

Division for Air Quality

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

DEP7007AI

Administrative Information

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

Additional Documentation

Additional Documentation attached

Source Name: Hillshire Brands

KY EIS (AFS) #: 21- 037-00074

Permit #: F-18-008 R1

Agency Interest (AI) ID: 586

Date: _____

Section AI.1: Source Information

Physical Location	Street:	<u>1099 Bob Huber Drive</u>		
Address:	City:	<u>Alexandria</u>	County:	<u>Campbell</u>
			Zip Code:	<u>41001</u>
Mailing Address:	Street or P.O. Box:	<u>1099 Bob Huber Drive</u>		
	City:	<u>Alexandria</u>	State:	<u>KY</u>
			Zip Code:	<u>41001</u>

Standard Coordinates for Source Physical Location

Longitude: 38.9103 (decimal degrees) **Latitude:** -84.38236 (decimal degrees)

Primary (NAICS) Category: _____ **Primary NAICS #:** 311612

Classification (SIC) Category: _____		Primary SIC #: <u>2013</u>	
Briefly discuss the type of business conducted at this site:		Sausage and other meat product production	
Description of Area Surrounding Source:	<input checked="" type="checkbox"/> Rural Area	<input type="checkbox"/> Industrial Park	<input type="checkbox"/> Residential Area
	<input type="checkbox"/> Urban Area	<input type="checkbox"/> Industrial Area	<input type="checkbox"/> Commercial Area
		Is any part of the source located on federal land?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Number of Employees:	583
Approximate distance to nearest residence or commercial property: <u>800</u>		Property Area: <u>47 Acres</u>	Is this source portable? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
What other environmental permits or registrations does this source currently hold or need to obtain in Kentucky?			
NPDES/KPDES:	<input checked="" type="checkbox"/> Currently Hold	<input type="checkbox"/> Need	<input type="checkbox"/> N/A
Solid Waste:	<input type="checkbox"/> Currently Hold	<input type="checkbox"/> Need	<input type="checkbox"/> N/A
RCRA:	<input type="checkbox"/> Currently Hold	<input type="checkbox"/> Need	<input type="checkbox"/> N/A
UST:	<input type="checkbox"/> Currently Hold	<input type="checkbox"/> Need	<input type="checkbox"/> N/A
Type of Regulated Waste Activity:	<input type="checkbox"/> Mixed Waste Generator	<input type="checkbox"/> Generator	<input type="checkbox"/> Recycler <input type="checkbox"/> Other: _____
	<input type="checkbox"/> U.S. Importer of Hazardous Waste	<input type="checkbox"/> Transporter	<input type="checkbox"/> Treatment/Storage/Disposal Facility <input type="checkbox"/> N/A

Section AI.2: Applicant Information

Applicant Name: The Hillshire Brands Company

Title: (if individual) _____

Mailing Address: **Street or P.O. Box:** 1099 Bob Huber Drive

City: Alexandria **State:** KY **Zip Code:** 41001

Email: (if individual) _____

Phone: (859) 635-0444

Technical Contact

Name: Rob Kronable

Title: Corporate Complex Environmental Manager

Mailing Address: **Street or P.O. Box:** 1099 Bob Huber Drive

City: Alexandria **State:** KY **Zip Code:** 41001

Email: robert.kronable@tyson.com

Phone: 859-635-8999

Air Permit Contact for Source

Name: Rob Kronable

Title: Corporate Complex Environmental Manager

Mailing Address: **Street or P.O. Box:** 1099 Bob Huber Drive

City: Alexandria **State:** KY **Zip Code:** 41001

Email: robert.kronable@tyson.com

Phone: 859-635-8999

Section AI.3: Owner Information

Owner same as applicant

Name: _____

Title: _____

Mailing Address: **Street or P.O. Box:** _____
City: _____ **State:** _____ **Zip Code:** _____

Email: _____

Phone: _____

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

Name

Position

Section AI.4: Type of Application

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

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

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

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

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

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

(MM/YYYY) _____ _____

For Modifications:

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

(MM/YYYY) _____ _____

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

Section AI.5 Other Required Information

Indicate the documents attached as part of this application:

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

Section AI.6: Signature Block

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

Authorized Signature

Date

Type or Printed Name of Signatory

Title of Signatory

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

1)	Type of Unit (Make, Model, Etc.):	<i>QuikWater</i>	
	Date Installed:	<i>2007</i>	
	Cost of Unit:	<i>na</i>	
	Company's Identification Code:	<i>EU 24</i>	
2a)	Kind of Unit:	<i>Indirect Heat Exchanger</i>	
2b)	Rated Capacity		
	1. Fuel input (MMBtu/hr.):	<i>16</i>	
	2. Power output (Hp):	<i>na</i>	
	Power output (MW):	<i>na</i>	
SECTION 1. FUEL			
3)	Type of Primary Fuel:	<i>C. Natural Gas</i>	
4)	Secondary Fuel (if any):	<i>Propane</i>	
5)	Fuel Composition	<u>Primary Fuel</u>	<u>Secondary Fuel</u>
	Percent Ash (as received):	<i>negligible</i>	<i>0.10%</i>
	Percent Sulfur (as received):	<i><0.0015%</i>	<i>0.10%</i>
	Corresponding Heat Content:	<i>1,020 Btu/scf</i>	<i>91,500 Btu/gal.</i>
6)	Maximum Annual Fuel Usage Rate:*	<i>na</i>	
	* Only if requesting operating limit.		
7)	Fuel Source or supplier:	<i>Duke Energy</i>	
8)	Maximum Operating Schedule for Unit:*		
	* Only if requesting operating limit.		
	Hours/Day:	Days/Week:	Weeks/Year:
	<i>na</i>	<i>na</i>	<i>na</i>
9)	If this unit is multipurpose, describe percent in each use category:		
	Space Heat:	Process Heat:	Power:
	<i>0%</i>	<i>100%</i>	<i>0%</i>
10)	Control options for turbine/IC engine:	<i>na</i>	
SECTION II. COMPLETE ONLY FOR INDIRECT HEAT EXCHANGERS			
14)	Natural Gas-Fired Units		
	Low NOX Burners?	<i>No</i>	
	Flue Gas Recirculation	<i>No</i>	
15)	Combustion Air		
	Draft	<i>Induced</i>	
	Forced Pressure	<i>na</i>	
	Percent excess air	<i>na</i>	
SECTION III.			
16)	Additional Stack Data		
	A. Are sampling ports provided?	<i>na</i>	
	B. Located in accordance with 40 CFR 60?	<i>na</i>	
	C. List other units vented to this stack:	<i>None</i>	
17)	Attach manufacturer specifications and guaranteed performance data for the indirect heat	<i>na</i>	
18)	Describe fuel transport, storage methods and related dust control measures, including ash	<i>Natural gas supplied by pipeline; propane stored in a storage tank</i>	

Emission Unit # ***EU 28***

1) Type of Unit (Make, Model, Etc.):	<i>Cummins Diesel, LTA10-G1</i>		
Date Installed:	<i>2003</i>		
Cost of Unit:	<i>na</i>		
Company's Identification Code:	<i>EU 28</i>		
2a) Kind of Unit:	<i>Industrial Engine</i>		
2b) Rated Capacity			
1. Fuel input (MMBtu/hr.):	<i>2.66 MMBtu/hr.</i>		
2. Power output (Hp):	<i>380 hp</i>		
Power output (MW):	<i>NA</i>		
SECTION 1. FUEL			
3) Type of Primary Fuel:	<i>H. Diesel</i>		
4) Secondary Fuel (if any):	<i>None</i>		
5) Fuel Composition - <u>Primary Fuel</u>			
Percent Ash (as received):	<i>negligible</i>		
Percent Sulfur (as received):	<i><0.0015%</i>		
Corresponding Heat Content:	<i>19,300 Btu/lb</i>		
6) Maximum Annual Fuel Usage Rate:*	<i>na</i>		
* Only if requesting operating limit.			
7) Fuel Source or supplier:	<i>Diesel fuel from external fuel tank</i>		
8) Maximum Operating Schedule for Unit:*			
* Only if requesting operating limit.			
Hours/Day:	<i>na</i>	Days/Week:	<i>na</i>
Weeks/Year:	<i>500 hr./yr.</i>		
9) If this unit is multipurpose, describe percent in each use category:			
Space Heat:	<i>na</i>	Process Heat:	<i>na</i>
Power:	<i>100%</i>		
10) Control options for turbine/IC engine:	<i>na</i>		
SECTION II. COMPLETE ONLY FOR INDIRECT HEAT EXCHANGERS			
<i>na</i>			
SECTION III.			
16) Additional Stack Data			
A. Are sampling ports provided?	<i>na</i>		
B. Located in accordance with 40 CFR 60?	<i>na</i>		
C. List other units vented to this stack:	<i>None</i>		
17) Attach manufacturer specifications and guaranteed performance data for the indirect heat	<i>na</i>		
18) Describe fuel transport, storage methods and related dust control measures, including ash disposal and control.			

Filling of external fuel tank.

1) Type of Unit (Make, Model, Etc.):	<i>Cleaver Brooks</i>	
Date Installed:	<i>2004</i>	
Cost of Unit:	<i>na</i>	
Company's Identification Code:	<i>EU 22-23</i>	
2a) Kind of Unit:	<i>Indirect Heat Exchanger</i>	
2b) Rated Capacity		
1. Fuel input (MMBtu/hr.):	<i>12.56 each</i>	
2. Power output (Hp):	<i>na</i>	
Power output (MW):	<i>na</i>	
SECTION I. FUEL		
3) Type of Primary Fuel:	<i>C. Natural Gas</i>	
4) Secondary Fuel (if any):	<i>Propane</i>	
5) Fuel Composition	<u>Primary Fuel</u>	<u>Secondary Fuel</u>
Percent Ash (as received):	<i>negligible</i>	<i>0.10%</i>
Percent Sulfur (as received):	<i><0.0015%</i>	<i>0.10%</i>
Corresponding Heat Content:	<i>1,020 Btu/scf</i>	<i>91,500 Btu/gal.</i>
6) Maximum Annual Fuel Usage Rate:*	<i>na</i>	
* Only if requesting operating limit.		
7) Fuel Source or supplier:	<i>Duke Energy</i>	
8) Maximum Operating Schedule for Unit:*		
* Only if requesting operating limit.		
Hours/Day:	<i>na</i>	Days/Week: <i>na</i> Weeks/Year: <i>na</i>
9) If this unit is multipurpose, describe percent in each use category:		
Space Heat:	<i>5%</i>	Process Heat: <i>95%</i> Power: <i>0%</i>
10) Control options for turbine/IC engine:	<i>na</i>	
SECTION II. COMPLETE ONLY FOR INDIRECT HEAT EXCHANGERS		
14) Natural Gas-Fired Units		
Low NOX Burners?	<i>No</i>	
Flue Gas Recirculation	<i>No</i>	
15) Combustion Air		
Draft	<i>Induced</i>	
Forced Pressure	<i>na</i>	
Percent excess air	<i>na</i>	
SECTION III.		
16) Additional Stack Data		
A. Are sampling ports provided?	<i>na</i>	
B. Located in accordance with 40 CFR 60?	<i>na</i>	
C. List other units vented to this stack:	<i>None</i>	
17) Attach manufacturer specifications and guaranteed performance data for the indirect heat	<i>na</i>	
18) Describe fuel transport, storage methods and related dust control measures, including ash disposal and control.	<i>Natural gas supplied by pipeline; propane stored in a storage tank</i>	

1) Type of Unit (Make, Model, Etc.):	<i>Cleaver Brooks</i>		
Date Installed:	<i>1985</i>		
Cost of Unit:	<i>na</i>		
Company's Identification Code:	<i>EU 01-03</i>		
2a) Kind of Unit:	<i>Indirect Heat Exchanger</i>		
2b) Rated Capacity			
1. Fuel input (MMBtu/hr.):	<i>8.37 each</i>		
2. Power output (Hp):	<i>na</i>		
Power output (MW):	<i>na</i>		
SECTION I. FUEL			
3) Type of Primary Fuel:	<i>C. Natural Gas</i>		
4) Secondary Fuel (if any):	<i>Propane</i>		
5) Fuel Composition	<u>Primary Fuel</u>	<u>Secondary Fuel</u>	
Percent Ash (as received):	<i>negligible</i>	<i>0.10%</i>	
Percent Sulfur (as received):	<i><0.0015%</i>	<i>0.10%</i>	
Corresponding Heat Content:	<i>1,020 Btu/scf</i>	<i>91,500 Btu/gal.</i>	
6) Maximum Annual Fuel Usage Rate:*	<i>na</i>		
* Only if requesting operating limit.			
7) Fuel Source or supplier:	<i>Duke Energy</i>		
8) Maximum Operating Schedule for Unit:*			
* Only if requesting operating limit.			
Hours/Day:	<i>na</i>	Days/Week:	<i>na</i>
Weeks/Year:	<i>na</i>		
9) If this unit is multipurpose, describe percent in each use category:			
Space Heat:	<i>5%</i>	Process Heat:	<i>95%</i>
Power:	<i>0%</i>		
10) Control options for turbine/IC engine:	<i>na</i>		
SECTION II. COMPLETE ONLY FOR INDIRECT HEAT EXCHANGERS			
14) Natural Gas-Fired Units			
Low NOX Burners?	<i>No</i>		
Flue Gas Recirculation	<i>No</i>		
15) Combustion Air			
Draft	<i>Induced</i>		
Forced Pressure	<i>na</i>		
Percent excess air	<i>na</i>		
SECTION III.			
16) Additional Stack Data			
A. Are sampling ports provided?	<i>na</i>		
B. Located in accordance with 40 CFR 60?	<i>na</i>		
C. List other units vented to this stack:	<i>None</i>		
17) Attach manufacturer specifications and guaranteed performance data for the indirect heat	<i>na</i>		
18) Describe fuel transport, storage methods and related dust control measures, including ash disposal and control.	<i>Natural gas supplied by pipeline; propane stored in a storage tank</i>		

1) Type of Unit (Make, Model, Etc.):	<i>Cleaver Brooks</i>	
Date Installed:	<i>2009</i>	
Cost of Unit:	<i>~\$200,000</i>	
Company's Identification Code:	<i>EU 27</i>	
2a) Kind of Unit:	<i>Indirect Heat Exchanger</i>	
2b) Rated Capacity		
1. Fuel input (MMBtu/hr.):	<i>20.4</i>	
2. Power output (Hp):	<i>na</i>	
Power output (MW):	<i>na</i>	
SECTION I. FUEL		
3) Type of Primary Fuel:	<i>C. Natural Gas</i>	
4) Secondary Fuel (if any):	<i>Propane</i>	
5) Fuel Composition	<u>Primary Fuel</u>	<u>Secondary Fuel</u>
Percent Ash (as received):	<i>negligible</i>	<i>0.10%</i>
Percent Sulfur (as received):	<i><0.0015%</i>	<i>0.10%</i>
Corresponding Heat Content:	<i>1,020 Btu/scf</i>	<i>91,500 Btu/gal.</i>
6) Maximum Annual Fuel Usage Rate:*	<i>na</i>	
* Only if requesting operating limit.		
7) Fuel Source or supplier:	<i>Duke Energy</i>	
8) Maximum Operating Schedule for Unit:*		
* Only if requesting operating limit.		
Hours/Day:	<i>na</i>	Days/Week: <i>na</i> Weeks/Year: <i>na</i>
9) If this unit is multipurpose, describe percent in each use category:		
Space Heat:	<i>0%</i>	Process Heat: <i>100%</i> Power: <i>0%</i>
10) Control options for turbine/IC engine:	<i>na</i>	
SECTION II. COMPLETE ONLY FOR INDIRECT HEAT EXCHANGERS		
14) Natural Gas-Fired Units		
Low NOX Burners?	<i>No</i>	
Flue Gas Recirculation	<i>No</i>	
15) Combustion Air		
Draft	<i>Induced</i>	
Forced Pressure	<i>High Fire: 0.397; Low Fire: (lb/sq. in.</i>	
Percent excess air	<i>15%</i>	
SECTION III.		
16) Additional Stack Data		
A. Are sampling ports provided?	<i>na</i>	
B. Located in accordance with 40 CFR 60?	<i>na</i>	
C. List other units vented to this stack:	<i>None</i>	
17) Attach manufacturer specifications and guaranteed performance data for the indirect heat	<i>na</i>	
18) Describe fuel transport, storage methods and related dust control measures, including ash disposal and control.	<i>Natural gas supplied by pipeline; propane stored in a storage tank</i>	

Division for Air Quality

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

DEP7007B

Manufacturing or Processing Operations

- Section B.1: Process Information
 Section B.2: Materials and Fuel Information
 Section B.3: Notes, Comments, and Explanations

Additional Documentation

Complete DEP7007AI, DEP7007N,
DEP7007V, and DEP7007GG.

- Attach a flow diagram
 Attach SDS

Source Name: Hillshire Brands

KY EIS (AFS) #: 21- 037-00074

Permit #: F-18-008 R1

Agency Interest (AI) ID: 586

Date: 18-Jul-23

Section B.1: Process Information

Emission Unit #	Emission Unit Name	Describe Emission Unit	Process ID	Process Name	Manufacturer	Model No.	Proposed/Actual Date of Construction Commencement (MM/YYYY)	Is the Process Continuous or Batch?	Number of Batches per 24 Hours (if applicable)	Hours per Batch (if applicable)
4	Oven	Continuous Oven	EU4	Continuous Smokehouse #1	Alkar		01/1984	Continuous		
12	Oven	Continuous Oven	EU12	Continuous Smokehouse #2	Alkar		01/1984	Continuous		
05-09 & 18	Batch Smokehouses	Alkar Batch Meat Smokehouse Ovens	EU05-09, EU18	Batch Smokehouses 1-5, 12	Alkar		1984-1985	Batch		
10, 11, & 13-16	Batch Smokehouses	Alkar Batch Meat Smokehouse Ovens	EU10-11, EU13-16	Batch Smokehouses 6-11	Alkar		1986-1987	Batch		
EU25 & EU26	Liquid Smoke Units	Liquid Smoke Drenching Units before Continuous Smokehouses	EU25 & EU26	Liquid Smoke Units 1 & 2	Red Arrow		01/2003	Continuous		

Emission Unit #	Emission Unit Name	Describe Emission Unit	Process ID	Process Name	Manufacturer	Model No.	Proposed/Actual Date of Construction Commencement (MM/YYYY)	Is the Process Continuous or Batch?	Number of Batches per 24 Hours (if applicable)	Hours per Batch (if applicable)
EU 31	FH Line 1 (2 Spiral Dryers)	Freddy Hirsh process line to produce coarse and emulsified products.	EU31	Cocktail production	Freddy Hirsh	760CW360 HT	04/2022	Continuous		
EU 32	FH Line 2 (2 Spiral Dryers)	Freddy Hirsh process line to produce coarse and emulsified products.	EU32	Cocktail production	Freddy Hirsh	760CW360 HT	04/2022	Continuous		

Section B.2: Materials and Fuel Information

*Maximum yearly fuel usage rate only applies if applicant request operating restrictions through federally enforceable limitations.

Emission Unit #	Emission Unit Name	Name of Raw Materials Input	Maximum Quantity of Each Raw Material Input		Total Process Weight Rate for Emission Unit (tons/hr)	Name of Finished Materials	Maximum Quantity of Each Finished Material Output		Fuel Type	Maximum Hourly Fuel Usage Rate		Maximum Yearly Fuel Usage Rate		Sulfur Content (%)	Ash Content (%)
				(Specify Units/hr)				(Specify Units/hr)			(Specify Units)		(Specify Units)		
04 & 12	Continuous Ovens	Unprocessed Meat Products	7,200	lb/hr. each	3.6 each	Processed Meat Products	7,200	lb/hr.	Nat. Gas	1.65	MMBtu /hr. each	14.17	MMscf /yr. each	<0.0015%	negl.
EU25 & EU26	Liquid Smoke Units	Liquid Smoke	9.0	gal./hr. each	0.04 each	Processed Meat Products	7,200	lb/hr.	NA	NA	NA	NA	NA	NA	NA
05-09 & 18	Batch Houses	Unprocessed Meat Products (Hot Dogs)	1,367	lb/hr. each	0.68 each	Hot Dogs	1,367	lb/hr. each	NA	NA	NA	NA	NA	NA	NA
05-09 & 18	Batch Houses	Hardwood Chips and Sawdust	30.0	lb/hr. each	0.015 each	Hot Dogs	1,367	lb/hr. each	Nat. Gas	2.75	MMBtu /hr. each	19.68	MMscf /yr. each	<0.0015%	negl.
10, 11, & 13-16	Batch Houses	Unprocessed Meat Products (Deli Meat)	2,317	lb/hr. each	1.16 each	Deli Meat	2,317	lb/hr. each	NA	NA	NA	NA	NA	NA	NA
10, 11, & 13-16	Batch Houses	Hardwood Chips and Sawdust	30.0	lb/hr. each	0.015 each	Deli Meat	2,317	lb/hr. each	Nat. Gas	3.85	MMBtu /hr. each	29.64	MMscf /yr. each	<0.0015%	negl.
EU 31	FH Line 1	Unprocessed Meat	9,000	lb/hr.	4.5	Cocktail Weiners	7,500	lb/hr.	NA	NA	NA	NA	NA	NA	NA
EU 31	FH Line 1	Liquid Smoke	58.5	gal./hr.	0.27	Cocktail Weiners	7,500	lb/hr.	NA	NA	NA	NA	NA	NA	NA
EU 32	FH Line 2	Unprocessed Meat	9,000	lb/hr.	4.5	Cocktail Weiners	7,500	lb/hr.	NA	NA	NA	NA	NA	NA	NA
EU 32	FH Line 2	Liquid Smoke	58.5	gal./hr.	0.27	Cocktail Weiners	7,500	lb/hr.	NA	NA	NA	NA	NA	NA	NA

**Commonwealth of Kentucky
Energy and Environment Cabinet
Department for Environmental Protection**

Division for Air Quality

**DEP7007DD
INSIGNIFICANT
ACTIVITIES**

INSIGNIFICANT ACTIVITY CRITERIA

1. Emissions from insignificant activities shall be counted toward the source's potential to emit;
2. Emissions from the activity shall not be subject to a federally enforceable requirement other than generally applicable requirements that apply to all activities and affected facilities such as 401 KAR 59:010, 61:020, 63:010, and others deemed generally applicable by the Cabinet;
3. The potential to emit a regulated air pollutant from the activity or affected facility shall not exceed 5 ton/yr.
4. The potential to emit of a hazardous air pollutant from the activity or affected facility shall not exceed 1,000 pounds/yr., or the de minimis level established under Section 112(g) of the Act, whichever is less;
5. The activity shall be included in the permit application, identifying generally applicable and state origin requirements.

Description of Activity Including Rated Capacity	Generally Applicable Regulations or State Origin Requirements	Does the Activity meet the Insignificant Activity Criteria?
1. Air Make-up Unit #1 (4.28 MMBtu/hr)	None	Yes
2. Air Make-up Unit #2 (2.97 MMBtu/hr)	None	Yes
3. HVAC unit (2.386 MMBtu/hour)	None	Yes
4. Dehumidification Unit (0.75 MMBtu/hr)	401 KAR 59:010	Yes
5. Purge Unit (1.3 MMBtu/hr)	401 KAR 59:010	Yes
6. Drenching Cabinet #1 (2006)	401 KAR 59:010 401 KAR 63:020	Yes
7. Make-up Air Unit #3 (2006)	401 KAR 59:010	Yes
8. Drenching Cabinet #2 (2012)	401 KAR 59:010 401 KAR 63:020	Yes
9. Storage vessels having less than 10,567 gallons capacity that contain petroleum or organic liquids with a vapor pressure of 1.5 psia or less at storage temperature	None	Yes
10. Comfort Heaters (19)	None	Yes
11. Cooling Tower #1	None	Yes
12. Cooling Tower #2	None	Yes
13. Cooling Tower #3	None	Yes
14. Cooling Tower #4	None	Yes
15. Cooling Tower #5	None	Yes
16. Cooling Tower #6	None	Yes
17. Cooling Tower #7	None	Yes
18. Large Dehumidifier Units (4)	401 KAR 59:010	Yes
19. Wastewater Treatment Facility	None	Yes
20. Cleaners	None	Yes
21. Sanitizers	None	Yes
22. Inkjet Printing	None	Yes
23. Refrigeration Equipment	None	Yes
24. Air-handling Duct Burner #1-1 (2 MMBtu/hr.)	401 KAR 59:010	Yes
25. Air-handling Duct Burner #1-2 (2 MMBtu/hr.)	401 KAR 59:010	Yes
26. Air-handling Duct Burner #2-1 (2 MMBtu/hr.)	401 KAR 59:010	Yes
27. Air-handling Duct Burner #2-2 (2 MMBtu/hr.)	401 KAR 59:010	Yes

SIGNATURE BLOCK

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

BY _____
Authorized Signature

Date

Typed or Printed Name of Signatory

Title of Signatory

DIVISION FOR AIR QUALITY

Applicant Hillshire Brands Loc

SECTION I. Emissions Unit and Emission Point Information					
KyEIS ID #	Emissions Unit and Emission Point Descriptions	Maximum Operating Parameters		Permitted Operating Parameters	
		Hourly Operating Rate (SCC Units/hr)	Annual Operating Hours (hrs/yr)	Hourly Operating Rate (SCC Units/hr)	Annual Operating Rate (SCC Units/yr)
	Emission Unit Name: Date Constructed: HAPs present? <input type="checkbox"/> Yes <input type="checkbox"/> No				
	Emission Point Name: Source ID: SCC Code: SCC Units: KyEIS Stack #: Fuel Ash Content: Fuel Sulfur Content: Fuel Heat Content Ratio: Applicable Regulations:	Refer to 7007N Form Supplement Table 1.			
	Emission Point Name: Source ID: SCC Code: SCC Units: KyEIS Stack #: Fuel Ash Content: Fuel Sulfur Content: Fuel Heat Content Ratio: Applicable Regulations:				

SECTION I. Emission Units and Emission Point Information (continued)											
KyEIS ID #	Emission Factors			Control Equipment		Hourly (lb/hr) Emissions			Annual (tons/yr) Emissions		
	Pollutant	Emission Factor (lb/SCC Units)	Emission Factor Basis	Control Equipment Association	Pollutant Overall Efficiency (%)	Uncontrolled Unlimited Potential	Controlled Limited Potential	Allowable	Uncontrolled Unlimited Potential	Controlled Limited Potential	Allowable
				1st control device KyEIS Control ID #: Collection efficiency:							
Refer to 7007N Form Supplement Table 2.											
				1st control device KyEIS Control ID #: Collection efficiency:							
				2nd control device KyEIS Control ID #: Collection efficiency:							

SECTION II. Stack Information										
KyEIS Stack ID #	Stack Description	Stack Physical Data			Stack Geographic Data			Stack Gas Stream Data		
		Height (ft)	Diameter (ft)	Vent Height (ft)	Vertical Coordinate	Horizontal Coordinate	Coordinate Collection Method Code	Flowrate (acfm)	Temperature (oF)	Exit Velocity (ft/sec)
Refer to 7007N Form Supplement Table 3.										

KyEIS Source ID	Process ID	Emission Source Description	Date Construct	HAP Present?	SCC Code	SCC Units	Fuel Ash Content	Fuel Sulfur Content	Fuel Heat Content Ratio	Applicable Regulations	Maximum Operating Parameters		Permitted Operating Parameters		
											Hourly Operating Rate (SCC Units/hr.)	Annual Operating Hours (hr./yr.)	Hourly Operating Rate (SCC Units/hr.)	Annual Operating Rate (SCC Units/yr.)	Annual Operating Hours (hr./yr.)

