7.0%. Drew Foam employs a batch block molding process, with approximately twenty-four (24) hours of intermediate aging, primarily using an EPS bead similar to the feedstock cited in the technical bulletin issued by BASF entitled "Environmental Pentane Emissions During Processing (1999)". According to the BASF study, approximately 13% is emitted while in storage prior to expansion; approximately 21% is emitted during aging; and approximately 13% is emitted during block molding. The remainder of the pentane stays in the molded product for an extended period of time at a rate estimated by the BASF study to be 45% at the two-week mark, for a total emissions rate of 55% (rounded up to 60% to ensure true "worse-case" emissions in the calculations below).

Note: Maximum hourly emissions are limited by the mold processing times, which restrict bead throughput to 3482 lb/hr for block molding.

Throughputs (Polystyrene Beads) = 3,482 lb (hourly)

2a. Polystyrene Bead Storage

EPS beads are received and stored prior to processing. Per the BASF Technical Bulletin, approximately 13% pentane is emitted during pre-expansion storage process.

Throughput (Polystyrene Beads) = 3,482 lb (hourly)

*VOC Emissions* (excluding natural gas boiler)

Hourly = (3,482 lb/hr beads)(7% pentane)(13%) = 31.69 lb/hr

Annual = 240.0 TPY\*

*\*The facility requests a plantwide emissions limit with compliance demonstrated through mass-balance recordkeeping adjusted using the appropriate emissions factors outlined in the 1999 BASF technical bulletin: "Environmental Pentane Emissions During Processing".*

**2b. Expander and Expanded Polystyrene Bead Storage (Stacks A, B)**

Low pressure steam is used to expand the beads to a desired density before they are dried with ambient air in a fluidized bed dryer. The dried beads are routed from the bed dryer to storage bags through a transfer piping system and aged.

Per the BASF Technical Bulletin, approximately 21% pentane is emitted during the aging process. (Note: expansion, aging and expanded bead storage are collectively referred to as "Aging").

Throughput (Polystyrene Beads) = 3,482 lb (hourly)

**VOC Emissions** (excluding natural gas boiler)

$$\text{Hourly} = (3,482 \text{ lb/hr beads})(7\% \text{ pentane})(21\%) = 51.19 \text{ lb/hr}$$

$$\text{Annual} = 240.0 \text{ TPY}^*$$

*\*The facility requests a plantwide emissions limit with compliance demonstrated through mass-balance recordkeeping adjusted using the appropriate emissions factors outlined in the 1999 BASF technical bulletin: "Environmental Pentane Emissions During Processing".*

*\*The facility requests a plantwide emissions limit with compliance demonstrated through mass-balance recordkeeping adjusted using the appropriate emissions factors outlined in the 1999 BASF technical bulletin: "Environmental Pentane Emissions During Processing".*

2c. Molding Operations

Expanded polystyrene beads are routed from the storage bags through a transfer piping system to the molding process. Low pressure steam is used to fuse the beads into blocks of various shapes and sizes.

Per the BASF Technical Bulletin, approximately 13% of the pentane is emitted during the molding operations for both block molding.

Throughput (Polystyrene Beads) = 3,482 lb (hourly)

VOC Emissions (excluding natural gas boiler)

Hourly = (3,482 lb/hr beads)(7% pentane)(13%) = 31.69 lb/hr

Annual = 240.0 TPY\*

*\*The facility requests a plantwide emissions limit with compliance demonstrated through mass-balance recordkeeping adjusted using the appropriate emissions factors outlined in the 1999 BASF technical bulletin: "Environmental Pentane Emissions During Processing".*

2d. Billet Drying/Storage; Billet processing; Regrind Storage; and Product Storage

The billets are transferred from the molds to the storage area. The billets are either dried by radiant heat from the natural gas boiler or ambient air. Billets are moved from the storage area to various cutting machinery (high resistance electrical wires or band saws) where they are cut to project specifications. Off specification pieces are processed through a grinder which cuts the material into small pieces, which is then recovered and reused. Regrind material is conveyed through a transfer piping system to a bag storage area.

The BASF study does not quantify the pentane emissions specifically for Billet Drying/Storage, Billet Processing, Regrind Storage, and Product Storage, however, we can

estimate these emissions by using a mass-balance, and assuming that any emissions already quantified by source, and then subtracted from the total loss, represents the pentane lost at these non-quantified processes. Through this approach, the emissions associated with Billet Drying/Storage, Billet Processing, Regrind Storage, and Product Storage are estimated below.

#### VOC

$$\begin{aligned} \text{Billet Drying/Storage, Billet Processing, Regrind Storage, and Product Storage} &= \\ (\text{Total loss} - (\text{Pre-expansion Storage loss} + \text{Aging loss} + \text{Molding loss})) &= \\ (60\% - (13\% + 21\% + 13\%)) &= 13\% \end{aligned}$$

$$\text{Throughput (Polystyrene Beads)} = 3,482 \text{ lb (hourly)}$$

#### VOC Emissions (excluding natural gas boiler)

$$\text{Hourly} = (3,482 \text{ lb/hr beads})(7\% \text{ pentane})(13\%) = 31.69 \text{ lb/hr}$$

$$\text{Annual} = 240.0 \text{ TPY}^*$$

*\*The facility requests a plantwide emissions limit with compliance demonstrated through mass-balance recordkeeping adjusted using the appropriate emissions factors outlined in the 1999 BASF technical bulletin: "Environmental Pentane Emissions During Processing".*

3. Natural Gas Boiler (3.00 MM Btu/Hr)(Insignificant Activity)

This 150-hp natural gas boiler will supply the steam required for the expander and molding operations. The boiler has a maximum firing rate of 3.00 MM Btu/hr (i.e., 2,942 scf/hr). The following factors from EPA AP-42, Chapter 1, Section 1.4 ("Natural Gas Combustion"), Tables 1.4-1 and 1.4-2 (use small boilers uncontrolled since unit is less than 100 MM Btu/hr):

- Particulate matter = 7.6 lb/MM scf
- Sulfur dioxide = 0.6 lb/MM scf
- Nitrogen dioxide = 100 lb/MM scf
- Carbon monoxide = 84 lb/MM scf
- Volatile organic compounds = 5.5 lb/MM scf
- Hazardous Air Pollutants (HAPs) = various (see attached spreadsheet)

**Particulate Matter** (Table 1.4-2)

$$(2,942 \text{ scf/hr})(7.6 \text{ lb / MM scf}) = < \underline{\underline{0.03 \text{ lb/hr}}}$$

$$(2,942 \text{ scf/hr})(8,760 \text{ hr/yr})(7.6 \text{ lb / MM scf})(\text{ton / 2,000 lbs}) = \underline{\underline{0.10 \text{ TPY}}}$$

**Sulfur Dioxide** (Table 1.4-2)

$$(2,942 \text{ scf/hr})(0.6 \text{ lb / MM scf}) = < \underline{\underline{0.002 \text{ lb/hr}}}$$

$$(2,942 \text{ scf/hr})(8,760 \text{ hr/yr})(0.002 \text{ lb / MM scf})(\text{ton / 2,000 lb}) = < \underline{\underline{0.00003 \text{ TPY}}}$$

**Nitrogen Dioxide** (Table 1.4-1)

$$(2,942 \text{ scf/hr})(100.0 \text{ lb / MM scf}) = \underline{\underline{0.30 \text{ lb/hr}}}$$

$$(2,942 \text{ scf/hr})(8,760 \text{ hr/yr})(0.30 \text{ lb / MM scf})(\text{ton / 2,000 lb}) = \underline{\underline{0.004 \text{ TPY}}}$$

**Carbon Monoxide** (Table 1.4-1)

$$(2,942 \text{ scf/hr})(84.0 \text{ lb / MM scf}) = \underline{\underline{0.24 \text{ lb/hr}}}$$

$$(2,942 \text{ scf/hr})(8,760 \text{ hr/yr})(0.24 \text{ lb / MM scf})(\text{ton / 2,000 lb}) = \underline{\underline{0.004 \text{ TPY}}}$$



**Volatile Organic Compounds (Table 1.4-2)**

$$(2,942 \text{ scf/hr})(5.5 \text{ lb / MM scf}) = < \underline{\underline{0.02 \text{ lb/hr}}}$$

$$(2,942 \text{ scf/hr})(8,760 \text{ hr/yr})(0.02 \text{ lb / MM scf})(\text{ton / 2,000 lb}) = \underline{\underline{0.0003 \text{ TPY}}}$$

**HAPs (Table 1.4-3)**

\*Hexane 110-54-3

$$(2,942 \text{ scf/hr})(1.8 \text{ lb / MM scf}) = < \underline{\underline{0.006 \text{ lb/hr}}}$$

$$(2,942 \text{ scf/hr})(8,760 \text{ hr/yr})(1.8 \text{ lb / MM scf})(\text{ton / 2,000 lb}) = \underline{\underline{0.024 \text{ TPY}}}$$

(\* Only those HAPs with emissions rates above 0.001 tpy included - see attached spreadsheet for all HAP emissions rates)

**Scrap Densifier (Insignificant Activity)**

The facility operates one (1) Scrap Densifier (Make: Avantguard Innovative/Model: FD-3000) which is electrically powered and manually fed. Emissions are calculated using vendor supplied air sampling data on a similar model (FD-25) that is available upon request.

**PM/PM10:**

$$(*0.040 \text{ mg PM}/94 \text{ min})(60 \text{ min/hr})(\text{g}/1000 \text{ mg})(\text{lb}/453.7 \text{ g})= 0.00000006 \text{ lb/hr}$$
$$(0.00000006 \text{ lb PM/hr})(8,760 \text{ hrs/yr})(1 \text{ ton}/2,000\text{lb}) = 0.0000003 \text{ TPY}$$

\* Total dust (particulate) emissions – Vendor Supplied Data available upon request  
Request this source be listed as an insignificant.

**4. Cooling Tower (Insignificant Activity)**

The facility operates one (1) cooling tower. Emissions are calculated using AP-42 emission factors for Induced Draft Wet Cooling Towers (Chapter 13.4, Table 13.4-1).

**PM/PM10:**

$$(350.0 \text{ gal H}_2\text{O}/\text{min})(60 \text{ min})(*0.005\%)(**0.019 \text{ lb PM}/1000 \text{ gal H}_2\text{O}) = 0.00002 \text{ lb/hr}$$

$$(0.00002 \text{ lb/hr})(8,760 \text{ hr/yr})(\text{ton}/2,000 \text{ lb}) = 0.00009 \text{ tpy}$$

\* Flow Rate & Total Drift Loss Factor - Vendor Supplied Data (Marley 493) available upon request

\*\* TDS - Chapter 13.4, Table 13.4-1

**EMISSION SUMMARY**

Source No.	SOURCE DESCRIPTION	Pollutant	Emission Rates	
			lb/hr	tpy
<i>Total Allowable Plantwide Emissions</i>		PM/PM <sub>10</sub>	**n/a	**n/a
		VOC	178.0	*240.0
		Total HAPs	**n/a	**n/a
		Individual HAPs	**n/a	**n/a
Plantwide EPS Processing – Polystyrene Bead Storage		VOC	31.69	*
		Total HAPs	**n/a	
		Individual HAP	**n/a	
Plantwide EPS Processing – Expander & Expanded Polystyrene Bead Storage		VOC	51.19	*
		Total HAPs	**n/a	
		Individual HAP	**n/a	
Plantwide EPS Processing - Molding Operations		VOC	31.69	*
		Total HAPs	**n/a	
		Individual HAP	**n/a	
Plantwide EPS Processing - Billet Drying/Storage; Billet processing; Re grind Storage; and Product Storage		VOC	31.69	*
		Total HAPs	**n/a	
		Individual HAP	**n/a	
* Compliance with tpy emissions limits demonstrated on a 12-month rolling total basis through monthly mass balance recordkeeping with the appropriate BASF emissions factors applied. ** Table includes only significant emissions sources – see calculations for insignificant emissions				

## EMISSIONS CALCULATIONS

### 1. Plantwide EPS Processing - Particulate (PM-10, PM-2.5) Emissions (excluding natural gas boiler)(Insignificant Activity)

As part of the polystyrene block manufacturing process, pre-expansion, and post-expansion EPS beadstock is pneumatically transferred throughout the plant, and molded billets are cut, sawn, ground, and stored on-site. These processes are expected to generate particulate emissions (PM), however, these sources do not directly exhaust to the atmosphere, with the PM emissions falling to the floor to be swept up and contained. However, it is assumed that an insignificant portion of these emission will migrate to open doors exhaust vents and stacks. The emissions below conservatively assume that for each 1000 lbs of beads processed, 0.5 lbs of particulate emissions will be generated at PM, and of the emissions generated, 1% of that will migrate outside the plant. Since the EPS Processing PM sources within the plant are all fugitive in nature, and are directly related to the amount of EPS beadstock processed, their PM emissions have been combined herein.

Note: Maximum hourly emissions are limited by the mold processing times, which restrict bead throughput to 3482 lb/hr throughout the plant.