Boilers (3) - 8.37 MMBtu/hr. Gas-fired Boiler

COMB01	1	Indirect Heat Exchanger	1985	Y	10200603	MMscf	<0.01	na	1020	401 KAR 59:015	8.21E-03	8,760	na	na	na
COMB02	1	Indirect Heat Exchanger	1985	Y	10200603	MMscf	<0.01	na	1020	401 KAR 59:015	8.21E-03	8,760	na	na	na
COMB03	1	Indirect Heat Exchanger	1985	Y	10200603	MMscf	<0.01	na	1020	401 KAR 59:015	8.21E-03	8,760	na	na	na

Boilers (2) - 12.56 MMBtu/hr Natural Gas Boiler

COMB07	1	Indirect Heat Exchanger - Natural Gas Usage	2004	Y	10200602	MMscf	<0.01	na	1020	401 KAR 59:015 NSPS Subpart Dc	1.23E-02	8,760	na	na	na
COMB07	2	Indirect Heat Exchanger - Propane Backup	2004	Y	10301002	Mgal	0.1	0.1	91.5	401 KAR 59:015 NSPS Subpart Dc	1.37E-01	8,760	na	na	na
COMB08	1	Indirect Heat Exchanger - Natural Gas Usage	2004	Y	10200602	MMscf	<0.01	na	1020	401 KAR 59:015 NSPS Subpart Dc	1.23E-02	8,760	na	na	na
COMB08	2	Indirect Heat Exchanger - Propane Backup	2004	Y	10301002	Mgal	0.1	0.1	91.5	401 KAR 59:015 NSPS Subpart Dc	1.37E-01	8,760	na	na	na

Hot Water Heater - 16 MMBtu/hr Direct Hot Water Heater

COMB10	1	Hot Water Heater - Natural Gas Usage	2007	Y	30290003	MMscf	<0.01	na	1020	401 KAR 59:010	1.57E-02	8,760	na	na	na
COMB10	2	Hot Water Heater - Propane Backup	2007	Y	30290003	Mgal	0.1	0.1	91.5	401 KAR 59:010	1.75E-01	8,760	na	na	na

Continuous Smokehouses - Natural Gas Usage

EQPT01	2	Continuous Smokehouse 1	1984	Y	30290003	MMscf	<0.01	na	1020	401 KAR 59:010	1.62E-03	8,760	na	na	na
EQPT01	2	Continuous Smokehouse 2	1984	Y	30290003	MMscf	<0.01	na	1020	401 KAR 59:010	1.62E-03	8,760	na	na	na

Batch Smokehouses - Wood Burned

EQPT02	1	Batch Smokehouse Oven	1984	Y	3999999	tons	1-3%	neg.	15.38	401 KAR 59:010	1.00E-02	8,760	na	607 tons combined	na
EQPT03	1	Batch Smokehouse Oven	1984	Y	3999999	tons	1-3%	neg.	15.38	401 KAR 59:010	1.00E-02	8,760	na		na
EQPT04	1	Batch Smokehouse Oven	1984	Y	3999999	tons	1-3%	neg.	15.38	401 KAR 59:010	1.00E-02	8,760	na		na
EQPT05	1	Batch Smokehouse Oven	1984	Y	3999999	tons	1-3%	neg.	15.38	401 KAR 59:010	1.00E-02	8,760	na		na
EQPT06	1	Batch Smokehouse Oven	1984	Y	3999999	tons	1-3%	neg.	15.38	401 KAR 59:010	1.00E-02	8,760	na		na
EQPT07	1	Batch Smokehouse Oven	1984	Y	3999999	tons	1-3%	neg.	15.38	401 KAR 59:010	1.55E-03	8,760	na		na
EQPT08	1	Batch Smokehouse Oven	1984	Y	3999999	tons	1-3%	neg.	15.38	401 KAR 59:010	1.55E-03	8,760	na		na
EQPT10	1	Batch Smokehouse Oven	1984	Y	3999999	tons	1-3%	neg.	15.38	401 KAR 59:010	1.55E-03	8,760	na		na
EQPT11	1	Batch Smokehouse Oven	1984	Y	3999999	tons	1-3%	neg.	15.38	401 KAR 59:010	1.55E-03	8,760	na		na
EQPT12	1	Batch Smokehouse Oven	1984	Y	3999999	tons	1-3%	neg.	15.38	401 KAR 59:010	1.55E-03	8,760	na		na
EQPT13	1	Batch Smokehouse Oven	1984	Y	3999999	tons	1-3%	neg.	15.38	401 KAR 59:010	1.55E-03	8,760	na		na
EQPT14	1	Batch Smokehouse Oven	1984	Y	3999999	tons	1-3%	neg.	15.38	401 KAR 59:010	1.00E-02	8,760	na		na

Batch Smokehouses - Natural Gas Usage

EQPT02	2	Batch Smokehouse Oven	1984	Y	30290003	MMscf	<0.01	na	1,020	401 KAR 59:010	2.70E-03	8,760	na	na	na
EQPT03	2	Batch Smokehouse Oven	1984	Y	30290003	MMscf	<0.01	na	1,020	401 KAR 59:010	2.70E-03	8,760	na	na	na
EQPT04	2	Batch Smokehouse Oven	1984	Y	30290003	MMscf	<0.01	na	1,020	401 KAR 59:010	2.70E-03	8,760	na	na	na
EQPT05	2	Batch Smokehouse Oven	1984	Y	30290003	MMscf	<0.01	na	1,020	401 KAR 59:010	2.70E-03	8,760	na	na	na
EQPT06	2	Batch Smokehouse Oven	1984	Y	30290003	MMscf	<0.01	na	1,020	401 KAR 59:010	2.70E-03	8,760	na	na	na

KyEIS Source ID	Process ID	Emission Source Description	Date Construct	HAP Present?	SCC Code	SCC Units	Fuel Ash Content	Fuel Sulfur Content	Fuel Heat Content Ratio	Applicable Regulations	Maximum Operating Parameters		Permitted Operating Parameters		
											Hourly Operating Rate (SCC Units/hr.)	Annual Operating Hours (hr./yr.)	Hourly Operating Rate (SCC Units/hr.)	Annual Operating Rate (SCC Units/yr.)	Annual Operating Hours (hr./yr.)
EQPT07	2	Batch Smokehouse Oven	1984	Y	30290003	MMscf	<0.01	na	1,020	401 KAR 59:010	3.77E-03	8,760	na	na	na
EQPT08	2	Batch Smokehouse Oven	1984	Y	30290003	MMscf	<0.01	na	1,020	401 KAR 59:010	3.77E-03	8,760	na	na	na
EQPT10	2	Batch Smokehouse Oven	1984	Y	30290003	MMscf	<0.01	na	1,020	401 KAR 59:010	3.77E-03	8,760	na	na	na
EQPT11	2	Batch Smokehouse Oven	1984	Y	30290003	MMscf	<0.01	na	1,020	401 KAR 59:010	3.77E-03	8,760	na	na	na
EQPT12	2	Batch Smokehouse Oven	1984	Y	30290003	MMscf	<0.01	na	1,020	401 KAR 59:010	3.77E-03	8,760	na	na	na
EQPT13	2	Batch Smokehouse Oven	1984	Y	30290003	MMscf	<0.01	na	1,020	401 KAR 59:010	3.77E-03	8,760	na	na	na
EQPT14	2	Batch Smokehouse Oven	1984	Y	30290003	MMscf	<0.01	na	1,020	401 KAR 59:010	2.70E-03	8,760	na	na	na

Liquid Smoke Units (2)

EQPT18	25	Liquid Smoke Unit (Before Continuous Smokehouse 1)	2003	Y	30299998	tons	na	na	na	401 KAR 59:010	3.6	8,760	na	na	na
EQPT19	26	Liquid Smoke Unit (Before Continuous Smokehouse 2)	2003	Y	30299998	tons	na	na	na	401 KAR 59:010	3.6	8,760	na	na	na

Boiler - 20.4 MMBtu/hr. Natural Gas Boiler

COMB11	1	One Indirect Heat Exchanger- Natural Gas Usage	2009	Y	10300602	MMscf	<0.01	na	1020	401 KAR 59:015 NSPS Subpart Dc	2.00E-02	8,760	na	na	na
COMB11	2	One Indirect Heat Exchanger- Propane Backup	2009	Y	10301002	Mgal	0.1	0.1	91.5	401 KAR 59:015 NSPS Subpart Dc	2.23E-01	8,760	na	na	na

Emergency Generator Engine - Diesel-fired 380 Hp

COMB12	1	Emergency Generator Engine	2003	Y	20200102	Mgal	neg.	<0.0015 %	137,030 Btu/gal	NESHAP Subpart ZZZZ	1.94E-02	500	na	na	na
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Freddy Hirsh Line 1

EU31	1	Coarse Meat Throughput	04/2022	Y	30299998	ton	na	na	na	401 KAR 59:010	4.5	8,760	na	na	na
EU31	2	Emulsified Meat Throughput	04/2022	Y	30299998	ton	na	na	na	401 KAR 59:010	4.5	8,760	na	na	na

Freddy Hirsh Line 2

EU32	1	Coarse Meat Throughput	04/2022	Y	30299998	ton	na	na	na	401 KAR 59:010	4.5	8,760	na	na	na
EU32	2	Emulsified Meat Throughput	04/2022	Y	30299998	ton	na	na	na	401 KAR 59:010	4.5	8,760	na	na	na

Table 2 (Section I Part 2)

KyEIS Source ID	Process ID	Emission Factors				Control Equipment			Hourly Operating Rate (SCC Units/hr)	Hourly Emissions			Annual Emissions		
		Pollutant	CAS Nr.	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Basis	Control				Uncontrolled Unlimited Potential (lb/hr.)	Controlled Limited Potential (lb/hr.)	Allowable (lb/hr.)	Uncontrolled Unlimited Potential (ton/yr.)	Controlled Limited Potential (ton/yr.)	Allowable (ton/yr.)
						Equip. #	Dev.	Eff.							

EU01 - Boiler - 8.37 MMBtu/hr Gas Fired Boiler

COMB01 01 Indirect Heat Exchanger

01	PM/PM10/PM2.5	na	7.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	8.21E-03	6.24E-02	na	na	0.27	na	na
01	SO2	7446-09-5	0.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	8.21E-03	4.92E-03	na	na	0.02	na	na
01	NOX	10102-44-0	100.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	8.21E-03	8.21E-01	na	na	3.59	na	na
01	CO	630-08-0	84.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	8.21E-03	6.89E-01	na	na	3.02	na	na
01	VOC	na	5.5	lb/MMscf	AP-42 Table 1.4-2	na	na	na	8.21E-03	4.51E-02	na	na	0.2	na	na
01	Formaldehyde	50-00-0	0.075	lb/MMscf	AP-42 Table 1.4-3	na	na	na	8.21E-03	6.15E-04	na	na	0.	na	na
01	CO2	124-38-9	119,317	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	8.21E-03	9.79E+02	na	na	4,288	na	na
01	CH4	74-82-8	2.25	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	8.21E-03	1.85E-02	na	na	0.08	na	na
01	N2O	10024-97-2	0.225	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	8.21E-03	1.85E-03	na	na	0.01	na	na

EU02 - Boiler - 8.37 MMBtu/hr Gas Fired Boiler

COMB02 01 Indirect Heat Exchanger

01	PM/PM10/PM2.5	na	7.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	8.21E-03	6.24E-02	na	na	0.27	na	na
01	SO2	7446-09-5	0.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	8.21E-03	4.92E-03	na	na	0.02	na	na
01	NOX	10102-44-0	100.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	8.21E-03	8.21E-01	na	na	3.59	na	na
01	CO	630-08-0	84.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	8.21E-03	6.89E-01	na	na	3.02	na	na
01	VOC	na	5.5	lb/MMscf	AP-42 Table 1.4-2	na	na	na	8.21E-03	4.51E-02	na	na	0.2	na	na
01	Formaldehyde	50-00-0	0.075	lb/MMscf	AP-42 Table 1.4-3	na	na	na	8.21E-03	6.15E-04	na	na	0.	na	na
01	CO2	124-38-9	119,317	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	8.21E-03	9.79E+02	na	na	4,288	na	na
01	CH4	74-82-8	2.25	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	8.21E-03	1.85E-02	na	na	0.08	na	na
01	N2O	10024-97-2	0.225	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	8.21E-03	1.85E-03	na	na	0.01	na	na

KyEIS Source ID	Process ID	Emission Factors				Control Equipment			Hourly Operating Rate (SCC Units/hr)	Hourly Emissions			Annual Emissions		
		Pollutant	CAS Nr.	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Basis	Control				Uncontrolled Unlimited Potential (lb/hr.)	Controlled Limited Potential (lb/hr.)	Allowable (lb/hr.)	Uncontrolled Unlimited Potential (ton/yr.)	Controlled Limited Potential (ton/yr.)	Allowable (ton/yr.)
						Equip. #	Dev.	Eff.							

EU03 - Boiler - 8.37 MMBtu/hr Gas Fired Boiler

COMB03 01 Indirect Heat Exchanger

01	PM/PM10/PM2.5	na	7.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	8.21E-03	6.24E-02	na	na	0.27	na	na
01	SO2	7446-09-5	0.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	8.21E-03	4.92E-03	na	na	0.02	na	na
01	NOX	10102-44-0	100.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	8.21E-03	8.21E-01	na	na	3.59	na	na
01	CO	630-08-0	84.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	8.21E-03	6.89E-01	na	na	3.02	na	na
01	VOC	na	5.5	lb/MMscf	AP-42 Table 1.4-2	na	na	na	8.21E-03	4.51E-02	na	na	0.2	na	na
01	Formaldehyde	50-00-0	0.075	lb/MMscf	AP-42 Table 1.4-3	na	na	na	8.21E-03	6.15E-04	na	na	0.	na	na
01	CO2	124-38-9	119,317	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	8.21E-03	9.79E+02	na	na	4,288	na	na
01	CH4	74-82-8	2.25	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	8.21E-03	1.85E-02	na	na	0.08	na	na
01	N2O	10024-97-2	0.225	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	8.21E-03	1.85E-03	na	na	0.01	na	na

EU22 - Boiler - 12.56 MMBtu/hr Natural Gas Boiler

COMB07 01 Indirect Heat Exchanger - Natural Gas Usage

01	PM/PM10/PM2.5	na	7.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	1.23E-02	9.36E-02	na	na	0.41	na	na
01	SO2	7446-09-5	0.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	1.23E-02	7.39E-03	na	na	0.03	na	na
01	NOX	10102-44-0	100.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	1.23E-02	1.23E+00	na	na	5.39	na	na
01	CO	630-08-0	84.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	1.23E-02	1.03E+00	na	na	4.53	na	na
01	VOC	na	5.5	lb/MMscf	AP-42 Table 1.4-2	na	na	na	1.23E-02	6.77E-02	na	na	0.3	na	na
01	Formaldehyde	50-00-0	0.075	lb/MMscf	AP-42 Table 1.4-3	na	na	na	1.23E-02	9.24E-04	na	na	0.	na	na
01	CO2	124-38-9	119,317	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	1.23E-02	1.47E+03	na	na	6,435	na	na
01	CH4	74-82-8	2.25	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	1.23E-02	2.77E-02	na	na	0.12	na	na
01	N2O	10024-97-2	0.225	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	1.23E-02	2.77E-03	na	na	0.01	na	na

COMB07 02 Indirect Heat Exchanger - Propane Backup

02	PM/PM10/PM2.5	na	0.7	lb/Mgal	AP-42 Table 1.5-1	na	na	na	1.37E-01	9.61E-02	na	na	0.42	na	na
02	SO2	7446-09-5	0.015	lb/Mgal	AP-42 Table 1.5-1	na	na	na	1.37E-01	2.06E-03	na	na	0.01	na	na
02	NOX	10102-44-0	13.	lb/Mgal	AP-42 Table 1.5-1	na	na	na	1.37E-01	1.78E+00	na	na	7.82	na	na
02	CO	630-08-0	7.5	lb/Mgal	AP-42 Table 1.5-1	na	na	na	1.37E-01	1.03E+00	na	na	4.51	na	na
02	VOC	na	0.8	lb/Mgal	AP-42 Table 1.5-1	na	na	na	1.37E-01	1.10E-01	na	na	0.48	na	na
02	CO2	124-38-9	12,398	lb/Mgal	40 CFR Part 98 Subpart C	na	na	na	1.37E-01	1.70E+03	na	na	7,454	na	na
02	CH4	74-82-8	0.605	lb/Mgal	40 CFR Part 98 Subpart C	na	na	na	1.37E-01	8.31E-02	na	na	0.36	na	na
02	N2O	10024-97-2	0.12	lb/Mgal	40 CFR Part 98 Subpart C	na	na	na	1.37E-01	1.66E-02	na	na	0.07	na	na

Table 2 (Section I Part 2)

KyEIS Source ID	Process ID	Emission Factors				Control Equipment			Hourly Operating Rate (SCC Units/hr)	Hourly Emissions			Annual Emissions		
		Pollutant	CAS Nr.	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Basis	Control				Uncontrolled Unlimited Potential (lb/hr.)	Controlled Limited Potential (lb/hr.)	Allowable (lb/hr.)	Uncontrolled Unlimited Potential (ton/yr.)	Controlled Limited Potential (ton/yr.)	Allowable (ton/yr.)
						Equip. #	Dev.	Eff.							

EU23 - Boiler - 12.56 MMBtu/hr Natural Gas Boiler

COMB08 01 Indirect Heat Exchanger - Natural Gas Usage

01	PM/PM10/PM2.5	na	7.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	1.23E-02	9.36E-02	na	na	0.41	na	na
01	SO2	7446-09-5	0.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	1.23E-02	7.39E-03	na	na	0.03	na	na
01	NOX	10102-44-0	100.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	1.23E-02	1.23E+00	na	na	5.39	na	na
01	CO	630-08-0	84.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	1.23E-02	1.03E+00	na	na	4.53	na	na
01	VOC	na	5.5	lb/MMscf	AP-42 Table 1.4-2	na	na	na	1.23E-02	6.77E-02	na	na	0.3	na	na
01	Formaldehyde	50-00-0	0.075	lb/MMscf	AP-42 Table 1.4-3	na	na	na	1.23E-02	9.24E-04	na	na	0.	na	na
01	CO2	124-38-9	119,317	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	1.23E-02	1.47E+03	na	na	6,435	na	na
01	CH4	74-82-8	2.25	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	1.23E-02	2.77E-02	na	na	0.12	na	na
01	N2O	10024-97-2	0.225	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	1.23E-02	2.77E-03	na	na	0.01	na	na

COMB08 02 Indirect Heat Exchanger - Propane Backup

02	PM/PM10/PM2.5	na	0.7	lb/Mgal	AP-42 Table 1.5-1	na	na	na	1.37E-01	9.61E-02	na	na	0.42	na	na
02	SO2	7446-09-5	0.015	lb/Mgal	AP-42 Table 1.5-1	na	na	na	1.37E-01	2.06E-03	na	na	0.01	na	na
02	NOX	10102-44-0	13.	lb/Mgal	AP-42 Table 1.5-1	na	na	na	1.37E-01	1.78E+00	na	na	7.82	na	na
02	CO	630-08-0	7.5	lb/Mgal	AP-42 Table 1.5-1	na	na	na	1.37E-01	1.03E+00	na	na	4.51	na	na
02	VOC	na	0.8	lb/Mgal	AP-42 Table 1.5-1	na	na	na	1.37E-01	1.10E-01	na	na	0.48	na	na
02	CO2	124-38-9	12,398	lb/Mgal	40 CFR Part 98 Subpart C	na	na	na	1.37E-01	1.70E+03	na	na	7,454	na	na
02	CH4	74-82-8	0.605	lb/Mgal	40 CFR Part 98 Subpart C	na	na	na	1.37E-01	8.31E-02	na	na	0.36	na	na
02	N2O	10024-97-2	0.12	lb/Mgal	40 CFR Part 98 Subpart C	na	na	na	1.37E-01	1.66E-02	na	na	0.07	na	na

Table 2 (Section I Part 2)

KyEIS Source ID	Process ID	Emission Factors				Control Equipment			Hourly Operating Rate (SCC Units/hr)	Hourly Emissions			Annual Emissions		
		Pollutant	CAS Nr.	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Basis	Control				Uncontrolled Unlimited Potential (lb/hr.)	Controlled Limited Potential (lb/hr.)	Allowable (lb/hr.)	Uncontrolled Unlimited Potential (ton/yr.)	Controlled Limited Potential (ton/yr.)	Allowable (ton/yr.)
						Equip. #	Dev.	Eff.							

EU24 - Hot Water Heater - 16 MMBtu/hr Direct Hot Water Heater

COMB10 01 Hot Water Heater - Natural Gas Usage

01	PM/PM10/PM2.5	na	7.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	1.57E-02	1.19E-01	na	na	0.52	na	na
01	SO2	7446-09-5	0.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	1.57E-02	9.41E-03	na	na	0.04	na	na
01	NOX	10102-44-0	100.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	1.57E-02	1.57E+00	na	na	6.87	na	na
01	CO	630-08-0	84.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	1.57E-02	1.32E+00	na	na	5.77	na	na
01	VOC	na	5.5	lb/MMscf	AP-42 Table 1.4-2	na	na	na	1.57E-02	8.63E-02	na	na	0.38	na	na
01	Formaldehyde	50-00-0	0.075	lb/MMscf	AP-42 Table 1.4-3	na	na	na	1.57E-02	1.18E-03	na	na	0.01	na	na
01	CO2	124-38-9	119,317	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	1.57E-02	1.87E+03	na	na	8,198	na	na
01	CH4	74-82-8	2.25	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	1.57E-02	3.53E-02	na	na	0.15	na	na
01	N2O	10024-97-2	0.225	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	1.57E-02	3.53E-03	na	na	0.02	na	na

COMB10 02 Hot Water Heater - Propane Backup

02	PM/PM10/PM2.5	na	0.7	lb/Mgal	AP-42 Table 1.5-1	na	na	na	1.75E-01	1.22E-01	na	na	0.54	na	na
02	SO2	7446-09-5	0.015	lb/Mgal	AP-42 Table 1.5-1	na	na	na	1.75E-01	2.62E-03	na	na	0.01	na	na
02	NOX	10102-44-0	13.	lb/Mgal	AP-42 Table 1.5-1	na	na	na	1.75E-01	2.27E+00	na	na	9.96	na	na
02	CO	630-08-0	7.5	lb/Mgal	AP-42 Table 1.5-1	na	na	na	1.75E-01	1.31E+00	na	na	5.74	na	na
02	VOC	na	0.8	lb/Mgal	AP-42 Table 1.5-1	na	na	na	1.75E-01	1.40E-01	na	na	0.61	na	na
02	CO2	124-38-9	12,398	lb/Mgal	40 CFR Part 98 Subpart C	na	na	na	1.75E-01	2.17E+03	na	na	9,496	na	na
02	CH4	74-82-8	0.605	lb/Mgal	40 CFR Part 98 Subpart C	na	na	na	1.75E-01	1.06E-01	na	na	0.46	na	na
02	N2O	10024-97-2	0.12	lb/Mgal	40 CFR Part 98 Subpart C	na	na	na	1.75E-01	2.12E-02	na	na	0.09	na	na

EU04 - Continuous Smokehouse 1

EQPT01 02 Continuous Smokehouses - Natural Gas Usage

02	PM/PM10/PM2.5	na	7.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	1.62E-03	1.23E-02	na	na	0.05	na	na
02	SO2	7446-09-5	0.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	1.62E-03	9.71E-04	na	na	0.	na	na
02	NOX	10102-44-0	100.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	1.62E-03	1.62E-01	na	na	0.71	na	na
02	CO	630-08-0	84.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	1.62E-03	1.36E-01	na	na	0.6	na	na
02	VOC	na	5.5	lb/MMscf	AP-42 Table 1.4-2	na	na	na	1.62E-03	8.90E-03	na	na	0.04	na	na
02	Formaldehyde	50-00-0	0.075	lb/MMscf	AP-42 Table 1.4-3	na	na	na	1.62E-03	1.21E-04	na	na	0.	na	na
02	CO2	124-38-9	119,317	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	1.62E-03	1.93E+02	na	na	845	na	na
02	CH4	74-82-8	2.25	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	1.62E-03	3.64E-03	na	na	0.02	na	na
02	N2O	10024-97-2	0.225	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	1.62E-03	3.64E-04	na	na	0.	na	na

Table 2 (Section I Part 2)

KyEIS Source ID	Process ID	Emission Factors				Control Equipment			Hourly Operating Rate (SCC Units/hr)	Hourly Emissions			Annual Emissions		
		Pollutant	CAS Nr.	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Basis	Control				Uncontrolled Unlimited Potential (lb/hr.)	Controlled Limited Potential (lb/hr.)	Allowable (lb/hr.)	Uncontrolled Unlimited Potential (ton/yr.)	Controlled Limited Potential (ton/yr.)	Allowable (ton/yr.)
						Equip. #	Dev.	Eff.							

EU12 - Continuous Smokehouse 2

EQPT01 02 Continuous Smokehouses - Natural Gas Usage

02	PM/PM10/PM2.5	na	7.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	1.62E-03	1.23E-02	na	na	0.05	na	na
02	SO2	7446-09-5	0.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	1.62E-03	9.71E-04	na	na	0.	na	na
02	NOX	10102-44-0	100.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	1.62E-03	1.62E-01	na	na	0.71	na	na
02	CO	630-08-0	84.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	1.62E-03	1.36E-01	na	na	0.6	na	na
02	VOC	na	5.5	lb/MMscf	AP-42 Table 1.4-2	na	na	na	1.62E-03	8.90E-03	na	na	0.04	na	na
02	Formaldehyde	50-00-0	0.075	lb/MMscf	AP-42 Table 1.4-3	na	na	na	1.62E-03	1.21E-04	na	na	0.	na	na
02	CO2	124-38-9	119,317	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	1.62E-03	1.93E+02	na	na	845	na	na
02	CH4	74-82-8	2.25	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	1.62E-03	3.64E-03	na	na	0.02	na	na
02	N2O	10024-97-2	0.225	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	1.62E-03	3.64E-04	na	na	0.	na	na

EU05 - Batch Smokehouse Oven

EQPT02 01 Batch Smokehouses - Wood Burned

01	PM/PM10/PM2.5	na	22.5	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.23	na	na	0.99	na	na
01	SO2	7446-09-5	0.4	lb/ton wood	AP-42 Table 1.9-1	na	na	na	0.01	0.	na	na	0.018	na	na
01	NOX	10102-44-0	2.6	lb/ton wood	AP-42 Table 1.9-1	na	na	na	0.01	0.03	na	na	0.11	na	na
01	CO	630-08-0	58.	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.58	na	na	2.54	na	na
01	VOC	na	32.5	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.33	na	na	1.42	na	na
01	Acetaldehyde	75-07-0	3.8	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.04	na	na	0.17	na	na
01	Acrolein	107-02-8	1.1	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.01	na	na	0.05	na	na
01	Formaldehyde	50-00-0	2.45	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.02	na	na	0.11	na	na
01	Total HAPs	na	7.35	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.07	na	na	0.32	na	na
01	CO2	124-38-9	3,180	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.01	31.8	na	na	139.3	na	na
01	CH4	74-82-8	1.02	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.01	0.01	na	na	0.04	na	na
01	N2O	10024-97-2	0.14	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.01	0.	na	na	0.006	na	na

Table 2 (Section I Part 2)

KyEIS Source ID	Process ID	Emission Factors				Control Equipment			Hourly Operating Rate (SCC Units/hr)	Hourly Emissions			Annual Emissions		
		Pollutant	CAS Nr.	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Basis	Control				Uncontrolled Unlimited Potential (lb/hr.)	Controlled Limited Potential (lb/hr.)	Allowable (lb/hr.)	Uncontrolled Unlimited Potential (ton/yr.)	Controlled Limited Potential (ton/yr.)	Allowable (ton/yr.)
						Equip. #	Dev.	Eff.							

EQPT02 02 Batch Smokehouses - Natural Gas Usage

02	PM/PM10/PM2.5	na	7.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0027	2.05E-02	na	na	0.09	na	na
02	SO2	7446-09-5	0.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0027	1.62E-03	na	na	0.01	na	na
02	NOX	10102-44-0	100.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	0.0027	2.70E-01	na	na	1.18	na	na
02	CO	630-08-0	84.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	0.0027	2.26E-01	na	na	0.99	na	na
02	VOC	na	5.5	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0027	1.48E-02	na	na	0.06	na	na
02	Formaldehyde	50-00-0	0.075	lb/MMscf	AP-42 Table 1.4-3	na	na	na	0.0027	2.02E-04	na	na	0.	na	na
02	CO2	124-38-9	119,317	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0027	3.22E+02	na	na	1,409	na	na
02	CH4	74-82-8	2.25	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0027	6.06E-03	na	na	0.03	na	na
02	N2O	10024-97-2	0.225	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0027	6.06E-04	na	na	0.	na	na

EU06 - Batch Smokehouse Oven

EQPT03 01 Batch Smokehouses - Wood Burned

01	PM/PM10/PM2.5	na	22.5	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.23	na	na	0.99	na	na
01	SO2	7446-09-5	0.4	lb/ton wood	AP-42 Table 1.9-1	na	na	na	0.01	0.004	na	na	0.018	na	na
01	NOX	10102-44-0	2.6	lb/ton wood	AP-42 Table 1.9-1	na	na	na	0.01	0.03	na	na	0.11	na	na
01	CO	630-08-0	58.	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.58	na	na	2.54	na	na
01	VOC	na	32.5	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.33	na	na	1.42	na	na
01	Acetaldehyde	75-07-0	3.8	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.04	na	na	0.17	na	na
01	Acrolein	107-02-8	1.1	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.011	na	na	0.048	na	na
01	Formaldehyde	50-00-0	2.45	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.025	na	na	0.11	na	na
01	Total HAPs	na	7.35	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.074	na	na	0.32	na	na
01	CO2	124-38-9	3,180	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.01	31.8	na	na	139.3	na	na
01	CH4	74-82-8	1.02	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.01	0.01	na	na	0.045	na	na
01	N2O	10024-97-2	0.14	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.01	0.0014	na	na	0.006	na	na

Table 2 (Section I Part 2)

KyEIS Source ID	Process ID	Emission Factors				Control Equipment			Hourly Operating Rate (SCC Units/hr)	Hourly Emissions			Annual Emissions		
		Pollutant	CAS Nr.	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Basis	Control				Uncontrolled Unlimited Potential (lb/hr.)	Controlled Limited Potential (lb/hr.)	Allowable (lb/hr.)	Uncontrolled Unlimited Potential (ton/yr.)	Controlled Limited Potential (ton/yr.)	Allowable (ton/yr.)
						Equip. #	Dev.	Eff.							

EQPT03 02 Batch Smokehouses - Natural Gas Usage

02	PM/PM10/PM2.5	na	7.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0027	2.05E-02	na	na	0.0897	na	na
02	SO2	7446-09-5	0.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0027	1.62E-03	na	na	0.0071	na	na
02	NOX	10102-44-0	100.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	0.0027	2.70E-01	na	na	1.18	na	na
02	CO	630-08-0	84.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	0.0027	2.26E-01	na	na	0.99	na	na
02	VOC	na	5.5	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0027	1.48E-02	na	na	0.065	na	na
02	Formaldehyde	50-00-0	0.075	lb/MMscf	AP-42 Table 1.4-3	na	na	na	0.0027	2.02E-04	na	na	0.00089	na	na
02	CO2	124-38-9	119,317	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0027	3.22E+02	na	na	1,409	na	na
02	CH4	74-82-8	2.25	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0027	6.06E-03	na	na	0.027	na	na
02	N2O	10024-97-2	0.225	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0027	6.06E-04	na	na	0.0027	na	na

EU07 - Batch Smokehouse Oven

EQPT04 01 Batch Smokehouses - Wood Burned

01	PM/PM10/PM2.5	na	22.5	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.23	na	na	0.99	na	na
01	SO2	7446-09-5	0.4	lb/ton wood	AP-42 Table 1.9-1	na	na	na	0.01	0.004	na	na	0.018	na	na
01	NOX	10102-44-0	2.6	lb/ton wood	AP-42 Table 1.9-1	na	na	na	0.01	0.03	na	na	0.11	na	na
01	CO	630-08-0	58.	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.58	na	na	2.54	na	na
01	VOC	na	32.5	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.33	na	na	1.42	na	na
01	Acetaldehyde	75-07-0	3.8	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.04	na	na	0.17	na	na
01	Acrolein	107-02-8	1.1	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.011	na	na	0.048	na	na
01	Formaldehyde	50-00-0	2.45	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.025	na	na	0.11	na	na
01	Total HAPs	na	7.35	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.074	na	na	0.32	na	na
01	CO2	124-38-9	3,180	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.01	31.8	na	na	139.3	na	na
01	CH4	74-82-8	1.02	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.01	0.01	na	na	0.045	na	na
01	N2O	10024-97-2	0.14	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.01	0.0014	na	na	0.006	na	na

Table 2 (Section I Part 2)

KyEIS Source ID	Process ID	Emission Factors				Control Equipment			Hourly Operating Rate (SCC Units/hr)	Hourly Emissions			Annual Emissions		
		Pollutant	CAS Nr.	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Basis	Control				Uncontrolled Unlimited Potential (lb/hr.)	Controlled Limited Potential (lb/hr.)	Allowable (lb/hr.)	Uncontrolled Unlimited Potential (ton/yr.)	Controlled Limited Potential (ton/yr.)	Allowable (ton/yr.)
						Equip. #	Dev.	Eff.							

EQPT04 02 Batch Smokehouses - Natural Gas Usage

02	PM/PM10/PM2.5	na	7.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0027	2.05E-02	na	na	0.0897	na	na
02	SO2	7446-09-5	0.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0027	1.62E-03	na	na	0.0071	na	na
02	NOX	10102-44-0	100.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	0.0027	2.70E-01	na	na	1.18	na	na
02	CO	630-08-0	84.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	0.0027	2.26E-01	na	na	0.99	na	na
02	VOC	na	5.5	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0027	1.48E-02	na	na	0.065	na	na
02	Formaldehyde	50-00-0	0.075	lb/MMscf	AP-42 Table 1.4-3	na	na	na	0.0027	2.02E-04	na	na	0.00089	na	na
02	CO2	124-38-9	119,317	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0027	3.22E+02	na	na	1,409	na	na
02	CH4	74-82-8	2.25	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0027	6.06E-03	na	na	0.027	na	na
02	N2O	10024-97-2	0.225	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0027	6.06E-04	na	na	0.0027	na	na

EU08 - Batch Smokehouse Oven

EQPT05 01 Batch Smokehouses - Wood Burned

01	PM/PM10/PM2.5	na	22.5	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.23	na	na	0.99	na	na
01	SO2	7446-09-5	0.4	lb/ton wood	AP-42 Table 1.9-1	na	na	na	0.01	0.004	na	na	0.018	na	na
01	NOX	10102-44-0	2.6	lb/ton wood	AP-42 Table 1.9-1	na	na	na	0.01	0.03	na	na	0.11	na	na
01	CO	630-08-0	58.	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.58	na	na	2.54	na	na
01	VOC	na	32.5	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.33	na	na	1.42	na	na
01	Acetaldehyde	75-07-0	3.8	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.04	na	na	0.17	na	na
01	Acrolein	107-02-8	1.1	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.011	na	na	0.048	na	na
01	Formaldehyde	50-00-0	2.45	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.025	na	na	0.11	na	na
01	Total HAPs	na	7.35	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.074	na	na	0.32	na	na
01	CO2	124-38-9	3,180	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.01	31.8	na	na	139.3	na	na
01	CH4	74-82-8	1.02	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.01	0.01	na	na	0.045	na	na
01	N2O	10024-97-2	0.14	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.01	0.0014	na	na	0.006	na	na

KyEIS Source ID	Process ID	Emission Factors				Control Equipment			Hourly Operating Rate (SCC Units/hr)	Hourly Emissions			Annual Emissions		
		Pollutant	CAS Nr.	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Basis	Control				Uncontrolled Unlimited Potential (lb/hr.)	Controlled Limited Potential (lb/hr.)	Allowable (lb/hr.)	Uncontrolled Unlimited Potential (ton/yr.)	Controlled Limited Potential (ton/yr.)	Allowable (ton/yr.)
						Equip. #	Dev.	Eff.							

EQPT05 02 Batch Smokehouses - Natural Gas Usage

02	PM/PM10/PM2.5	na	7.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0027	2.05E-02	na	na	0.0897	na	na
02	SO2	7446-09-5	0.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0027	1.62E-03	na	na	0.0071	na	na
02	NOX	10102-44-0	100.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	0.0027	2.70E-01	na	na	1.18	na	na
02	CO	630-08-0	84.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	0.0027	2.26E-01	na	na	0.99	na	na
02	VOC	na	5.5	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0027	1.48E-02	na	na	0.065	na	na
02	Formaldehyde	50-00-0	0.075	lb/MMscf	AP-42 Table 1.4-3	na	na	na	0.0027	2.02E-04	na	na	0.00089	na	na
02	CO2	124-38-9	119,317	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0027	3.22E+02	na	na	1,409	na	na
02	CH4	74-82-8	2.25	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0027	6.06E-03	na	na	0.027	na	na
02	N2O	10024-97-2	0.225	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0027	6.06E-04	na	na	0.0027	na	na

EU09 - Batch Smokehouse Oven

EQPT06 01 Batch Smokehouses - Wood Burned

01	PM/PM10/PM2.5	na	22.5	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.23	na	na	0.99	na	na
01	SO2	7446-09-5	0.4	lb/ton wood	AP-42 Table 1.9-1	na	na	na	0.01	0.004	na	na	0.018	na	na
01	NOX	10102-44-0	2.6	lb/ton wood	AP-42 Table 1.9-1	na	na	na	0.01	0.03	na	na	0.11	na	na
01	CO	630-08-0	58.	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.58	na	na	2.54	na	na
01	VOC	na	32.5	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.33	na	na	1.42	na	na
01	Acetaldehyde	75-07-0	3.8	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.04	na	na	0.17	na	na
01	Acrolein	107-02-8	1.1	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.011	na	na	0.048	na	na
01	Formaldehyde	50-00-0	2.45	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.025	na	na	0.11	na	na
01	Total HAPs	na	7.35	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.074	na	na	0.32	na	na
01	CO2	124-38-9	3,180	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.01	31.8	na	na	139.3	na	na
01	CH4	74-82-8	1.02	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.01	0.01	na	na	0.045	na	na
01	N2O	10024-97-2	0.14	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.01	0.0014	na	na	0.006	na	na

KyEIS Source ID	Process ID	Emission Factors				Control Equipment			Hourly Operating Rate (SCC Units/hr)	Hourly Emissions			Annual Emissions		
		Pollutant	CAS Nr.	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Basis	Control				Uncontrolled Unlimited Potential (lb/hr.)	Controlled Limited Potential (lb/hr.)	Allowable (lb/hr.)	Uncontrolled Unlimited Potential (ton/yr.)	Controlled Limited Potential (ton/yr.)	Allowable (ton/yr.)
						Equip. #	Dev.	Eff.							

EQPT06 02 Batch Smokehouses - Natural Gas Usage

02	PM/PM10/PM2.5	na	7.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0027	2.05E-02	na	na	0.0897	na	na
02	SO2	7446-09-5	0.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0027	1.62E-03	na	na	0.0071	na	na
02	NOX	10102-44-0	100.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	0.0027	2.70E-01	na	na	1.18	na	na
02	CO	630-08-0	84.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	0.0027	2.26E-01	na	na	0.99	na	na
02	VOC	na	5.5	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0027	1.48E-02	na	na	0.065	na	na
02	Formaldehyde	50-00-0	0.075	lb/MMscf	AP-42 Table 1.4-3	na	na	na	0.0027	2.02E-04	na	na	0.00089	na	na
02	CO2	124-38-9	119,317	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0027	3.22E+02	na	na	1,409	na	na
02	CH4	74-82-8	2.25	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0027	6.06E-03	na	na	0.027	na	na
02	N2O	10024-97-2	0.225	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0027	6.06E-04	na	na	0.0027	na	na

EU10 - Batch Smokehouse Oven

EQPT07 01 Batch Smokehouses - Wood Burned

01	PM/PM10/PM2.5	na	22.5	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.	0.03	na	na	0.15	na	na
01	SO2	7446-09-5	0.4	lb/ton wood	AP-42 Table 1.9-1	na	na	na	0.	0.0006	na	na	0.003	na	na
01	NOX	10102-44-0	2.6	lb/ton wood	AP-42 Table 1.9-1	na	na	na	0.	0.	na	na	0.02	na	na
01	CO	630-08-0	58.	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.	0.09	na	na	0.39	na	na
01	VOC	na	32.5	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.	0.05	na	na	0.22	na	na
01	Acetaldehyde	75-07-0	3.8	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.	0.01	na	na	0.03	na	na
01	Acrolein	107-02-8	1.1	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.	0.002	na	na	0.007	na	na
01	Formaldehyde	50-00-0	2.45	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.	0.004	na	na	0.02	na	na
01	Total HAPs	na	7.35	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.	0.011	na	na	0.05	na	na
01	CO2	124-38-9	3,180	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.	4.94	na	na	21.6	na	na
01	CH4	74-82-8	1.02	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.	0.002	na	na	0.007	na	na
01	N2O	10024-97-2	0.14	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.	0.0002	na	na	0.001	na	na

Table 2 (Section I Part 2)

KyEIS Source ID	Process ID	Emission Factors				Control Equipment			Hourly Operating Rate (SCC Units/hr)	Hourly Emissions			Annual Emissions		
		Pollutant	CAS Nr.	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Basis	Control				Uncontrolled Unlimited Potential (lb/hr.)	Controlled Limited Potential (lb/hr.)	Allowable (lb/hr.)	Uncontrolled Unlimited Potential (ton/yr.)	Controlled Limited Potential (ton/yr.)	Allowable (ton/yr.)
						Equip. #	Dev.	Eff.							

EQPT07 02 Batch Smokehouses - Natural Gas Usage

02	PM/PM10/PM2.5	na	7.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0038	2.87E-02	na	na	0.1256	na	na
02	SO2	7446-09-5	0.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0038	2.26E-03	na	na	0.0099	na	na
02	NOX	10102-44-0	100.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	0.0038	3.77E-01	na	na	1.65	na	na
02	CO	630-08-0	84.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	0.0038	3.17E-01	na	na	1.39	na	na
02	VOC	na	5.5	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0038	2.08E-02	na	na	0.091	na	na
02	Formaldehyde	50-00-0	0.075	lb/MMscf	AP-42 Table 1.4-3	na	na	na	0.0038	2.83E-04	na	na	0.00124	na	na
02	CO2	124-38-9	119,317	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0038	4.50E+02	na	na	1,973	na	na
02	CH4	74-82-8	2.25	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0038	8.49E-03	na	na	0.037	na	na
02	N2O	10024-97-2	0.225	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0038	8.49E-04	na	na	0.0037	na	na

EU11 - Batch Smokehouse Oven

EQPT08 01 Batch Smokehouses - Wood Burned

01	PM/PM10/PM2.5	na	22.5	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.	0.03	na	na	0.15	na	na
01	SO2	7446-09-5	0.4	lb/ton wood	AP-42 Table 1.9-1	na	na	na	0.	0.0006	na	na	0.003	na	na
01	NOX	10102-44-0	2.6	lb/ton wood	AP-42 Table 1.9-1	na	na	na	0.	0.	na	na	0.02	na	na
01	CO	630-08-0	58.	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.	0.09	na	na	0.39	na	na
01	VOC	na	32.5	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.	0.05	na	na	0.22	na	na
01	Acetaldehyde	75-07-0	3.8	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.	0.01	na	na	0.03	na	na
01	Acrolein	107-02-8	1.1	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.	0.002	na	na	0.007	na	na
01	Formaldehyde	50-00-0	2.45	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.	0.004	na	na	0.02	na	na
01	Total HAPs	na	7.35	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.	0.011	na	na	0.05	na	na
01	CO2	124-38-9	3,180	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.	4.94	na	na	21.6	na	na
01	CH4	74-82-8	1.02	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.	0.002	na	na	0.007	na	na
01	N2O	10024-97-2	0.14	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.	0.0002	na	na	0.001	na	na

Table 2 (Section I Part 2)

KyEIS Source ID	Process ID	Emission Factors				Control Equipment			Hourly Operating Rate (SCC Units/hr)	Hourly Emissions			Annual Emissions		
		Pollutant	CAS Nr.	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Basis	Control				Uncontrolled Unlimited Potential (lb/hr.)	Controlled Limited Potential (lb/hr.)	Allowable (lb/hr.)	Uncontrolled Unlimited Potential (ton/yr.)	Controlled Limited Potential (ton/yr.)	Allowable (ton/yr.)
						Equip. #	Dev.	Eff.							

EQPT08 02 Batch Smokehouses - Natural Gas Usage

02	PM/PM10/PM2.5	na	7.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0038	0.029	na	na	0.1256	na	na
02	SO2	7446-09-5	0.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0038	2.26E-03	na	na	0.0099	na	na
02	NOX	10102-44-0	100.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	0.0038	0.38	na	na	1.65	na	na
02	CO	630-08-0	84.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	0.0038	0.32	na	na	1.39	na	na
02	VOC	na	5.5	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0038	0.021	na	na	0.091	na	na
02	Formaldehyde	50-00-0	0.075	lb/MMscf	AP-42 Table 1.4-3	na	na	na	0.0038	2.83E-04	na	na	0.00124	na	na
02	CO2	124-38-9	119,317	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0038	450.4	na	na	1,973	na	na
02	CH4	74-82-8	2.25	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0038	8.49E-03	na	na	0.037	na	na
02	N2O	10024-97-2	0.225	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0038	8.49E-04	na	na	0.0037	na	na

EU13 - Batch Smokehouse Oven

EQPT10 01 Batch Smokehouses - Wood Burned

01	PM/PM10/PM2.5	na	22.5	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.03	na	na	0.15	na	na
01	SO2	7446-09-5	0.4	lb/ton wood	AP-42 Table 1.9-1	na	na	na	0.00155	0.0006	na	na	0.003	na	na
01	NOX	10102-44-0	2.6	lb/ton wood	AP-42 Table 1.9-1	na	na	na	0.00155	0.	na	na	0.02	na	na
01	CO	630-08-0	58.	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.09	na	na	0.39	na	na
01	VOC	na	32.5	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.05	na	na	0.22	na	na
01	Acetaldehyde	75-07-0	3.8	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.01	na	na	0.03	na	na
01	Acrolein	107-02-8	1.1	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.002	na	na	0.007	na	na
01	Formaldehyde	50-00-0	2.45	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.004	na	na	0.02	na	na
01	Total HAPs	na	7.35	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.011	na	na	0.05	na	na
01	CO2	124-38-9	3,180	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.00155	4.94	na	na	21.6	na	na
01	CH4	74-82-8	1.02	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.00155	0.002	na	na	0.007	na	na
01	N2O	10024-97-2	0.14	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.00155	0.0002	na	na	0.001	na	na

Table 2 (Section I Part 2)

KyEIS Source ID	Process ID	Emission Factors				Control Equipment			Hourly Operating Rate (SCC Units/hr)	Hourly Emissions			Annual Emissions		
		Pollutant	CAS Nr.	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Basis	Control				Uncontrolled Unlimited Potential (lb/hr.)	Controlled Limited Potential (lb/hr.)	Allowable (lb/hr.)	Uncontrolled Unlimited Potential (ton/yr.)	Controlled Limited Potential (ton/yr.)	Allowable (ton/yr.)
						Equip. #	Dev.	Eff.							

EQPT10 02 Batch Smokehouses - Natural Gas Usage

02	PM/PM10/PM2.5	na	7.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0038	0.029	na	na	0.1256	na	na
02	SO2	7446-09-5	0.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0038	2.26E-03	na	na	0.0099	na	na
02	NOX	10102-44-0	100.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	0.0038	0.38	na	na	1.65	na	na
02	CO	630-08-0	84.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	0.0038	0.32	na	na	1.39	na	na
02	VOC	na	5.5	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0038	0.021	na	na	0.091	na	na
02	Formaldehyde	50-00-0	0.075	lb/MMscf	AP-42 Table 1.4-3	na	na	na	0.0038	2.83E-04	na	na	0.00124	na	na
02	CO2	124-38-9	119,317	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0038	450.4	na	na	1,973	na	na
02	CH4	74-82-8	2.25	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0038	8.49E-03	na	na	0.037	na	na
02	N2O	10024-97-2	0.225	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0038	8.49E-04	na	na	0.0037	na	na

EU14 - Batch Smokehouse Oven

EQPT11 01 Batch Smokehouses - Wood Burned

01	PM/PM10/PM2.5	na	22.5	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.03	na	na	0.15	na	na
01	SO2	7446-09-5	0.4	lb/ton wood	AP-42 Table 1.9-1	na	na	na	0.00155	0.0006	na	na	0.003	na	na
01	NOX	10102-44-0	2.6	lb/ton wood	AP-42 Table 1.9-1	na	na	na	0.00155	0.	na	na	0.02	na	na
01	CO	630-08-0	58.	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.09	na	na	0.39	na	na
01	VOC	na	32.5	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.05	na	na	0.22	na	na
01	Acetaldehyde	75-07-0	3.8	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.01	na	na	0.03	na	na
01	Acrolein	107-02-8	1.1	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.002	na	na	0.007	na	na
01	Formaldehyde	50-00-0	2.45	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.004	na	na	0.02	na	na
01	Total HAPs	na	7.35	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.011	na	na	0.05	na	na
01	CO2	124-38-9	3,180	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.00155	4.94	na	na	21.6	na	na
01	CH4	74-82-8	1.02	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.00155	0.002	na	na	0.007	na	na
01	N2O	10024-97-2	0.14	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.00155	0.0002	na	na	0.001	na	na

KyEIS Source ID	Process ID	Emission Factors				Control Equipment			Hourly Operating Rate (SCC Units/hr)	Hourly Emissions			Annual Emissions		
		Pollutant	CAS Nr.	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Basis	Control				Uncontrolled Unlimited Potential (lb/hr.)	Controlled Limited Potential (lb/hr.)	Allowable (lb/hr.)	Uncontrolled Unlimited Potential (ton/yr.)	Controlled Limited Potential (ton/yr.)	Allowable (ton/yr.)
						Equip. #	Dev.	Eff.							

EQPT11 02 Batch Smokehouses - Natural Gas Usage

02	PM/PM10/PM2.5	na	7.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0038	0.029	na	na	0.1256	na	na
02	SO2	7446-09-5	0.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0038	2.26E-03	na	na	0.0099	na	na
02	NOX	10102-44-0	100.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	0.0038	0.38	na	na	1.65	na	na
02	CO	630-08-0	84.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	0.0038	0.32	na	na	1.39	na	na
02	VOC	na	5.5	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0038	0.021	na	na	0.091	na	na
02	Formaldehyde	50-00-0	0.075	lb/MMscf	AP-42 Table 1.4-3	na	na	na	0.0038	2.83E-04	na	na	0.00124	na	na
02	CO2	124-38-9	119,317	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0038	450.4	na	na	1,973	na	na
02	CH4	74-82-8	2.25	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0038	8.49E-03	na	na	0.037	na	na
02	N2O	10024-97-2	0.225	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0038	8.49E-04	na	na	0.0037	na	na

EU15 - Batch Smokehouse Oven

EQPT12 01 Batch Smokehouses - Wood Burned

01	PM/PM10/PM2.5	na	22.5	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.03	na	na	0.15	na	na
01	SO2	7446-09-5	0.4	lb/ton wood	AP-42 Table 1.9-1	na	na	na	0.00155	0.0006	na	na	0.003	na	na
01	NOX	10102-44-0	2.6	lb/ton wood	AP-42 Table 1.9-1	na	na	na	0.00155	0.	na	na	0.02	na	na
01	CO	630-08-0	58.	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.09	na	na	0.39	na	na
01	VOC	na	32.5	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.05	na	na	0.22	na	na
01	Acetaldehyde	75-07-0	3.8	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.01	na	na	0.03	na	na
01	Acrolein	107-02-8	1.1	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.002	na	na	0.007	na	na
01	Formaldehyde	50-00-0	2.45	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.004	na	na	0.02	na	na
01	Total HAPs	na	7.35	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.011	na	na	0.05	na	na
01	CO2	124-38-9	3,180	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.00155	4.94	na	na	21.6	na	na
01	CH4	74-82-8	1.02	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.00155	0.002	na	na	0.007	na	na
01	N2O	10024-97-2	0.14	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.00155	0.0002	na	na	0.001	na	na

Table 2 (Section I Part 2)

KyEIS Source ID	Process ID	Emission Factors				Control Equipment			Hourly Operating Rate (SCC Units/hr)	Hourly Emissions			Annual Emissions		
		Pollutant	CAS Nr.	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Basis	Control				Uncontrolled Unlimited Potential (lb/hr.)	Controlled Limited Potential (lb/hr.)	Allowable (lb/hr.)	Uncontrolled Unlimited Potential (ton/yr.)	Controlled Limited Potential (ton/yr.)	Allowable (ton/yr.)
						Equip. #	Dev.	Eff.							

EQPT12 02 Batch Smokehouses - Natural Gas Usage

02	PM/PM10/PM2.5	na	7.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0038	0.029	na	na	0.1256	na	na
02	SO2	7446-09-5	0.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0038	2.26E-03	na	na	0.0099	na	na
02	NOX	10102-44-0	100.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	0.0038	0.38	na	na	1.65	na	na
02	CO	630-08-0	84.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	0.0038	0.32	na	na	1.39	na	na
02	VOC	na	5.5	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0038	0.021	na	na	0.091	na	na
02	Formaldehyde	50-00-0	0.075	lb/MMscf	AP-42 Table 1.4-3	na	na	na	0.0038	2.83E-04	na	na	0.00124	na	na
02	CO2	124-38-9	119,317	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0038	450.4	na	na	1,973	na	na
02	CH4	74-82-8	2.25	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0038	8.49E-03	na	na	0.037	na	na
02	N2O	10024-97-2	0.225	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0038	8.49E-04	na	na	0.0037	na	na

EU16 - Batch Smokehouse Oven

EQPT13 01 Batch Smokehouses - Wood Burned

01	PM/PM10/PM2.5	na	22.5	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.03	na	na	0.15	na	na
01	SO2	7446-09-5	0.4	lb/ton wood	AP-42 Table 1.9-1	na	na	na	0.00155	0.0006	na	na	0.003	na	na
01	NOX	10102-44-0	2.6	lb/ton wood	AP-42 Table 1.9-1	na	na	na	0.00155	0.	na	na	0.02	na	na
01	CO	630-08-0	58.	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.09	na	na	0.39	na	na
01	VOC	na	32.5	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.05	na	na	0.22	na	na
01	Acetaldehyde	75-07-0	3.8	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.01	na	na	0.03	na	na
01	Acrolein	107-02-8	1.1	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.002	na	na	0.007	na	na
01	Formaldehyde	50-00-0	2.45	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.004	na	na	0.02	na	na
01	Total HAPs	na	7.35	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.00155	0.011	na	na	0.05	na	na
01	CO2	124-38-9	3,180	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.00155	4.94	na	na	21.6	na	na
01	CH4	74-82-8	1.02	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.00155	0.002	na	na	0.007	na	na
01	N2O	10024-97-2	0.14	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.00155	0.0002	na	na	0.001	na	na

Table 2 (Section I Part 2)

KyEIS Source ID	Process ID	Emission Factors				Control Equipment			Hourly Operating Rate (SCC Units/hr)	Hourly Emissions			Annual Emissions		
		Pollutant	CAS Nr.	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Basis	Control				Uncontrolled Unlimited Potential (lb/hr.)	Controlled Limited Potential (lb/hr.)	Allowable (lb/hr.)	Uncontrolled Unlimited Potential (ton/yr.)	Controlled Limited Potential (ton/yr.)	Allowable (ton/yr.)
						Equip. #	Dev.	Eff.							

EQPT13 02 Batch Smokehouses - Natural Gas Usage

02	PM/PM10/PM2.5	na	7.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0038	0.029	na	na	0.1256	na	na
02	SO2	7446-09-5	0.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0038	2.26E-03	na	na	0.0099	na	na
02	NOX	10102-44-0	100.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	0.0038	0.38	na	na	1.65	na	na
02	CO	630-08-0	84.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	0.0038	0.32	na	na	1.39	na	na
02	VOC	na	5.5	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0038	0.021	na	na	0.091	na	na
02	Formaldehyde	50-00-0	0.075	lb/MMscf	AP-42 Table 1.4-3	na	na	na	0.0038	2.83E-04	na	na	0.00124	na	na
02	CO2	124-38-9	119,317	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0038	450.4	na	na	1,973	na	na
02	CH4	74-82-8	2.25	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0038	8.49E-03	na	na	0.037	na	na
02	N2O	10024-97-2	0.225	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0038	8.49E-04	na	na	0.0037	na	na

EU18 - Batch Smokehouse Oven

EQPT14 01 Batch Smokehouses - Wood Burned

01	PM/PM10/PM2.5	na	22.5	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.23	na	na	0.99	na	na
01	SO2	7446-09-5	0.4	lb/ton wood	AP-42 Table 1.9-1	na	na	na	0.01	0.004	na	na	0.018	na	na
01	NOX	10102-44-0	2.6	lb/ton wood	AP-42 Table 1.9-1	na	na	na	0.01	0.03	na	na	0.11	na	na
01	CO	630-08-0	58.	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.58	na	na	2.54	na	na
01	VOC	na	32.5	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.33	na	na	1.42	na	na
01	Acetaldehyde	75-07-0	3.8	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.04	na	na	0.17	na	na
01	Acrolein	107-02-8	1.1	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.011	na	na	0.048	na	na
01	Formaldehyde	50-00-0	2.45	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.025	na	na	0.11	na	na
01	Total HAPs	na	7.35	lb/ton wood	KDAQ email from 1/30/17	na	na	na	0.01	0.074	na	na	0.32	na	na
01	CO2	124-38-9	3,180	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.01	31.8	na	na	139.3	na	na
01	CH4	74-82-8	1.02	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.01	0.01	na	na	0.045	na	na
01	N2O	10024-97-2	0.14	lb/ton wood	40 CFR Part 98 Subpart C	na	na	na	0.01	0.0014	na	na	0.006	na	na

Table 2 (Section I Part 2)

KyEIS Source ID	Process ID	Emission Factors				Control Equipment			Hourly Operating Rate (SCC Units/hr)	Hourly Emissions			Annual Emissions		
		Pollutant	CAS Nr.	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Basis	Control				Uncontrolled Unlimited Potential (lb/hr.)	Controlled Limited Potential (lb/hr.)	Allowable (lb/hr.)	Uncontrolled Unlimited Potential (ton/yr.)	Controlled Limited Potential (ton/yr.)	Allowable (ton/yr.)
						Equip. #	Dev.	Eff.							

EQPT14 02 Batch Smokehouses - Natural Gas Usage

02	PM/PM10/PM2.5	na	7.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0027	0.02	na	na	0.0897	na	na
02	SO2	7446-09-5	0.6	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0027	1.62E-03	na	na	0.0071	na	na
02	NOX	10102-44-0	100.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	0.0027	0.27	na	na	1.18	na	na
02	CO	630-08-0	84.	lb/MMscf	AP-42 Table 1.4-1	na	na	na	0.0027	0.23	na	na	0.99	na	na
02	VOC	na	5.5	lb/MMscf	AP-42 Table 1.4-2	na	na	na	0.0027	0.015	na	na	0.065	na	na
02	Formaldehyde	50-00-0	0.075	lb/MMscf	AP-42 Table 1.4-3	na	na	na	0.0027	2.02E-04	na	na	0.00089	na	na
02	CO2	124-38-9	119,317	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0027	321.7	na	na	1,409	na	na
02	CH4	74-82-8	2.25	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0027	6.06E-03	na	na	0.027	na	na
02	N2O	10024-97-2	0.225	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.0027	6.06E-04	na	na	0.0027	na	na

EU31 - Freddy Hirsch Line 1

EU31 01 Freddy Hirsch Line 1 Coarse Meat Throughput

01	Acetaldehyde	75-07-0	0.045	lb/ton meat	Stack Test	na	na	na	4.5	0.2	na	na	0.88	na	na
01	Acrolein	107-02-8	0.005	lb/ton meat	Stack Test	na	na	na	4.5	0.022	na	na	0.098	na	na
01	Formaldehyde	50-00-0	0.006	lb/ton meat	Stack Test	na	na	na	4.5	0.026	na	na	0.11	na	na
01	PM/PM10/PM2.5	na	0.17	lb/ton meat	Stack Test	na	na	na	4.5	0.75	na	7.27	3.27	na	na
01	VOC	na	1.42	lb/ton meat	Stack Test	na	na	na	4.5	6.39	na	na	27.98	na	na
01	Total HAPs	na	0.079	lb/ton meat	Stack Test	na	na	na	4.5	0.35	na	na	1.55	na	na

EU31 02 Freddy Hirsch Line 1 Emulsified Meat Throughput

02	Acetaldehyde	75-07-0	0.045	lb/ton meat	Stack Test	na	na	na	4.5	0.2	na	na	0.88	na	na
02	Acrolein	107-02-8	0.002	lb/ton meat	Stack Test	na	na	na	4.5	0.009	na	na	0.038	na	na
02	Formaldehyde	50-00-0	0.011	lb/ton meat	Stack Test	na	na	na	4.5	0.048	na	na	0.209	na	na
02	PM/PM10/PM2.5	na	0.17	lb/ton meat	Stack Test	na	na	na	4.5	0.75	na	7.27	3.27	na	na
02	VOC	na	1.42	lb/ton meat	Stack Test	na	na	na	4.5	6.39	na	na	27.98	na	na
02	Total HAPs	na	0.08	lb/ton meat	Stack Test	na	na	na	4.5	0.36	na	na	1.58	na	na

EU32 - Freddy Hirsch Line 2

EU32 01 Freddy Hirsch Line 2 Coarse Meat Throughput

01	Acetaldehyde	75-07-0	0.045	lb/ton meat	Stack Test	na	na	na	4.5	0.2	na	na	0.88	na	na
01	Acrolein	107-02-8	0.005	lb/ton meat	Stack Test	na	na	na	4.5	0.022	na	na	0.098	na	na
01	Formaldehyde	50-00-0	0.006	lb/ton meat	Stack Test	na	na	na	4.5	0.026	na	na	0.11	na	na
01	PM/PM10/PM2.5	na	0.17	lb/ton meat	Stack Test	na	na	na	4.5	0.75	na	7.27	3.27	na	na
01	VOC	na	1.42	lb/ton meat	Stack Test	na	na	na	4.5	6.39	na	na	27.98	na	na
01	Total HAPs	na	0.079	lb/ton meat	Stack Test	na	na	na	4.5	0.35	na	na	1.55	na	na

Table 2 (Section I Part 2)

KyEIS Source ID	Process ID	Emission Factors				Control Equipment			Hourly Operating Rate (SCC Units/hr)	Hourly Emissions			Annual Emissions		
		Pollutant	CAS Nr.	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Basis	Control				Uncontrolled Unlimited Potential (lb/hr.)	Controlled Limited Potential (lb/hr.)	Allowable (lb/hr.)	Uncontrolled Unlimited Potential (ton/yr.)	Controlled Limited Potential (ton/yr.)	Allowable (ton/yr.)
						Equip. #	Dev.	Eff.							

EU32 02 Freddy Hirsch Line 2 Emulsified Meat Throughput

02	Acetaldehyde	75-07-0	0.045	lb/ton meat	Stack Test	na	na	na	4.5	0.2	na	na	0.88	na	na
02	Acrolein	107-02-8	0.002	lb/ton meat	Stack Test	na	na	na	4.5	0.009	na	na	0.038	na	na
02	Formaldehyde	50-00-0	0.011	lb/ton meat	Stack Test	na	na	na	4.5	0.048	na	na	0.209	na	na
02	PM/PM10/PM2.5	na	0.17	lb/ton meat	Stack Test	na	na	na	4.5	0.75	na	7.27	3.27	na	na
02	VOC	na	1.42	lb/ton meat	Stack Test	na	na	na	4.5	6.39	na	na	27.98	na	na
02	Total HAPs	na	0.08	lb/ton meat	Stack Test	na	na	na	4.5	0.36	na	na	1.58	na	na

EU25 - Liquid Smoke Unit

EQPT18 25 Liquid Smoke Unit #1

25	Acetaldehyde	75-07-0	0.001	lb/ton meat	KDAQ email from 1/30/17	na	na	na	3.6	0.0036	na	na	0.016	na	na
25	Acrolein	107-02-8	0.001	lb/ton meat	KDAQ email from 1/30/17	na	na	na	3.6	0.0036	na	na	0.016	na	na
25	Formaldehyde	50-00-0	0.003	lb/ton meat	KDAQ email from 1/30/17	na	na	na	3.6	0.011	na	na	0.047	na	na
25	PM/PM10/PM2.5	na	0.005	lb/ton meat	KDAQ email from 1/30/17	na	na	na	3.6	0.018	na	na	0.079	na	na
25	VOC	na	0.079	lb/ton meat	KDAQ email from 1/30/17	na	na	na	3.6	0.28	na	na	1.25	na	na
25	Total HAPs	na	0.005	lb/ton meat	KDAQ email from 1/30/17	na	na	na	3.6	0.018	na	na	0.079	na	na

EU26 - Liquid Smoke Unit

EQPT19 26 Liquid Smoke Unit #2

26	Acetaldehyde	75-07-0	0.001	lb/ton meat	KDAQ email from 1/30/17	na	na	na	3.6	0.0036	na	na	0.016	na	na
26	Acrolein	107-02-8	0.001	lb/ton meat	KDAQ email from 1/30/17	na	na	na	3.6	0.0036	na	na	0.016	na	na
26	Formaldehyde	50-00-0	0.003	lb/ton meat	KDAQ email from 1/30/17	na	na	na	3.6	0.011	na	na	0.047	na	na
26	PM/PM10/PM2.5	na	0.005	lb/ton meat	KDAQ email from 1/30/17	na	na	na	3.6	0.018	na	na	0.079	na	na
26	VOC	na	0.079	lb/ton meat	KDAQ email from 1/30/17	na	na	na	3.6	0.28	na	na	1.25	na	na
26	Total HAPs	na	0.005	lb/ton meat	KDAQ email from 1/30/17	na	na	na	3.6	0.018	na	na	0.079	na	na

Table 2 (Section I Part 2)

KyEIS Source ID	Process ID	Emission Factors				Control Equipment			Hourly Operating Rate (SCC Units/hr)	Hourly Emissions			Annual Emissions		
		Pollutant	CAS Nr.	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Basis	Control				Uncontrolled Unlimited Potential (lb/hr.)	Controlled Limited Potential (lb/hr.)	Allowable (lb/hr.)	Uncontrolled Unlimited Potential (ton/yr.)	Controlled Limited Potential (ton/yr.)	Allowable (ton/yr.)
						Equip. #	Dev.	Eff.							