Throughputs (Polystyrene Beads) = 3,482 lb (hourly)

### Plantwide EPS Processing

Throughput (Polystyrene Beads) = 3,482 lb (hourly)

### PM-1-/PM-2.5 Emissions (excluding natural gas boiler)

Hourly = (3,482 lb/hr beads)(0.5 lbs PM emitted/1000 lbs beads processed)(1% PM to the atmosphere) = **0.018 lb/hr**

Annual = (0.018 lb PM/hr)( 8,760 hr/yr)(ton / 2,000 lbs) = **0.08 TPY**

2. Plantwide EPS Processing - Volatile Organic Compound (VOC) Emissions  
(excluding natural gas boiler)

Polystyrene beads have maximum pentane (VOC) content by weight of 7.0%. Drew Foam employs a batch block molding process, with approximately twenty-four (24) hours of intermediate aging, primarily using an EPS bead similar to the feedstock cited in the technical bulletin issued by BASF entitled "Environmental Pentane Emissions During Processing (1999)". According to the BASF study, approximately 13% is emitted while in storage prior to expansion; approximately 21% is emitted during aging; and approximately 13% is emitted during block molding. The remainder of the pentane stays in the molded product for an extended period of time at a rate estimated by the BASF study to be 45% at the two-week mark, for a total emissions rate of 55% (rounded up to 60% to ensure true "worse-case" emissions in the calculations below).

Note: Maximum hourly emissions are limited by the mold processing times, which restrict bead throughput to 3482 lb/hr for block molding.

Throughputs (Polystyrene Beads) = 3,482 lb (hourly)

2a. Polystyrene Bead Storage

EPS beads are received and stored prior to processing. Per the BASF Technical Bulletin, approximately 13% pentane is emitted during pre-expansion storage process.

Throughput (Polystyrene Beads) = 3,482 lb (hourly)

*VOC Emissions* (excluding natural gas boiler)

Hourly = (3,482 lb/hr beads)(7% pentane)(13%) = 31.69 lb/hr

Annual = 240.0 TPY\*

*\*The facility requests a plantwide emissions limit with compliance demonstrated through mass-balance recordkeeping adjusted using the appropriate emissions factors outlined in the 1999 BASF technical bulletin: "Environmental Pentane Emissions During Processing".*

**2b. Expander and Expanded Polystyrene Bead Storage (Stacks A, B)**

Low pressure steam is used to expand the beads to a desired density before they are dried with ambient air in a fluidized bed dryer. The dried beads are routed from the bed dryer to storage bags through a transfer piping system and aged.

Per the BASF Technical Bulletin, approximately 21% pentane is emitted during the aging process. (Note: expansion, aging and expanded bead storage are collectively referred to as "Aging").

Throughput (Polystyrene Beads) = 3,482 lb (hourly)

**VOC Emissions** (excluding natural gas boiler)

$$\text{Hourly} = (3,482 \text{ lb/hr beads})(7\% \text{ pentane})(21\%) = 51.19 \text{ lb/hr}$$

$$\text{Annual} = 240.0 \text{ TPY}^*$$

*\*The facility requests a plantwide emissions limit with compliance demonstrated through mass-balance recordkeeping adjusted using the appropriate emissions factors outlined in the 1999 BASF technical bulletin: "Environmental Pentane Emissions During Processing".*

*\*The facility requests a plantwide emissions limit with compliance demonstrated through mass-balance recordkeeping adjusted using the appropriate emissions factors outlined in the 1999 BASF technical bulletin: "Environmental Pentane Emissions During Processing".*

2c. Molding Operations

Expanded polystyrene beads are routed from the storage bags through a transfer piping system to the molding process. Low pressure steam is used to fuse the beads into blocks of various shapes and sizes.

Per the BASF Technical Bulletin, approximately 13% of the pentane is emitted during the molding operations for both block molding.

Throughput (Polystyrene Beads) = 3,482 lb (hourly)

VOC Emissions (excluding natural gas boiler)

Hourly = (3,482 lb/hr beads)(7% pentane)(13%) = 31.69 lb/hr

Annual = 240.0 TPY\*

*\*The facility requests a plantwide emissions limit with compliance demonstrated through mass-balance recordkeeping adjusted using the appropriate emissions factors outlined in the 1999 BASF technical bulletin: "Environmental Pentane Emissions During Processing".*

2d. Billet Drying/Storage; Billet processing; Regrind Storage; and Product Storage

The billets are transferred from the molds to the storage area. The billets are either dried by radiant heat from the natural gas boiler or ambient air. Billets are moved from the storage area to various cutting machinery (high resistance electrical wires or band saws) where they are cut to project specifications. Off specification pieces are processed through a grinder which cuts the material into small pieces, which is then recovered and reused. Regrind material is conveyed through a transfer piping system to a bag storage area.

The BASF study does not quantify the pentane emissions specifically for Billet Drying/Storage, Billet Processing, Regrind Storage, and Product Storage, however, we can

estimate these emissions by using a mass-balance, and assuming that any emissions already quantified by source, and then subtracted from the total loss, represents the pentane lost at these non-quantified processes. Through this approach, the emissions associated with Billet Drying/Storage, Billet Processing, Regrind Storage, and Product Storage are estimated below.

#### VOC

$$\begin{aligned} \text{Billet Drying/Storage, Billet Processing, Regrind Storage, and Product Storage} &= \\ (\text{Total loss} - (\text{Pre-expansion Storage loss} + \text{Aging loss} + \text{Molding loss})) &= \\ (60\% - (13\% + 21\% + 13\%)) &= 13\% \end{aligned}$$

$$\text{Throughput (Polystyrene Beads)} = 3,482 \text{ lb (hourly)}$$

#### VOC Emissions (excluding natural gas boiler)

$$\text{Hourly} = (3,482 \text{ lb/hr beads})(7\% \text{ pentane})(13\%) = 31.69 \text{ lb/hr}$$

$$\text{Annual} = 240.0 \text{ TPY}^*$$

*\*The facility requests a plantwide emissions limit with compliance demonstrated through mass-balance recordkeeping adjusted using the appropriate emissions factors outlined in the 1999 BASF technical bulletin: "Environmental Pentane Emissions During Processing".*



3. Natural Gas Boiler (3.00 MM Btu/Hr)(Insignificant Activity)

This 150-hp natural gas boiler will supply the steam required for the expander and molding operations. The boiler has a maximum firing rate of 3.00 MM Btu/hr (i.e., 2,942 scf/hr). The following factors from EPA AP-42, Chapter 1, Section 1.4 ("Natural Gas Combustion"), Tables 1.4-1 and 1.4-2 (use small boilers uncontrolled since unit is less than 100 MM Btu/hr):

- Particulate matter = 7.6 lb/MM scf
- Sulfur dioxide = 0.6 lb/MM scf
- Nitrogen dioxide = 100 lb/MM scf
- Carbon monoxide = 84 lb/MM scf
- Volatile organic compounds = 5.5 lb/MM scf
- Hazardous Air Pollutants (HAPs) = various (see attached spreadsheet)

**Particulate Matter** (Table 1.4-2)

$$(2,942 \text{ scf/hr})(7.6 \text{ lb / MM scf}) = < \underline{\underline{0.03 \text{ lb/hr}}}$$

$$(2,942 \text{ scf/hr})(8,760 \text{ hr/yr})(7.6 \text{ lb / MM scf})(\text{ton / 2,000 lbs}) = \underline{\underline{0.10 \text{ TPY}}}$$

**Sulfur Dioxide** (Table 1.4-2)

$$(2,942 \text{ scf/hr})(0.6 \text{ lb / MM scf}) = < \underline{\underline{0.002 \text{ lb/hr}}}$$

$$(2,942 \text{ scf/hr})(8,760 \text{ hr/yr})(0.6 \text{ lb / MM scf})(\text{ton / 2,000 lb}) = < \underline{\underline{0.008 \text{ TPY}}}$$

**Nitrogen Dioxide** (Table 1.4-1)

$$(2,942 \text{ scf/hr})(100.0 \text{ lb / MM scf}) = \underline{\underline{0.30 \text{ lb/hr}}}$$

$$(2,942 \text{ scf/hr})(8,760 \text{ hr/yr})(100.0 \text{ lb / MM scf})(\text{ton / 2,000 lb}) = \underline{\underline{1.29 \text{ TPY}}}$$

**Carbon Monoxide** (Table 1.4-1)

$$(2,942 \text{ scf/hr})(84.0 \text{ lb / MM scf}) = \underline{\underline{0.24 \text{ lb/hr}}}$$

$$(2,942 \text{ scf/hr})(8,760 \text{ hr/yr})(84.0 \text{ lb / MM scf})(\text{ton / 2,000 lb}) = \underline{\underline{1.09 \text{ TPY}}}$$

**Volatile Organic Compounds (Table 1.4-2)**

$$(2,942 \text{ scf/hr})(5.5 \text{ lb / MM scf}) = < \underline{\underline{0.02 \text{ lb/hr}}}$$

$$(2,942 \text{ scf/hr})(8,760 \text{ hr/yr})(5.5 \text{ lb / MM scf})(\text{ton / 2,000 lb}) = \underline{\underline{0.08 \text{ TPY}}}$$

**HAPs (Table 1.4-3)**

\*Hexane 110-54-3

$$(2,942 \text{ scf/hr})(1.8 \text{ lb / MM scf}) = < \underline{\underline{0.006 \text{ lb/hr}}}$$

$$(2,942 \text{ scf/hr})(8,760 \text{ hr/yr})(1.8 \text{ lb / MM scf})(\text{ton / 2,000 lb}) = \underline{\underline{0.024 \text{ TPY}}}$$

(\* Only those HAPs with emissions rates above 0.001 tpy included - see attached spreadsheet for all HAP emissions rates)

**Scrap Densifier (Insignificant Activity)**

The facility operates one (1) Scrap Densifier (Make: Avantguard Innovative/Model: FD-3000) which is electrically powered and manually fed. Emissions are calculated using vendor supplied air sampling data on a similar model (FD-25) that is available upon request.

**PM/PM10:**

$$(*0.040 \text{ mg PM}/94 \text{ min})(60 \text{ min/hr})(\text{g}/1000 \text{ mg})(\text{lb}/453.7 \text{ g})= 0.00000006 \text{ lb/hr}$$
$$(0.00000006 \text{ lb PM/hr})(8,760 \text{ hrs/yr})(1 \text{ ton}/2,000\text{lb}) = 0.0000003 \text{ TPY}$$

\* Total dust (particulate) emissions – Vendor Supplied Data available upon request  
Request this source be listed as an insignificant.

**4. Cooling Tower (Insignificant Activity)**

The facility operates one (1) cooling tower. Emissions are calculated using AP-42 emission factors for Induced Draft Wet Cooling Towers (Chapter 13.4, Table 13.4-1).

**PM/PM10:**

$$(350.0 \text{ gal H}_2\text{O}/\text{min})(60 \text{ min})(*0.005\%)(**0.019 \text{ lb PM}/1000 \text{ gal H}_2\text{O}) = 0.00002 \text{ lb/hr}$$

$$(0.00002 \text{ lb/hr})(8,760 \text{ hr/yr})(\text{ton}/2,000 \text{ lb}) = 0.00009 \text{ tpy}$$

\* Flow Rate & Total Drift Loss Factor - Vendor Supplied Data (Marley 493) available upon request

\*\* TDS - Chapter 13.4, Table 13.4-1

**EMISSION SUMMARY**

Source No.	SOURCE DESCRIPTION	Pollutant	Emission Rates	
			lb/hr	tpy
<i>Total Allowable Plantwide Emissions</i>		PM/PM <sub>10</sub>	**n/a	**n/a
		VOC	178.0	*240.0
		Total HAPs	**n/a	**n/a
		Individual HAPs	**n/a	**n/a
Plantwide EPS Processing – Polystyrene Bead Storage		VOC	31.69	*
		Total HAPs	**n/a	
		Individual HAP	**n/a	
Plantwide EPS Processing – Expander & Expanded Polystyrene Bead Storage		VOC	51.19	*
		Total HAPs	**n/a	
		Individual HAP	**n/a	
Plantwide EPS Processing - Molding Operations		VOC	31.69	*
		Total HAPs	**n/a	
		Individual HAP	**n/a	
Plantwide EPS Processing - Billet Drying/Storage; Billet processing; Re grind Storage; and Product Storage		VOC	31.69	*
		Total HAPs	**n/a	
		Individual HAP	**n/a	
* Compliance with tpy emissions limits demonstrated on a 12-month rolling total basis through monthly mass balance recordkeeping with the appropriate BASF emissions factors applied. ** Table includes only significant emissions sources – see calculations for insignificant emissions				