EU27 - Boiler - 20.4 MMBtu/hr Natural Gas Boiler

COMB11 01 One Indirect Heat Exchanger- Natural Gas Usage

01	PM/PM10/PM2.5	na	10.2	lb/MMscf	Vendor Data	na	na	na	0.02	0.204	na	na	0.8935	na	na
01	SO2	7446-09-5	1.73	lb/MMscf	Vendor Data	na	na	na	0.02	3.47E-02	na	na	0.1519	na	na
01	NOX	10102-44-0	72.42	lb/MMscf	Vendor Data	na	na	na	0.02	1.45	na	na	6.34	na	na
01	CO	630-08-0	36.72	lb/MMscf	Vendor Data	na	na	na	0.02	0.73	na	na	3.22	na	na
01	VOC	na	4.08	lb/MMscf	Vendor Data	na	na	na	0.02	0.082	na	na	0.357	na	na
01	Formaldehyde	50-00-0	0.075	lb/MMscf	AP-42 Table 1.4-3	na	na	na	0.02	1.50E-03	na	na	0.00657	na	na
01	CO2	124-38-9	119,317	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.02	2,386.3	na	na	10,452	na	na
01	CH4	74-82-8	2.25	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.02	4.50E-02	na	na	0.197	na	na
01	N2O	10024-97-2	0.225	lb/MMscf	40 CFR Part 98 Subpart C	na	na	na	0.02	4.50E-03	na	na	0.0197	na	na

COMB11 02 One Indirect Heat Exchanger- Propane Backup

02	PM/PM10/PM2.5	na	0.7	lb/Mgal	AP-42 Table 1.5-1	na	na	na	0.223	0.16	na	na	0.68	na	na
02	SO2	7446-09-5	0.02	lb/Mgal	AP-42 Table 1.5-1	na	na	na	0.223	0.0033	na	na	0.015	na	na
02	NOX	10102-44-0	13.	lb/Mgal	AP-42 Table 1.5-1	na	na	na	0.223	2.9	na	na	12.69	na	na
02	CO	630-08-0	7.5	lb/Mgal	AP-42 Table 1.5-1	na	na	na	0.223	1.67	na	na	7.32	na	na
02	VOC	na	0.8	lb/Mgal	AP-42 Table 1.5-1	na	na	na	0.223	0.18	na	na	0.78	na	na
02	CO2	124-38-9	12,398	lb/Mgal	40 CFR Part 98 Subpart C	na	na	na	0.223	2,764	na	na	12,107	na	na
02	CH4	74-82-8	0.61	lb/Mgal	40 CFR Part 98 Subpart C	na	na	na	0.223	0.13	na	na	0.59	na	na
02	N2O	10024-97-2	0.12	lb/Mgal	40 CFR Part 98 Subpart C	na	na	na	0.223	0.027	na	na	0.12	na	na

Table 2 (Section I Part 2)

KyEIS Source ID	Process ID	Emission Factors				Control Equipment			Hourly Operating Rate (SCC Units/hr)	Hourly Emissions			Annual Emissions		
		Pollutant	CAS Nr.	Uncontrolled Emission Factor (lb/SCC Units)	Emission Factor Basis	Control				Uncontrolled Unlimited Potential (lb/hr.)	Controlled Limited Potential (lb/hr.)	Allowable (lb/hr.)	Uncontrolled Unlimited Potential (ton/yr.)	Controlled Limited Potential (ton/yr.)	Allowable (ton/yr.)
						Equip. #	Dev.	Eff.							

EU28 - Emergency Generator Engine - Diesel Fired 380 hp

COMB121 01 Emergency Generator Engine

01	PM/PM10/PM2.5	na	43.06	lb/Mgal	AP-42 3.3-1, 10/96	na	na	na	0.0194	0.84	na	na	3.66	na	na
01	SO2	7446-09-5	40.12	lb/Mgal	AP-42 3.3-1, 10/96	na	na	na	0.0194	0.78	na	na	3.41	na	na
01	NOX	10102-44-0	606.71	lb/Mgal	AP-42 3.3-1, 10/96	na	na	na	0.0194	11.78	na	na	51.6	na	na
01	CO	630-08-0	130.74	lb/Mgal	AP-42 3.3-1, 10/96	na	na	na	0.0194	2.54	na	na	11.12	na	na
01	VOC	na	49.12	lb/Mgal	AP-42 3.3-1, 10/96	na	na	na	0.0194	0.95	na	na	4.18	na	na
01	Formaldehyde	50-00-0	0.16	lb/Mgal	AP-42 3.3-2, 10/96	na	na	na	0.0194	0.0031	na	na	0.014	na	na
01	CO2	124-38-9	22,338	lb/Mgal	40 CFR Part 98 Subpart C	na	na	na	0.0194	433.72	na	na	1,900	na	na
01	CH4	74-82-8	0.91	lb/Mgal	40 CFR Part 98 Subpart C	na	na	na	0.0194	0.018	na	na	0.077	na	na
01	N2O	10024-97-2	0.18	lb/Mgal	40 CFR Part 98 Subpart C	na	na	na	0.0194	0.0035	na	na	0.015	na	na

1 Hillshire Brands presumes that the next sequential number for combustion units (i.e., COMB) at the Claryville Plant will be selected as the KYEIS ID for the emergency engine.

7007N Form Supplement
Table 3 (Section II)

KyEIS Source ID	Process ID	Process Description	Stack Physical Data			Stack Geographic Data			Stack Gas Stream Data			
			Height (ft.)	Diameter (ft.)	Vent Height (ft.)	Vertical Coordinate	Horizontal Coordinate	Coordinate Collection Method Code	Flowrate (acfm)	Temperature (°F)	Exit Velocity (ft./sec.)	
EU01		Three Indirect Heat Exchangers	48.	1.3	na	4,310,000	726,900	INI	2,966	437	37.2	
EU02			47.	1.3	na	4,310,000	726,900	INI	2,966	437	37.2	
EU03			47.	1.3	na	4,310,000	726,900	INI	2,966	437	37.2	
EA04		Continuous Ovens	57.	1.6	na	4,310,000	726,900	INI	989	199	8.2	
EA12			57.	1.6	na	4,310,000	726,900	INI	989	199	8.2	
EU05		Batch Houses	52.	18.5" x 27.5"	na	4,310,000	726,900	INI	3,990	140	18.8	
EU06			52.	18.5" x 27.5"	na	4,310,000	726,900	INI	3,990	140	18.8	
EU07			52.	18.5" x 27.5"	na	4,310,000	726,900	INI	3,990	140	18.8	
EU08			52.	18.5" x 27.5"	na	4,310,000	726,900	INI	3,990	140	18.8	
EU09			52.	18.5" x 27.5"	na	4,310,000	726,900	INI	3,990	140	18.8	
EU10			52.	18.5" x 27.5"	na	4,310,000	726,900	INI	7,310	140	34.5	
EU11			52.	18.5" x 27.5"	na	4,310,000	726,900	INI	7,310	140	34.5	
EU13			52.	18.5" x 27.5"	na	4,310,000	726,900	INI	7,310	140	34.5	
EU14			52.	18.5" x 27.5"	na	4,310,000	726,900	INI	7,310	140	34.5	
EU15			52.	18.5" x 27.5"	na	4,310,000	726,900	INI	7,310	140	34.5	
EU16			52.	18.5" x 27.5"	na	4,310,000	726,900	INI	7,310	140	34.5	
EU18			52.	18.5" x 27.5"	na	4,310,000	726,900	INI	3,990	140	18.8	
EU22			Two Indirect Heat Exchangers	45.	1.3	na	4,310,000	726,900	INI	4,183	360	52.5
EU23				45.	1.3	na	4,310,000	726,900	INI	4,183	360	52.5
EA24		Hot Water Heater	46.	2.3	na	4,310,000	726,900	INI	1,870	75	7.5	
EA24			46.	2.3	na	4,310,000	726,900	INI	1,870	75	7.5	
EA25		Liquid Smoke Units before Continuous Smokehouses	57.	1.6	na	4,310,000	726,900	INI	989	199	8.2	
EA26			57.	1.6	na	4,310,000	726,900	INI	989	199	8.2	
EA28		Emergency Generator	17.	0.67	na	4,310,000	726,900	INI	2,243	854	106	
EU31A		Freddy Hirsch Unit 1, Stack 1	16.5	1.5051 x 1.05208	na	38°54'32.93"N	84°23'00.09"W	INI	4,000	375	42.08	
EU31B		Freddy Hirsch Unit 1, Stack 2	16.5	1.5051 x 1.05208	na	38°54'32.70"N	84°23'00.23"W	INI	4,000	375	42.08	
EU32A		Freddy Hirsch Unit 2, Stack 1	16.5	1.5051 x 1.05208	na	38°54'32.55"N	84°23'00.64"W	INI	4,000	375	42.08	
EU32B		Freddy Hirsch Unit 2, Stack 2	16.5	1.5051 x 1.05208	na	38°54'31.97"N	84°23'00.63"W	INI	4,000	375	42.08	

PTE Calcs
for Title V Renewal Application

1. Index of Emission Units at the Claryville Facility

KyEIS Equipment ID	Equipment Description	KyEIS Process ID	Process Description	Filter or Controls	Emission Point ID	Interior/ Exterior Exhaust	Stack or Vent Type	Status	Notes
01	Cleaver Brooks gas-fired boiler		Boiler #1					In operation	8.37 MMBtu/hr; 1985; 59:015
02	Cleaver Brooks gas-fired boiler		Boiler #2					In operation	8.37 MMBtu/hr; 1985; 59:015
03	Cleaver Brooks gas-fired boiler		Boiler #3					In operation	8.37 MMBtu/hr; 1985; 59:015
04	Alkar Continuous Oven		Continuous Smokehouse #1					In operation	1.65 MMBtu/hr; 1984; 59:010; 394 ton/yr. fuel use limit for EU04 and EU12 combined; process rate: 7,200 lb/hr
12	Alkar Continuous Oven		Continuous Smokehouse #2					In operation	1.65 MMBtu/hr; 1984; 59:010; 394 ton/yr. fuel use limit for EU04 and EU12 combined; process rate: 7,200 lb/hr
05	Alkar Batch Meat Smokehouse Oven		Batch Smokehouse #1					In operation	2.75 MMBtu/hr; 1984-85; 59:010; 607 ton/yr. wood use limit for all 12 batch houses; process rate: 1,367 lb/hr. batch combined
06	Alkar Batch Meat Smokehouse Oven		Batch Smokehouse #2					In operation	2.75 MMBtu/hr; 1984-85; 59:010; 607 ton/yr. wood use limit for all 12 batch houses; process rate: 1,367 lb/hr. batch combined
07	Alkar Batch Meat Smokehouse Oven		Batch Smokehouse #3					In operation	2.75 MMBtu/hr; 1984-85; 59:010; 607 ton/yr. wood use limit for all 12 batch houses; process rate: 1,367 lb/hr. batch combined
08	Alkar Batch Meat Smokehouse Oven		Batch Smokehouse #4					In operation	2.75 MMBtu/hr; 1984-85; 59:010; 607 ton/yr. wood use limit for all 12 batch houses; process rate: 1,367 lb/hr. batch combined
09	Alkar Batch Meat Smokehouse Oven		Batch Smokehouse #5					In operation	2.75 MMBtu/hr; 1984-85; 59:010; 607 ton/yr. wood use limit for all 12 batch houses; process rate: 1,367 lb/hr. batch combined
10	Alkar Batch Meat Smokehouse Oven		Batch Smokehouse #6					In operation	3.85 MMBtu/hr; 1986-87; 59:010; 607 ton/yr. wood use limit for all 12 batch houses; process rate: 2,317 lb/hr. batch combined
11	Alkar Batch Meat Smokehouse Oven		Batch Smokehouse #7					In operation	3.85 MMBtu/hr; 1986-87; 59:010; 607 ton/yr. wood use limit for all 12 batch houses; process rate: 2,317 lb/hr. batch combined
13	Alkar Batch Meat Smokehouse Oven		Batch Smokehouse #8					In operation	3.85 MMBtu/hr; 1986-87; 59:010; 607 ton/yr. wood use limit for all 12 batch houses; process rate: 2,317 lb/hr. batch combined
14	Alkar Batch Meat Smokehouse Oven		Batch Smokehouse #9					In operation	3.85 MMBtu/hr; 1986-87; 59:010; 607 ton/yr. wood use limit for all 12 batch houses; process rate: 2,317 lb/hr. batch combined
15	Alkar Batch Meat Smokehouse Oven		Batch Smokehouse #10					In operation	3.85 MMBtu/hr; 1986-87; 59:010; 607 ton/yr. wood use limit for all 12 batch houses; process rate: 2,317 lb/hr. batch combined

**PTE Calcs
for Title V Renewal Application**

1. Index of Emission Units at the Claryville Facility

KyEIS Equipment ID	Equipment Description	KyEIS Process ID	Process Description	Filter or Controls	Emission Point ID	Interior/ Exterior Exhaust	Stack or Vent Type	Status	Notes
16	Alkar Batch Meat Smokehouse Oven		Batch Smokehouse #11					In operation	3.85 MMBtu/hr; 1986-87; 59:010; 607 ton/yr. wood use limit for all 12 batch houses; process rate: 2,317 lb/hr. batch combined
18	Alkar Batch Meat Smokehouse Oven		Batch Smokehouse #12					In operation	2.75 MMBtu/hr; 1984-85; 59:010; 607 ton/yr. wood use limit for all 12 batch houses; process rate: 1,367 lb/hr. batch combined
22	Cleaver Brooks gas-fired boiler		Boiler #4					In operation	12.56 MMBtu/hr; 2004; Propane backup;
23	Cleaver Brooks gas-fired boiler		Boiler #5					In operation	12.56 MMBtu/hr; 2004; Propane backup;
24	QuikWater gas-fired boiler		Hot Water Heater					In operation	16 MMBtu/hr; 2007; Propane backup; 59:010
25	Liquid Smoke Drenching Units (before EU04)		Liquid Smoke Unit #1					In operation	7,200 lb/hr; worst case usage of concentrated liquid smoke 1.25 gallons/1,000 pounds of
26	Liquid Smoke Drenching Units (before EU12)		Liquid Smoke Unit #2					In operation	7,200 lb/hr; worst case usage of concentrated liquid smoke 1.25 gallons/1,000 pounds of
27	Cleaver Brooks gas-fired boiler		Boiler #6						20.4 MMBtu/hr; 2009; 60:005: Subpart Dc
28	Emergency Generator		Emergency Generator Engine						Fueled by No. 2 Fuel Oil; based upon 500 hours consistent with USEPA Guidelines
30	Two Parts Washers		Two Parts Washers					In operation	Parts Washers installed 1/1984
31	Freddy Hirsch Dryer 1		Freddy Hirsch Dryer 1					In operation	9,000 lb meat/hr.; 58.5 gal./hr. liquid smoke; emulsified or coarse ground
32	Freddy Hirsch Dryer 2		Freddy Hirsch Dryer 2					In operation	9,000 lb meat/hr.; 58.5 gal./hr. liquid smoke; emulsified or coarse ground

PTE Calcs
for Title V Renewal Application

3. PTE Emissions Summary Table

KyEIS Source ID	Emission Unit and Process	Hillshire Brands Emission Unit Description	Criteria					HAP				GHG				
			NOX (tpy)	CO (tpy)	SO2 (tpy)	PM/PM10/PM2.5 (tpy)	VOC (tpy)	Formaldehyde (tpy)	Acetaldehyde (tpy)	Acrolein (tpy)	Total HAPs (tpy)	CO2 (tpy)	CH4 (tpy)	N2O (tpy)	CO2e (tpy)	
01 - 03	Boilers 1-3	Boilers (3)	10.78	9.06	0.06	0.819	0.59	0.0081				0.204	12,865	0.24	0.024	12,879
04, 25	Continuous Smokehouses 1 including EU25	Continuous Smokehouses (1 of 2)	0.709	0.595	0.004	0.13	10.35	0.384	0.016	0.016		0.092	845.39	0.016	0.0016	846
05	Batch Smokehouse 1	Batch Smokehouses (1 of 12)	1.098	3.37	0.023	1.06	1.48	0.108	0.166	0.048		0.34	1,313	0.067	0.0084	1,318
06	Batch Smokehouse 2	Batch Smokehouses (2 of 12)	1.098	3.37	0.023	1.06	1.48	0.108	0.166	0.048		0.34	1,313	0.067	0.0084	1,318
07	Batch Smokehouse 3	Batch Smokehouses (3 of 12)	1.098	3.37	0.023	1.06	1.48	0.108	0.166	0.048		0.34	1,313	0.067	0.0084	1,318
08	Batch Smokehouse 4	Batch Smokehouses (4 of 12)	1.098	3.37	0.023	1.06	1.48	0.108	0.166	0.048		0.34	1,313	0.067	0.0084	1,318
09	Batch Smokehouse 5	Batch Smokehouses (5 of 12)	1.098	3.37	0.023	1.06	1.48	0.108	0.166	0.048		0.34	1,313	0.067	0.0084	1,318
10	Batch Smokehouse 6	Batch Smokehouses (6 of 12)	1.5	1.64	0.012	0.266	0.3	0.018	0.026	0.007		0.078	1,790	0.04	0.0043	1,792
11	Batch Smokehouse 7	Batch Smokehouses (7 of 12)	1.5	1.64	0.012	0.266	0.3	0.018	0.026	0.007		0.078	1,790	0.04	0.0043	1,792
12, 26	Continuous Smokehouses 2 including EU26	Continuous Smokehouses (2 of 2)	0.709	0.595	0.004	0.133	10.35	0.384	0.016	0.016		0.092	845.39	0.016	0.0016	846
13	Batch Smokehouse 8	Batch Smokehouses (8 of 12)	1.5	1.64	0.012	0.266	0.3	0.018	0.026	0.007		0.078	1,790	0.04	0.0043	1,792
14	Batch Smokehouse 9	Batch Smokehouses (9 of 12)	1.5	1.64	0.012	0.266	0.3	0.018	0.026	0.007		0.078	1,790	0.04	0.0043	1,792
15	Batch Smokehouse 10	Batch Smokehouses (10 of 12)	1.5	1.64	0.012	0.266	0.3	0.018	0.026	0.007		0.078	1,790	0.04	0.0043	1,792
16	Batch Smokehouse 11	Batch Smokehouses (11 of 12)	1.5	1.64	0.012	0.266	0.3	0.018	0.026	0.007		0.078	1,790	0.04	0.0043	1,792
18	Batch Smokehouse 12	Batch Smokehouses (12 of 12)	1.098	3.37	0.023	1.06	1.48	0.108	0.166	0.048		0.34	1,313	0.067	0.0084	1,318
22, 23	Boiler 4-5	Boilers (2)	15.63	9.06	0.06	0.842	0.96	0.0081				0.204	14,908	0.73	0.15	14,970
24	Water Heater	QuikWater System	19.91	11.49	0.04	1.072	1.23	0.0052				0.13	9,496	0.46	0.093	9,535
27	Boiler 6	Boiler	12.69	7.32	0.15	0.894	0.78	0.0066				0.17	12,107	0.59	0.12	12,157
28	Emergency Generator	Emergency Generator Engine	2.95	0.63	0.19	0.209	0.24	7.85 E-04	5.1 E-04	6.15 E-05		2.58 E-03	108.43	0.0044	8.8 E-04	109
30	Parts Washers 1-2	Parts Washers (2)					0.31									
31	Freddy Hirsch Line 1	Freddy Hirsch Line 1				3.273	27.98	0.21	0.88	0.098		1.58				
32	Freddy Hirsch Line 2	Freddy Hirsch Line 2				3.273	27.98	0.21	0.88	0.098		1.58				
IA-01	Make-up Air Unit #1	Make-up Air Unit #1	0.47	0.39	0.0028	0.035	0.026	3.5 E-04				8.81 E-03	556.77	0.0105	0.00105	557
IA-02	Make-up Air Unit #2	Make-up Air Unit #2	0.36	0.30	0.0022	0.027	0.020	2.69 E-04				6.77 E-03	427.82	0.0081	0.00081	428
IA-03	HVAC Unit	HVAC Unit	1.03	0.86	0.01	0.078	0.06	7.7 E-04				0.019	1,225	0.023	0.0023	1,226
IA-04	Dehumidification Unit	Dehumidifiers	0.32	0.27	0.002	0.024	0.018	2.42 E-04				0.0061	384	0.0072	7.24 E-04	385
IA-05	Purge Unit	Purge Unit	0.05	0.04	0.000	0.004	0.003	3.5 E-05				8.81 E-04	56	0.00105	1.05 E-04	56
IA-06	Drench Cabinet #1	Drench Cabinets (1 of 2)				0.038	0.593	0.023	0.0075	0.0075		0.038				
IA-07	Make-up Air Unit #3	Make-up Air Unit #3	0.52	0.44	0.0031	0.04	0.029	3.92 E-04				9.86 E-03	623.37	0.0117	0.00117	624
IA-08	Drench Cabinet #2	Drench Cabinets (2 of 2)				0.038	0.593	0.023	0.0075	0.0075		0.038				
IA-09	Miscellaneous Storage Vessels	Storage Tanks										Negligible				
IA-10	Comfort Heaters 1-19	Comfort Heaters (19)	4.06	3.41	0.024	0.308	0.223	3.04 E-03				0.077	4,841	0.0912	0.00912	4,846
IA-11	Cooling Tower #1	Cooling Tower (1 of 7)				0.93										
IA-12	Cooling Tower #2	Cooling Tower (2 of 7)				0.36										
IA-13	Cooling Tower #3	Cooling Tower (3 of 7)				0.36										
IA-14	Cooling Tower #4	Cooling Tower (4 of 7)				0.87										
IA-15	Cooling Tower #5	Cooling Tower (5 of 7)				1.01										
IA-16	Cooling Tower #6	Cooling Tower (6 of 7)				1.04										
IA-17	Cooling Tower #7	Cooling Tower (7 of 7)				0.75										
IA-18	Large Dehumidifier Units	Dehumidifiers	1.72	1.44	0.01	0.131	0.094	1.29 E-03				0.032	2,049	0.0386	0.00386	2,052
IA-19	Wastewater Treatment	Wastewater Treatment Process					0.056									
IA-20	Cleaners	Misc. Cleaner Usage					0.614					0.043				
IA-21	Sanitizers	Misc. Sanitizer Usage					3.92									
IA-22	Inkjet Printing	Inkjet Printing					0.666									
IA-23	Refrigeration Equipment	Misc. Refrigeration Equipment														9.24
IA-24	Dryer 1-1 Duct Burner		0.86	0.72	0.005	0.065	0.047	6.44 E-04				0.016	1,025	1.93 E-02	1.93 E-03	1,026
IA-25	Dryer 1-2 Duct Burner		0.86	0.72	0.005	0.065	0.047	6.44 E-04				0.016	1,025	1.93 E-02	1.93 E-03	1,026
IA-26	Dryer 2-1 Duct Burner		0.86	0.72	0.005	0.065	0.047	6.44 E-04				0.016	1,025	1.93 E-02	1.93 E-03	1,026
IA-27	Dryer 2-2 Duct Burner		0.86	0.72	0.005	0.065	0.047	6.44 E-04				0.016	1,025	1.93 E-02	1.93 E-03	1,026
Total PTE:			90.92	78.83	0.81	24.92	98.56	2.022	2.96	0.58	6.91	84,058	2.97	0.49	84,287	

**4. Emissions from Boilers - Natural Gas & Propane Combustion
EU01-03, EU22-23, EU27, EU24, IA3**

4.1 Emission Unit Nomenclature, Process Rates, and SCC Units

Several of the boilers are permitted for the combustion of both propane and natural gas. Although propane is typically only used as a backup fuel, to maximize operational flexibility, the potential annual emission rate is based on the worst-case scenario between the two fuels assuming 8,760 hours of operation per year.

Process Description	KyEIS Source ID	KyEIS Process ID	Construc. Date	SCC Code	SCC Units
Boiler #1-#3	01-03	1	1985	10200603	Million Cubic Feet
Boiler #4-#5	22,23	1	2004	10200602	Million Cubic Feet
Boiler #6	27	1	2009	10300602	Million Cubic Feet
Hot Water Heater	24	1	2007	30290003	Million Cubic Feet
HVAC Unit	IA3	1	--	30290003	Million Cubic Feet

4.2 Documentation of Emission Factors

* Maximum hourly natural gas usage based on rated heat input capacity and a heat content of 1,020 MMBtu/MMscf. Maximum hourly propane usage based on rated heat input capacity using a heat content of 91.5 MMBtu/Mgal. Annual rate based on hourly rate assuming 8,760 hours of operation per year.

Parameter	Value	Units	Reference
Natural Gas Heat Content	1,020	Btu/scf	AP-42 Table 1.4-1 footnote
Propane Heat Content	91.5	MMBtu/Mgal	AP-42 Table 1.5-1 footnote
Annual Hours of Operation	8,760	hr/yr.	Max. operating conditions for PTE

EU ID Nr.	Hillshire Brands Emission Unit Description	Rated Heat Input Capacity (MMBtu/hr.)	Maximum Natural Gas Usage		Maximum Propane Usage	
			(MMscf/hr.)	(MMscf/yr.)	(Mgal./hr.)	(Mgal./yr.)
01-03	Boiler #1-#3	8.37	8.21E-03	71.9		
22,23	Boiler #4-#5	12.56	0.012	107.9	0.137	1,202.47
27	Boiler #6	20.4	0.02	175.2	0.223	1,953.05
24	Hot Water Heater	16.	0.016	137.4	0.175	1,531.8
IA3	HVAC Unit	2.39	2.34E-03	20.5		

PTE Calcs
for Title V Renewal Application

4. Emissions from Boilers - Natural Gas & Propane Combustion
EU01-03, EU22-23, EU27, EU24, IA3

Fuel	Pollutant	Em. Factor	Units	Basis
Nat. gas	PM/PM10/PM2.5	7.6	lb/MMscf	AP-42 Table 1.4-2
Nat. gas	SO2	0.6	lb/MMscf	AP-42 Table 1.4-2
Nat. gas	NOX	100.	lb/MMscf	AP-42 Table 1.4-1, Small Boiler (<100 MMBtu/hr.), Uncontrolled
Nat. gas	CO	84.	lb/MMscf	AP-42 Table 1.4-1, Small Boiler (<100 MMBtu/hr.), Uncontrolled
Nat. gas	VOC	5.5	lb/MMscf	AP-42 Table 1.4-2
Nat. gas	Formaldehyde	0.075	lb/MMscf	AP-42 Table 1.4-3
Nat. gas	Total HAPs	1.89	lb/MMscf	AP-42 Table 1.4-3
Nat. gas	PM/PM10/PM2.5	0.01	lb/MMBtu	Cleaver Brooks supplied emission data for EU27
Nat. gas	SO2	0.0017	lb/MMBtu	Cleaver Brooks supplied emission data for EU27
Nat. gas	NOX	0.071	lb/MMBtu	Cleaver Brooks supplied emission data for EU27
Nat. gas	CO	0.036	lb/MMBtu	Cleaver Brooks supplied emission data for EU27
Nat. gas	VOC	0.004	lb/MMBtu	Cleaver Brooks supplied emission data for EU27
Nat. gas	CO2	53.06	kg/MMBtu	40 CFR Part 98 Subpart C Table C-1 for Natural gas (weighted U.S. average)
Nat. gas	CO2	116.977	lb/MMBtu	
Nat. gas	CH4	1. E-03	kg/MMBtu	40 CFR Part 98 Subpart C Table C-2 for Natural gas
Nat. gas	CH4	2.2 E-03	lb/MMBtu	
Nat. gas	N2O	1. E-04	kg/MMBtu	40 CFR Part 98 Subpart C Table C-2 for Natural gas
Nat. gas	N2O	2.2 E-04	lb/MMBtu	
LPG	PM/PM10/PM2.5	0.7	lb/Mgal.	AP-42 Table 1.5-1 for Industrial Boilers (10-100 MMBtu/hr.)
LPG	SO2	0.015	lb/Mgal.	AP-42 Table 1.5-1 for Industrial Boilers (10-100 MMBtu/hr.)
LPG	NOX	13	lb/Mgal.	AP-42 Table 1.5-1 for Industrial Boilers (10-100 MMBtu/hr.)
LPG	CO	7.5	lb/Mgal.	AP-42 Table 1.5-1 for Industrial Boilers (10-100 MMBtu/hr.)
LPG	VOC	0.8	lb/Mgal.	AP-42 Table 1.5-1 for Industrial Boilers (10-100 MMBtu/hr.) as TOC
LPG	CO2	61.46	kg/MMBtu	40 CFR 98, Subpart C, Table C-2; Propane
LPG	CO2	12,398	lb/Mgal.	
LPG	CH4	3. E-03	kg/MMBtu	40 CFR 98, Subpart C, Table C-2; Propane
LPG	CH4	0.61	lb/Mgal.	
LPG	N2O	6. E-04	kg/MMBtu	40 CFR 98, Subpart C, Table C-2; Propane
LPG	N2O	0.12	lb/Mgal.	

4. Emissions from Boilers - Natural Gas & Propane Combustion
EU01-03, EU22-23, EU27, EU24, IA3

4.3 Emission Calculations Based on Documented Emission Factors

Emission Unit	Pollutant	Emission Factor (lb/MMscf)	Fuel Consumption Rate (MMscf/hr.)	Uncontrolled Emissions	
				Hourly (lb/hr.)	Annual (tpy)
Boiler #1-#3	PM/PM10/PM2.5	7.6	8.21E-03	0.19	0.82
	SO2	0.6	8.21E-03	0.01	0.06
	NOX	100.	8.21E-03	2.46	10.78
	CO	84.	8.21E-03	2.07	9.06
	VOC	5.5	8.21E-03	0.14	0.59
	Formaldehyde	0.08	8.21E-03	1.85E-03	8.09E-03
	Total HAPs	1.89	8.21E-03	4.65E-02	0.2

Fuel	Pollutant	lb/MMBtu	MMBtu/hr.	(lb/hr.)	(tpy)
Nat. gas	CO2	116.98	8.37	2,937.3	12,865.37
Nat. gas	CH4	2.20E-03	8.37	5.54E-02	2.42E-01
Nat. gas	N2O	2.20E-04	8.37	5.54E-03	2.42E-02

Emission Unit	Pollutant	Emission Factor		Consumption Rate		Uncontrolled Hourly Emissions		Uncontrolled Annual Emissions (tpy)
		Nat. Gas	Propane	Nat. Gas	Propane	Nat. Gas	Propane	
		(lb/MMscf)	(lb/Mgal.)	(MMscf/hr.)	(Mgal./hr.)	(lb/hr.)	(lb/hr.)	
Boiler #4-#5	PM/PM10/PM2.5	7.6	0.7	1.23E-02	0.137	0.187	0.192	0.84
	SO2	0.6	0.02	1.23E-02	0.137	0.01	0.004	0.06
	NOX	100.	13.	1.23E-02	0.137	2.46	3.57	15.63
	CO	84.	7.5	1.23E-02	0.137	2.07	2.06	9.06
	VOC	5.5	0.8	1.23E-02	0.137	0.14	0.22	0.96
	Formaldehyde	0.08		1.23E-02		0.00		8.09E-03
	Total HAPs	1.89		1.23E-02		0.05		0.2

Pollutant	lb/MMBtu	lb/Mgal.	MMBtu/hr.	Mgal./hr.	lb/hr.	lb/hr.	ton/yr.
CO2	116.98	12,397.89	12.56	0.137	2,938.47	3,403.66	14,908.04
CH4	2.20E-03	0.605	12.56	0.137	5.54E-02	0.166	0.73
N2O	2.20E-04	0.121	12.56	0.137	5.54E-03	3.32E-02	0.15

Emission Unit	Pollutant	Emission Factor		Consumption Rate		Uncontrolled Hourly Emissions		Uncontrolled Annual Emissions (tpy)
		Nat. Gas	Propane	Nat. Gas	Propane	Nat. Gas	Propane	
		(lb/MMBtu)	(lb/Mgal.)	(MMscf/hr.)	(Mgal./hr.)	(lb/hr.)	(lb/hr.)	
Boiler #6	PM/PM10/PM2.5	0.01	0.7	20.40	0.223	0.20	0.16	0.89
	SO2	0.0017	0.02	20.40	0.223	0.03	3.34E-03	0.15
	NOX	0.071	13.	20.40	0.223	1.45	2.90	12.69
	CO	0.036	7.5	20.40	0.223	0.73	1.67	7.32
	VOC	0.004	0.8	20.40	0.223	0.08	0.18	0.78
	Formaldehyde	0.075		0.02		1.50E-03		6.57E-03
	Total HAPs	1.89		0.02		3.78E-02		1.65E-01

Pollutant	lb/MMBtu	lb/Mgal.	MMBtu/hr.	Mgal./hr.	lb/hr.	lb/hr.	ton/yr.
CO2	116.98	12,397.89	20.40	0.223	2386.34	2764.12	12,106.85
CH4	2.20E-03	0.605	20.40	0.223	4.50E-02	0.13	0.59
N2O	2.20E-04	0.121	20.40	0.223	4.50E-03	0.03	0.12

4. Emissions from Boilers - Natural Gas & Propane Combustion
EU01-03, EU22-23, EU27, EU24, IA3

Emission Unit	Pollutant	Nat. Gas	Propane	Nat. Gas	Propane	Nat. Gas	Propane	Uncontrolled Annual Emissions (tpy)
		Emission Factor		Consumption Rate		Uncontrolled Hourly Emissions		
		(lb/MMscf)	(lb/Mgal.)	(MMscf/hr.)	(Mgal./hr.)	(lb/hr.)	(lb/hr.)	
Hot Water Heater	PM/PM10/PM2.5	7.6	0.7	1.57E-02	0.175	0.119	0.245	1.07
	SO2	0.6	0.02	1.57E-02	0.175	0.009	0.005	0.04
	NOX	100.	13.	1.57E-02	0.175	1.569	4.546	19.91
	CO	84.	7.5	1.57E-02	0.175	1.318	2.623	11.49
	VOC	5.5	0.8	1.57E-02	0.175	0.086	0.280	1.23
	Formaldehyde	0.08		1.57E-02		0.001		5.15E-03
	Total HAPs	1.89		1.57E-02		0.030		0.13

Pollutant	lb/MMBtu	lb/Mgal.	MMBtu/hr.	Mgal./hr.	lb/hr.	lb/hr.	ton/yr.
CO2	116.98	12,397.89	16.	0.175	1,871.64	2,167.94	9,495.57
CH4	2.20E-03	6.05E-01	16.	0.175	3.53E-02	0.106	0.463
N2O	2.20E-04	1.21E-01	16.	0.175	3.53E-03	0.021	0.093

Emission Unit	Pollutant	Nat. Gas Emission Factor (lb/MMscf)	Nat. Gas Consumption Rate (MMscf/hr.)	Uncontrolled Hourly Emissions (lb/hr.)	Uncontrolled Annual Emissions (tpy)
HVAC Unit	PM/PM10/PM2.5	7.6	2.34E-03	0.0178	0.08
	SO2	0.6	2.34E-03	0.0014	0.01
	NOX	100.	2.34E-03	0.2343	1.03
	CO	84.	2.34E-03	0.1968	0.86
	VOC	5.5	2.34E-03	0.0129	0.06
	Formaldehyde	0.08	2.34E-03	0.0002	7.70E-04
	Total HAPs	1.89	2.34E-03	0.0044	0.02

Pollutant	lb/MMBtu	MMBtu/hr.	lb/hr.	ton/yr.
CO2	116.98	2.39	279.58	1,224.54
CH4	2.20E-03	2.39	5.27E-03	2.31E-02
N2O	2.20E-04	2.39	5.27E-04	2.31E-03

5. Emissions from Continuous Smokehouses - Liquid Smoke Application EU04 and EU12 (Liquid Smoke Application)

5.1 Emission Unit Nomenclature, Process Rates, and SCC Units

Liquid smoke units are the first stage of each continuous house where liquid smoke is sprayed on the products. Emissions occur from application of the liquid smoke.

Process Description	KyEIS Source ID	KyEIS Process ID	Construc. Date	SCC Code	SCC Units
04 Continuous Smokehouse #1	25	1	1994	30299998	Tons
12 Continuous Smokehouse #2	26	1	1994	30299998	Tons

5.2 Documentation of Emission Factors

* Liquid smoke usage is assumed to be 1.25 gallons of concentrated liquid smoke per 1,000 pounds of meat processed. Annual rate based on hourly rate and 8,760 hours of operation per year.

EU ID ID Nr.	Hillshire Brands Emission Unit Description	Maximum Meat Production		Conc. Liquid Smoke Usage	
		(lb/hr.)	(tpy)	(gal./hr.)	(gal./yr.)
04	Continuous Smokehouse #1	7,200	31,536	9	78,840
12	Continuous Smokehouse #2	7,200	31,536	9	78,840

Pollutant	Em. Factor	Units	Basis
PM/PM10/PM2.5	5. E-03	lb/ton meat	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
VOC	0.079	lb/ton meat	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Acetaldehyde	1. E-03	lb/ton meat	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Acrolein	1. E-03	lb/ton meat	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Formaldehyde	3. E-03	lb/ton meat	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Phenol	N/A	lb/ton meat	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Total HAPs	5. E-03	lb/ton meat	Sum

5.3 Emission Calculations Based on Documented Emission Factors

Emission Unit	Pollutant	Emission Factor (lb/lb meat)	Max. Meat Production Rate (lb/hr.)	Uncontrolled Emissions	
				Hourly (lb/hr.)	Annual (tpy)

Liquid Smoke Units #1 and #2

PM/PM10/PM2.5	5. E-03	14,400	3.6 E-02	0.158
VOC	0.079	14,400	5.69 E-01	2.491
Acetaldehyde	1. E-03	14,400	7.2 E-03	0.032
Acrolein	1. E-03	14,400	7.2 E-03	0.032
Formaldehyde	3. E-03	14,400	2.16 E-02	0.095
Total HAPs	5. E-03	14,400	3.6 E-02	0.158

**PTE Calcs
for Title V Renewal Application**

6. Emissions from Continuous Smokehouses - Fuel Combustion

EU04 and 12 (Fuel Combustion)

6.1 Emission Unit Nomenclature, Process Rates, and SCC Units

Combustion emissions based on natural gas usage alone since continuous smokehouses are no longer connected to infrastructure for wood burning.

Process Description	KyEIS Source ID	KyEIS Process ID	Construc. Date	SCC Code	SCC Units
Continuous Smokehouse #1	04	1	1984	30290003	Million Cubic Feet
Continuous Smokehouse #2	12	1	1984	30290003	Million Cubic Feet

6.2 Documentation of Emission Factors

* Maximum hourly natural gas usage based on rated heat input capacity and a heat content of 1,020 MMBtu/MMscf. Annual rate based on hourly rate assuming 8,760 hours of operation per year.

Natural Gas Heat Content	1,020	Btu/scf	AP-42 Table 1.4-1 footnote
Annual Hours of Operation	8,760	hr/yr.	Max. operating conditions for PTE

EU ID Nr.	Hillshire Brands Emission Unit Description	Rated Heat Input Capacity (MMBtu/hr.)	Maximum Natural Gas Usage	
			(MMscf/hr.)	(MMscf/yr.)
04	Continuous Smokehouse #1	1.65	1.62E-03	14.17
12	Continuous Smokehouse #2	1.65	1.62E-03	14.17

Pollutant	Em. Factor	Units	Basis
PM/PM10/PM2.5	7.6	lb/MMscf	AP-42 Table 1.4-2
SO2	0.6	lb/MMscf	AP-42 Table 1.4-2
NOX	100.	lb/MMscf	AP-42 Table 1.4-1, Small Boiler (<100 MMBtu/hr.), Uncontrolled
CO	84.	lb/MMscf	AP-42 Table 1.4-1, Small Boiler (<100 MMBtu/hr.), Uncontrolled
VOC	5.5	lb/MMscf	AP-42 Table 1.4-2
Formaldehyde	0.075	lb/MMscf	AP-42 Table 1.4-3
Total HAPs	1.888	lb/MMscf	AP-42 Table 1.4-3

CO2	53.06	kg/MMBtu	40 CFR Part 98 Subpart C Table C-1 for Natural gas (weighted U.S. average)
CO2	116.98	lb/MMBtu	
CH4	1. E-03	kg/MMBtu	40 CFR Part 98 Subpart C Table C-2 for Natural gas
CH4	2.2 E-03	lb/MMBtu	
N2O	1. E-04	kg/MMBtu	40 CFR Part 98 Subpart C Table C-2 for Natural gas
N2O	2.2 E-04	lb/MMBtu	

**PTE Calcs
for Title V Renewal Application**

6. Emissions from Continuous Smokehouses - Fuel Combustion

EU04 and 12 (Fuel Combustion)

6.3 Emission Calculations Based on Documented Emission Factors

Emission Unit	Pollutant	Emission Factor (lb/MMscf)	Fuel Consumption Rate (MMscf/hr.)	Uncontrolled Emissions	
				Hourly (lb/hr.)	Annual (tpy)

Continuous Smokehouse #1

PM/PM10/PM2.5	7.6	1.62E-03	1.23 E-02	0.054
SO2	0.6	1.62E-03	9.71 E-04	4.25 E-03
NOX	100.	1.62E-03	1.62 E-01	0.709
CO	84.	1.62E-03	1.36 E-01	0.595
VOC	5.5	1.62E-03	8.9 E-03	0.039
Formaldehyde	0.075	1.62E-03	1.21 E-04	5.31 E-04
Total HAPs	1.888	1.62E-03	3.05 E-03	0.013

Pollutant	lb/MMBtu	MMBtu/hr.	(lb/hr.)	(tpy)
CO2	116.98	1.65	193.01	845.39
CH4	2.2 E-03	1.65	3.64 E-03	1.59 E-02
N2O	2.2 E-04	1.65	3.64 E-04	1.59 E-03

Emission Unit	Pollutant	Emission Factor (lb/MMscf)	Fuel Consumption Rate (MMscf/hr.)	Uncontrolled Emissions	
				Hourly (lb/hr.)	Annual (tpy)

Continuous Smokehouse #2

PM/PM10/PM2.5	7.6	1.62 E-03	1.23 E-02	0.054
SO2	0.6	1.62 E-03	9.71 E-04	4.25 E-03
NOX	100.	1.62 E-03	1.62 E-01	0.709
CO	84.	1.62 E-03	1.36 E-01	0.595
VOC	5.5	1.62 E-03	8.9 E-03	0.039
Formaldehyde	0.075	1.62 E-03	1.21 E-04	5.31 E-04
Total HAPs	1.888	1.62 E-03	3.05 E-03	0.013

Pollutant	lb/MMBtu	MMBtu/hr.	(lb/hr.)	(tpy)
CO2	116.98	1.65	193.01	845.39
CH4	2.2 E-03	1.65	3.64 E-03	1.59 E-02
N2O	2.2 E-04	1.65	3.64 E-04	1.59 E-03

**PTE Calcs
for Title V Renewal Application**

7. Emissions from Continuous Smokehouses - Cooking

EU04 and 12 (Cooking)

7.1 Emission Unit Nomenclature, Process Rates, and SCC Units

Red hot dogs are made with Hickory 6 flavoring with up to 10% VOC.
All other hot dogs are drenched with Red Arrow liquid smoke, RA00017, with up to 13.5% VOC and 0.5% formaldehyde.
Emissions occur from the cooking process, where VOC from the flavoring and liquid smoke is emitted when heated.

Process Description	KyEIS Source ID	KyEIS Process ID	Construc. Date	SCC Code	SCC Units
Continuous Smokehouse #1	04	1	1984	30299998	Tons
Continuous Smokehouse #2	12	1	1984	30299998	Tons

7.2 Documentation of Emission Factors

EU ID ID Nr.	Hillshire Brands Emission Unit Description	Maximum Meat Production	
		(lb/hr.)	(tpy)
04	Continuous Smokehouse #1	7,200	31,536
12	Continuous Smokehouse #2	7,200	31,536

Annual Hours of Operation	8,760	hr/yr.	Max. operating conditions for PTE
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Pollutant	VOC	Units	Basis
VOC	10%	wt. %	Based on Hickory-6 SDS; VOC present as acetic acid.
VOC	13.5%	wt. %	Based on Red Arrow SDS; VOC present as acetic acid.
Formaldehyde	0.5%	wt. %	Based on Red Arrow SDS

7.3 Emission Calculations Based on Factors Documented

Parameter	Pollutant	VOC Content wt. %	Flavor Added †1 wt. %	Max. Meat Production Rate (lb/hr.)	Uncontrolled Emissions	
					Hourly (lb/hr.)	Annual (tpy)

Flavoring for Red Hot Dogs in EU04

VOC	10%	0.213%	7,200	1.53	6.72
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Flavoring for all other hot dogs in EU04 and EU12

VOC	13.5%	0.213%	7,200	2.07	9.07
Formaldehyde	0.5%	0.213%	7,200	0.08	0.34

†1 **Note:** According to the SDS, Hickory-6 has 10% VOC content and according to previous application, red hot dogs contain 0.213% flavoring

†2 **Note:** 2 According to the SDS, RA00017 has 13.5% VOC (0.5% formaldehyde) content and according to previous application, it is assumed that the meat contains 0.213% flavoring

8. Emissions from Continuous Smokehouse #1 (combined)

EU04 (Liquid Smoke Application, Fuel Combustion, Cooking)

8.1 Emission Unit Nomenclature, Process Rates, and SCC Units

EU04 processes red hot dogs, unlike EU12, so two approaches were used and then the maximum was chosen

1. EU04 processes no red hot dogs and therefore only uses Red Arrow liquid smoke.
2. EU04 processes only red hot dogs and therefore only uses Hickory 6 liquid smoke.

This summarizes the combustion emissions, the liquid smoke emissions and the emissions for cooking after flavoring application.

Process Description	KyEIS Source ID	KyEIS Process ID	Construc. Date	SCC Code	SCC Units
Continuous Smokehouse #1	04	N/A	1984	(see previous sections for SCC units)	

8.2 Documentation of Emission Factors - See Previous Pages

* Maximum hourly natural gas usage based on rated heat input capacity and a heat content of 1,020 MMBtu/MMscf. Annual rate based on hourly rate assuming 8,760 hours of operation per year.

Parameter	Value	Units	Basis
Natural Gas Heat Content	1,020	Btu/scf	AP-42 Table 1.4-1 footnote
Annual Hours of Operation	8,760	hr/yr.	Max. operating conditions for PTE

EU ID ID Nr.	Hillshire Brands Emission Unit Description	Rated Heat Input Capacity (MMBtu/hr.)	Maximum Natural Gas Usage		Maximum Meat Production		Conc. Liquid Smoke Usage	
			(MMscf/hr.)	(MMscf/yr.)	(lb/hr.)	(tpy)	(gal./hr.)	(gal./yr.)
04	Continuous Smokehouse #1	1.65	1.62E-03	1.65	7,200	31,536	9	78,840

Pollutant	Em. Factor	Units	Basis
PM/PM10/PM2.5	7.6	lb/MMscf	AP-42 Table 1.4-2
SO2	0.6	lb/MMscf	AP-42 Table 1.4-2
NOX	100.	lb/MMscf	AP-42 Table 1.4-1, Small Boiler (<100 MMBtu/hr.), Uncontrolled
CO	84.	lb/MMscf	AP-42 Table 1.4-1, Small Boiler (<100 MMBtu/hr.), Uncontrolled
VOC	5.5	lb/MMscf	AP-42 Table 1.4-2
Formaldehyde	0.08	lb/MMscf	AP-42 Table 1.4-3
Total HAPs	1.89	lb/MMscf	AP-42 Table 1.4-3

CO2	53.06	kg/MMBtu	40 CFR Part 98 Subpart C Table C-1 for Natural gas (weighted U.S. average)
CO2	116.977	lb/MMBtu	
CH4	1.00E-03	kg/MMBtu	40 CFR Part 98 Subpart C Table C-2 for Natural gas
CH4	2.20E-03	lb/MMBtu	
N2O	1.00E-04	kg/MMBtu	40 CFR Part 98 Subpart C Table C-2 for Natural gas
N2O	2.20E-04	lb/MMBtu	

8. Emissions from Continuous Smokehouse #1 (combined)

EU04 (Liquid Smoke Application, Fuel Combustion, Cooking)

Pollutant	Em. Factor	Units	Basis
PM/PM10/PM2.5	5.00E-03	lb/ton meat	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
VOC	0.079	lb/ton meat	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Acetaldehyde	1.00E-03	lb/ton meat	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Acrolein	1.00E-03	lb/ton meat	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Formaldehyde	3.00E-03	lb/ton meat	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Phenol	N/A	lb/ton meat	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Total HAPs	5.00E-03	lb/ton meat	

8.3 Emission Calculations Based on Factors Documented

Emission Unit	Pollutant	Nat. Gas Emission Factor (lb/MMscf)	Liquid Smoke Emission Factor (lb/ton meat)	VOC in Hickory 6 Flavoring †1 (wt. %)	VOC in Red Arrow Flavoring †2 (wt. %)	Nat. Gas Consumption Rate (MMscf/hr.)	Meat Consumption Rate (lb meat/hr.)	Uncontrolled Emissions			
								Hourly			Annual (tpy)
								Nat. Gas (lb/hr.)	Liq. Smoke (lb/hr.)	Flavoring (lb/hr.)	

Continuous Smokehouse #1

PM/PM10/PM2.5	7.6	5. E-03				1.62 E-03	7,200	0.0123	0.018		0.133
SO2	0.6					1.62 E-03		9.71 E-04			4.25 E-03
NOX	100.					1.62 E-03		0.162			0.709
CO	84.					1.62 E-03		0.136			0.595
VOC	5.5	0.079	0.0213%	0.0288%		1.62 E-03	7,200	8.9 E-03	0.28	2.07	10.353
Acetaldehyde			1. E-03			1.62 E-03	7,200		0.0036		0.016
Acrolein			1. E-03			1.62 E-03	7,200		0.0036		0.016
Formaldehyde	0.075		3. E-03		0.0011%	1.62 E-03	7,200	1.21 E-04	0.0108	0.0767	0.384
Total HAPs	1.888		5. E-03			1.62 E-03	7,200	0.00305	0.018		0.092

Continuous Smokehouse #1

Pollutant	lb/MMBtu	MMBtu/hr.	(lb/hr.)	(tpy)
CO2	116.98	1.65	193.01	845.39
CH4	2.20E-03	1.65	3.64 E-03	1.59 E-02
N2O	2.20E-04	1.65	3.64 E-04	1.59 E-03

†1 Note: According to the SDS, Hickory-6 has 10% VOC content and according to previous application, red hot dogs contain 0.213% flavoring

†2 Note: According to the SDS, RA00017 has 13.5% VOC (0.5% formaldehyde) content and according to previous application, it is assumed that the meat contains 0.213% flavoring

9. Emissions from Continuous Smokehouse #2 (combined)

EU12 (Liquid Smoke Application, Fuel Combustion, Cooking)

9.1 Emission Unit Nomenclature, Process Rates, and SCC Units

EU12 processes all other types of hot dogs besides red hot dogs so only the Red Arrow smoke is applied. This summarizes the combustion emissions, the liquid smoke emissions and the cooking emissions after applying liquid smoke

Process Description	KyEIS Source ID	KyEIS Process ID	Construc. Date	SCC Code	SCC Units
Continuous Smokehouse #2	12		1984	30290003	Million Cubic Feet

9.2 Documentation of Emission Factors - See Previous Pages

* Maximum hourly natural gas usage based on rated heat input capacity and a heat content of 1,020 MMBtu/MMscf. Annual rate based on hourly rate assuming 8,760 hours of operation per year.

Parameter	Value	Units	Basis
Natural Gas Heat Content	1,020	Btu/scf	AP-42 Table 1.4-1 footnote
Maximum Hours of Operation	8,760	hr/yr.	Max. operating conditions for PTE

EU ID Nr.	Hillshire Brands Emission Unit Description	Rated Heat Input Capacity (MMBtu/hr.)	Maximum Natural Gas Usage		Maximum Meat Production		Conc. Liquid Smoke Usage	
			(MMscf/hr.)	(MMscf/yr.)	(lb/hr.)	(tpy)	(gal/hr.)	(gal/yr.)
12	Continuous Smokehouse #2	1.65	1.62E-03	1.65	7,200	31,536	9	78,840

Fuel	Pollutant	Em. Factor	Units	Basis
Nat. gas	PM/PM10/PM2.5	7.6	lb/MMscf	AP-42 Table 1.4-2
Nat. gas	SO2	0.6	lb/MMscf	AP-42 Table 1.4-2
Nat. gas	NOX	100.	lb/MMscf	AP-42 Table 1.4-1, Small Boiler (<100 MMBtu/hr.), Uncontrolled
Nat. gas	CO	84.	lb/MMscf	AP-42 Table 1.4-1, Small Boiler (<100 MMBtu/hr.), Uncontrolled
Nat. gas	VOC	5.5	lb/MMscf	AP-42 Table 1.4-2
Nat. gas	Formaldehyde	0.08	lb/MMscf	AP-42 Table 1.4-3
Nat. gas	Total HAPs	1.89	lb/MMscf	AP-42 Table 1.4-3

Nat. gas	CO2	53.06	kg/MMBtu	40 CFR Part 98 Subpart C Table C-1 for Natural gas (weighted U.S. average)
Nat. gas	CO2	116.977	lb/MMBtu	
Nat. gas	CH4	1. E-03	kg/MMBtu	40 CFR Part 98 Subpart C Table C-2 for Natural gas
Nat. gas	CH4	2.2 E-03	lb/MMBtu	
Nat. gas	N2O	1. E-04	kg/MMBtu	40 CFR Part 98 Subpart C Table C-2 for Natural gas
Nat. gas	N2O	2.2 E-04	lb/MMBtu	

PTE Calcs
for Title V Renewal Application

9. Emissions from Continuous Smokehouse #2 (combined)

EU12 (Liquid Smoke Application, Fuel Combustion, Cooking)

Pollutant	Em. Factor	Units	Basis
PM/PM10/PM2.5	5.00E-03	lb/ton meat	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
VOC	0.079	lb/ton meat	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Acetaldehyde	1.00E-03	lb/ton meat	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Acrolein	1.00E-03	lb/ton meat	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Formaldehyde	3.00E-03	lb/ton meat	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Phenol	N/A	lb/ton meat	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Total HAPs	5.00E-03	lb/ton meat	

9.3 Emission Calculations Based on Factors Documented

Emission Unit	Pollutant	Nat. Gas Emission Factor (lb/MMscf)	Liquid Smoke Emission Factor (lb/ton meat)	VOC in RA00017 Flavoring †1 (wt. %)	Nat. Gas Consumption Rate (MMscf/hr.)	Meat Consumption Rate (lb meat/hr.)	Uncontrolled Emissions			
							Hourly			Annual (tpy)
							Nat. Gas (lb/hr.)	Liq. Smoke (lb/hr.)	Flavoring (lb/hr.)	

Continuous Smokehouse #2

PM/PM10/PM2.5	7.60	5. E-03		1.62E-03	7,200	0.0123	0.018		0.133
SO2	0.6000			1.62E-03	7,200	9.71 E-04			4.25 E-03
NOX	100.000			1.62E-03	7,200	0.162			0.709
CO	84.000			1.62E-03	7,200	0.136			0.595
VOC	5.500	7.9 E-02	0.0288%	1.62E-03	7,200	8.9 E-03	0.284	2.07	10.353
Acetaldehyde		1. E-03		1.62E-03	7,200		0.0036		0.016
Acrolein		1. E-03		1.62E-03	7,200		0.0036		0.016
Formaldehyde	0.075	3. E-03	0.001%	1.62E-03	7,200	1.21 E-04	0.0108	0.0767	0.384
Total HAPs	1.89	5. E-03		1.62E-03	7,200	3.05 E-03	0.018		0.092

Pollutant	lb/MMBtu	MMBtu/hr.	(lb/hr.)	(tpy)
CO2	116.98	1.65	193.01	845.39
CH4	2.20E-03	1.65	3.64 E-03	1.59 E-02
N2O	2.20E-04	1.65	3.64 E-04	1.59 E-03

†1 Note: According to the SDS, RA00017 has 13.5% VOC (0.5% formaldehyde) content and according to previous application, it is assumed that the meat contains 0.213% flavoring

PTE Calcs
for Title V Renewal Application

10. Emissions from Batch Smokehouses

EU05-11, EU13-16, EU18

10.1 Emission Unit Nomenclature, Process Rates, and SCC Units

> There are 12 batch houses that use natural gas with some natural wood smoke as well. 6 of the batch houses cook hot dogs and 6 cook deli meat.

Process Description	KyEIS Source ID	KyEIS Process ID	Construc. Date	SCC Code	SCC Units
Batch Smokehouse #1	05	1	1984-85	30290003	Million Cubic Feet
Batch Smokehouse #2	06	1	1984-85	30290003	Million Cubic Feet
Batch Smokehouse #3	07	1	1984-85	30290003	Million Cubic Feet
Batch Smokehouse #4	08	1	1984-85	30290003	Million Cubic Feet
Batch Smokehouse #5	09	1	1984-85	30290003	Million Cubic Feet
Batch Smokehouse #6	10	1	1986-87	30290003	Million Cubic Feet
Batch Smokehouse #7	11	1	1986-87	30290003	Million Cubic Feet
Batch Smokehouse #8	13	1	1986-87	30290003	Million Cubic Feet
Batch Smokehouse #9	14	1	1986-87	30290003	Million Cubic Feet
Batch Smokehouse #10	15	1	1986-87	30290003	Million Cubic Feet
Batch Smokehouse #11	16	1	1986-87	30290003	Million Cubic Feet
Batch Smokehouse #12	18	1	1984-85	30290003	Million Cubic Feet

Parameter	Value	Units	Reference
Natural Gas Heat Content	1,020	Btu/scf	AP-42 Table 1.4-1 footnote
Wood and Wood Residuals Heating Value	15.38	MMBtu/ton	40 CFR Part 98 Subpart C Table C-1 for Wood and Wood Residuals
Maximum Hours of Operation	8,760	hr/yr.	Max. operating conditions for PTE
No. of Smoke Generators	1	each	Site information
Maximum Wood Usage Rate	30	lb/hr.-gen.	Equipment design specification

Parameter	Value	Units
Batch Cycle Times (Hot Dogs), Total	3	hr./batch
Smoking	2	hr./batch
Cook	0.5	hr./batch
Shower/Downtime	0.5	hr./batch
Batches per Year (Hot Dogs)	2,920	batches/yr.

Parameter	Value	Units
Batch Cycle Times (Deli Meat), Total	7.25	hr./batch
Smoking	0.75	hr./batch
Cook	5.75	hr./batch
Shower/Downtime	0.75	hr./batch
Batches per Year (Lunch Meat)	1,208	batches/yr.

PTE Calcs
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10. Emissions from Batch Smokehouses

EU05-11, EU13-16, EU18

KyEIS ID Nr.	Hillshire Brands Emission Unit Description	Product	Maximum Wood-burning Rate per Smokehouse †1		Permit Limit Wood-burning Rate per Smokehouse †2		Rated Heat Input Capacity per Unit MMBtu/hr.	Maximum Natural Gas Usage per Unit	
			lb/hr.	tpy	lb/hr.	tpy		MMscf/hr.	MMscf/yr.
05	Batch Smokehouse #1	Hot Dogs	30.	87.6	30.	87.58	2.75	2.7 E-03	19.68
06	Batch Smokehouse #2	Hot Dogs	30.	87.6	30.	87.58	2.75	2.7 E-03	19.68
07	Batch Smokehouse #3	Hot Dogs	30.	87.6	30.	87.58	2.75	2.7 E-03	19.68
08	Batch Smokehouse #4	Hot Dogs	30.	87.6	30.	87.58	2.75	2.7 E-03	19.68
09	Batch Smokehouse #5	Hot Dogs	30.	87.6	30.	87.58	2.75	2.7 E-03	19.68
10	Batch Smokehouse #6	Deli	30.	13.59	30.	13.59	3.85	3.77 E-03	29.64
11	Batch Smokehouse #7	Deli	30.	13.59	30.	13.59	3.85	3.77 E-03	29.64
13	Batch Smokehouse #8	Deli	30.	13.59	30.	13.59	3.85	3.77 E-03	29.64
14	Batch Smokehouse #9	Deli	30.	13.59	30.	13.59	3.85	3.77 E-03	29.64
15	Batch Smokehouse #10	Deli	30.	13.59	30.	13.59	3.85	3.77 E-03	29.64
16	Batch Smokehouse #11	Deli	30.	13.59	30.	13.59	3.85	3.77 E-03	29.64
18	Batch Smokehouse #12	Hot Dogs	30.	87.6	30.	87.58	2.75	2.7 E-03	19.68

607.

†1 Note: Maximum hourly natural gas usage based on rated heat input capacity and a heat content of 1,020 MMBtu/MMscf. Annual rate based on hourly rate assuming 8,760 hours of operation per year.