Drew Foam (Portland, TN)													
VOC/HAP/Known Regulated Air Contaminants													
October-20													
	Natural Gas HHV*	1020	Btu/scf										
*Foot note a in AP-42 Table 1.4-1													
Source Description	Source No.	Input Duty (MMBtu/hr)	scf/hr	Hours									
Nat Gas Boiler	SN-08	3.0	2941.18	8,760									
Not used	N/A		0.00										
Not used	N/A		0.00										
Not used	N/A		0.00										
Not used	N/A		0.00										
					SN-08	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Criteria Pollutant	Emission Factor** (lb/MMscf)	Emission Factor (lb/MMBtu)	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	TPY
PM*	7.6	0.0075	0.03	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10	7.6	0.0075	0.03	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SOx	0.6	0.0006	0.01	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VOC	5.5	0.0054	0.02	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO	84.0	0.0824	0.25	1.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOx	100.0	0.0980	0.30	1.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
* PM assumed equal to PM10													
** AP-42 Emission Factors for Small Boilers (<100 MMBtu/hr)													
CAS No.	Organic Compound	CAS No.	Emission Factor*	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
83-32-9	Acenaphthene	83-32-9	1.8E-06	5.29E-09	2.32E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
208-96-8	Acenaphthylene	203-96-8	1.8E-06	5.29E-09	2.32E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
120-12-7	Anthracene	120-12-7	2.4E-06	7.06E-09	3.09E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
71-43-2	Benzene	71-43-2	2.1E-03	6.18E-06	2.71E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
56-55-3	Benzo(a)anthracene	56-55-3	1.8E-06	5.29E-09	2.32E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
50-32-8	Benzo(a)pyrene	50-32-8	1.2E-06	3.53E-09	1.55E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
205-99-2	Benzo(b)fluoranthene	205-99-2	1.8E-06	5.29E-09	2.32E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
191-24-2	Benzo(g,h,i)perylene	191-24-2	1.2E-06	3.53E-09	1.55E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
205-82-3	Benzo(k)fluoranthene	205-82-3	1.8E-06	5.29E-09	2.32E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
218-01-9	Chrysene	218-01-9	1.8E-06	5.29E-09	2.32E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
53-70-3	Dibenzof(a,h)anthracene	53-70-3	1.2E-06	3.53E-09	1.55E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
25321-22-6	Dichlorobenzene	25321-22-6	1.2E-03	3.53E-06	1.55E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
57-97-6	7,12-Dimethylbenz(a)anthracene	57-97-6	1.6E-05	4.71E-08	2.06E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
206-44-0	Fluoranthene	206-44-0	3.0E-06	8.82E-09	3.86E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
86-73-7	Fluorene	86-73-7	2.8E-06	8.24E-09	3.61E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
50-00-0	Formaldehyde	50-00-0	7.5E-02	2.21E-04	9.66E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
110-54-3	Hexane	110-54-3	1.8E+00	5.29E-03	2.32E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
193-39-5	Indeno(1,2,3-c,d)pyrene	193-39-5	1.8E-06	5.29E-09	2.32E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
56-49-5	3-Methylchloranthrene	56-49-5	1.8E-06	5.29E-09	2.32E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
91-57-6	2-Methylnaphthalene	91-57-6	2.4E-05	7.06E-08	3.09E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
91-20-3	Naphthalene	91-20-3	6.1E-04	1.79E-06	7.86E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
85-01-8	Phenanthrene	85-01-8	1.7E-05	5.00E-08	2.19E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
129-00-0	Pyrene	129-00-0	5.0E-06	1.47E-08	6.44E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
108-88-3	Toluene	108-88-3	3.4E-03	1.00E-05	4.38E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7440-38-2	Arsenic	7440-38-2	2.0E-04	5.88E-07	2.58E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7440-39-3	Barium	7440-39-3	4.4E-03	1.29E-05	5.67E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7440-41-7	Beryllium	7440-41-7	1.2E-05	3.53E-08	1.55E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7440-43-9	Cadmium	7440-43-9	1.1E-03	3.24E-06	1.42E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7440-47-3	Chromium	7440-47-3	1.4E-03	4.12E-06	1.80E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7440-48-4	Cobalt	7440-48-4	8.4E-05	2.47E-07	1.08E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7440-50-8	Copper	7440-50-8	8.5E-04	2.50E-06	1.10E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7439-92-1	Lead	7439-92-1	5.0E-04	1.47E-06	6.44E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7439-96-5	Manganese	7439-96-5	3.8E-04	1.12E-06	4.90E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7439-97-6	Mercury	7439-97-6	2.6E-04	7.65E-07	3.35E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7439-98-7	Molybdenum	7439-98-7	1.1E-03	3.24E-06	1.42E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7440-02-0	Nickel	7440-02-0	2.1E-03	6.18E-06	2.71E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7782-49-2	Selenium	7782-49-2	2.4E-05	7.06E-08	3.09E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7440-62-2	Vanadium	7440-62-2	2.3E-03	6.76E-06	2.96E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7440-66-6	Zinc	7440-66-6	2.9E-02	8.53E-05	3.74E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
				Totals:	5.67E-03	2.48E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

\* Use 1020 Btu/scf, if HHV is not available.  
\*\* AP-42 Factors for Natural Gas Combustion.  
\*\*\* Not a HAP as defined by Section 112(b) of the CAA.

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STATE OF TENNESSEE  
AIR POLLUTION CONTROL BOARD  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
NASHVILLE, TENNESSEE 37243



**OPERATING PERMIT (TITLE V)** Issued Pursuant to Tennessee Air Quality Act

This permit fulfills the requirements of Title V of the Federal Clean Air Act (42 U.S.C. 7661a-7661e) and the federal regulations promulgated thereunder at 40 CFR Part 70. (FR Vol. 57, No. 140, Tuesday, July 21, 1992 p.32295-32312). This permit is issued in accordance with the provisions of paragraph 1200-03-09-.02(11) of the Tennessee Air Pollution Control Regulations. The permittee has been granted permission to operate an air contaminant source in accordance with emissions limitations and monitoring requirements set forth herein.

**Date Issued:** \*\*\*, 2024

**Permit Number:** 578647

**Date Expires:** \*\*\*\*

**Issued To:**

Drew Foam Companies Inc.

**Installation Address:**

3050 Barry Drive  
Portland

**Installation Description:**

**Custom Molded Foam Products Production:**

**Source 01:** Polystyrene Bead Storage Area, Expander,  
Expanded Polystyrene Storage, Molding Operations,  
Billet Drying and Storage Area

**Emission Source Reference No.:** 74-0102

**Renewal Application Due Date:**

Between \*\*\* and November \*\*\*

**Primary SIC:** 30

**Information Relied Upon:**

Title V Renewal Application dated November 4, 2020

(continued on the next page)

\_\_\_\_\_  
TECHNICAL SECRETARY

No Authority is Granted by this Permit to Operate, Construct, or Maintain any Installation in Violation of any Law, Statute, Code, Ordinance, Rule, or Regulation of the State of Tennessee or any of its Political Subdivisions.

**POST AT INSTALLATION ADDRESS**

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**ATTACHMENTS**

<b>ATTACHMENT 1</b>	<b>Opacity Matrix Decision Tree for Visible Emission Evaluation EPA Method 9 Dated June 18, 1996 and amended September 11, 2013</b>	<b>1 Page</b>
<b>ATTACHMENT 2</b>	<b>Agreement Letter from Permittee Dated April 25, 2024</b>	<b>2 Pages</b>
<b>ATTACHMENT 3</b>	<b>Title V Fee Selection Form (APC Form 36)</b>	<b>2 Pages</b>



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**SECTION A**

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**GENERAL PERMIT CONDITIONS**

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A permit issued under the provisions of Tennessee Air Pollution Control Regulations (TAPCR) paragraph 1200-03-09-.02(11) is a permit issued pursuant to the requirements of Title V of the Federal Act and its implementing Federal regulations promulgated at 40 CFR, Part 70.

A1. **Definitions.** Terms not otherwise defined in the permit shall have the meaning assigned to such terms in the referenced regulations.

TAPCR 1200-03 and 0400-30

A2. **Compliance requirement.** All terms and conditions in a permit issued pursuant to TAPCR paragraph 1200-03-09-.02(11), including any provisions designed to limit a source's potential to emit, are enforceable by the Administrator and citizens under the Federal Act. The permittee shall comply with all conditions of its permit. Except for requirements specifically designated herein as not being federally enforceable (State Only), non-compliance with the permit requirements is a violation of the Federal Act and the Tennessee Air Quality Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. Non-compliance with permit conditions specifically designated herein as not being federally enforceable (State Only) is a violation of the Tennessee Air Quality Act and may be grounds for these actions.

TAPCR 1200-03-09-.02(11)(e)2(i) and 1200-03-09-.02(11)(e)1(vi)(I)

A3. **Need to halt or reduce activity.** The need to halt or reduce activity is not a defense for noncompliance. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. However, nothing in this item shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in assessing penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations.

TAPCR 1200-03-09-.02(11)(e)1(vi)(II)

A4. **The permit.** The permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

TAPCR 1200-03-09-.02(11)(e)1(vi)(III)

A5. **Property rights.** The permit does not convey any property rights of any sort, or any exclusive privilege.

TAPCR 1200-03-09-.02(11)(e)1(vi)(IV)

A6. **Submittal of requested information.** The permittee shall furnish to the Technical Secretary, within a reasonable time, any information that the Technical Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or termination of the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Technical Secretary copies of records required to be kept by the permit. If the permittee claims that such information is confidential, the Technical Secretary may review that claim and hold the information in protected status until such time that the Board can hear any contested proceedings regarding confidentiality disputes. If the information is desired by EPA, the permittee may mail the information directly to EPA. Any claims of confidentiality for federal purposes will be determined by EPA.

TAPCR 1200-03-09-.02(11)(e)1(vi)(V)

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- A7. Severability clause.** The requirements of this permit are severable. A dispute regarding one or more requirements of this permit does not invalidate or otherwise excuse the permittee from their duty to comply with the remaining portion of the permit.

TAPCR 1200-03-09.02(11)(e)1(v)

**A8. Fee payment.**

- (a) The permittee shall pay an annual Title V emission fee based upon the responsible official's choice of actual emissions, allowable emissions, or a combination of actual and allowable emissions; and on the responsible official's choice of annual accounting period. An emission cap of 4,000 tons per year per regulated pollutant per major source SIC Code shall apply to actual or allowable based emission fees. A Title V annual emission fee will not be charged for emissions in excess of the cap. Title V annual emission fees will not be charged for carbon monoxide or for greenhouse gas pollutants solely because they are greenhouse gases.
- (b) Title V sources shall pay allowable based emission fees until the beginning of the next annual accounting period following receipt of their initial Title V operating permit. At that time, the permittee shall begin paying their Title V fee based upon their choice of actual or allowable based fees, or mixed actual and allowable based fees. Once permitted, the Responsible Official may revise their existing fee choice by submitting a written request to the Division no later than December 31 of the annual accounting period for which the fee is due.
- (c) When paying annual Title V emission fees, the permittee shall comply with all provisions of TAPCR Rule 1200-03-26-.02 and paragraph 1200-03-09-.02(11) applicable to such fees.
- (d) Where more than one allowable emission limit is applicable to a regulated pollutant, the allowable emissions for the regulated pollutants shall not be double counted. Major sources subject to the provisions of TAPCR paragraph 1200-03-26-.02(9) shall apportion their emissions as follows to ensure that their fees are not double counted.
1. Sources that are subject to federally promulgated hazardous air pollutant standards that can be imposed under TAPCR Chapter 0400-30-38 or Chapter 1200-03-31 will place such regulated emissions in the regulated hazardous air pollutant (HAP) category.
  2. A category of miscellaneous HAPs shall be used for hazardous air pollutants listed at TAPCR part 1200-03-26-.02(2)(i)12 that are not subject to federally promulgated hazardous air pollutant standards under 40 CFR 60, 61, or 63 or TAPCR chapter 1200-03-31.
  3. HAPs that are also in the family of volatile organic compounds, particulate matter, or PM<sub>10</sub> shall not be placed in either the regulated HAP category or miscellaneous HAP category.
  4. Sources that are subject to a provision of TAPCR chapter 1200-03-16 New Source Performance Standards (NSPS) or chapter 0400-30-39 Standards of Performance for New Stationary Sources for pollutants that are neither particulate matter, PM<sub>10</sub>, sulfur dioxide (SO<sub>2</sub>), volatile organic compounds (VOC), nitrogen oxides (NO<sub>x</sub>), or hazardous air pollutants (HAPs) will place such regulated emissions in an NSPS pollutant category.
  5. The regulated HAP category, the miscellaneous HAP category, and the NSPS pollutant category are each subject to the 4,000 ton cap provisions of TAPCR subparagraph 1200-03-26-.02(2)(i).
  6. Major sources that wish to pay annual emission fees for PM<sub>10</sub> on an allowable emission basis may do so if they have a specific PM<sub>10</sub> allowable emission standard. If a major source has a total particulate emission standard, but wishes to pay annual emission fees on an actual PM<sub>10</sub> emission basis, it may do so if the PM<sub>10</sub> actual emission levels are proven to the satisfaction of the Technical Secretary. The method to demonstrate the actual PM<sub>10</sub> emission levels must be made as part of the source's major source operating permit in advance in order to exercise this option. The PM<sub>10</sub> emissions reported under these options shall not be subject to fees under the family of particulate emissions. The 4,000 ton cap provisions of TAPCR subparagraph 1200-03-26-.02(2)(i) shall also apply to PM<sub>10</sub> emissions.

TAPCR 1200-03-26-.02 and 1200-03-09-.02(11)(e)1(vii)

- A9. Permit revision not required.** A permit revision will not be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or process for changes that are provided for in the permit.