†2 Note: The total amount of wood burned per year shall not exceed the self-imposed and permit limit of 607 ton/yr. (Permit F-18-008 R1, page 8)

10.2 Documentation of Emission Factors

Fuel	Pollutant	Em. Factor	Units	Basis
Wood	PM/PM10/PM2.5	22.5	lb/ton wood	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Wood	SO2	0.4	lb/ton wood	AP-42 Chapter 1.9 for Residential Fireplaces (10/96), Table 1.9-1
Wood	NOX	2.6	lb/ton wood	AP-42 Chapter 1.9 for Residential Fireplaces (10/96), Table 1.9-1
Wood	CO	58.	lb/ton wood	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Wood	VOC	32.5	lb/ton wood	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Wood	Acetaldehyde	3.8	lb/ton wood	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Wood	Acrolein	1.1	lb/ton wood	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Wood	Formaldehyde	2.45	lb/ton wood	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Wood	Phenol	N/A	lb/ton wood	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Wood	Total HAPs	7.35	(lb/ton wood)	Sum of factors for Acetaldehyde, Acrolein, Formaldehyde and Phenol from above.
Wood	CO2	93.8	kg/MMBtu	40 CFR Part 98 Subpart C Table C-1 for Wood and Wood Residuals
Wood	CO2	3,180.49	(lb/ton wood)	
Wood	CH4	3.02E-02	kg/MMBtu	40 CFR Part 98 Subpart C Table C-1 for Wood and Wood Residuals
Wood	CH4	1.02	(lb/ton wood)	
Wood	N2O	4.20E-03	kg/MMBtu	40 CFR Part 98 Subpart C Table C-1 for Wood and Wood Residuals
Wood	N2O	0.14	(lb/ton wood)	

PTE Calcs
for Title V Renewal Application

10. Emissions from Batch Smokehouses

EU05-11, EU13-16, EU18

Fuel	Pollutant	Em. Factor	Units	Basis
Nat. gas	PM/PM10/PM2.5	7.6	lb/MMscf	Table 1.4-2
Nat. gas	SO2	0.6	lb/MMscf	Table 1.4-2
Nat. gas	NOX	100.	lb/MMscf	Table 1.4-1, Small Boiler (<100 MMBtu), Uncontrolled
Nat. gas	CO	84.	lb/MMscf	AP-42 Table 1.4-1, Small Boiler (<100 MMBtu/hr.), Uncontrolled
Nat. gas	VOC	5.5	lb/MMscf	Table 1.4-2
Nat. gas	Formaldehyde	0.08	lb/MMscf	Table 1.4-3
Nat. gas	Total HAPs	1.89	lb/MMscf	Table 1.4-3
Nat. gas	CO2	53.06	kg/MMBtu	40 CFR Part 98 Subpart C Table C-1 for Natural gas (weighted U.S. average)
Nat. gas	CO2	116.98	(lb/MMBtu)	
Nat. gas	CH4	1.00E-03	kg/MMBtu	40 CFR Part 98 Subpart C Table C-2 for Natural gas
Nat. gas	CH4	2.20E-03	(lb/MMBtu)	
Nat. gas	N2O	1.00E-04	kg/MMBtu	40 CFR Part 98 Subpart C Table C-2 for Natural gas
Nat. gas	N2O	2.20E-04	(lb/MMBtu)	

10.3 Emission Calculations Based on Factors Documented

Emission Unit	Pollutant	Wood Emission Factor (lb/ton wood)	Wood Consumption Rate (lb/hr.)	Nat. Gas Emission Factor (lb/MMscf)	Nat. Gas Consumption Rate (MMscf/hr.)	Uncontrolled Hourly Emissions (lb/hr.)	Wood Consumption Rate (ton/yr.)	Nat. Gas Consumption Rate (MMscf/yr.)	Uncontrolled Annual Emissions (tpy)
Batch Smokehouse #1									
	PM/PM10/PM2.5	22.5	30.	7.6	2.7 E-03	0.358	87.58	19.68	1.06
	SO2	0.4	30.	0.6	2.7 E-03	0.0076	87.58	19.68	0.0234
	NOX	2.6	30.	100.	2.7 E-03	0.309	87.58	19.68	1.098
	CO	58.	30.	84.	2.7 E-03	1.096	87.58	19.68	3.37
	VOC	32.5	30.	5.5	2.7 E-03	0.502	87.58	19.68	1.48
	Acetaldehyde	3.8	30.		2.7 E-03	0.057	87.58	19.68	0.166
	Acrolein	1.1	30.		2.7 E-03	0.017	87.58	19.68	0.048
	Formaldehyde	2.45	30.	0.08	2.7 E-03	0.037	87.58	19.68	0.108
	Total HAPs	7.35	30.	1.89	2.7 E-03	0.115	87.58	19.68	0.34
	GHG Pollutant	(lb/ton wood)	(lb/hr.)	(lb/MMBtu)	(MMBtu/hr.)	(lb/hr.)	(ton/yr.)	(MMBtu/yr.)	(ton/yr.)
	CO2	3,180.49	30.	116.98	2.7 E-03	48.02	87.58	20,075	1,313.4
	CH4	1.02	30.	2.20E-03	2.7 E-03	0.015	87.58	20,075	0.067
	N2O	0.14	30.	2.20E-04	2.7 E-03	2.14E-03	87.58	20,075	8.45 E-03

PTE Calcs
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10. Emissions from Batch Smokehouses

EU05-11, EU13-16, EU18

Emission Unit	Pollutant	Wood Emission Factor (lb/ton wood)	Wood Consumption Rate (lb/hr.)	Nat. Gas Emission Factor (lb/MMscf)	Nat. Gas Consumption Rate (MMscf/hr.)	Uncontrolled Hourly Emissions (lb/hr.)	Wood Consumption Rate (ton/yr.)	Nat. Gas Consumption Rate (MMscf/yr.)	Uncontrolled Annual Emissions (tpy)
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Batch Smokehouse #2

PM/PM10/PM2.5		22.5	30.	7.6	2.7 E-03	0.358	87.58	19.68	1.06
SO2		0.4	30.	0.6	2.7 E-03	7.62 E-03	87.58	19.68	0.0234
NOX		2.6	30.	100.	2.7 E-03	0.309	87.58	19.68	1.098
CO		58.	30.	84.	2.7 E-03	1.096	87.58	19.68	3.366
VOC		32.5	30.	5.5	2.7 E-03	0.502	87.58	19.68	1.48
Acetaldehyde		3.8	30.		2.7 E-03	0.057	87.58	19.68	0.166
Acrolein		1.1	30.		2.7 E-03	0.0165	87.58	19.68	0.0482
Formaldehyde		2.45	30.	0.08	2.7 E-03	0.037	87.58	19.68	0.108
Total HAPs		7.35	30.	1.89	2.7 E-03	0.115	87.58	19.68	0.34
GHG Pollutant		(lb/ton wood)	(lb/hr.)	(lb/MMBtu)	(MMBtu/hr.)	(lb/hr.)	(ton/yr.)	(MMBtu/yr.)	(ton/yr.)
CO2		3,180.49	30.	116.98	2.7 E-03	48.02	87.58	20,075	1,313.4
CH4		1.02	30.	2.20E-03	2.7 E-03	0.015	87.58	20,075	0.067
N2O		0.14	30.	2.20E-04	2.7 E-03	2.14 E-03	87.58	20,075	8.45 E-03

Emission Unit	Pollutant	Wood Emission Factor (lb/ton wood)	Wood Consumption Rate (lb/hr.)	Nat. Gas Emission Factor (lb/MMscf)	Nat. Gas Consumption Rate (MMscf/hr.)	Uncontrolled Hourly Emissions (lb/hr.)	Wood Consumption Rate (ton/yr.)	Nat. Gas Consumption Rate (MMscf/yr.)	Uncontrolled Annual Emissions (tpy)
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Batch Smokehouse #3

PM/PM10/PM2.5		22.5	30.	7.6	2.7 E-03	0.358	87.58	19.68	1.06
SO2		0.4	30.	0.6	2.7 E-03	7.62 E-03	87.58	19.68	0.0234
NOX		2.6	30.	100.	2.7 E-03	0.309	87.58	19.68	1.098
CO		58.	30.	84.	2.7 E-03	1.096	87.58	19.68	3.37
VOC		32.5	30.	5.5	2.7 E-03	0.502	87.58	19.68	1.48
Acetaldehyde		3.8	30.		2.7 E-03	0.057	87.58	19.68	0.166
Acrolein		1.1	30.		2.7 E-03	0.0165	87.58	19.68	0.0482
Formaldehyde		2.45	30.	0.08	2.7 E-03	0.037	87.58	19.68	0.108
Total HAPs		7.35	30.	1.89	2.7 E-03	0.115	87.58	19.68	0.34
GHG Pollutant		(lb/ton wood)	(lb/hr.)	(lb/MMBtu)	(MMBtu/hr.)	(lb/hr.)	(ton/yr.)	(MMBtu/yr.)	(ton/yr.)
CO2		3,180.49	30.	116.98	2.7 E-03	48.02	87.58	20,075	1,313.4
CH4		1.02	30.	2.20E-03	2.7 E-03	0.015	87.58	20,075	0.067
N2O		0.14	30.	2.20E-04	2.7 E-03	2.14 E-03	87.58	20,075	8.45 E-03

PTE Calcs
for Title V Renewal Application

10. Emissions from Batch Smokehouses

EU05-11, EU13-16, EU18

Emission Unit	Pollutant	Wood Emission Factor (lb/ton wood)	Wood Consumption Rate (lb/hr.)	Nat. Gas Emission Factor (lb/MMscf)	Nat. Gas Consumption Rate (MMscf/hr.)	Uncontrolled Hourly Emissions (lb/hr.)	Wood Consumption Rate (ton/yr.)	Nat. Gas Consumption Rate (MMscf/yr.)	Uncontrolled Annual Emissions (tpy)
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Batch Smokehouse #4

PM/PM10/PM2.5		22.5	30.	7.6	2.7 E-03	0.358	87.58	19.68	1.06
SO2		0.4	30.	0.6	2.7 E-03	7.62 E-03	87.58	19.68	0.0234
NOX		2.6	30.	100.	2.7 E-03	0.309	87.58	19.68	1.098
CO		58.	30.	84.	2.7 E-03	1.096	87.58	19.68	3.37
VOC		32.5	30.	5.5	2.7 E-03	0.502	87.58	19.68	1.48
Acetaldehyde		3.8	30.		2.7 E-03	0.057	87.58	19.68	0.166
Acrolein		1.1	30.		2.7 E-03	0.0165	87.58	19.68	0.0482
Formaldehyde		2.45	30.	0.08	2.7 E-03	0.037	87.58	19.68	0.108
Total HAPs		7.35	30.	1.89	2.7 E-03	0.115	87.58	19.68	0.34
GHG Pollutant		(lb/ton wood)	(lb/hr.)	(lb/MMBtu)	(MMBtu/hr.)	(lb/hr.)	(ton/yr.)	(MMBtu/yr.)	(ton/yr.)
CO2		3,180.49	30.	116.98	2.7 E-03	48.02	87.58	20,075	1,313.4
CH4		1.02	30.	2.2 E-03	2.7 E-03	0.015	87.58	20,075	0.067
N2O		0.14	30.	2.2 E-04	2.7 E-03	2.14 E-03	87.58	20,075	8.45 E-03

Emission Unit	Pollutant	Wood Emission Factor (lb/ton wood)	Wood Consumption Rate (lb/hr.)	Nat. Gas Emission Factor (lb/MMscf)	Nat. Gas Consumption Rate (MMscf/hr.)	Uncontrolled Hourly Emissions (lb/hr.)	Wood Consumption Rate (ton/yr.)	Nat. Gas Consumption Rate (MMscf/yr.)	Uncontrolled Annual Emissions (tpy)
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Batch Smokehouse #5

PM/PM10/PM2.5		22.5	30.	7.6	2.7 E-03	0.358	87.58	19.68	1.06
SO2		0.4	30.	0.6	2.7 E-03	7.62 E-03	87.58	19.68	0.0234
NOX		2.6	30.	100.	2.7 E-03	0.309	87.58	19.68	1.098
CO		58.	30.	84.	2.7 E-03	1.096	87.58	19.68	3.37
VOC		32.5	30.	5.5	2.7 E-03	0.502	87.58	19.68	1.48
Acetaldehyde		3.8	30.		2.7 E-03	0.057	87.58	19.68	0.166
Acrolein		1.1	30.		2.7 E-03	0.0165	87.58	19.68	0.0482
Formaldehyde		2.45	30.	0.08	2.7 E-03	0.037	87.58	19.68	0.108
Total HAPs		7.35	30.	1.89	2.7 E-03	0.115	87.58	19.68	0.3404
GHG Pollutant		(lb/ton wood)	(lb/hr.)	(lb/MMBtu)	(MMBtu/hr.)	(lb/hr.)	(ton/yr.)	(MMBtu/yr.)	(ton/yr.)
CO2		3,180.49	30.	116.98	2.7 E-03	48.02	87.58	20,075	1,313.4
CH4		1.02	30.	2.2 E-03	2.7 E-03	0.015	87.58	20,075	0.067
N2O		0.14	30.	2.2 E-04	2.7 E-03	2.14 E-03	87.58	20,075	8.45 E-03

PTE Calcs
for Title V Renewal Application

10. Emissions from Batch Smokehouses

EU05-11, EU13-16, EU18

Emission Unit	Pollutant	Wood Emission Factor (lb/ton wood)	Wood Consumption Rate (lb/hr.)	Nat. Gas Emission Factor (lb/MMscf)	Nat. Gas Consumption Rate (MMscf/hr.)	Uncontrolled Hourly Emissions (lb/hr.)	Wood Consumption Rate (ton/yr.)	Nat. Gas Consumption Rate (MMscf/yr.)	Uncontrolled Annual Emissions (tpy)
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Batch Smokehouse #6

PM/PM10/PM2.5		22.5	30.	7.6	3.77 E-03	0.366	13.59	29.64	0.266
SO2		0.4	30.	0.6	3.77 E-03	8.26 E-03	13.59	29.64	0.0116
NOX		2.6	30.	100.	3.77 E-03	0.416	13.59	29.64	1.5
CO		58.	30.	84.	3.77 E-03	1.187	13.59	29.64	1.64
VOC		32.5	30.	5.5	3.77 E-03	0.508	13.59	29.64	0.302
Acetaldehyde		3.8	30.		3.77 E-03	0.057	13.59	29.64	0.0258
Acrolein		1.1	30.		3.77 E-03	0.0165	13.59	29.64	0.00747
Formaldehyde		2.45	30.	0.08	3.77 E-03	0.037	13.59	29.64	0.0178
Total HAPs		7.35	30.	1.89	3.77 E-03	0.117	13.59	29.64	0.0779
GHG Pollutant		(lb/ton wood)	(lb/hr.)	(lb/MMBtu)	(MMBtu/hr.)	(lb/hr.)	(ton/yr.)	(MMBtu/yr.)	(ton/yr.)
CO2		3,180.49	30.	116.98	3.77 E-03	48.15	13.59	30,237	1,790.1
CH4		1.02	30.	2.20E-03	3.77 E-03	0.015	13.59	30,237	0.04
N2O		0.14	30.	2.20E-04	3.77 E-03	2.14 E-03	13.59	30,237	4.3 E-03

Emission Unit	Pollutant	Wood Emission Factor (lb/ton wood)	Wood Consumption Rate (lb/hr.)	Nat. Gas Emission Factor (lb/MMscf)	Nat. Gas Consumption Rate (MMscf/hr.)	Uncontrolled Hourly Emissions (lb/hr.)	Wood Consumption Rate (ton/yr.)	Nat. Gas Consumption Rate (MMscf/yr.)	Uncontrolled Annual Emissions (tpy)
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Batch Smokehouse #7

PM/PM10/PM2.5		22.5	30.	7.6	3.77 E-03	0.366	13.59	29.64	0.266
SO2		0.4	30.	0.6	3.77 E-03	8.26 E-03	13.59	29.64	0.0116
NOX		2.6	30.	100.	3.77 E-03	0.416	13.59	29.64	1.4999
CO		58.	30.	84.	3.77 E-03	1.187	13.59	29.64	1.64
VOC		32.5	30.	5.5	3.77 E-03	0.508	13.59	29.64	0.302
Acetaldehyde		3.8	30.		3.77 E-03	0.057	13.59	29.64	0.0258
Acrolein		1.1	30.		3.77 E-03	0.0165	13.59	29.64	0.00747
Formaldehyde		2.45	30.	0.08	3.77 E-03	0.037	13.59	29.64	0.0178
Total HAPs		7.35	30.	1.89	3.77 E-03	0.117	13.59	29.64	0.0779
GHG Pollutant		(lb/ton wood)	(lb/hr.)	(lb/MMBtu)	(MMBtu/hr.)	(lb/hr.)	(ton/yr.)	(MMBtu/yr.)	(ton/yr.)
CO2		3,180.49	30.	116.98	3.77 E-03	48.15	13.59	30,237	1,790.1
CH4		1.02	30.	2.20E-03	3.77 E-03	0.015	13.59	30,237	0.04
N2O		0.14	30.	2.20E-04	3.77 E-03	2.14 E-03	13.59	30,237	4.3 E-03

PTE Calcs
for Title V Renewal Application

10. Emissions from Batch Smokehouses

EU05-11, EU13-16, EU18

Emission Unit	Pollutant	Wood Emission Factor (lb/ton wood)	Wood Consumption Rate (lb/hr.)	Nat. Gas Emission Factor (lb/MMscf)	Nat. Gas Consumption Rate (MMscf/hr.)	Uncontrolled Hourly Emissions (lb/hr.)	Wood Consumption Rate (ton/yr.)	Nat. Gas Consumption Rate (MMscf/yr.)	Uncontrolled Annual Emissions (tpy)
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Batch Smokehouse #8

PM/PM10/PM2.5		22.5	30.	7.6	3.77 E-03	0.366	13.59	29.64	0.266
SO2		0.4	30.	0.6	3.77 E-03	8.26 E-03	13.59	29.64	0.0116
NOX		2.6	30.	100.	3.77 E-03	0.416	13.59	29.64	1.5
CO		58.	30.	84.	3.77 E-03	1.187	13.59	29.64	1.64
VOC		32.5	30.	5.5	3.77 E-03	0.508	13.59	29.64	0.302
Acetaldehyde		3.8	30.		3.77 E-03	0.057	13.59	29.64	0.0258
Acrolein		1.1	30.		3.77 E-03	0.0165	13.59	29.64	0.00747
Formaldehyde		2.45	30.	0.08	3.77 E-03	0.037	13.59	29.64	0.0178
Total HAPs		7.35	30.	1.89	3.77 E-03	0.117	13.59	29.64	0.0779
GHG Pollutant		(lb/ton wood)	(lb/hr.)	(lb/MMBtu)	(MMBtu/hr.)	(lb/hr.)	(ton/yr.)	(MMBtu/yr.)	(ton/yr.)
CO2		3,180.49	30.	116.98	3.77 E-03	48.15	13.59	30,237	1,790.1
CH4		1.02	30.	2.20E-03	3.77 E-03	0.015	13.59	30,237	0.04
N2O		0.14	30.	2.20E-04	3.77 E-03	2.14 E-03	13.59	30,237	4.3 E-03

Emission Unit	Pollutant	Wood Emission Factor (lb/ton wood)	Wood Consumption Rate (lb/hr.)	Nat. Gas Emission Factor (lb/MMscf)	Nat. Gas Consumption Rate (MMscf/hr.)	Uncontrolled Hourly Emissions (lb/hr.)	Wood Consumption Rate (ton/yr.)	Nat. Gas Consumption Rate (MMscf/yr.)	Uncontrolled Annual Emissions (tpy)
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Batch Smokehouse #9

PM/PM10/PM2.5		22.5	30.	7.6	3.77 E-03	0.366	13.59	29.64	0.266
SO2		0.4	30.	0.6	3.77 E-03	8.26 E-03	13.59	29.64	0.0116
NOX		2.6	30.	100.	3.77 E-03	0.416	13.59	29.64	1.5
CO		58.	30.	84.	3.77 E-03	1.187	13.59	29.64	1.64
VOC		32.5	30.	5.5	3.77 E-03	0.508	13.59	29.64	0.302
Acetaldehyde		3.8	30.		3.77 E-03	0.057	13.59	29.64	0.0258
Acrolein		1.1	30.		3.77 E-03	0.0165	13.59	29.64	0.00747
Formaldehyde		2.45	30.	0.08	3.77 E-03	0.037	13.59	29.64	0.0178
Total HAPs		7.35	30.	1.89	3.77 E-03	0.117	13.59	29.64	0.0779
GHG Pollutant		(lb/ton wood)	(lb/hr.)	(lb/MMBtu)	(MMBtu/hr.)	(lb/hr.)	(ton/yr.)	(MMBtu/yr.)	(ton/yr.)
CO2		3,180.49	30.	116.98	3.77 E-03	48.15	13.59	30,237	1,790.1
CH4		1.02	30.	2.20E-03	3.77 E-03	0.015	13.59	30,237	0.04
N2O		0.14	30.	2.20E-04	3.77 E-03	2.14 E-03	13.59	30,237	4.3 E-03

PTE Calcs
for Title V Renewal Application

10. Emissions from Batch Smokehouses

EU05-11, EU13-16, EU18

Emission Unit	Pollutant	Wood Emission Factor (lb/ton wood)	Wood Consumption Rate (lb/hr.)	Nat. Gas Emission Factor (lb/MMscf)	Nat. Gas Consumption Rate (MMscf/hr.)	Uncontrolled Hourly Emissions (lb/hr.)	Wood Consumption Rate (ton/yr.)	Nat. Gas Consumption Rate (MMscf/yr.)	Uncontrolled Annual Emissions (tpy)
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Batch Smokehouse #10

PM/PM10/PM2.5		22.5	30.	7.6	3.77 E-03	0.366	13.59	29.64	0.266
SO2		0.4	30.	0.6	3.77 E-03	8.26 E-03	13.59	29.64	0.0116
NOX		2.6	30.	100.	3.77 E-03	0.416	13.59	29.64	1.5
CO		58.	30.	84.	3.77 E-03	1.187	13.59	29.64	1.64
VOC		32.5	30.	5.5	3.77 E-03	0.508	13.59	29.64	0.302
Acetaldehyde		3.8	30.		3.77 E-03	0.057	13.59	29.64	0.0258
Acrolein		1.1	30.		3.77 E-03	0.0165	13.59	29.64	0.00747
Formaldehyde		2.45	30.	0.08	3.77 E-03	0.037	13.59	29.64	0.0178
Total HAPs		7.35	30.	1.89	3.77 E-03	0.117	13.59	29.64	0.0779
GHG Pollutant		(lb/ton wood)	(lb/hr.)	(lb/MMBtu)	(MMBtu/hr.)	(lb/hr.)	(ton/yr.)	(MMBtu/yr.)	(ton/yr.)
CO2		3,180.49	30.	116.98	3.77 E-03	48.15	13.59	30,237	1,790.1
CH4		1.02	30.	2.20E-03	3.77 E-03	0.015	13.59	30,237	0.04
N2O		0.14	30.	2.20E-04	3.77 E-03	2.14 E-03	13.59	30,237	4.3 E-03

Emission Unit	Pollutant	Wood Emission Factor (lb/ton wood)	Wood Consumption Rate (lb/hr.)	Nat. Gas Emission Factor (lb/MMscf)	Nat. Gas Consumption Rate (MMscf/hr.)	Uncontrolled Hourly Emissions (lb/hr.)	Wood Consumption Rate (ton/yr.)	Nat. Gas Consumption Rate (MMscf/yr.)	Uncontrolled Annual Emissions (tpy)
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Batch Smokehouse #11

PM/PM10/PM2.5		22.5	30.	7.6	3.77 E-03	0.366	13.59	29.64	0.266
SO2		0.4	30.	0.6	3.77 E-03	8.26 E-03	13.59	29.64	0.0116
NOX		2.6	30.	100.	3.77 E-03	0.416	13.59	29.64	1.5
CO		58.	30.	84.	3.77 E-03	1.187	13.59	29.64	1.64
VOC		32.5	30.	5.5	3.77 E-03	0.508	13.59	29.64	0.302
Acetaldehyde		3.8	30.		3.77 E-03	0.057	13.59	29.64	0.0258
Acrolein		1.1	30.		3.77 E-03	0.0165	13.59	29.64	0.00747
Formaldehyde		2.45	30.	0.08	3.77 E-03	0.037	13.59	29.64	0.0178
Total HAPs		7.35	30.	1.89	3.77 E-03	0.117	13.59	29.64	0.0779
GHG Pollutant		(lb/ton wood)	(lb/hr.)	(lb/MMBtu)	(MMBtu/hr.)	(lb/hr.)	(ton/yr.)	(MMBtu/yr.)	(ton/yr.)
CO2		3,180.49	30.	116.98	3.77 E-03	48.15	13.59	30,237	1,790.1
CH4		1.02	30.	2.20E-03	3.77 E-03	0.015	13.59	30,237	0.04
N2O		0.14	30.	2.20E-04	3.77 E-03	2.14 E-03	13.59	30,237	4.3 E-03

PTE Calcs
for Title V Renewal Application

10. Emissions from Batch Smokehouses

EU05-11, EU13-16, EU18

Emission Unit	Pollutant	Wood Emission Factor (lb/ton wood)	Wood Consumption Rate (lb/hr.)	Nat. Gas Emission Factor (lb/MMscf)	Nat. Gas Consumption Rate (MMscf/hr.)	Uncontrolled Hourly Emissions (lb/hr.)	Wood Consumption Rate (ton/yr.)	Nat. Gas Consumption Rate (MMscf/yr.)	Uncontrolled Annual Emissions (tpy)
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Batch Smokehouse #12

PM/PM10/PM2.5	22.5	30.	7.6	2.7 E-03	0.358	87.58	19.68	1.06
SO2	0.4	30.	0.6	2.7 E-03	7.62 E-03	87.58	19.68	0.0234
NOX	2.6	30.	100.	2.7 E-03	0.309	87.58	19.68	1.098
CO	58.	30.	84.	2.7 E-03	1.096	87.58	19.68	3.37
VOC	32.5	30.	5.5	2.7 E-03	0.502	87.58	19.68	1.48
Acetaldehyde	3.8	30.		2.7 E-03	0.057	87.58	19.68	0.166
Acrolein	1.1	30.		2.7 E-03	0.0165	87.58	19.68	0.0482
Formaldehyde	2.45	30.	0.08	2.7 E-03	0.037	87.58	19.68	0.108
Total HAPs	7.35	30.	1.89	2.7 E-03	0.115	87.58	19.68	0.34
GHG Pollutant	(lb/ton wood)	(lb/hr.)	(lb/MMBtu)	(MMBtu/hr.)	(lb/hr.)	(ton/yr.)	(MMBtu/yr.)	(ton/yr.)
CO2	3,180	30.	116.98	2.7 E-03	48.02	87.58	20,075	1,313.4
CH4	1.02	30.	2.20E-03	2.7 E-03	0.015	87.58	20,075	0.067
N2O	0.14	30.	2.20E-04	2.7 E-03	2.14 E-03	87.58	20,075	8.45 E-03

**PTE Calcs
for Title V Renewal Application**

12. Emissions from Emergency Generator Engine

EU28

12.1 Emission Unit Nomenclature, Process Rates, and SCC Units

- > Cummins Diesel LTA 10-G1

Process Description	KyEIS Source ID	KyEIS Process ID	Construc. Date	SCC Code	SCC Units
Emergency Generator Engine	28	1	2003	20200102	1000 Gallons

12.2 Documentation of Emission Factors

- > Hourly diesel fuel consumption rate calculation: (380 hp-hr. * 7,000 Btu / 1 hp-hr. * 1 gal. / 137,000 Btu * 1 Mgal. / 1,000 gal.); Potential emissions are based on 500 hr./yr.

Parameter	Value	Units	Basis
Engine Rating	380	hp	Site information
Sulfur Content of Diesel	0.0015%	%	
Heat Input Capacity of Diesel	137,000	Btu/gal.	
Hourly Fuel Rate	0.0194	Mgal./hr.	Calculated
Annual Operating Hours	500	hr/yr.	Maximum ops for emergency units
Annual Fuel Rate	9.71	Mgal./yr.	Calculated

- > Emission factors for the primary combustion by-product pollutants are based on Table 3.3-1 in AP-42 Chapter 3.3 for Gasoline and Diesel-Fired Industrial Engines. The default efficiency factor in AP-42 of 7,000 Btu/hp-hr is used to convert to factors in terms of fuel consumption.

Pollutant	CAS Nr.	Emission Factor (lb/MMBtu)	Emission Factor (lb/hp-hr.)	Emission Factor (lb/Mgal.)	Basis
NOX			3.10E-02	606.71	AP-42 3.3-1, 10/96
CO			6.68E-03	130.74	AP-42 3.3-1, 10/96
VOC			2.51E-03	49.12	AP-42 3.3-1 Sum of TOC from Exhaust and Crankcase, 10/96
PM/PM10/PM2.5			2.20E-03	43.06	AP-42 3.3-1, 10/96
SO2			2.05E-03	40.12	AP-42 3.3-1, 10/96
Total HAPs		3.87E-03	2.71E-05	5.31E-01	
Formaldehyde	50-00-0	1.18E-03	8.26E-06	1.62E-01	AP-42 Table 3.3-2, 10/96
Acetaldehyde	75-07-0	7.67E-04	5.37E-06	1.05E-01	AP-42 Table 3.3-2, 10/96
Acrolein	107-02-8	9.25E-05	6.48E-07	1.27E-02	AP-42 Table 3.3-2, 10/96

**PTE Calcs
for Title V Renewal Application**

12. Emissions from Emergency Generator Engine

EU28

GHG Emission Factors

CO₂, CH₄ and N₂O emissions for diesel fuel combustion are estimated using the Distillate Fuel Oil No. 2 emission factors published in 40 CFR 98, Subpart C, Table C-2.

Pollutant	Emission Factor (kg/MMBtu)	Equivalent Factor (lb/Mgal.)	Basis
CO ₂	73.96	22,338	40 CFR 98, Subpart C, Table C-2; Distillate Fuel Oil No. 2
CH ₄	3.00E-03	0.91	40 CFR 98, Subpart C, Table C-2; Petroleum (all fuel types in Table C-1)
N ₂ O	6.00E-04	0.18	40 CFR 98, Subpart C, Table C-2; Petroleum (all fuel types in Table C-1)

12.3 Emission Calculations Based on Factors Documented

Pollutant	Emission Factor (lb/Mgal.)	Fuel Consumption Rate (Mgal./hr.)	Uncontrolled Emissions	
			Hourly (lb/hr.)	Annual (tpy)
PM/PM10/PM2.5	43.06	0.019	0.836	0.21
SO ₂	40.12	0.019	0.779	0.19
NO _X	606.71	0.019	11.78	2.95
CO	130.74	0.019	2.538	0.63
VOC	49.12	0.019	0.954	0.24
Acrolein	0.013	0.019	2.46 E-04	6.15 E-05
Acetaldehyde	0.105	0.019	0.00204	5.1 E-04
Formaldehyde	0.162	0.019	0.00314	7.85 E-04
Total HAPs	0.53	0.019	0.01	2.58 E-03
GHG Pollutant	(lb/Mgal.)	(Mgal./hr.)	(lb/hr.)	(tpy)
CO ₂	22,338	0.019	433.723	108.43
CH ₄	0.91	0.019	0.018	4.4 E-03
N ₂ O	0.18	0.019	0.004	8.8 E-04

17. Emissions from Parts Washers

EU30

17.1 Emission Unit Nomenclature, Process Rates, and SCC Units

Process Description	KyEIS Source ID	KyEIS Process ID	Construc. Date	SCC Code	SCC Units
Two Parts Washers	EU30	1			

17.2 Documentation of Emissions

Parameter	Value	Units	Basis
Hours of Operation	8,760	hr./yr.	Assumed worst-case potential

Emission Unit †1	Pollutant	Emission Factor †2 (tpy/unit)	Good Hygiene Reduction †3 (%)	Number of Units	VOC Emissions Potential †4 (tpy)
2 Cold Cleaners	VOCs	0.33	62%	2	0.31

LEGEND					
†1 Note: The facility uses Crystal Clean's CC 100+ Parts Washing Solvent (ASTM D235, Type I)					
†2 Note: Emission factor from AP-42, Table 4.6-2, 5th Edition, (01/1995)					
†3 Note: Good hygiene reduction of 62% for use of controls & proper industrial operating procedures					
†4 Note: Potential Emissions conservatively assumes 25% over actual emissions.					