TAPCR 1200-03-09-.02(11)(e)1(viii)

- A10. Inspection and entry.** Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Technical Secretary or an authorized representative to perform the following for the purposes of determining compliance with the permit applicable requirements:

- (a) Enter upon, at reasonable times, the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of the -permit;

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- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- (d) As authorized by the Clean Air Act and Chapter 1200-03-10 of the TAPCR, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.
- (e) "Reasonable times" shall be considered to be customary business hours unless reasonable cause exists to suspect noncompliance with the Act, TAPCR Division 1200-03 or any permit issued pursuant thereto and the Technical Secretary specifically authorizes an inspector to inspect a facility at any other time.

TAPCR 1200-03-09-.02(11)(e)3(ii)

### A11. Permit shield.

- (a) Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date of permit issuance, provided that:
  - 1. Such applicable requirements are included and are specifically identified in the permit; or
  - 2. The Technical Secretary, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.
- (b) Nothing in this permit shall alter or affect the following:
  - 1. The provisions of section 303 of the Federal Act (emergency orders), including the authority of the Administrator under that section. Similarly, the provisions of T.C.A. §68-201-109 (emergency orders) including the authority of the Governor under the section;
  - 2. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
  - 3. The applicable requirements of the acid rain program, consistent with section 408(a) of the Federal Act; or
  - 4. The ability of EPA to obtain information from a source pursuant to section 114 of the Federal Act.
- (c) Permit shield is granted to the permittee.
- (d) The permit shield does not apply to permit changes made under the minor permit modification procedures of TAPCR subpart 1200-03-09-.02(11)(f)5(ii) nor the administrative permit amendment procedures of TAPCR part 1200-03-09-.02(11)(f)4, except that the permit shield may be extended for administrative permit amendments that meet the relevant requirements of TAPCR subparagraph 1200-03-09-.02(11)(e), subparagraph 1200-03-09-.02(11)(f) and subparagraph 1200-03-09-.02(11)(g) for significant permit modifications.
- (e) The permit shield does not apply to off-permit changes made under the operational flexibility provisions of TAPCR part 1200-03-09-.02(11)(a)4.

TAPCR 1200-03-09-.02(11)(e)6 and 1200-03-09-.02(11)(f)4(iv)

### A12. Permit renewal and expiration.

- (a) An application for permit renewal must be submitted at least 180 days, but no more than 270 days, prior to the expiration of this permit. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted.
- (b) If the permittee submits a timely and complete application for permit renewal the source will not be considered to be operating without a permit until the Technical Secretary takes final action on the permit application, except as otherwise noted in TAPCR paragraph 1200-03-09-.02(11).
- (c) This permit, its shield provided in Condition A11, and its conditions will be extended and effective after its expiration date provided that the source has submitted a timely, complete renewal application to the Technical Secretary.

TAPCR 1200-03-09-.02(11)(f)2 and 3, 1200-03-09-.02(11)(d)1(i)(III), and 1200-03-09-.02(11)(a)2

### A13. Reopening for cause.

- (a) A permit shall be reopened and revised prior to the expiration of the permit under any of the circumstances listed below:
  - 1. Additional applicable requirements under the Federal Act become applicable to the sources contained in this permit provided the permit has a remaining term of 3 or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the permit expiration date of this permit, unless the original has been extended pursuant to TAPCR part 1200-03-09-.02(11)(a)2.

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2. Additional requirements become applicable to an affected source under the acid rain program.
  3. The Technical Secretary or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
  4. The Technical Secretary or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- (b) Proceedings to reopen and issue a permit shall follow the same proceedings as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists, and not the entire permit. Such reopening shall be made as expeditiously as practicable.
- (c) Reopenings for cause shall not be initiated before a notice of such intent is provided to the permittee by the Technical Secretary at least 30 days in advance of the date that the permit is to be reopened except that the Technical Secretary may provide a shorter time period in the case of an emergency. An emergency shall be established by the criteria of T.C.A. 68-201-109 or other compelling reasons that public welfare is being adversely affected by the operation of a source that is in compliance with its permit requirements.
- (d) If the Administrator finds that cause exists to terminate, modify, or revoke and reissue a permit as identified in A13, the Administrator is required under federal rules to notify the Technical Secretary and the permittee of such findings in writing. Upon receipt of such notification, the Technical Secretary shall investigate the matter in order to determine if he/she agrees or disagrees with the Administrator's findings. If the Technical Secretary agrees with the Administrator's findings, the Technical Secretary shall conduct the reopening in the following manner:
1. The Technical Secretary shall, within 90 days after receipt of such notification, forward to EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate. If the Administrator grants additional time to secure permit applications or additional information from the permittee, the Technical Secretary shall have the additional time period added to the standard 90-day time period.
  2. EPA will evaluate the Technical Secretary's proposed revisions and respond as to their evaluation.
  3. If EPA agrees with the proposed revisions, the Technical Secretary shall proceed with the reopening in the same manner prescribed under Condition A13(b) and Condition A13(c).
  4. If the Technical Secretary disagrees with either the findings or the Administrator that a permit should be reopened or an objection of the Administrator to a proposed revision to a permit submitted pursuant to Condition A13(d), the Technical Secretary shall bring the matter to the Board at its next regularly scheduled meeting for instructions as to how the Division should proceed. The permittee shall be required to file a written brief expressing their position relative to the Administrator's objection and have a responsible official present at the meeting to answer questions for the Board. If the Board agrees that EPA is wrong in their demand for a permit revision, they shall instruct the Technical Secretary to conform to EPA's demand, but to issue the permit under protest preserving all rights available for litigation against EPA.

TAPCR 1200-03-09-.02(11)(f)6 and 7

- A14. Permit transference.** An administrative permit amendment allows for a change of ownership or operational control of a source where the Technical Secretary determines that no other change in the permit is necessary, provided that the following requirements are met:
- (a) Transfer of ownership permit application is filed consistent with the provisions of TAPCR paragraph 1200-03-09-.03(6), and
  - (b) written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Technical Secretary.

TAPCR 1200-03-09-.02(11)(f)4(i)(IV) and 1200-03-09-.03(6)

- A15. Air pollution alert.** When the Technical Secretary has declared that an air pollution alert, an air pollution warning, or an air pollution emergency exists, the permittee must follow the requirements for that episode level as outlined in TAPCR paragraph 1200-03-09-.03(1) and TAPCR Rule 1200-03-15-.03.

- A16. Construction permit required.** Except as exempted in TAPCR Rule 1200-03-09-.04, or excluded in TAPCR subparagraph 1200-03-02-.01(1)(aa) or TAPCR subparagraph 1200-03-02-.01(1)(cc), this facility shall not begin the construction of a new air contaminant source or the modification of an air contaminant source which may result in the discharge of air contaminants without first having applied for and received from the Technical Secretary a construction permit for the construction or modification of such air contaminant source.

TAPCR 1200-03-09-.01(1)(a)

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- A17. Notification of changes.** The permittee shall notify the Technical Secretary 30 days prior to commencement of any of the following changes to an air contaminant source which would not be a modification requiring a construction permit.
- (a) change in air pollution control equipment
  - (b) change in stack height or diameter
  - (c) change in exit velocity of more than 25 percent or exit temperature of more than 15 percent based on absolute temperature.

TAPCR 1200-03-09-.02(7)

- A18. Schedule of compliance.** The permittee will comply with any applicable requirement that becomes effective during the permit term on a timely basis and no later than required by the provisions of the new applicable requirement. If the permittee is not in compliance the permittee must submit a schedule for coming into compliance which must include a schedule of remedial measure(s), including an enforceable set of deadlines for specific actions.

TAPCR 1200-03-09-.02(11)(d)3, 1200-03-09-.03(8), 0400-30-38, 0400-30-39, and 40 CFR Part 70.5(c)

- A19. Title VI.**
- (a) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR, Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
    - 1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to Section 82.156.
    - 2. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to Section 82.158.
    - 3. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to Section 82.161.
  - (b) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone depleting substance refrigerant in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR, Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.
  - (c) The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR, Part 82, Subpart G, Significant New Alternatives Policy Program.

TAPCR 1200-03-09-.03(8)

- A20. 112(r).** Sources which are subject to the provisions of Section 112(r) of the federal Clean Air Act or any federal regulations promulgated thereunder, shall annually certify in writing to the Technical Secretary that they are properly following their accidental release plan. The annual certification is due in the office of the Technical Secretary no later than January 31 of each year. Said certification will be for the preceding calendar year.

TAPCR 1200-03-32-.03(3)

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SECTION B

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GENERAL CONDITIONS for MONITORING,  
REPORTING, and ENFORCEMENT

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**B1. Recordkeeping.** Monitoring and related record keeping shall be performed in accordance with the requirements specified in the permit conditions for each individual permit unit. In no case shall reports of any required monitoring and record keeping be submitted less frequently than every six months.

- (a) Where applicable, records of required monitoring information include the following:
  - 1. The date, place as defined in the permit, and time of sampling or measurements;
  - 2. The date(s) analyses were performed;
  - 3. The company or entity that performed the analysis;
  - 4. The analytical techniques or methods used;
  - 5. The results of such analyses; and
  - 6. The operating conditions as existing at the time of sampling or measurement.
- (b) Digital data accumulation which utilizes valid data compression techniques shall be acceptable for compliance determination as long as such compression does not violate an applicable requirement and its use has been approved in advance by the Technical Secretary.

TAPCR 1200-03-09-.02(11)(e)1(iii)

**B2. Retention of monitoring data.** The permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

TAPCR 1200-03-09-.02(11)(e)1(iii)(II)II

**B3. Reporting.** Reports of any required monitoring and record keeping shall be submitted to the Technical Secretary in accordance with the frequencies specified in the permit conditions for each individual permit unit. Reports shall be submitted within 60 days of the close of the reporting period unless otherwise noted. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official. Reports required under "State only requirements" are not required to be certified by a responsible official.

TAPCR 1200-03-09-.02(11)(e)1(iii)

**B4. Certification.** Except for reports required under "State Only" requirements, any application form, report or compliance certification submitted pursuant to the requirements of this permit shall contain certification by a responsible official of truth, accuracy and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

TAPCR 1200-03-09-.02(11)(d)4

**B5. Annual compliance certification.** The permittee shall submit annually compliance certifications with terms and conditions contained in Sections A, B, D and E of this permit, including emission limitations, standards, or work practices. This compliance certification shall include all of the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable):

- (a) The identification of each term or condition of the permit that is the basis of the certification;
- (b) The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period; such methods and other means shall include, at a minimum, the methods and means required by this permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Act, which prohibits knowingly making a false certification or omitting material information;
- (c) The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated in B5(b) above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion\* or exceedance\*\* as defined below occurred; and
- (d) Such other facts as the Technical Secretary may require to determine the compliance status of the source.

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\* “Excursion” shall mean a departure from an indicator range established for monitoring under this paragraph, consistent with any averaging period specified for averaging the results of the monitoring.

\*\* “Exceedance” shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard (or less than the applicable standard in the case of a percent reduction requirement) consistent with any averaging period specified for averaging the results of the monitoring.

40 CFR Part 70.6(c)(5)(iii) as amended in the Federal Register Vol. 79, No.144, July 28, 2014, pages 43661 through 43667

**B6. Submission of compliance certification.** The compliance certification shall be submitted to:

The Tennessee Department of Environment and Conservation Environmental Field Office specified in Section E of this permit	and	Air Enforcement Branch US EPA Region IV 61 Forsyth Street, SW Atlanta, Georgia 30303
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TAPCR 1200-03-09-.02(11)(e)3(v)(IV)

**B7.** Reserved

**B8. Excess emissions reporting.**

- (a) The permittee shall promptly notify the Technical Secretary when any emission source, air pollution control equipment, or related facility breaks down in such a manner to cause the emission of air contaminants in excess of the applicable emission standards contained in TAPCR Division 1200-03 or any permit issued thereto, or of sufficient duration to cause damage to property or public health. The permittee must provide the Technical Secretary with a statement giving all pertinent facts, including the estimated duration of the breakdown, the probable cause of the deviation, and any corrective actions or preventative measures taken. Violations of the visible emission standard which occur for less than 20 minutes in one day (midnight to midnight) need not be reported. Prompt notification will be within 24 hours of the malfunction and shall be provided by telephone to the Division's Nashville office. The Technical Secretary shall be notified when the condition causing the failure or breakdown has been corrected. In attainment and unclassified areas if emissions other than from sources designated as significantly impacting on a nonattainment area in excess of the standards will not and do not occur over more than a 24-hour period (or will not recur over more than a 24-hour period) and no damage to property and or public health is anticipated, notification is not required.
- (b) Any malfunction that creates an imminent hazard to health must be reported by telephone immediately to the Division's Nashville office at (615) 532-0554 and to the State Civil Defense.
- (c) A log of all malfunctions, startups, and shutdowns resulting in emissions in excess of the standards in TAPCR Division 1200-03 or any permit issued thereto must be kept at the plant. All information shall be entered in the log no later than twenty-four (24) hours after the startup or shutdown is complete, or the malfunction has ceased or has been corrected. Any later discovered corrections can be added in the log as footnotes with the reason given for the change. This log must record at least the following:
  - 1. Stack or emission point involved
  - 2. Time malfunction, startup, or shutdown began and/or when first noticed
  - 3. Type of malfunction and/or reason for shutdown
  - 4. Time startup or shutdown was complete or time the air contaminant source returned to normal operation
  - 5. The company employee making entry on the log must sign, date, and indicate the time of each log entryThe information under items 1. and 2. must be entered into the log by the end of the shift during which the malfunction or startup began. For any source utilizing continuous emission(s) monitoring, continuous emission(s) monitoring collection satisfies the above log keeping requirement.

TAPCR 1200-03-20-.03 and .04

**B9. Malfunctions, startups and shutdowns - reasonable measures required.** The permittee must take all reasonable measures to keep emissions to a minimum during startups, shutdowns, and malfunctions. These measures may include installation and use of alternate control systems, changes in operating methods or procedures, cessation of operation until the process equipment and/or air pollution control equipment is repaired, maintaining sufficient spare parts, use of overtime labor, use of outside consultants and contractors, and other appropriate means. Failures that are caused by poor maintenance, careless operation or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions. This provision does not apply to standards found in 40 CFR, Parts 60(Standards of

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performance for new stationary sources), 61(National emission standards for hazardous air pollutants) and 63(National emission standards for hazardous air pollutants for source categories).

TAPCR 1200-03-20-.02

**B10.** Reserved.

**B11.** **Report required upon the issuance of a notice of violation for excess emissions.** The permittee must submit, within twenty days after receipt of the notice of violation, the data required below. If this data has been made available to the Technical Secretary prior to the issuance of the notice of violation no further action is required of the violating source. However, if the source desires to submit additional information, then this must be submitted within the same 20-day time period. The minimum data requirements are:

- (a) The identity of the stack and/or other emission point where the excess emission(s) occurred;
- (b) The magnitude of the excess emissions expressed in pounds per hour and the units of the applicable emission limitation(s) and the operating data and calculations used in determining the magnitude of the excess emissions;
- (c) The time and duration of the emissions;
- (d) The nature and cause of such emissions;
- (e) For malfunctions, the steps taken to correct the situation and the action taken or planned to prevent the recurrence of such malfunctions;
- (f) The steps taken to limit the excess emissions during the occurrence reported, and
- (g) If applicable, documentation that the air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good operating practices for minimizing emissions.

Failure to submit the required report within the 20-day period specified shall preclude the admissibility of the data for determination of potential enforcement action.

TAPCR 1200-03-20-.06(2), (3) and (4)



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## SECTION C

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### PERMIT CHANGES

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**C1. Operational flexibility changes.** The source may make operational flexibility changes that are not addressed or prohibited by the permit without a permit revision subject to the following requirements:

- (a) The change cannot be subject to a requirement of Title IV of the Federal Act or TAPCR Chapter 1200-03-30.
- (b) The change cannot be a modification under any provision of Title I of the federal Act or TAPCR Division 1200-03.
- (c) Each change shall meet all applicable requirements and shall not violate any existing permit term or condition.
- (d) The source must provide contemporaneous written notice to the Technical Secretary and EPA of each such change, except for changes that are below the threshold of levels that are specified in TAPCR Rule 1200-03-09-.04.
- (e) Each change shall be described in the notice including the date, any change in emissions, pollutants emitted, and any applicable requirements that would apply as a result of the change.
- (f) The change shall not qualify for a permit shield under the provisions of TAPCR part 1200-03-09-.02(11)(e)6.
- (g) The permittee shall keep a record describing the changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes. The records shall be retained until the changes are incorporated into subsequently issued permits.

TAPCR 1200-03-09-.02(11)(a)4(ii)

**C2. Section 502(b)(10) changes.**

- (a) The permittee can make certain changes without requiring a permit revision, if the changes are not modifications under Title I of the Federal Act or TAPCR Division 1200-03 and the changes do not exceed the emissions allowable under the permit. The permittee must, however, provide the Administrator and Technical Secretary with written notification within a minimum of 7 days in advance of the proposed changes. The Technical Secretary may waive the 7 day advance notice in instances where the source demonstrates in writing that an emergency necessitates the change. Emergency shall be demonstrated by the criteria of TAPCR part 1200-03-09-.02(11)(e)7 and in no way shall it include changes solely to take advantages of an unforeseen business opportunity. The Technical Secretary and EPA shall attach each such notice to their copy of the relevant permit.
- (b) The written notification must be signed by a facility Title V responsible official and include the following:
  - 1. a brief description of the change within the permitted facility;
  - 2. the date on which the change will occur;
  - 3. a declaration and quantification of any change in emissions;
  - 4. a declaration of any permit term or condition that is no longer applicable as a result of the change; and
  - 5. a declaration that the requested change is not a Title I modification and will not exceed allowable emissions under the permit.
- (c) The permit shield provisions of TAPCR part 1200-03-09-.02(11)(e)6 shall not apply to Section 502(b)(10) changes.

TAPCR 1200-03-09-.02(11)(a)4(i)

**C3. Administrative amendment.**

- (a) Administrative permit amendments to this permit shall be in accordance with TAPCR part 1200-03-09-.02(11)(f)4. The source may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request.
- (b) The permit shield shall be extended as part of an administrative permit amendment revision consistent with the provisions of TAPCR part 1200-03-09-.02(11)(e)6 for such revisions made pursuant to item (c) of this condition which meet the relevant requirements of TAPCR subparagraph 1200-03-09-.02(11)(e), TAPCR subparagraph 1200-03-09-.02(11)(f) and TAPCR subparagraph 1200-03-09-.02(11)(g) for significant permit modifications.
- (c) Proceedings to review and grant administrative permit amendments shall be limited to only those parts of the permit for which cause to amend exists, and not the entire permit.

TAPCR 1200-03-09-.02(11)(f)4

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### C4. Minor permit modifications.

- (a) The permittee may submit an application for a minor permit modification in accordance with TAPCR subpart 1200-03-09-.02(11)(f)5(ii).
- (b) The permittee may make the change proposed in its minor permit modification immediately after an application is filed with the Technical Secretary.
- (c) Proceedings to review and modify permits shall be limited to only those parts of the permit for which cause to modify exists, and not the entire permit.
- (d) Minor permit modifications do not qualify for a permit shield.

TAPCR 1200-03-09-.02(11)(f)5(ii)

### C5. Significant permit modifications.

- (a) The permittee may submit an application for a significant modification in accordance with TAPCR subpart 1200-03-09-.02(11)(f)5(iv).
- (b) Proceedings to review and modify permits shall be limited to only those parts of the permit for which cause to modify exists, and not the entire permit.

TAPCR 1200-03-09-.02(11)(f)5(iv)

### C6. New construction or modifications.

Future construction at this facility that is subject to the provisions of TAPCR Rule 1200-03-09-.01 shall be governed by the following:

- (a) The permittee shall designate in their construction permit application the route that they desire to follow for the purposes of incorporating the newly constructed or modified sources into their existing operating permit. The Technical Secretary shall use that information to prepare the operating permit application submittal deadlines in their construction permit.
- (b) Sources desiring the permit shield shall choose the administrative amendment route of TAPCR part 1200-03-09-.02(11)(f)4 or the significant modification route of TAPCR subpart 1200-03-09-.02(11)(f)5(iv).
- (c) Sources desiring expediency instead of the permit shield shall choose the minor permit modification procedure route of TAPCR subpart 1200-03-09-.02(11)(f)5(ii) or group processing of minor modifications under the provisions of TAPCR subpart 1200-03-09-.02(11)(f)5(iii) as applicable to the magnitude of their construction.

TAPCR 1200-03-09-.02(11)(d)1(i)(V)

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**SECTION D**

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**GENERAL APPLICABLE REQUIREMENTS**

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**D1. Visible emissions.**

- (a) With the exception of air emission sources exempt from the requirements of TAPCR Chapter 1200-03-05 and air emission sources for which a different opacity standard is specifically provided elsewhere in this permit, the permittee shall not cause, suffer, allow or permit discharge of a visible emission from any air contaminant source with an opacity in excess of twenty (20) percent for an aggregate of more than five (5) minutes in any one (1) hour or more than 20 minutes in any twenty-four (24) hour period; provided, however, that for fuel burning installations with fuel burning equipment of input capacity greater than 600 million btu per hour, the permittee shall not cause, suffer, allow, or permit discharge of a visible emission from any fuel burning installation with an opacity in excess of 20 percent (6-minute average) except for one six minute period per one hour of not more than 40 percent opacity. Sources constructed or modified after July 7, 1992, shall utilize 6-minute averaging.
- (b) Consistent with the requirements of TAPCR Chapter 1200-03-20, due allowance may be made for visible emissions in excess of that permitted under TAPCR Chapter 1200-03-05 which are necessary or unavoidable due to routine startup and shutdown conditions. The facility shall maintain a continuous, current log of all excess visible emissions showing the time at which such conditions began and ended and that such record shall be available to the Technical Secretary or an authorized representative upon request.

TAPCR 1200-03-05-.01(1), TAPCR 1200-03-05-.03(6) and TAPCR 1200-03-05-.02(1)

**D2. General provisions and applicability for non-process gaseous emissions.** Any person constructing or otherwise establishing a non-portable air contaminant source emitting gaseous air contaminants after April 3, 1972, or relocating an air contaminant source more than 1.0 km from the previous position after November 6, 1988, shall install and utilize the best equipment and technology currently available for controlling such gaseous emissions.

TAPCR 1200-03-06-.03(2)

**D3. Non-process emission standards.** The permittee shall not cause, suffer, allow, or permit particulate emissions from non-process sources in excess of the standards in TAPCR Chapter 1200-03-06.

**D4. General provisions and applicability for process gaseous emissions.** Any person constructing or otherwise establishing an air contaminant source emitting gaseous air contaminants after April 3, 1972, or relocating an air contaminant source more than 1.0 km from the previous position after November 6, 1988, shall install and utilize equipment and technology which is deemed reasonable and proper by the Technical Secretary.

TAPCR 1200-03-07-.07(2)

**D5. Particulate emissions from process emission sources.** The permittee shall not cause, suffer, allow, or permit particulate emissions from process sources in excess of the standards in TAPCR part 1200-03-07.

**D6. Sulfur dioxide emission standards.** The permittee shall not cause, suffer, allow, or permit sulfur dioxide emissions from process and non-process sources in excess of the standards in TAPCR Chapter 1200-03-14. Regardless of the specific emission standard, new process sources shall utilize the best available control technology as deemed appropriate by the Technical Secretary of the Tennessee Air Pollution Control Board.

**D7. Fugitive Dust.**

- (a) The permittee shall not cause, suffer, allow, or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, but not be limited to, the following:
  - 1. Use, where possible, of water or chemicals for control of dust in demolition of existing buildings or structures, construction operations, grading of roads, or the clearing of land;
  - 2. Application of asphalt, water, or suitable chemicals on dirt roads, material stockpiles, and other surfaces which can create airborne dusts;
  - 3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Adequate containment methods shall be employed during sandblasting or other similar operations.

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- (b) The permittee shall not cause, suffer, allow, or permit fugitive dust to be emitted in such manner to exceed five (5) minutes per hour or 20 minutes per day as to produce a visible emission beyond the property line of the property on which the emission originates, excluding malfunction of equipment as provided in TAPCR Chapter 1200-03-20.

TAPCR 1200-03-08

- D8. Open burning.** The permittee shall comply with the TAPCR Chapter 1200-03-04 for all open burning activities at the facility.

TAPCR 1200-03-04

- D9. Asbestos.** Where applicable, the permittee shall comply with the requirements of 40 CFR Part 61 when conducting any renovation or demolition activities at the facility.

TAPCR 0400-30-38-.01(2) and 40 CFR, Part 61

- D10. Annual certification of compliance.** The generally applicable requirements set forth in Section D of this permit are intended to apply to activities and sources that are insignificant emission units or activities. By annual certification of compliance with the conditions in this Section the permittee shall be considered to meet the monitoring and related record keeping and reporting requirements of TAPCR subpart 1200-03-09-.02(11)(e)1(iii) and part 1200-03-10-.04(2)(b)1 and the compliance requirements of TAPCR subpart 1200-03-09-.02(11)(e)3(i). The permittee shall submit compliance certification for these conditions annually.

- D11. Emission Standards for Hazardous Air Pollutants.** The permittee shall comply with all applicable requirements of TAPCR Chapter 0400-30-38 for all emission sources subject to a requirement contained therein.

- D12. Standards of Performance for New Stationary Sources.** The permittee shall comply with all applicable requirements of TAPCR chapters 0400-30-39 and 1200-03-16 for all emission sources subject to a requirement contained therein.

- D13. Gasoline Dispensing Facilities.** The permittee shall comply with all applicable requirements of TAPCR Rule 1200-03-18-.24 for all emission sources subject to a requirement contained therein.

- D14. Internal Combustion Engines.**

- (a) All stationary reciprocating internal combustion engines, including engines deemed insignificant activities and insignificant emission units, shall comply with the applicable provisions of TAPCR Rule 0400-30-38-.01.
- (b) All stationary compression ignition internal combustion engines, including engines deemed insignificant activities and insignificant emission units, shall comply with the applicable provisions of TAPCR Chapter 0400-30-39.
- (c) All stationary spark ignition internal combustion engines, including engines deemed insignificant activities and insignificant emission units, shall comply with the applicable provisions of TAPCR Chapter 0400-30-39.