PTE Calcs

Potential Emission Calculations for New Freddy Hirsch Line 1 (EU31)

Production Data Used in PTE Calculations

Parameter	Value	Units	Basis
Maximum Meat Production Rate	9,000	lb/hr.	Equipment design specification.
Maximum Liquid Smoke Usage Rate	58.5	gal./hr.	Equipment design specification.
Liquid Smoke Concentration for:			
Emulsified Products	8	wt. %	Product specifications
Coarse Ground Products	33	wt. %	Product specifications
Emulsified Product (Percentage)	100%	%	Production Values
Coarse Ground Product (Percentage)	100%	%	Production Values

Potential Emissions from Spiral Dryers (Based on Claryville Protecon and St. Joseph Tests)

Pollutant	Stack Test Emission Factor		Potential Emissions by Product †6				Maximum Potential Emissions Per Dryer	
	(Emulsified Products)	(Coarse Ground Products)	Emulsified	Coarse Ground	Emulsified	Coarse Ground	(lb/hr.)	(tpy)
	†5 (lb/lb meat)	†5 (lb/lb meat)						
PM/PM10/PM2.5 †1	8.30E-05	8.30E-05	0.75	0.75	3.27	3.27	0.75	3.27
Condensable PM	7.36E-05	7.36E-05	0.66	0.66	2.9	2.9	0.66	2.90
VOC †1	7.10E-04	7.10E-04	6.39	6.39	27.98	27.98	6.39	27.98
Acetaldehyde †2	2.23E-05	2.23E-05	0.201	0.201	0.88	0.88	0.2	0.88
Acrolein	9.57E-07	2.48E-06	0.009	0.022	0.038	0.098	0.02	0.098
Formaldehyde †3	5.30E-06	2.91E-06	0.05	0.03	0.21	0.11	0.05	0.21
Phenol †4	1.16E-05	1.16E-05	0.1	0.1	0.46	0.46	0.1	0.46
Total HAPs	4.01E-05	3.93E-05	0.36	0.35	1.58	1.55	0.36	1.58

Notes/Key:

†1 Note: Based on St. Joseph Stack Test due similarity in process

†2 Note: Stack test results for Acetaldehyde from the emissions testing conducted in February 2011 were below MDL. Therefore, HAP speciation data from the March 1994 testing was used to estimate the acetaldehyde emissions expected during the February 2011 test.

†3 Note: Emission factors based on average emission factor plus one standard deviation from emissions testing performed on Protecon Unit 1 consisting of 3 runs conducted in December 2021.

†4 Note: Phenol emission rate based on composition of phenols in liquid smoke and estimate for amount of liquid smoke emitted.

†5 Note: Emission factors based on average emission factor plus one standard deviation from emissions testing performed on Protecon Unit 1 consisting of 3 runs conducted in February 2011 or December 2021. Worst case liquid smoke application rate occurs for coarse ground products. Therefore, the measured emission factors were adjusted based on the ratio of liquid smoke concentration for the two product types (33% for coarse ground versus 8% for emulsified). Formaldehyde and acrolein concentrations and emission rates were measured using the procedures of NCASI Method A105 (National Council for Air and Stream Improvement, Inc. (NCASI). Methods Manual, Impinger Source Sampling Method for Selected Aldehydes, Ketones, and Polar Compounds). VOC concentrations and mass emission rates were measured using EPA Method 25 procedures in December 2021 (40 CFR 60).

†6 Note: Potential emission rate based on adjusted stack test emission factor and maximum hourly meat production for the units.

PTE Calcs

Potential Emission Calculations for New Freddy Hirsch Line 2 (EU32)

Production Data Used in PTE Calculations

Parameter	Value	Units	Basis
Maximum Meat Production Rate	9,000	lb/hr.	Equipment design specification.
Maximum Liquid Smoke Usage Rate	58.5	gal./hr.	Equipment design specification.
Liquid Smoke Concentration for:			
<i>Emulsified Products</i>	8	wt. %	Product specifications
<i>Coarse Ground Products</i>	33	wt. %	Product specifications
Emulsified Product (Percentage)	100%	%	Production Values
Coarse Ground Product (Percentage)	100%	%	Production Values

Potential Emissions from Spiral Dryers (Based on Claryville Protecon and St. Joseph Tests)

Pollutant	Stack Test Emission Factor		Potential Emissions by Product †6				Maximum Potential Emissions Per Dryer	
	(Emulsified Products)	(Coarse Ground Products)	Emulsified	Coarse Ground	Emulsified	Coarse Ground		
	†5 (lb/lb meat)	†5 (lb/lb meat)					(lb/hr.)	(tpy)
PM/PM10/PM2.5 †1	8.30E-05	8.30E-05	0.75	0.75	3.27	3.27	0.75	3.27
Condensable PM	7.36E-05	7.36E-05	0.66	0.66	2.9	2.9	0.66	2.9
VOC †1	7.10E-04	7.10E-04	6.39	6.39	27.98	27.98	6.39	27.98
Acetaldehyde †2	2.23E-05	2.23E-05	0.201	0.201	0.88	0.88	0.2	0.88
Acrolein	9.57E-07	2.48E-06	0.009	0.022	0.038	0.098	0.02	0.098
Formaldehyde †3	5.30E-06	2.91E-06	0.05	0.03	0.21	0.11	0.05	0.21
Phenol †4	1.16E-05	1.16E-05	0.1	0.1	0.46	0.46	0.1	0.46
Total HAPs	4.01E-05	3.93E-05	0.36	0.35	1.58	1.55	0.36	1.58

Notes/Key:

†1 Note: Based on St. Joseph Stack Test due similarity in process

†2 Note: Stack test results for Acetaldehyde from the emissions testing conducted in February 2011 were below MDL. Therefore, HAP speciation data from the March 1994 testing was used to estimate the acetaldehyde emissions expected during the February 2011 test.

†3 Note: Emission factors based on average emission factor plus one standard deviation from emissions testing performed on Protecon Unit 1 consisting of 3 runs conducted in December 2021.

†4 Note: Phenol emission rate based on composition of phenols in liquid smoke and estimate for amount of liquid smoke emitted.

†5 Note: Emission factors based on average emission factor plus one standard deviation from emissions testing performed on Protecon Unit 1 consisting of 3 runs conducted in February 2011 or December 2021. Worst case liquid smoke application rate occurs for coarse ground products. Therefore, the measured emission factors were adjusted based on the ratio of liquid smoke concentration for the two product types (33% for coarse ground versus 8% for emulsified). Formaldehyde and acrolein concentrations and emission rates were measured using the procedures of NCASI Method A105 (National Council for Air and Stream Improvement, Inc. (NCASI). Methods Manual, Impinger Source Sampling Method for Selected Aldehydes, Ketones, and Polar Compounds). VOC concentrations and mass emission rates were measured using EPA Method 25 procedures in December 2021 (40 CFR 60).

†6 Note: Potential emission rate based on adjusted stack test emission factor and maximum hourly meat production for the units.

**PTE Calcs
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2. Index of Insignificant Activities

Insign. Actv. #	Hillshire Brands Emission Unit Description	Description of Activity Including Rated Capacity	Generally Applicable Regulations Or State Origin Requirements
1	Make-up Air Unit #1	Make-up air unit with 2 burners (3.72 and 0.56 MMBtu/hour); natural gas-fired. Clean-up mode 1,460 hours/year. Production mode 4,380 hours/year.	None
2	Make-up Air Unit #2	Make-up air unit with 2 burners (2.46 and 0.51 MMBtu/hour); natural gas-fired. Clean-up mode 1,460 hours/year. Production mode 4,380 hours/year.	None
3	HVAC Unit	Natural gas-fired HVAC unit (2.386 MMBtu/hour). 8,760 hours/year.	None
4	Dehumidification Unit	Natural gas-fired dehumidification units that runs based on relative humidity. 0.75 MMBtu/hour burner. 8,760 hours/year.	401 KAR 59:010
5	Purge Unit	Natural Gas fired purge unit that only runs during clean-up mode during winter months. 1.3 MMBtu/hour burner. 732 hours/year.	401 KAR 59:010
6	Drench Cabinet #1	Drenching Cabinet #1 (2006); Meat product liquid smoke drenching cabinet.	401 KAR 59:010 401 KAR 63:020
7	Make-up Air Unit #3	Make-up air unit (4.80 and 0.50 MMBtu/hr); natural gas-fired.	401 KAR 59:010
8	Drench Cabinet #2	Drenching Cabinet #2 (2012); Meat product liquid smoke drenching cabinet.	401 KAR 59:010 401 KAR 63:020
9	Storage vessels having less than 10,567 gallons capacity that contain petroleum or organic liquids with a vapor pressure of 1.5 psia or less at storage temperature	Miscellaneous storage tanks in service of low vapor pressure petroleum or organic liquids.	None
10	Comfort Heaters (19)	Miscellaneous natural gas-fired heaters used for comfort heating.	None
11	Cooling Tower #1	Cooling tower, recirculation rate and drift approximated.	None
12	Cooling Tower #2	Cooling tower, recirculation rate and drift approximated.	None
13	Cooling Tower #3	Cooling tower, recirculation rate and drift approximated.	None
14	Cooling Tower #4	Cooling tower, recirculation rate and drift approximated.	None
15	Cooling Tower #5	Cooling tower, recirculation rate and drift approximated.	None
16	Cooling Tower #6	Cooling tower, recirculation rate and drift approximated.	None
17	Cooling Tower #7	Cooling tower, recirculation rate and drift approximated.	None
18	Large Dehumidifier Units (4)	Natural gas-fired dehumidifier units (approximate capacity 1 MMBtu/hour). 8,760 hours/year.	401 KAR 59:010
19	Wastewater Treatment	Wastewater treatment process.	None
20	Cleaners	Miscellaneous use of organic cleaners.	None
21	Sanitizers	Miscellaneous use of organic sanitizers.	None
22	Inkjet Printing	Inkjet printing using VOC-containing ink.	None
23	Refrigeration Equipment	Miscellaneous refrigeration equipment.	None
24	Dryer 1-1 Duct Burner	2 MMBtu/hr. natural gas-fired burner	
25	Dryer 1-2 Duct Burner	2 MMBtu/hr. natural gas-fired burner	
26	Dryer 2-1 Duct Burner	2 MMBtu/hr. natural gas-fired burner	
27	Dryer 2-2 Duct Burner	2 MMBtu/hr. natural gas-fired burner	

**PTE Calcs
for Title V Renewal Application**

13. Emissions from Make-up Air Units

IA1, IA2, IA7

13.1 Emission Unit Nomenclature, Process Rates, and SCC Units

Process Description	KyEIS Source ID	KyEIS Process ID	Construc. Date	SCC Code	SCC Units
Make-up Air Unit #1	IA1	1	--	30290003	Million Cubic Feet
Make-up Air Unit #2	IA2	1	--	30290003	Million Cubic Feet
Make-up Air Unit #3	IA7	1	--	30290003	Million Cubic Feet

13.2 Documentation of Emission Factors

- > * For Make-up Air Units #1-3, units are operated in clean-up mode 4 hr./day for 365 day/yr.
- ** For Make-up Air Units #1-3, units are operated in production mode 20 hr./day for 365 day/yr.
- *** Hourly maximum fuel usage in production and clean-up modes are based on rated heat input capacity and standard heat content. Annual usage rates based on hourly rates and annual hours of operation for each mode of operation.

Parameter	Value	Units	Basis
Natural Gas Heat Content	1,020	Btu/scf	AP-42 Table 1.4-1 footnote
Maximum Hours of Operation	8,760	hr/yr.	Max. operating conditions for PTE

EU ID ID Nr.	Hillshire Brands Emission Unit Description	Rated Heat Input Capacity		Annual Hours of Operation		Maximum Natural Gas Usage			
		Clean-up Mode	Production Mode	Clean-up Mode	Production Mode	Clean-up Mode		Production Mode	
		MMBtu/hr.	MMBtu/hr.	hr./yr.	hr./yr.	Hourly MMscf/hr.	Annual MMscf/yr.	Hourly MMscf/hr.	Annual MMscf/yr.
IA1	Make-up Air Unit #1	3.72	0.56	1,460	7,300	3.65E-03	5.32	5.49E-04	4.01
IA2	Make-up Air Unit #2	2.46	0.51	1,460	7,300	2.41E-03	3.52	5.00E-04	3.65
IA7	Make-up Air Unit #3	4.80	0.50	1,460	7,300	4.71E-03	6.87	4.90E-04	3.58

Pollutant	Em. Factor	Units	Basis
PM/PM10/PM2.5	7.6	lb/MMscf	AP-42 Table 1.4-2
SO2	0.6	lb/MMscf	AP-42 Table 1.4-2
NOX	100.	lb/MMscf	AP-42 Table 1.4-1, Small Boiler (<100 MMBtu/hr.), Uncontrolled
CO	84.	lb/MMscf	AP-42 Table 1.4-1, Small Boiler (<100 MMBtu/hr.), Uncontrolled
VOC	5.5	lb/MMscf	AP-42 Table 1.4-2
Formaldehyde	0.08	lb/MMscf	AP-42 Table 1.4-3
Total HAPs	1.89	lb/MMscf	AP-42 Table 1.4-3

CO2	53.06	kg/MMBtu	40 CFR Part 98 Subpart C Table C-1 for Natural gas (weighted U.S. average)
CO2	116.98	(lb/MMBtu)	
CH4	1.00E-03	kg/MMBtu	40 CFR Part 98 Subpart C Table C-2 for Natural gas
CH4	2.20E-03	(lb/MMBtu)	
N2O	1.00E-04	kg/MMBtu	40 CFR Part 98 Subpart C Table C-2 for Natural gas
N2O	2.20E-04	(lb/MMBtu)	

**PTE Calcs
for Title V Renewal Application**

13.3 Emission Calculations Based on Factors Documented

* Hourly potential emissions based on natural gas combustion emission factors and highest hourly natural gas usage rates of the two operating modes. Annual rate based on hourly rate and annual hours of operation in each operating mode.

Emission Unit	Pollutant	Emission Factor (lb/MMscf)	Max. Fuel Consumption Rate (MMscf/hr.)	Uncontrolled Emissions	
				Hourly (lb/hr.)	Annual (tpy)

Make-up Air Unit #1

PM/PM10/PM2.5	7.6	3.65 E-03	0.03	0.035
SO2	0.6	3.65 E-03	0.	0.0028
NOX	100.	3.65 E-03	0.36	0.47
CO	84.	3.65 E-03	0.31	0.39
VOC	5.5	3.65 E-03	0.02	0.026
Formaldehyde	0.08	3.65 E-03	0.	0.00035
Total HAPs	1.89	3.65 E-03	0.01	0.0088
GHG Pollutant	(lb/MMBtu)	(MMBtu/hr.)	(lb/hr.)	(tpy)
CO2	116.98	3.72	435.2	556.8
CH4	2.205 E-03	3.72	8.20E-03	1.05 E-02
N2O	2.205 E-04	3.72	8.20E-04	1.05 E-03

Emission Unit	Pollutant	Emission Factor (lb/MMscf)	Max. Fuel Consumption Rate (MMscf/hr.)	Uncontrolled Emissions	
				Hourly (lb/hr.)	Annual (tpy)

Make-up Air Unit #2

PM/PM10/PM2.5	7.6	2.41 E-03	0.02	0.027
SO2	0.6	2.41 E-03	0.	0.002
NOX	100.	2.41 E-03	0.24	0.359
CO	84.	2.41 E-03	0.2	0.301
VOC	5.5	2.41 E-03	0.01	0.0197
Formaldehyde	0.08	2.41 E-03	0.	0.00027
Total HAPs	1.89	2.41 E-03	0.	0.0068
GHG Pollutant	(lb/MMBtu)	(MMBtu/hr.)	(lb/hr.)	(tpy)
CO2	116.98	2.46	287.8	427.8
CH4	2.20E-03	2.46	5.42E-03	8.06 E-03
N2O	2.20E-04	2.46	5.42E-04	8.06 E-04

**PTE Calcs
 for Title V Renewal Application**

Emission Unit	Pollutant	Emission Factor (lb/MMscf)	Max. Fuel Consumption Rate (MMscf/hr.)	Uncontrolled Emissions	
				Hourly (lb/hr.)	Annual (tpy)
Make-up Air Unit #3					
	PM/PM10/PM2.5	7.6	4.71 E-03	0.04	0.0397
	SO2	0.6	4.71 E-03	0.	0.0031
	NOX	100.	4.71 E-03	0.47	0.522
	CO	84.	4.71 E-03	0.4	0.439
	VOC	5.5	4.71 E-03	0.03	0.029
	Formaldehyde	0.08	4.71 E-03	0.	0.00039
	Total HAPs	1.89	4.71 E-03	0.01	0.0099
	GHG Pollutant	(lb/MMBtu)	(MMBtu/hr.)	(lb/hr.)	(tpy)
	CO2	116.98	4.8	561.5	623.4
	CH4	2.20E-03	4.8	1.06E-02	1.17 E-02
	N2O	2.20E-04	4.8	1.06E-03	1.17 E-03

**PTE Calcs
for Title V Renewal Application**

14. Emissions from Dehumidification-Purge Units

IA4, IA5

14.1 Emission Unit Nomenclature, Process Rates, and SCC Units

Process Description	KyEIS Source ID	KyEIS Process ID	Construc. Date	SCC Code	SCC Units
Dehumidification Unit	IA4	1	--	30290003	Million Cubic Feet
Purge Unit	IA5	1	--	30290003	Million Cubic Feet

14.2 Documentation of Emission Factors

> * Maximum hourly natural gas usage based on rated heat input capacity and a heat content of 1,020 MMBtu/MMscf. Annual rate based on hourly rate assuming 8,760 hours of operation per year.

Parameter	Value	Units	Basis
Natural Gas Heat Content	1,020	Btu/scf	AP-42 Table 1.4-1 footnote
Maximum Hours of Operation	8,760	hr./yr.	Max. operating conditions for PTE

EU ID ID Nr.	Hillshire Brands Emission Unit Description	Rated Heat Input Capacity	Annual Hours of Operation	Maximum Natural Gas Usage	
		Production Mode		Hourly	Annual
		(MMBtu/hr.)	(hr./yr.)	(MMscf/hr.)	(MMscf/yr.)
IA4	Dehumidification Unit	0.75	8,760	7.35E-04	6.4
IA5	Purge Unit	1.30	732	1.27E-03	0.9

Pollutant	Em. Factor	Units	Basis
PM/PM10/PM2.5	7.6	lb/MMscf	AP-42 Table 1.4-2
SO2	0.6	lb/MMscf	AP-42 Table 1.4-2
NOX	100.	lb/MMscf	AP-42 Table 1.4-1, Small Boiler (<100 MMBtu/hr.), Uncontrolled
CO	84.	lb/MMscf	AP-42 Table 1.4-1, Small Boiler (<100 MMBtu/hr.), Uncontrolled
VOC	5.5	lb/MMscf	AP-42 Table 1.4-2
Formaldehyde	0.075	lb/MMscf	AP-42 Table 1.4-3
Total HAPs	1.888	lb/MMscf	AP-42 Table 1.4-3

CO2	53.06	kg/MMBtu	40 CFR Part 98 Subpart C Table C-1 for Natural gas (weighted U.S. average)
CO2	116.98	(lb/MMBtu)	
CH4	1. E-03	kg/MMBtu	40 CFR Part 98 Subpart C Table C-2 for Natural gas
CH4	2.2 E-03	(lb/MMBtu)	
N2O	1. E-04	kg/MMBtu	40 CFR Part 98 Subpart C Table C-2 for Natural gas
N2O	2.2 E-04	(lb/MMBtu)	

PTE Calcs
for Title V Renewal Application

14. Emissions from Dehumidification-Purge Units

IA4, IA5

14.3 Emission Calculations Based on Factors Documented

Emission Unit	Pollutant	Emission Factor (lb/MMscf)	Fuel Consumption Rate (MMscf/hr.)	Uncontrolled Emissions	
				Hourly (lb/hr.)	Annual (tpy)

Dehumidification Unit

PM/PM10/PM2.5	7.6	7.35 E-04	5.59 E-03	0.024
SO2	0.6	7.35 E-04	4.41 E-04	0.0019
NOX	100.	7.35 E-04	0.074	0.32
CO	84.	7.35 E-04	0.062	0.27
VOC	5.5	7.35 E-04	4.04 E-03	0.018
Formaldehyde	0.075	7.35 E-04	5.51 E-05	0.00024
Total HAPs	1.89	7.35 E-04	1.39 E-03	0.0061
GHG Pollutant	(lb/MMBtu)	(MMBtu/hr.)	(lb/hr.)	(tpy)
CO2	116.98	0.75	87.73	384.3
CH4	2.2 E-03	0.75	1.65 E-03	7.24 E-03
N2O	2.2 E-04	0.75	1.65 E-04	7.24 E-04

Emission Unit	Pollutant	Emission Factor (lb/MMscf)	Fuel Consumption Rate (MMscf/hr.)	Uncontrolled Emissions	
				Hourly (lb/hr.)	Annual (tpy)

Purge Unit

PM/PM10/PM2.5	7.6	1.27 E-03	9.69 E-03	0.0035
SO2	0.6	1.27 E-03	7.65 E-04	0.00028
NOX	100.	1.27 E-03	0.13	0.047
CO	84.	1.27 E-03	0.11	0.039
VOC	5.5	1.27 E-03	7.01 E-03	0.0026
Formaldehyde	0.08	1.27 E-03	9.56 E-05	0.000035
Total HAPs	1.89	1.27 E-03	2.41 E-03	0.00088
GHG Pollutant	(lb/MMBtu)	(MMBtu/hr.)	(lb/hr.)	(tpy)
CO2	116.98	1.3	152.07	55.66
CH4	2.2 E-03	1.3	2.87 E-03	1.05 E-03
N2O	2.2 E-04	1.3	2.87 E-04	1.05 E-04

15. Emissions from Drench Cabinets

IA6, IA8

15.1 Emission Unit Nomenclature, Process Rates, and SCC Units

- > * Average emission factor plus one standard deviation from emissions testing performed on Liquid Smoke
- > ** Potential emission rate based on Liquid Smoke Unit stack test emission factor and maximum hourly

Process Description	KyEIS Source ID	KyEIS Process ID	Construc. Date	SCC Code	SCC Units
Drench Cabinet #1	IA6	1	2006	30299998	Tons
Drench Cabinet #2	IA8	1	2012	30299998	Tons

15.2 Documentation of Emission Factors

- > * Maximum hourly natural gas usage based on rated heat input capacity and a heat content of 1,020 MMBtu/MMscf. Annual rate based on hourly rate assuming 8,760 hours of operation per year.

Parameter	Value	Units	Basis
Hours of Operation	8,760	hr./yr.	Max. operating conditions for PTE

Batch Cycle Times

Total Batch Time	0.6	hr./batch	
Smoking	0.1	hr./batch	
Steam/Shower	0	hr./batch	
Downtime	0.5	hr./batch	
Batches per Year	15,018	batches/yr.	
Maximum Batch Meat Production Rate	2,000	lb/batch	Equipment design specification
Maximum Hourly Meat Production Rate	3,429	lb/hr.	
Maximum Annual Meat Production Rate	30,036,002	lb/yr.	

EU ID ID Nr.	Hillshire Brands Emission Unit Description	Maximum Meat Production	
		(lb/hr.)	(tpy)
IA6	Drench Cabinet #1	3,429	15,018
IA8	Drench Cabinet #2	3,429	15,018

Pollutant	Emission Factor	Units	Basis
PM/PM ₁₀ /PM _{2.5}	5. E-03	lb/ton meat	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
VOC	0.079	lb/ton meat	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Acetaldehyde	1. E-03	lb/ton meat	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Acrolein	1. E-03	lb/ton meat	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Formaldehyde	3. E-03	lb/ton meat	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Phenol	N/A	lb/ton meat	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Total HAPs	5. E-03	lb/ton meat	Calculated sum

**PTE Calcs
for Title V Renewal Application**

15. Emissions from Drench Cabinets

IA6, IA8

15.3 Emission Calculations Based on Factors Documented

Emission Unit	Pollutant	Emission Factor (lb/ton meat)	Max. Meat Production Rate (lb/hr.)	Uncontrolled Emissions	
				Hourly (lb/hr.)	Annual (tpy)
Drench Cabinet #1					
	PM/PM ₁₀ /PM _{2.5}	5. E-03	3,429	0.0086	0.038
	VOC	7.9 E-02	3,429	0.14	0.59
	Acetaldehyde	1. E-03	3,429	1.71 E-03	7.51 E-03
	Acrolein	1. E-03	3,429	1.71 E-03	7.51 E-03
	Formaldehyde	3. E-03	3,429	0.0051	0.023
	Total HAPs	5. E-03	3,429	0.0086	0.038

Emission Unit	Pollutant	Emission Factor (lb/ton meat)	Max. Meat Production Rate (lb/hr.)	Uncontrolled Emissions	
				Hourly (lb/hr.)	Annual (tpy)
Drench Cabinet #2					
	PM/PM ₁₀ /PM _{2.5}	5. E-03	3,429	0.0086	0.038
	VOC	7.9 E-02	3,429	0.14	0.59
	Acetaldehyde	1. E-03	3,429	1.71 E-03	7.51 E-03
	Acrolein	1. E-03	3,429	1.71 E-03	7.51 E-03
	Formaldehyde	3. E-03	3,429	0.0051	0.023
	Total HAPs	5. E-03	3,429	0.0086	0.038

16. Emissions from Other Combustion Units

IA10, IA19

16.1 Emission Unit Nomenclature, Process Rates, and SCC Units

Process Description	KyEIS Source ID	KyEIS Process ID	Construc. Date	SCC Code	SCC Units
Comfort Heaters (19)	IA10	1	--	30290003	Million Cubic Feet
Large Dehumidifier Units (4)	IA19	1	--	30290003	Million Cubic Feet

16.2 Documentation of Emission Factors

- > * Maximum hourly natural gas usage based on rated heat input capacity and a heat content of 1,020 MMBtu/MMscf. Annual rate based on hourly rate assuming 8,760 hours of operation per year.

Parameter	Value	Units	Basis
Natural Gas Heat Content	1,020	Btu/scf	AP-42 Table 1.4-1 footnote
Maximum Hours of Operation	8,760	hr/yr.	Max. operating conditions for PTE

EU ID Nr.	Hillshire Brands Emission Unit Description	Rated Heat Input Capacity Per Unit (MMBtu/hr.)	Number of Units Combined	Maximum Combined Natural Gas Usage	
				Hourly (MMscf/hr.)	Annual (MMscf/yr.)
IA10	Comfort Heaters (19)	0.4973	19	9.26 E-03	81.15
IA19	Large Dehumidifier Units (4)	1.	4	3.92 E-03	34.35

Pollutant	Em. Factor	Units	Basis
PM/PM ₁₀ /PM _{2.5}	7.6	lb/MMscf	AP-42 Table 1.4-2
SO ₂	0.6	lb/MMscf	AP-42 Table 1.4-2
NO _x	100.	lb/MMscf	AP-42 Table 1.4-1, Small Boiler (<100 MMBtu/hr.), Uncontrolled
CO	84.	lb/MMscf	AP-42 Table 1.4-1, Small Boiler (<100 MMBtu/hr.), Uncontrolled
VOC	5.5	lb/MMscf	AP-42 Table 1.4-2
Formaldehyde	0.08	lb/MMscf	AP-42 Table 1.4-3
Total HAPs	1.89	lb/MMscf	AP-42 Table 1.4-3

CO ₂	53.06	kg/MMBtu	40 CFR Part 98 Subpart C Table C-1 for Natural gas (weighted U.S. average)
CO ₂	116.977	lb/MMBtu	
CH ₄	1. E-03	kg/MMBtu	40 CFR Part 98 Subpart C Table C-2 for Natural gas
CH ₄	2.2 E-03	lb/MMBtu	
N ₂ O	1. E-04	kg/MMBtu	40 CFR Part 98 Subpart C Table C-2 for Natural gas
N ₂ O	2.2 E-04	lb/MMBtu	

16. Emissions from Other Combustion Units

IA10, IA19

16.3 Emission Calculations Based on Factors Documented

Emission Unit	Pollutant	Emission Factor (lb/MMscf)	Fuel Consumption Rate (MMscf/hr.)	Uncontrolled Emissions	
				Hourly (lb/hr.)	Annual (tpy)

Comfort Heaters (19)

PM/PM ₁₀ /PM _{2.5}	7.6	9.26 E-03	0.0704	0.308
SO ₂	0.6	9.26 E-03	0.0056	0.0243
NO _x	100.	9.26 E-03	0.9263	4.06
CO	84.	9.26 E-03	0.7781	3.41
VOC	5.5	9.26 E-03	0.0509	0.223
Formaldehyde	0.075	9.26 E-03	6.95 E-04	3.04 E-03
Total HAPs	1.89	9.26 E-03	0.0175	0.077
GHG Pollutant	(lb/MMBtu)	(MMBtu/hr.)	(lb/hr.)	(tpy)
CO ₂	116.98	9.45	1,105	4,841
CH ₄	2.2 E-03	9.45	2.08 E-02	9.12 E-02
N ₂ O	2.2 E-04	9.45	2.08 E-03	9.12 E-03

Emission Unit	Pollutant	Emission Factor (lb/MMscf)	Fuel Consumption Rate (MMscf/hr.)	Uncontrolled Emissions	
				Hourly (lb/hr.)	Annual (tpy)

Large Dehumidifier Units (4)

PM/PM ₁₀ /PM _{2.5}	7.6	3.92 E-03	0.0298	0.13
SO ₂	0.6	3.92 E-03	0.00235	0.0103
NO _x	100.	3.92 E-03	0.3922	1.72
CO	84.	3.92 E-03	0.3294	1.44
VOC	5.5	3.92 E-03	0.0216	0.094
Formaldehyde	0.075	3.92 E-03	2.94 E-04	1.29 E-03
Total HAPs	1.89	3.92 E-03	0.0074	0.032
GHG Pollutant	(lb/MMBtu)	(MMBtu/hr.)	(lb/hr.)	(tpy)
CO ₂	116.98	4.	467.9	2,049
CH ₄	2.2 E-03	4.	8.82 E-03	3.86 E-02
N ₂ O	2.2 E-04	4.	8.82 E-04	3.86 E-03

18. Emissions from Cooling Towers

IA12-18

18.1 Emission Unit Nomenclature, Process Rates, and SCC Units

Process Description	KyEIS Source ID	KyEIS Process ID	Construc. Date	SCC Code	SCC Units
Cooling Tower #1	IA12	1	unk.		
Cooling Tower #2	IA13	1	unk.		
Cooling Tower #3	IA14	1	unk.		
Cooling Tower #4	IA15	1	unk.		
Cooling Tower #5	IA16	1	unk.		
Cooling Tower #6	IA17	1	unk.		
Cooling Tower #7	IA18	1	unk.		