TAPCR 0400-30-38 and 39

- D15.** The permittee shall maintain and repair each emission source, associated air pollution control device(s), and compliance assurance monitoring equipment as required to maintain and assure compliance with the specified emission limits.

TAPCR 1200-03-09-.03(8)

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**SECTION E**

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**SOURCE SPECIFIC EMISSION STANDARDS, OPERATING LIMITATIONS,  
and MONITORING, RECORDKEEPING and REPORTING  
REQUIREMENTS**

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74-0102	Facility Description:	Drew Foam Companies Inc. manufactures expanded polystyrene (EPS) custom foam blocks for polystyrene packaging materials, exterior wall board insulation, exterior door cores, archery targets, and other products.
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74-0102-01	<b>Custom Molded Foam Products Production:</b> The facility consists of Polystyrene Bead Storage Area, Expander, Expanded Polystyrene Bead Storage, Molding Operations, Billet Drying and Storage Area
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**E1. Fee payment**

**FEE EMISSIONS SUMMARY TABLE FOR MAJOR SOURCE 74-0102**

REGULATED POLLUTANTS	ALLOWABLE EMISSIONS (tons per AAP)	ACTUAL EMISSIONS (tons per AAP)	COMMENTS
<b>PARTICULATE MATTER (PM)</b>	N/A	N/A	N/A
<b>PM<sub>10</sub></b>	N/A	N/A	N/A
<b>SO<sub>2</sub></b>	N/A	N/A	N/A
<b>VOC</b>	240.0	<b>AEAR</b>	Includes all fee emissions.
<b>NO<sub>x</sub></b>	N/A	N/A	N/A
<b>CATEGORY OF MISCELLANEOUS HAZARDOUS AIR POLLUTANTS (HAPs WITHOUT A STANDARD)*</b>			
<b>VOC FAMILY GROUP</b>	N/A	N/A	N/A
<b>NON-VOC GASEOUS GROUP</b>	N/A	N/A	N/A
<b>PM FAMILY GROUP</b>	N/A	N/A	N/A
<b>CATEGORY OF SPECIFIC HAZARDOUS AIR POLLUTANTS (HAPs WITH A STANDARD)**</b>			
<b>VOC FAMILY GROUP</b>	N/A	N/A	N/A
<b>NON-VOC GASEOUS GROUP</b>	N/A	N/A	N/A
<b>PM FAMILY GROUP</b>	N/A	N/A	N/A
<b>CATEGORY OF NSPS POLLUTANTS NOT LISTED ABOVE***</b>			
<b>EACH NSPS POLLUTANT NOT LISTED ABOVE</b>	N/A	N/A	N/A

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**NOTES**

**AAP** The **Annual Accounting Period (AAP)** is a 12 consecutive month period that **either (a) begins each July 1st and ends June 30<sup>th</sup> of the following year when fees are paid on a fiscal year basis, or (b) begins January 1<sup>st</sup> and ends December 31<sup>st</sup> of the same year when paying on a calendar year basis.** The **Annual Accounting Period** at the time of permit renewal **began July 1, 2023, and ends June 30, 2024.** The next Annual Accounting Period **begins July 1, 2024, and ends June 30, 2025,** unless a request to change the annual accounting period is submitted by the responsible official as required by subparagraph 1200-03-26-.02(9)(b) of the TAPCR and approved by the Technical Secretary. If the permittee wishes to revise their annual accounting period or their annual emission fee basis as allowed by subparagraph 1200-03-26-.02(9)(b) of the TAPCR, the responsible official must submit the request to the Division in writing on or before December 31 of the annual accounting period for which the fee is due. If a change in fee basis from allowable emissions to actual emissions for any pollutant is requested, the request from the responsible official must include the methods that will be used to determine actual emissions. Changes in fee bases must be made using the Title V Fee Selection form, form number APC 36 (CN-1583), included as an attachment (Attachment 3) to this permit and available on the Division of Air Pollution Control’s website.

N/A N/A indicates that no emissions are specified for fee computation.

**AEAR** If the permittee is paying annual emission fees on an actual emissions basis, **AEAR** indicates that an **Actual Emissions Analysis is Required** to determine the actual emissions of:

- (1) **each regulated pollutant** (Particulate matter, SO<sub>2</sub>, VOC, NO<sub>x</sub> and so forth. See TAPCR 1200-03-26-.02(2)(i) for the definition of a regulated pollutant.),
- (2) **each pollutant group** (VOC Family, Non-VOC Gaseous, and Particulate Family),
- (3) the **Miscellaneous HAP Category**,
- (4) the **Specific HAP Category**, and
- (5) the **NSPS Category**

under consideration during the **Annual Accounting Period**.

\* **Category Of Miscellaneous HAP (HAP Without A Standard):**

This category is made-up of hazardous air pollutants that do not have a federal or state standard. Each HAP is classified into one of three groups, the **VOC Family** group, the **Non-VOC Gaseous** group, or the **Particulate (PM) Family** group. **For fee computation**, the **Miscellaneous HAP Category** is subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i) of the TAPCR.

\*\* **Category Of Specific HAP (HAP With A Standard):**

This category is made-up of hazardous air pollutants (HAP) that are subject to Federally promulgated Hazardous Air Pollutant Standards that can be imposed under Chapter 1200-03-11 or Chapter 1200-03-31. Each individual hazardous air pollutant is classified into one of three groups, the **VOC Family** group, the **Non-VOC Gaseous** group, or the **Particulate (PM) Family** group. **For fee computation**, each individual hazardous air pollutant of the **Specific HAP Category** is subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i) of the TAPCR.

\*\*\* **Category Of NSPS Pollutants Not Listed Above:**

This category is made-up of each **New Source Performance Standard (NSPS)** pollutant whose emissions are not included in the **PM, SO<sub>2</sub>, VOC** or **NO<sub>x</sub>** emissions from each source in this permit. **For fee computation**, each **NSPS pollutant not listed above** is subject to the 4,000 ton cap provisions of subparagraph 1200-03-26-.02(2)(i) of the TAPCR.

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## END NOTES

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- The permittee shall:**
- (1) Pay Title V **annual emission fees**, on the emissions and year bases requested by the responsible official and approved by the Technical Secretary, for each annual accounting period (AAP) by the payment deadline(s) established in TAPCR 1200-03-26-.02(9)(g). Fees may be paid on an **actual, allowable, or mixed** emissions basis; and on either a **state fiscal year** or a **calendar year**, provided the requirements of TAPCR 1200-03-26-.02(9)(b) are met. If any part of any fee imposed under TAPCR 1200-03-26-.02 is not paid within 15 days of the due date, penalties shall at once accrue as specified in TAPCR 1200-03-26-.02(8).
  - (2) Sources paying annual emissions fees on an allowable emissions basis: pay annual allowable based emission fees for each annual accounting period no later than April 1 of each year pursuant to TAPCR 1200-03-26-.02(9)(d).
  - (3) Sources paying annual emissions fees on an actual emissions basis: prepare an **actual emissions analysis** for each AAP and pay **actual based emission fees** pursuant to TAPCR 1200-03-26-.02(9)(d). The **actual emissions analysis** shall include:
    - (a) the completed **Fee Emissions Summary Table**,
    - (b) each **actual emissions analysis** required, and
    - (c) the actual emission records for each pollutant and each source as required for actual emission fee determination, or a summary of the actual emission records required for fee determination, as specified by the Technical Secretary or the Technical Secretary's representative. The summary must include sufficient information for the Technical Secretary to determine the accuracy of the calculations. These calculations must be based on the annual fee basis approved by the Technical Secretary (a state fiscal year [July 1 through June 30] or a calendar year [January 1 through December 31]). These records shall be used to complete

the **actual emissions analyses** required by the above **Fee Emissions Summary Table**.

- (4) Sources paying annual emissions fees on a mixed emissions basis: for all pollutants and all sources for which the permittee has chosen an actual emissions basis, prepare an **actual emissions analysis** for each AAP and pay **actual based emission fees** pursuant to TAPCR 1200-03-26-.02(9)(d). The **actual emissions analysis** shall include:
  - (a) the completed **Fee Emissions Summary Table**,
  - (b) each **actual emissions analysis** required, and
  - (c) the actual emission records for each pollutant and each source as required for actual emission fee determination, or a summary of the actual emission records required for fee determination, as specified by the Technical Secretary or the Technical Secretary’s representative. The summary must include sufficient information for the Technical Secretary to determine the accuracy of the calculations. These calculations must be based on the fee bases approved by the Technical Secretary (payment on an actual or mixed emissions basis) and payment on a state fiscal year (July 1 through June 30) or a calendar year (January 1 through December 31). These records shall be used to complete the **actual emissions analysis**.

For all pollutants and all sources for which the permittee has chosen an allowable emissions basis, pay allowable based emission fees pursuant to TAPCR 1200-03-26-.02(9)(d).
- (5) When paying on an actual or mixed emissions basis, submit the **actual emissions analyses** at the time the fees are paid in full.

The annual emission fee due dates are specified in TAPCR 1200-03-26-.02(9)(g) and are dependent on the Responsible Official’s choice of fee bases as described above. If any part of any fee imposed under TAPCR 1200-03-26-.02 is not paid within 15 days of the due date, penalties shall at once accrue as specified in TAPCR 1200-03-26-.02(8). Emissions for regulated pollutants shall not be double counted as specified in **Condition A8(d)** of this permit.

**Payment of the fee due and the actual emissions analysis (if required) shall be submitted to The Technical Secretary a following address:**

Payment of Fee to:  
 The Tennessee Department of Environment and Conservation  
 Division of Fiscal Services  
 Consolidated Fee Section – APC  
 Davy Crockett Tower, 6<sup>th</sup> Floor  
 500 James Robertson Parkway  
 Nashville, TN 37243

Actual Emissions Analyses to:  
 The Tennessee Department of Environment and Conservation  
 Division of Air Pollution Control  
 Emission Inventory Program  
 Davy Crockett Tower, 7<sup>th</sup> Floor  
 500 James Robertson Parkway  
 Nashville, TN 37243  
 or  
 An electronic copy (PDF) of actual emissions analysis be submitted to: [apc.inventory@tn.gov](mailto:apc.inventory@tn.gov)

**E2. Reporting requirements.**

- (a) **Semiannual reports.**  
 Semiannual reports shall cover the six-month periods from **January 1 to June 30** and **July 1 to December 31** and shall be submitted within 60 days after the end of each six-month period. Subsequent reports shall be submitted within 60 days after the end of each 6-month period following the first report after issuance of this permit. The first semiannual report following issuance of this permit shall cover the following permits and reporting periods:

Permit Number	Reporting Period Begins	Reporting Period Ends
564022	January 1, 2024	***Issuance -1
578647	***Issuance	June 30, 2024

These semiannual reports shall include:

- (1) Any monitoring and recordkeeping required by **Conditions E4-1** of this permit. However, a summary report of this data is acceptable provided there is sufficient information to enable the Technical Secretary to evaluate compliance.
- (2) The visible emission evaluation readings from **Condition E3-2** of this permit if required. However, a summary report of this data is acceptable provided there is sufficient information to enable the Technical Secretary to evaluate compliance.
- (3) Identification of all instances of deviations from **ALL PERMIT REQUIREMENTS**. The record of deviations/excursions shall include, at a minimum, the time the deviation/excursion was discovered, the corrective action taken, and the time that the deviation/excursion was rectified.

**These reports must be certified by a responsible official consistent with Condition B4 of this permit and shall be submitted to The Technical Secretary at the address in Condition E2(b) of this permit.**

TAPCR 1200-03-09-.02(11)(e)1.(iii)

**(b) Annual compliance certification.**

The permittee shall submit annually compliance certifications with each term or condition contained in Sections A, B, D and E of this permit, including emission limitations, standards, or work practices. This compliance certification shall include all of the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable):

- (1) The identification of each term or condition of the permit that is the basis of the certification;
- (2) The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period; Such methods and other means shall include, at a minimum, the methods and means required by this permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Act, which prohibits knowingly making a false certification or omitting material information;
- (3) The status of compliance with each term or condition of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated in **Condition E2(b)2** above. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion\* or exceedance\*\* as defined below occurred; and
- (4) Such other facts as the Technical Secretary may require to determine the compliance status of the source.

\* “Excursion” shall mean a departure from an indicator range established for monitoring under this paragraph, consistent with any averaging period specified for averaging the results of the monitoring.

\*\* “Exceedance” shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard (or less than the applicable standard in the case of a percent reduction requirement) consistent with any averaging period specified for averaging the results of the monitoring.

Annual compliance certifications shall cover the 12-month period from **July 1** to **June 30** and shall be submitted within 60 days after the end of each 12-month period. The first annual compliance certification following issuance of this permit shall cover the following permits and reporting periods:

Permit Number	Reporting Period Begins	Reporting Period Ends
564022	July 1, 2023	***Issuance -1
578647	***Issuance	June 30, 2024

These certifications shall be submitted to: **TN APCD** and **EPA**



<b>TN Division of Air Pollution Control</b>	and	<b>EPA Air Enforcement Branch</b>
<b>TN Division of Air Pollution Control</b> Nashville Environmental Field Office Division of Air Pollution Control 711 R. S. Gass Blvd Nashville, TN 37216 or <a href="mailto:Air.Pollution.Control@tn.gov">Air.Pollution.Control@tn.gov</a> and <a href="mailto:APC.NashEFO@tn.gov">APC.NashEFO@tn.gov</a>		<b>US EPA Region IV</b> 61 Forsyth Street, SW Atlanta, Georgia 30303 or <b>Through the EPA CDX</b> ( <a href="https://cdx.epa.gov/">https://cdx.epa.gov/</a> )

40 CFR Part 70.6(c)(5)(iii) as amended in the Federal Register Vol. 79, No.144, July 28, 2014, pages 43661 through 43667

TAPCR 1200-03-09-.02(11)(e)3.(v)

(c) **Retention of records**

All records required by any condition in Section E of this permit must be retained for a period of not less than five years. Additionally, these records shall be kept available for inspection by the Technical Secretary or a Division representative.

TAPCR 1200-03-09-.02(11)(e)1.(iii)(II)II

**E3. General permit conditions.**

**E3-1. General Recordkeeping Requirements**

A. All recordkeeping requirements for all data required to be recorded shall follow the following schedules:

For Daily Recordkeeping	For Weekly Recordkeeping	For Monthly Recordkeeping
No later than seven days from the end of the day for which the data is required.	No later than seven days from the end of the week for which the data is required.	No later than 30 days from the end of the month for which the data is required.

B. The information contained in logs, records, and submittals required by this permit shall be kept at the facility’s address, unless otherwise noted, and provided to the Technical Secretary or a Division representative upon request. Computer-generated logs are acceptable. Compliance is assured by retaining the logs, records, and submittals specified in this permit for a period of not less than five years at the facility’s address. Any logs that have an alternative format may be utilized provided they contain the same information that is required. Logs and records are not required to be submitted semiannually unless specified in **Condition E2(a)(1)**.

TAPCR 1200-03-10-.02(2)(a)

**E3-2.** Visible emissions from this facility shall not exhibit greater than 20% opacity, except for one six-minute period in any one-hour period, and for no more than four six-minute periods in any 24-hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

TAPCR 1200-03-05-.01(1) and TAPCR 1200-03-05-.03(6)

**Compliance Method:** The permittee shall assure compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996, and amended on September 11, 2013, that is enclosed as **Attachment 1**. Reports and certifications shall be submitted in accordance with **Condition E2** of this permit.

## DRAFT

**If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.**

- A. Unless otherwise specified, visible emissions from this facility shall not exhibit greater than 20% opacity, except for one six-minute period in any one-hour period, and for no more than four six-minute periods in any 24-hour period. A stack is defined as any chimney, flue, conduit, exhaust, vent, or opening of any kind whatsoever, capable of, or used for, the emission of air contaminants.

TAPCR 1200-03-05-.01(1) and 1200-03-05-.03(6)

**Compliance Method:** The permittee shall certify compliance with the opacity standard by utilizing the opacity matrix dated June 18, 1996 (amended on September 11, 2013) that is enclosed in **Attachment 1**. Visible emissions from sources at this facility shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average). Reports and certifications shall be submitted in accordance with **Condition E2** of this permit. If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring.

- B. The permittee shall not cause, suffer, allow, or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Reasonable precautions shall include, but are not limited to, the following:
- (a) Use, where possible, of water or chemicals for control of dust in demolition of existing buildings or structures, construction operations, grading of roads, or the clearing of land;
  - (b) Application of asphalt, water, or suitable chemicals on dirt roads, material stockpiles, and other surfaces which can create airborne dusts;
  - (c) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Adequate containment methods shall be employed during sandblasting or other similar operations.

The permittee shall not cause, suffer, allow, or permit fugitive dust to be emitted in such manner to exceed five minutes per hour or 20 minutes per day as to produce a visible emission beyond the property line of the property on which the emission originates, excluding malfunction of equipment as provided in TAPCR 1200-03-20. A malfunction is defined as, any sudden and unavoidable failure of process equipment or for a process to operate in an abnormal and unusual manner. Failures that are caused by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

TAPCR 1200-03-08-.01(1) and 1200-03-08-.01(2)

**Compliance Method:** When required to demonstrate compliance, fugitive emissions shall be determined by Tennessee Visible Emissions Evaluation Method 4 as adopted by the Tennessee Air Pollution Control Board on April 16, 1986.

- C. Fugitive emissions from roads and parking areas shall not exhibit greater than 10% opacity.

TAPCR 1200-03-08-.03

**Compliance Method:** When required to demonstrate compliance, fugitive emissions from roads and parking areas shall be determined by utilizing Tennessee Visible Emissions Evaluation (TVEE) Method 1, as adopted by the Tennessee Air Pollution Control Board on April 29, 1982, as amended on September 15, 1982, and August 24, 1984.

- E3-3.** This source shall comply with all applicable state and federal air pollution regulations. This includes, but is not limited to federal regulations published under 40 CFR 63, National Emission Standards for Hazardous Air Pollutants, and 40 CFR 60, New Source Performance Standards.

TAPCR 1200-03-09-.03(8)

## DRAFT

- E3-4.** The permittee listed various insignificant and exempt activities in their Title V application dated per Rule 1200-03-09-.04(5). Additional insignificant activities may be added and operated at any time with the provision that a written notification shall be submitted to the Technical Secretary including an updated APC V-2 application form along with a truth, accuracy and completeness statement signed by a responsible official.

TAPCR 1200-03-09-.03(8).

- E3-5.** The permittee shall maintain and repair the emission source, associated air pollution control device(s), and compliance assurance monitoring equipment as required to maintain and assure compliance with the specified emission limits.

TAPCR 1200-03-09-.03(8)

**Compliance Method:** Records of all repair and maintenance activities required above shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five years. The date each maintenance and repair activity began shall be entered in the log no later than seven days following the start of the repair or maintenance activity, and the completion date shall be entered in the log no later than seven days after activity completion.

**E3-6. Identification of Responsible Official, Technical Contact, and Billing Contact**

- A. The application that was utilized in the preparation of this permit is dated November 4, 2020, and signed by former Responsible Official Joanna Bergeron, Controller of the permitted facility. Nathan Stinson, Plant Manager, is the current Responsible Official for the facility. If this person terminates employment or is assigned different duties and is no longer a Responsible Official for this facility as defined in part 1200-03-09-.02(11)(b)21 of the Tennessee Air Pollution Control Regulations, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within 30 days of the change. The notification shall include the name and title of the new Responsible Official and certification of truth and accuracy. All representations, agreement to terms and conditions, and covenants made by the former Responsible Official that were used in the establishment of the permit terms and conditions will continue to be binding on the facility until such time that a revision to this permit is obtained that would change said representations, agreements, and/or covenants.
- B. The application that was utilized in the preparation of this permit is dated November 4, 2020, and identifies Jim Karasek as the Principal Technical Contact for the permitted facility. Cory Balthrop, Director EH&S, is the current Technical Contact for the facility. If this person terminates employment or is assigned different duties and is no longer the Principal Technical Contact for this facility, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within 30 days of the change. The notification shall include the name and title of the new Principal Technical Contact and certification of truth and accuracy.
- C. The application that was utilized in the preparation of this permit is dated November 4, 2020, and identifies Donna Ogden as the Billing Contact for the permitted facility. If this person terminates employment or is assigned different duties and is no longer the Billing Contact for this facility, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification must be in writing and must be submitted within 30 days of the change. The notification shall include the name and title of the new Billing Contact and certification of truth and accuracy.

**E4. Specific permit conditions for 74-0102-01, Source 01.**

Expanded polystyrene (EPS) custom foam block production involves several process operations resulting in foam board production which are fabricated into several types of customized products such as packaging material, insulation boards for exterior walls, exterior door cores and other foam block products as ordered.

**E4-1.** The total volatile organic compounds (VOC) emitted from this source shall not exceed 240.0 tons during any period of 12-consecutive months. This limit was taken to avoid PSD (Prevention of Significant Air Quality Deterioration).

TAPCR 1200-03-07-.07(2) and 1200-03-09-.01(4) and the agreement letter dated April 25, 2024, from the permittee, that is enclosed as **Attachment 2**.

**Compliance Method:**

(a) The permittee shall calculate the actual quantity of VOC emitted during each calendar month and each period of 12-consecutive months in the log below, or in an alternative format, which provides the same information. The log shall be retained in accordance with **Condition E3-1**.

Month/year	Bead Lot No.	Raw Material		Monthly VOC Emissions *		Consecutive 12-month VOC Emissions
		Pounds of Raw Material (beads) processed	Weight % of Pentane in bead lot	Pounds of VOC emitted	Tons of VOC emitted	(**) Tons of VOC emitted per 12-month period
January						
February						
March						
etc.						

(\*) Actual VOC emission rate each month is calculated by multiplying the pounds of raw polystyrene beads processed by the weight percent of pentane of the respective bead lots. One hundred percent loss of the pentane (VOC) shall be assumed due to the evaporative loss during sequential operations previously described encompassing processing, storage, and handling.

(\*\*) The Tons per 12-month value is the VOC emissions in the 11 months preceding the month just completed + VOC emissions in the month just completed. If data is not available for the 11 months preceding the initial use of this log, this value will be equal to the value for tons per month. The second month will be the sum of the first month and the second month. Indicate in parentheses the number of months summed, e.g. 6 (2) represents 6 tons emitted in 2 months.

For monthly recordkeeping, all data, including the results of all calculations, must be entered into the log no later than 30 days from the end of the month for which the data is required.

(b) The as-supplied VOC content of all VOC-containing materials (all coatings, inks, adhesives, thinners, and solvents) to be used by this source shall be determined from Safety Data Sheets (SDS) or manufacturer or vendor formulation data which explicitly list the VOC content by weight. If new materials are used, or if material formulation is changed, logs used to calculate emissions of VOC shall be updated within 30 days from the initial date of usage of the new or altered material.

TAPCR 1200-03-09-.03(8) and TAPCR 1200-03-10-.02(2)(a)

(c) Purchase orders and/or invoices for all VOC-containing materials, along with current SDS, must be maintained and kept available for inspection by the Technical Secretary or a Division representative. The SDS must explicitly list the VOC content by weight for all VOC-containing materials. If SDS are not available with this information, vendor formulation data containing the required information for those materials must also be maintained. These records must be retained in accordance with **Condition E3-1**. Scanned documents (maintained electronically) may be used to fulfill this requirement.

TAPCR 1200-03-10-.02(2)(a)

**DRAFT**

**E4-2.** The pentane (VOC) content of the raw material consisting of resin polystyrene beads shall not exceed 7.0 percent by weight.

TAPCR 1200-03-09-.03(8).

**Compliance Method:** Compliance shall be demonstrated by the recordkeeping specified in **Condition E4-1**.

**END OF PERMIT NUMBER: 578647**

**ATTACHMENT 1**  
**OPACITY MATRIX DECISION TREE for VISIBLE EMISSION**  
**EVALUATION EPA METHOD 9**

**Dated June 18, 1996**  
**Amended September 11, 2013**

## Decision Tree PM for Opacity for Sources Utilizing EPA Method 9\*

**Notes:**

PM = Periodic Monitoring required by 1200-03-09-.02(11)(e)(iii).

This Decision Tree outlines the criteria by which major sources can meet the periodic monitoring and testing requirements of Title V for demonstrating compliance with the visible emission standards set forth in the permit. It is not intended to determine compliance requirements for EPA's Compliance Assurance Monitoring (CAM) Rule (formerly referred to as Enhanced Monitoring – Proposed 40 CFR 64).

Examine each emission unit using this Decision Tree to determine the PM required.\*

Use of continuous emission monitoring systems eliminates the need to do any additional periodic monitoring.

Visible Emission Evaluations (VEEs) are to be conducted utilizing EPA Method 9. The observer must be properly certified to conduct valid evaluations.

**Typical Pollutants**

Particulates, VOC, CO, SO<sub>2</sub>, NO<sub>x</sub>, HCl, HF, HBr, Ammonia, and Methane.

Initial observations are to be repeated within 90 days of startup of a modified source, if a new construction permit is issued for modification of the source.

A VEE conducted by TAPCD personnel after the Title V permit is issued will also constitute an initial reading.