18.2 Documentation of Emissions

Parameter	Value	Units	Basis
Hours of Operation	8,760	hr./yr.	Assumed worst-case potential

Emission Unit	Pollutant	Unit Cooling Capacity †1 (ton)	Recirculation Rate †2 (gpm)	Total Liquid Drift †3 (%)	Total Dissolved Solids (TDS) †4 (ppm)	Potential PM Emissions †5 (tpy)
EC-1	PM	515	1,030	0.002%	20,600	0.93
EC-2	PM	200	400	0.002%	20,600	0.36
EC-3	PM	200	400	0.002%	20,600	0.36
EC-4	PM	484	968	0.002%	20,600	0.87
EC-5	PM	561	1,122	0.002%	20,600	1.01
EC-6	PM	577	1,154	0.002%	20,600	1.04
EC-7	PM	416	832	0.002%	20,600	0.75

Total Potential: 5.34
Total Actual †6: 3.66

LEGEND	
†1 Note:	Capacity based on facility records
†2 Note:	Recirculation rate estimated as two gpm per condenser tonnage by industry standards.
†3 Note:	Total Liquid Drift obtained from AP 42, §13.4, Table 13.4-1 for Induced Draft units
†4 Note:	Geometric Mean TDS Value (ppm) obtained from AP 42, §13.4, Table 13.4-2.
†5 Note:	PM emissions calculated as follows: PM/PM10/PM2.5 PTE (tpy) = (recirculation rate, gpm)*(60 min./hr.)*(Annual Ops, hr./yr.)*(Density of Water, 8.345 lb./gal.)*(Drift Rate, %)*(TDS, ppm/1,000,000 ppm)/(2,000 lb/ton)
†6 Note:	Actual emissions estimated by ratio of 6,000 hr./yr. operation = Potential PM emissions x (6,000 hr./8,760 hr.).

19. Emissions from Wastewater Treatment Plant

IA20

19.1 Emission Unit Nomenclature, Process Rates, and SCC Units

Process Description	KyEIS Source ID	KyEIS Process ID	Construc. Date	SCC Code	SCC Units
Wastewater Treatment	IA20	1			

19.2 Documentation of Emissions

Emission Unit	Pollutant	Processing Rate (MMgal./day)	VOC Emission Factor †1 (lb/yr. per MMgal./day)	VOC Emissions	
				Actual †2 (tpy)	Potential †3 (tpy)
Wastewater Plant	VOC	0.4	188	0.038	0.056

LEGEND

†1 Note: Emission factor obtained from Bay Area Air Quality Management District (BAAQMD):
 “80th Percentile Emission Factor for POTW (Publicly Owned Treatment Works) Liquid Processes”
 †2 Note: Actual VOC Emissions (tpy) estimated by:
 (Actual Processing Rate, MM gal./day) * (VOC Emission Factor, lb/yr. / MM gal./day) /2,000 lb/ton
 †3 Note: Potential VOC Emissions conservatively assumed to be 1.5 times actual emissions.

**PTE Calcs
for Title V Renewal Application
20. Emissions from Cleaners**

IA21

20.1 Emission Unit Nomenclature, Process Rates, and SCC Units

Process Description	KyEIS Source ID	KyEIS Process ID	Construc. Date	SCC Code	SCC Units
Cleaners	IA21	1			

20.2 VOC Emissions

20.3 HAPs Emissions

Cleaning Product	Actual Usage (gal./yr.)	Product Density (lb/gal.)	VOC Content (w/w)%	VOC Emissions		HAP Content (w/w)%	HAP Emissions	
				(lb/yr.)	(tpy)		(lb/yr.)	(tpy)
Boost 3201	880	10.01	0.0%	0.	0.	0%	0.	0.
Defoamer	220	7.84	0.0%	0.	0.	0%	0.	0.
Finesse QF-3C	6,161	10.52	0.0%	0.	0.	0%	0.	0.
K-MAX TFC Green II	165	9.5	13.0%	203.8	0.102	3%	47.03	0.024
Laundry Neut Det Plus	45	8.47	40.0%	152.5	0.076	0%	0.	0.
Lift RT	385	9.14	9.0%	316.7	0.16	0%	0.	0.
Luster QF-BC	14	10.18	0.0%	0.	0.	0%	0.	0.
Prism QF-BH	951	9.43	0.0%	0.	0.	0%	0.	0.
Quorum Purple	1,595	11.	0.0%	0.	0.	0%	0.	0.
Quorum Yellow LP	55	9.8	0.0%	0.	0.	0%	0.	0.
Release QF (usage in lb/yr.)	6,284	N/A	0.0%	0.	0.	0%	0.	0.
SHC Extreme II	15,487	11.93	0.0%	0.	0.	0%	0.	0.
Smokexx QF-BHF	4	10.14	0.0%	0.	0.	0%	0.	0.
Sparkle QF-L	20,414	9.7	0.0%	0.	0.	0%	0.	0.
Sulfam Plus 204 (usage in lb/yr.)	3,150	N/A	0.0%	0.	0.	0%	0.	0.

Total Actual:	0.34	Total Actual:	0.024
Total Potential †1:	0.61	Total Potential †1:	0.043

LEGEND

†1 Note: Potential emissions were conservatively estimated by multiplying actuals by a factor of (8,760 hr./yr. / 6,000 hr./yr. operation) x 1.25

**PTE Calcs
for Title V Renewal Application**

21. Emissions from Sanitizers

IA22

21.1 Emission Unit Nomenclature, Process Rates, and SCC Units

Process Description	KyEIS Source ID	KyEIS Process ID	Construc. Date	SCC Code	SCC Units
Sanitizers	IA22	1			

21.2 VOC Emissions

21.3 HAPs Emissions

Sanitizing Product	Actual Usage (gal./yr.)	Product Density (lb/gal.)	VOC Content (w/w)%	VOC Emissions		HAP Content (w/w)%	HAP Emissions	
				(lb/yr.)	(tpy)		(lb/yr.)	(tpy)
Boost 3200	935	8.57	0.0%	0.	0.	0%	0.	0.
Ecocare 250	211	8.49	10.0%	179.1	0.09	0%	0.	0.
Mirkoklene DF	64	9.	35.0%	201.6	0.1	0%	0.	0.
Pristine QF	25,130	9.57	0.0%	0.	0.	0%	0.	0.
Sani-Step (usage in lb/yr.)	20,100	NA	0.4%	80.4	0.04	0%	0.	0.
Vortexx	900	9.	14.79%	1,198.3	0.6	0%	0.	0.
Whisper V	6,325	8.33	5.0%	2,634.4	1.32	0%	0.	0.

Total Actual:	2.15	Total Actual:	0.
Total Potential †1:	3.92	Total Potential †1:	0.

LEGEND

†1 Note: Potential emissions were conservatively estimated by multiplying actuals by a factor of:
(8,760 hr./yr. / 6,000 hr./yr. operation) x 1.25

**PTE Calcs
for Title V Renewal Application**

22. Emissions from Inkjet Printing

IA23

22.1 Emission Unit Nomenclature, Process Rates, and SCC Units

Process Description	KyEIS Source ID	KyEIS Process ID	Construc. Date	SCC Code	SCC Units
Inkjet Printing	IA23	1			

22.2 Documentation of VOC Emissions

VideoJet Ink Product	Number of Units Bought	Unit Size	Product Density (lb/gal.)	Ink Usage (lb/yr.)	VOC Content (w/w)%	VOC Emissions	
						(lb/yr.)	(tpy)
Videojet Make Up Cartridges Part # V0001-480	205	Liter	6.56	355.05	10%	35.51	0.02
Videojet Make Up Liters Part # V706-D	338	Liter	6.66	594.32	97%	576.49	0.29
Ink Cartridges Part # V0001-680	46	Liter	7.21	87.56	26%	22.76	0.01
Ink Liters Part # V411-D	21	Liter	7.16	39.69	78%	30.96	0.02
Box Glue	35,280	lb	7.51	35,280.	0%	0.	0.
Card Stock Glue	39,216	lb	7.93	39,216.	0%	0.	0.

Total Actual: 0.33
Total Potential †1: 0.67

LEGEND

†1 Note: Potential emissions were estimated by multiplying actuals by a factor of 2

**PTE Calcs
for Title V Renewal Application**

23. Emissions from Refrigeration Equipment

IA24

23.1 Emission Unit Nomenclature, Process Rates, and SCC Units

Process Description	KyEIS Source ID	KyEIS Process ID	Construc. Date	SCC Code	SCC Units
Refrigeration Equipment	IA24	1			

23.2 Documentation of GWP Emissions

Refrigerant Product Designation	Facility-wide Capacity †1 (lb)	Refrigerant Loss †2		Component Fraction (%)	GWP †3	Potential GHG Emissions †4 (ton CO2e/yr.)
		(wt.)%	(lb/yr.)			
R134a	6.6	15.0%	0.99	100%	1,430	0.71
R404a	29.	15.0%	4.35	see below	3,922	8.53
HFC-125				44%	3,500	
HFC-134a				4%	1,430	
HFC-143a				52%	4,470	

Total Potential: 9.24
Total Actual †5: 9.24

LEGEND

†1 Note: Total amount of refrigerant capacity at the facility.
 †2 Note: It is conservatively assumed for potential emissions that the maximum refrigerant released is 15% of the unit capacity.
 †3 Note: GWP values are from 40 CFR Part 98 Table A-1. Values not specified in the CFR were taken from http://www.engineeringtoolbox.com/Refrigerants-Environment-Properties-d_1220.html
 †4 Note: GHG Emissions= (Refrigerant lost, lb/yr.) * (GWP) / (2000 lb/ton)
 †5 Note: Actual Amount of refrigerant GHG emissions is conservatively assumed to equal potential GHG emissions.

Project Insignificant Activity Units

Permit Emissions Unit	Company ID	Burner Heat Input Rating (MMBtu/hr.)	PM/PM10/PM2.5	SO ₂	NO _x	CO	VOC	Formaldehyde	Total HAPS		
									Non-Metal	Metal	
			Natural Gas Emission Factors (AP-42 §1.4)								
			7.60	0.60	100	84	5.50	0.08	1.88	0.01	
			lb/MMscf	lb/MMscf	lb/MMscf	lb/MMscf	lb/MMscf	lb/MMscf	lb/MMscf	lb/MMscf	
Annual Emissions (ton/yr.)											
IA-24	Dryer 1-1 Duet Burner	2	0.07	0.01	0.86	0.72	0.05	6.44 E-04	0.016	6.01 E-05	
IA-25	Dryer 1-2 Duet Burner	2	0.07	0.01	0.86	0.72	0.05	6.44 E-04	0.016	6.01 E-05	
IA-26	Dryer 2-1 Duet Burner	2	0.07	0.01	0.86	0.72	0.05	6.44 E-04	0.016	6.01 E-05	
IA-27	Dryer 2-2 Duet Burner	2	0.07	0.01	0.86	0.72	0.05	6.44 E-04	0.016	6.01 E-05	

**Air Emissions Inventory
for Conversions**

Common Conversions		
Pressure	14.6959488	psi/atm.
Pressure	760	mm Hg/atm.
Pressure	101,325	Pa/atm.
Pressure	1,013.25	hPa/atm.
Pressure	101.325	kPa/atm.
Pressure	1.01325	bar/atm.
Length	0.3048	m/ft.
Length	304.8	mm/ft.
Density of Water	8.3454	lb/gal.
Area	10.764	ft. ² /m ²
Power	3,412.14	Btu/kWh
Molar Volume	359.039	ft. ³ /lb-mol
Molar Volume	2,685.798	gal./lb-mol
Volume	42.	gal./bbl
Volume	7.480519481	gal./ft. ³
Volume	3.785411784	L/gal.
Volume	3,785.411784	mL/gal.
Temp	273.15	°C to K
Temp	459.67	°F to R
Time	8,760.	hr./yr.
Time	365.	day/yr.
Time	24.	hr./day
Time	60.	min./hr.
Mass	2.204622622	lb/kg
Mass	453.59237	g/lb
Mass	2,000.	lb/ton
Enthalpy Nat. Gas	1,020.	Btu/ft. ³
Heat	1,000,000.	Btu/MMBtu
Ideal Gas Law Constant	1.314439	ft ³ ·atm/lb-mole·°K
Ideal Gas Law Constant	10.73159	ft. ³ psia/lb-mol °R

Element	Symbol	Atomic Nr.	Atomic Wt.
Hydrogen	H	1	1.00794
Beryllium	Be	4	9.012182
Carbon	C	6	12.0107
Nitrogen	Ni	7	14.00674
Oxygen	O	8	15.9994
Fluorine	F	9	18.99484032
Sodium	Na	11	22.969768
Magnesium	Mg	12	24.305
Aluminum	Al	13	26.981539
Silicon	Si	14	28.086
Phosphorus	P	15	30.9738
Sulfur	Se	16	32.066
Chlorine	Cl	17	35.4527
Potassium	K	19	39.0983
Calcium	Ca	20	40.078
Titanium	Ti	22	47.88
Chromium	Cr	24	51.9961
Manganese	Mn	25	54.938049
Iron	Fe	26	55.847
Cobalt	Co	27	58.9332
Nickel	Ni	28	58.6934
Copper	Cu	29	63.546
Zinc	Zn	30	65.39
Arsenic	As	33	74.92159
Selenium	Se	34	78.96
Bromine	Br	35	79.904
Cadmium	Cd	48	112.411
Platinum	Pt	78	195.08
Mercury	Hg	80	200.59
Lead	Pb	82	207.2
Bismuth	Bi	83	208.98037

GHG	CO ₂ e Multiplier
CH ₄	25
N ₂ O	298

scc_code	scc1_desc	scc2_desc	scc3_desc
38500101	Industrial Processes	Cooling Tower (3-85)	Process Cooling (3-85-001)
38500102	Industrial Processes	Cooling Tower (3-85)	Process Cooling (3-85-001)
38500110	Industrial Processes	Cooling Tower (3-85)	Process Cooling (3-85-001)

scc4_desc
Mechanical Draft (3-85-001-01)
Natural Draft (3-85-001-02)
Other Not Specified (3-85-001-10)

scc5_desc **units_denom_desc**
Million Gallons Cooling Water Throug Million Gallons
Million Gallons Cooling Water Throug Million Gallons
Million Gallons Cooling Water Throug Million Gallons

materials_desc	materials_io_desc
Cooling Water	Throughput
Cooling Water	Throughput
Cooling Water	Throughput

11. Emissions from Protecon Units (combined)

EU20-21

These units have been shut down, and replaced with two new lines.

11.1 Emission Unit Nomenclature, Process Rates, and SCC Units

> Protecon units 1 and 2 are used for cocktail sausages only.

Process Description	KyEIS Source ID	KyEIS Process ID	Construc. Date	SCC Code	SCC Units
Protecon Unit #1 and #2	20-21	1	1994	30299998	Tons

11.2 Documentation of Emission Factors

> * Maximum hourly natural gas usage based on rated heat input capacity and a heat content of 1,020 MMBtu/MMscf. Annual rate based on hourly rate assuming 8,760 hours of operation per year.

Maximum Hours of Operation 8,760 hr/yr.

Parameter	Value	Units	Basis
Maximum Meat Production Rate	6,245	lb/hr.	Equipment design specification.
Meat Production Rate During Protecon Stack Test	5,786	lb/hr.	Meat production during February 2011 Protecon test
Maximum Liquid Smoke Usage Rate (Emulsified Products)	40.6	gal./hr.	Equipment design specification.

Liquid Smoke Concentration for:

Emulsified Products	8	wt. %	Product specifications
Coarse Ground Products	33	wt. %	Product specifications
Maximum Liquid Smoke Usage Rate (Coarse Ground Products)	167.4	gal./hr.	

Volume-based Liquid Smoke Flavoring Mix Ratio (as-applied)

Water	3	parts by vol	Recipe specifications
Smoke Concentrate	1	parts by vol	Recipe specifications
Volume Based Liquid Smoke Concentration	25	vol. %	
Water Density	8.34	lb/gal.	
Smoke Concentrate Density	10.1	lb/gal.	MSDS
Dilute Liquid Smoke Density	8.78	lb/gal.	

Mass-based Liquid Smoke Flavoring Mix Ratio (as-applied)

Water	2.5	parts by wt.	
Smoke Concentrate	1	parts by wt.	
Mass Based Liquid Smoke Concentration	28.8	wt. %	
Mass Based Liquid Smoke Usage Rate During Protecon Test	356.4	lb/hr.	Liquid smoke usage during March 1994 Protecon test
Mass of Smoke Concentrate Used During Protecon Test	102.5	lb/hr.	Smoke concentrate usage during March 1994 Protecon test
Volume of Smoke Concentrate Used During Protecon Test	10.1	gal./hr.	Smoke concentrate usage during March 1994 Protecon test

Pollutant	Emission Factor	Units	Basis
PM/PM10/PM2.5	0.02	lb/ton meat emulsified	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
VOC	0.42	lb/ton meat emulsified	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Acetaldehyde	9.00E-04	lb/ton meat emulsified	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Acrolein	2.00E-04	lb/ton meat emulsified	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Formaldehyde	0.0185	lb/ton meat emulsified	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Phenol	N/A	lb/ton meat emulsified	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Total HAPs	1.96E-02	lb/ton meat emulsified	Calculated sum

11. Emissions from Protecon Units (combined)

EU20-21

Pollutant	Emission Factor	Units	Basis
PM/PM10/PM2.5	0.09	lb/ton meat coarse ground	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
VOC	1.75	lb/ton meat coarse ground	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Acetaldehyde	0.05	lb/ton meat coarse ground	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Acrolein	0.05	lb/ton meat coarse ground	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Formaldehyde	0.063	lb/ton meat coarse ground	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Phenol	N/A	lb/ton meat coarse ground	Based on January 30, 2017 Air Inspection Report email with KDAQ (Natalie Cox and Daniel Porter)
Total HAPs	1.63E-01	lb/ton meat coarse ground	Calculated sum

11.3 Emission Calculations Based on Factors Documented

Emission Unit	Pollutant	Emission Factor (lb/ton meat coarse)	Maximum Meat Production (lb/hr.)	Uncontrolled Emissions	
				Hourly (lb/hr.)	Annual (tpy)

Protecon Unit #1 and #2

PM/PM10/PM2.5	0.09	6,245	0.56	2.46
VOC	1.75	6,245	10.93	47.87
Acetaldehyde	0.05	6,245	0.31	1.37
Acrolein	0.05	6,245	0.31	1.37
Formaldehyde	0.063	6,245	0.39	1.72
Total HAPs	0.163	6,245	1.02	4.46

LEGEND

- SAN — EXISTING SANITARY SEWER
- STS — EXISTING STORM SEWER
- GL — EXISTING GAS LINE
- WM — EXISTING WATER MAIN
- OE — EXISTING OVERHEAD ELECTRIC
- UE — EXISTING UNDERGROUND ELECTRIC
- ELEV — EXISTING CONTOUR ELEVATION
- PS — PROCESS SEWER
- GL — GAS LINE
- ELEV — CONTOUR ELEVATION
- SPOT — SPOT ELEVATION
- CON — CONCRETE PAVEMENT

SITE INFORMATION

OWNER: TYSON FOODS
 CONTACT PERSON:
 RUSSELL HATCHER
 859-635-8310
 russell.hatcher@tyson.com
 ADDRESS:
 1099 BOB HUBER RD, ALEXANDRIA KY, 41001

ARCHITECT / ENGINEER:
 HIXSON ARCHITECTS AND ENGINEERS
 659 VAN METER ST CINCINNATI, OHIO
 PHONE: 513-241-1230
 FAX: 513-241-1287

CLASSIFICATION: I1
 INDUSTRIAL ONE ZONE
 PIDN: 999-99-35-778.0

TOTAL SITE AREA: 45.14 AC
 TOTAL DISTURBED AREA: 33,300 SF, .76 AC
 PRE-DEVELOPED IMPERVIOUS: 724,220 SF, 16.63 ACRES
 PROPOSED ADDED IMPERVIOUS: 26,000 SF, .6 ACRES
 POST DEVELOPED IMPERVIOUS: 750,220 SF, 17.22 ACRES

MAXIMUM BUILDING HEIGHT: 50 FEET
 PROPOSED BUILDING HEIGHT: 37 FEET

EMPLOYEE COUNT

FIRST SHIFT: 275
 SECOND SHIFT: 175
 THIRD SHIFT: 193

PARKING REQUIREMENTS:
 TWO (2) PARKING SPACES FOR EACH THREE (3) INCLUDING
 MANUFACTURING. EMPLOYEES-THE TOTAL NUMBER OF PARKING
 SPACES RESEARCH AND TESTING BEING THE TOTAL NUMBER OF
 EMPLOYEES ON ANY TWO LABORATORIES (2) CONSECUTIVE
 SHIFTS HAVING THE LARGEST NUMBER OF EMPLOYEES BASED
 ON DESIGN CAPACITY, PLUS ONE (1) PARKING SPACE FOR EACH
 COMPANY VEHICLE OPERATING FROM THE PREMISES.

TOTAL PARKING SPACES REQUIRED: 194
 EXISTING PARKING SPACES: 320

GENERAL NOTES

- A. DRAWING (TOPOGRAPHIC) INFORMATION BASED ON EXISTING SITE DRAWINGS FROM PREVIOUS PROJECTS FROM HIXSON AND DRAWINGS PROVIDED BY CLIENT AND IS NOT THE RESULT OF A FIELD SURVEY. FIELD VERIFY EXISTENCE AND LOCATION OF ALL UTILITIES BEFORE STARTING WORK AND NOTIFY OWNER OF ANY DISCREPANCIES FROM INFORMATION SHOWN.
- B. MAINTAIN AND PROTECT EXISTING UTILITIES DURING CONSTRUCTION. DO NOT INTERRUPT ANY EXISTING UTILITY SERVICE WITHOUT PRIOR APPROVAL FROM OWNER. RESTORE AND REPAIR ANY DAMAGED UTILITIES TO ORIGINAL CONDITION. RESTORE AND REPAIR OTHER EXISTING IMPROVEMENTS (PAVING, SLABS, LAWN AREAS ETC.) WHERE DAMAGED OR REMOVED WITH SIMILAR MATERIALS (SIZE, TYPE, STRENGTH) TO EFFECT A SERVICEABLE INSTALLATION ACCEPTABLE TO THE OWNER. COORDINATE INDICATED WORK WITH OTHER NEW AND EXISTING UTILITIES. PROVIDE ALL BENDS, OFFSETS AND ETC. REQUIRED DUE TO COORDINATION WHETHER SHOWN ON DRAWINGS OR NOT.
- C. DO NOT DEMOLISH EXISTING UTILITIES UNTIL TEMPORARY OR PERMANENT MEASURES ARE IN PLACE TO PROVIDE THE SITE WITH PROPER STORMWATER DRAINAGE, SANITARY SEWER SERVICE, WATER SERVICE, ETC.
- D. PROVIDE TEMPORARY OR PERMANENT MEASURES TO ENSURE SITE ACCESS AND CIRCULATION PATHS ARE MAINTAINED, COORDINATE WITH OWNER.
- E. MAINTAIN FACILITY SECURITY AS DIRECTED BY OWNER. SCHEDULE AND COORDINATE WORK WITH OWNER TO MINIMIZE INTERFERENCE WITH OWNERS OPERATIONS.
- F. VISIT SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS PRIOR TO SUBMITTING BIDS. FIELD VERIFY EXISTING CONDITIONS, PRIOR TO START OF CONSTRUCTION.
- G. PRIOR TO PLACEMENT OF STRUCTURES, SLABS, ETC., VERIFY SURROUNDING ELEVATIONS, ADJUST PROPOSED STRUCTURE/SLAB ELEVATIONS TO PROVIDE POSITIVE DRAINAGE CONDITIONS.
- H. LEGALLY DISPOSE OF ALL EXCAVATED MATERIAL, WASTE AND OTHER DEBRIS, OFF OWNERS PROPERTY.
- I. BACKFILL ALL UNDERGROUND STRUCTURES WITH COMPACTED GRANULAR BACKFILL MATERIAL.
- J. PIPE BEDDING AND BACKFILL PER 91CS.10.
- K. PREVENT MUD AND DEBRIS FROM BEING DEPOSITED ON PUBLIC STREETS.
- L. PERFORM ALL WORK IN CONFORMANCE WITH APPLICABLE PROVISIONS OF BUILDING CODE, OSHA AND LOCAL CODES AND ORDINANCES. COMPLY WITH ALL REQUIREMENTS FOR PERMITS, LICENSES, FEES AND CODES, AND PAY ALL ASSOCIATED COST.
- M. COMPLY WITH LOCAL UTILITY, ENVIRONMENTAL AND EROSION CONTROL REGULATIONS.
- O. REINFORCING: ASTM A-615 GRADE 60.
- Q. NOTIFY AND SECURE APPROVAL FROM GOVERNING AUTHORITIES PRIOR TO PERFORMING ANY WORK IN THE PUBLIC RIGHT OF WAY.
- R. DIMENSIONAL LAYOUTS AS SHOWN ARE FROM OUTSIDE FACE OF FOUNDATION WALL, FACE OF CURB, FACE OF WALL, CENTERLINE/EDGE OF PARKING, EDGE OF PAVEMENT OR OTHER FIXED POINT.
- S. BUILDING DIMENSIONS SHOWN ARE FOR ROUGH GRADING, LAYOUT AND COORDINATION ONLY. REFER TO ARCHITECTURAL SERIES DRAWINGS FOR FINAL BUILDING DIMENSIONS.
- T. COORDINATE LOCATION OF ALL PIPE GUARDS AND GUARDRAIL POSTS WITH ALL EXISTING AND PROPOSED UNDERGROUND UTILITIES. VERIFY PRIOR TO CONSTRUCTION.



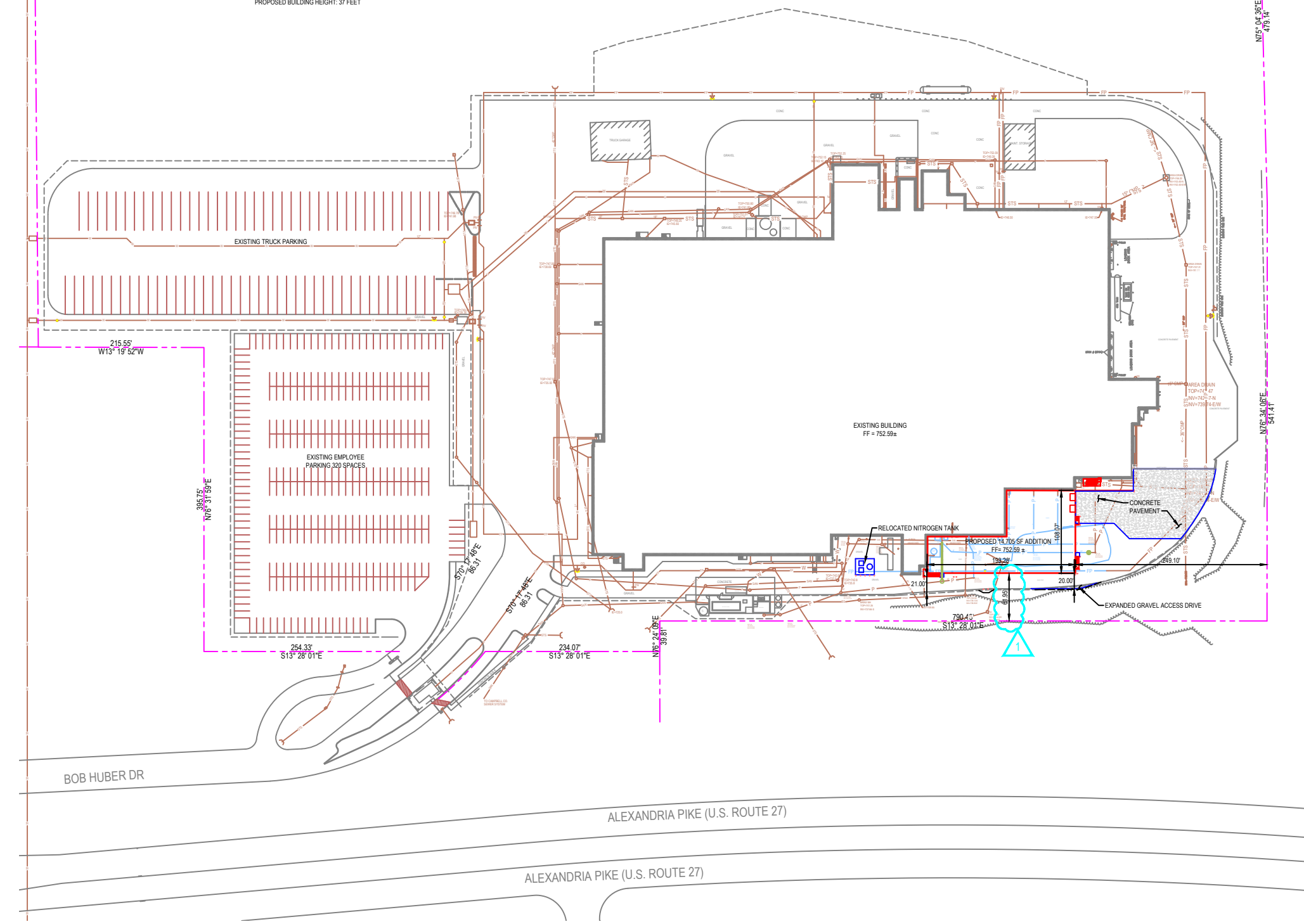
Tyson Foods, Inc.
 Prepared Foods Engineering
 2225 W. Martin Luther King Blvd.
 Fayetteville, Arkansas 72701

"This drawing and all specifications here-on are the property of Tyson Foods Inc. and may not be disclosed without its prior written consent. These documents are exempt from FOIA disclosure under 5 U.S.C. Section 552 (b)(4)."

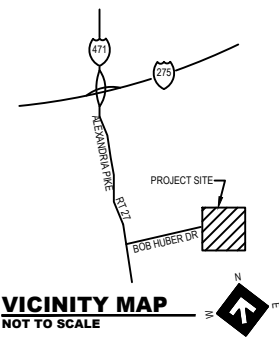
DATE	BY	DESCRIPTION	REV
12/27/22	MM	DESIGN ISSUE	0
01/24/23	MM	FOR COST ESTIMATION	1

LEGEND

[Blue Hatched]	INDICATES EXISTING CONSTRUCTION
[Red Hatched]	INDICATES DEMOLITION
[Green Hatched]	INDICATES TEMPORARY CONSTRUCTION
[Pink Hatched]	INDICATES RELOCATED ELEMENTS
[Yellow Hatched]	INDICATES NEW CONSTRUCTION



OVERALL SITE PLAN
 1" = 50.00'



VICINITY MAP
 NOT TO SCALE

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HIXSON JOB NO. 10025.00

CLARYVILLE COCKTAILS PROCESSING AND BUILDING UPGRADE

OVERALL SITE PLAN

CLARYVILLE	KENTUCKY
PROJECT NUMBER:	1101017
SHEET ISSUE DATE:	12/22/21
DRAWN BY:	MM
CHECKED BY:	MM
APPROVED BY:	MM
SCALE:	1" = 50'
DRAWING NUMBER:	REV: 1
SHEET:	CS1.1

Project Status


Section AI.5 Other Required Information

Indicate the documents attached as part of this application:

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

Section AI.6: Signature Block

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



Authorized Signature

Derwood Brady

Type or Printed Name of Signatory

8-8-2023

Date

Plant Manager

Title of Signatory

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