**Reader Error**

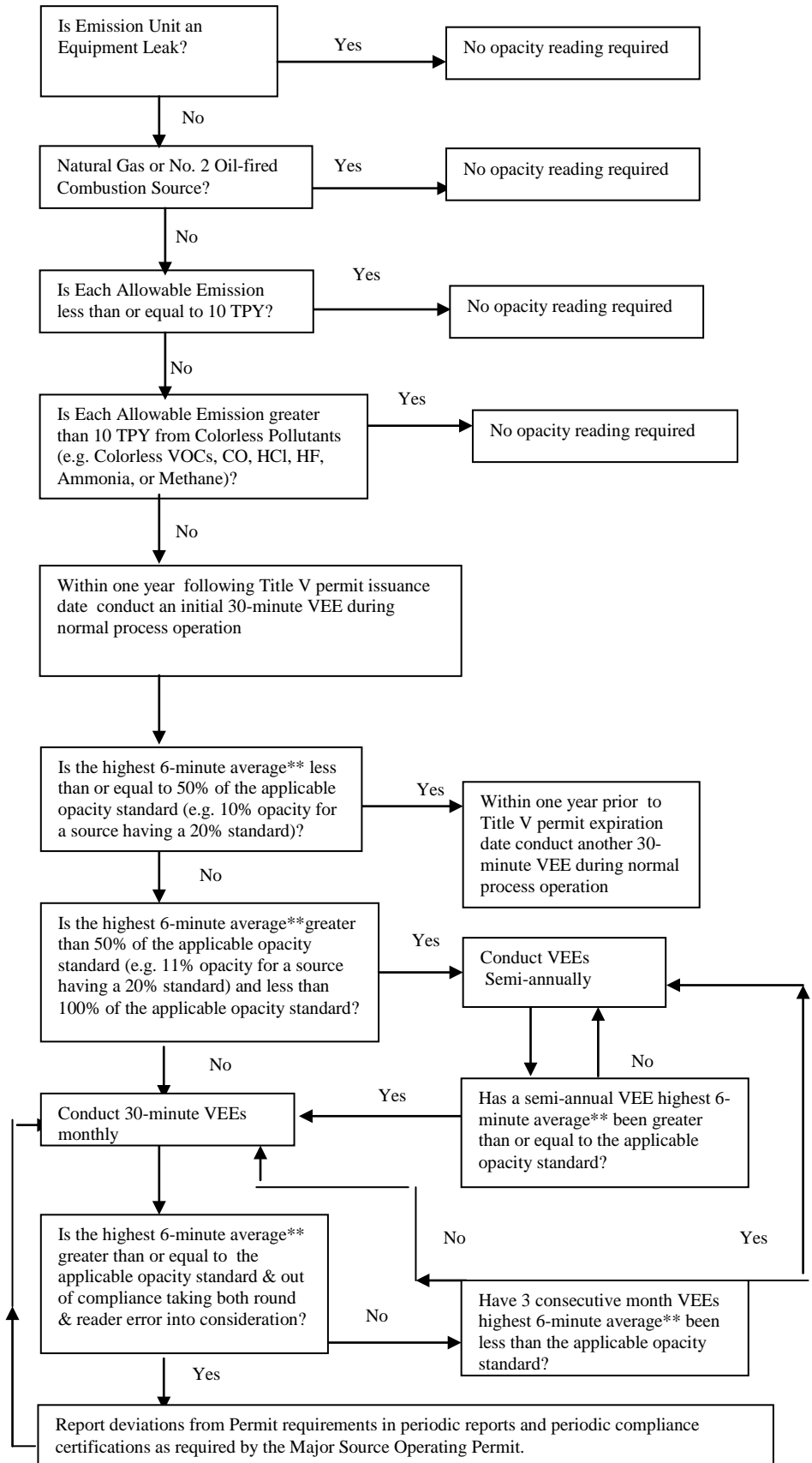
EPA Method 9, Non-NSPS or NESHAPS stipulated opacity standards: The TAPCD guidance is to declare non-compliance when the highest six-minute average\*\* exceeds the standard plus 6.8% opacity (e.g. 26.8% for a 20% standard).

EPA Method 9, NSPS or NESHAPS stipulate opacity standards: EPA guidance is to allow only engineering round. No allowance for reader error is given.

\*Not applicable to Asbestos manufacturing subject to 40 CFR 61.142

\*\*Or second highest six-minute average, if the source has an exemption period stipulated in either the regulations or in the permit.

Dated June 18, 1996  
Amended September 11, 2013



**ATTACHMENT 2  
AGREEMENT LETTER**

**Dated April 25, 2024**





10 Cadillac Drive, Suite 100  
Brentwood, TN 37027

615-510-2060

Alleguard.com

2/20/2024

Tennessee Department of Environment and Conservation  
Division of Air Pollution Control  
William R. Snodgrass Tennessee Tower, 15th Floor  
312 Rosa L. Parks Avenue  
Nashville, TN 37243

RE: Permit Agreement Letter  
Drew Foam Companies, Inc.  
3050 Barry Drive  
Portland, TN  
Emission Source Reference No. 74-0102-00 / Permit No. 578647

To the Technical Secretary:

On behalf of Drew Foam of TN, the following permit limitations are agreed upon for the expanded polystyrene (EPS) custom foam block production operation located at the above referenced facility in order to avoid PSD (Prevention of Significant Air Quality Deterioration) pursuant to TAPCR 1200-03-09-.01(4):

- **Facility-Wide:**

- The maximum volatile organic compounds (VOCs) emitted from this facility shall not exceed 240.0 tons during any period of 12-consecutive months. Compliance with this limitation shall be assured by compliance with **Conditions E4-1, and E4-2** of the permit. These conditions include recording the amount of raw materials processed during each calendar month, recording the pentane content of raw materials processed during each calendar month, calculating VOC emissions during each calendar month, and not utilizing raw materials with a pentane content exceeding 7.0 percent by weight.

Should you have any questions or require additional information, please contact Nate Stinson via phone at 615-325-1877 Ext 975 or via e-mail at [nathaniel.stinson@alleguard.com](mailto:nathaniel.stinson@alleguard.com).

On behalf of Drew Foam of TN I agree to the above limitations. I am authorized to represent and bind the facility in environmental affairs.



10 Cadillac Drive, Suite 100  
Brentwood, TN 37027

615-510-2060

Alleguard.com

Signature of Responsible Official

A handwritten signature in black ink, appearing to read "N. Stinson", written over a horizontal line.

Name (printed) Nathaniel Stinson

Title Plant Manager

Date 25 April 24

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**ATTACHMENT 3**

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**TITLE V FEE SELECTION FORM:**  
FORM APC 36



### TITLE V FEE SELECTION

Type or print and submit to the email address above.			
<b>FACILITY INFORMATION</b>			
1. Organization's legal name and SOS control number [as registered with the TN Secretary of State (SOS)]			
2. Site name (if different from legal name)			
3. Site address (St./Rd./Hwy.)			County name
City			Zip code
4. Emission source reference number		5. Title V permit number	
<b>FEE SELECTION</b>			
This fee selection is effective beginning January 1, _____. When approved, this selection will be effective until a new Fee Selection form is submitted. Fee Selection forms must be submitted on or before December 31 of the annual accounting period.			
6. Payment Schedule (choose one):			
Calendar Year Basis (January 1 – December 31) <input type="checkbox"/>		Fiscal Year Basis (July 1 – June 30) <input type="checkbox"/>	
7. Payment Basis (choose one):			
Actual Emissions Basis <input type="checkbox"/> Allowable Emissions Basis <input type="checkbox"/> Combination of Actual and Allowable Emissions Basis <input type="checkbox"/>			
8. If Payment Basis is "Actual Emissions" or "Combination of Actual and Allowable Emissions", complete the following table for each permitted source and each pollutant for which fees are due for that source. See instructions for further details.			
Source ID	Pollutant	Allowable or Actual Emissions	If allowable emissions: Specify condition number and limit. If actual emissions: Describe calculation method and provide example. Provide condition number that specifies method, if applicable.



## TITLE V PERMIT STATEMENT

<b>Facility Name: Drew Foam Companies Inc.</b>
<b>City: Portland</b>
<b>County: Robertson</b>

<b>Date Application Received: November 3, 2020</b>
<b>Date Application Deemed Complete: November 3, 2020</b>

<b>Emission Source Reference No.: 74-0102</b>
<b>Permit No.: 578647</b>

### INTRODUCTION

This narrative is being provided to assist the reader in understanding the content of the attached Title V operating permit. This Title V Permit Statement is written pursuant to Tennessee Air Pollution Control Rule 1200-3-9-.02(11)(f)1.(v). The primary purpose of the Title V operating permit is to consolidate and identify existing state and federal air requirements applicable to Drew Foam Companies Inc. and to provide practical methods for determining compliance with these requirements. The following narrative is designed to accompany the Title V Operating Permit. It initially describes the facility receiving the permit, then the applicable requirements and their significance, and finally the compliance status with those applicable requirements. This narrative is intended only as an adjunct for the reviewer and has no legal standing. Any revisions made to the permit in response to comments received during the public participation process will be described in an addendum to this narrative.

#### Acronyms

PSD - Prevention of Significant Deterioration  
NESHAP - National Emission Standards for Hazardous Air Pollutants  
NSPS - New Source Performance Standards  
MACT - Maximum Achievable Control Technology  
NSR - New Source Review

## I. Identification Information

### A. Source Description

Custom Molded Foam Products Production.

Emission Sources:

#### **01:** Polystyrene Bead Storage Area, Expander, Expanded Polystyrene Storage, Molding Operations, Billet Drying and Storage Area.

The sequential operations involve material input to the process which consists of raw resin polystyrene beads containing embedded pentane used as a blowing agent comprising up to 7% of the bead weight. The beads are received and stored in large plastic bags. The beads are loaded to the expander where boiler steam and heat expand the beads up to 50 times the size releasing much of the pentane in the beads. The remaining pentane evaporates during subsequent processing steps. The expanded beads are then placed in storage bags with breathable fabric. After sitting for up to 12 hours, the virgin beads cool and dry before being sent to a mold where again boiler steam sent to the mold forms a solid block of EPS. The resulting billets are stored and cured five to seven days before being processed into various types of foam board products. All the remaining operations comprised of billet cutting, poly film application containing a heat released adhesive when processed by a heated rollerized operation, applying hot glue adhesive to EPS parts in the fabrication area, and grinding and reclaiming of scrap foam board are considered “insignificant emission units or activities” as specified in Condition E3-4 of the Permit 578647.

### B. Facility Classification

#### 1. Attainment or Non-Attainment Area Location

Area (is) designated as an attainment area for all criteria pollutants.

#### 2. Company is located in a *Class II* area.

### C. Regulatory Status

#### 1. PSD/NSR

This facility **would be** considered a major source for **PSD** purposes, but has agreed to an emissions limit.

#### 2. Title V Major Source Status by Pollutant (Facility-Wide Table includes insignificant sources)

Pollutant	Is the pollutant emitted?	If emitted, what is the facility's status?		
		Major Source Status	Non-Major Source Status	Potential to Emit (tons per year)
PM	yes		yes	2.0
PM <sub>10</sub>	yes		yes	2.0
SO <sub>2</sub>	yes		yes	0.01
VOC	yes	yes		1067.7
NO <sub>x</sub>	yes		yes	1.3
CO	yes		yes	1.1
Individual HAP	yes		yes	<0.01
Total HAPs	yes		yes	<0.01

GHG (CO <sub>2</sub> e)	yes		yes	n.d.
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2. Title V Major Source Status by Pollutant (Facility-Wide Table only includes permitted sources)

Pollutant	Is the pollutant emitted?	If emitted, what is the facility's status?	
		Major Source Status	Non-Major Source Status
PM			
PM <sub>10</sub>	N/A	N/A	N/A
SO <sub>2</sub>			
VOC	yes	yes	
NO <sub>x</sub>			
CO			
Individual HAP			
Total HAPs			
GHG (CO <sub>2</sub> e)			

3. MACT Standards

List MACT Rule(s) if applicable:

This facility ***is not*** a major source for HAPs. This facility ***is not*** subject to a proposed or final MACT standard.

4. Program Applicability

Are the following programs applicable to the facility?

PSD (**no**) – The facility ***would be*** a major source for VOCs under PSD, but has agreed to an emissions limit to stay below the PSD applicability threshold.

NSPS (**no**) – This facility is not subject to any NSPS requirements. The insignificant boiler on site is below the heat input threshold of applicability for Subpart Dc.

NESHAP (**no**) – This facility is not subject to any NESHAP requirements. The insignificant boiler on site is not subject to Subpart JJJJJ as it is a gas-fired boiler under the following operational definition:

Gas-fired boiler includes any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or periodic testing, maintenance, or operator training on liquid fuel. Periodic testing, maintenance, or operator training on liquid fuel shall not exceed a combined total of 48 hours during any calendar year.

MACT (**no**) – This facility is not subject to any MACT requirements.



## II. Compliance Information

### A. Compliance Status

Is the facility currently in compliance with all applicable requirements? (**yes**)

Are there any applicable requirements that will become effective during the permit term? (**no**)

## III. Other Requirements

### A. Emissions Trading

The facility is not involved in an emission trading program.

### B. Acid Rain Requirements

This facility is not subject to any requirements in Title IV of the Clean Air Act.

### C. Prevention of Accidental Releases

The permittee is not required to file an accidental release plan pursuant to Section 112(r) of the Clean Air Act and 1200-03-32 of TAPCR.

### D. CAM Plan

This facility is not currently subject to regulations under 40 CFR Part 64 (Compliance Assurance Monitoring) since the VOC emissions above 100 tons per year do not utilize and are not required to have a control device.

## IV. Public Participation Procedures

Notification of this draft permit was mailed to the following environmental agencies:

1. EPA
2. State of Kentucky
3. Nashville/Davidson Co. Metropolitan Health Dept.

## V. Public Participation

1. TBD