CONDITIONAL MAJOR PERMIT RENEWAL APPLICATION

Kellanova USA, LLC / Pikeville Facility

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July 2023

Project 231801.0001

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1. APPLICATION OVERVIEW

1.1 Purpose of Application

Kellanova USA, LLC. (Kellanova)[1] operates a baked good products manufacturing facility located in Kimper, Kentucky, known as the Pikeville plant. The Pikeville plant is currently regulated as a conditional major source and operates under the authority of a Federally Enforceable State Operating Permit (FESOP), F-18-040, issued by the Kentucky Division for Air Quality (KDAQ) on January 26, 2019. As the operating permit expires on January 26, 2024, a renewal application for the permit must be submitted at least six months prior to the permit expiration date, or by July 26, 2023.[2] This application report and its appendices, which include required forms, constitute the renewal application for the Pikeville plant.

1.2 Summary of Application Contents

Following this introduction, Section 2 provides a description of the operations at the Pikeville plant. Section 3 provides a summary of the emissions quantification. Section 4 presents a summary of applicable requirements under Federal regulations and Kentucky State Implementation Plan (SIP) rules. Section 5 includes a discussion of requested permit updates and revisions.

Appendix A contains the confidentiality substantiation. Appendix B contains the required DEP7007 series application forms for information new or different from the most recent source-wide permit application[3]. Appendix C provides the source-wide emissions calculations.

- Section 1. Application Overview
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[1] Note that an administrative amendment for the name/ownership change was submitted July 13, 2023, reflecting this information.

[2] Permit Condition G.2.a.

[3] 401 KAR 52:030, Section 4.(2)(c)

2. FACILITY LOCATION AND OPERATIONS

2.1 Facility Location

The Pikeville facility is located at 3321 State Highway 194 East in Kimper (Pike County), Kentucky. The facility is bordered by KY-194 to the north and rural tracts of land in all other directions. The Universal Transverse Mercator (UTM) coordinates of the facility are (approximately) 376.28 kilometers (km) East and 4156.31 km North (Zone 17).

2.2 Facility Process Description

The Pikeville plant is primarily engaged in the production of baked goods intended for human consumption. The primary production functions at the Pikeville plant meet the category descriptions for SIC Code 2051 for Bread, Cake, and Related Products and NAICS Code 311812 for Commercial Bakeries. Various types of baked goods are processed through one of three direct-fired ovens, Emission Units (EU) 01 (10.4 MMBtu/hr oven), 02 (10.4 MMBtu/hr oven), and 05 (11.82 MMBtu/hr oven). The other significant process at the Pikeville plant is the Cleaning and Sanitizing Process (EU06). In addition, the Pikeville facility has insignificant activities (IA), as listed in the following table, which are exempt from permitting per 401 KAR 52:030, Section 6.

Table 2-1. Insignificant Activities – Pikeville Facility

Process Equipment	Generally Applicable Regulations	Comments
Dextrose Use Bin (#1)	401 KAR 59:010	Potential to emit any criteria pollutant is less than 5 tpy.
Sugar Use Bin (#2)	401 KAR 59:010	Potential to emit any criteria pollutant is less than 5 tpy.
Flour Use Bins (#3-5)	401 KAR 59:010	Potential to emit any criteria pollutant is less than 5 tpy.
Flour Silos (#6)	401 KAR 59:010	Potential to emit any criteria pollutant is less than 5 tpy.
Graham Flour Silo (#5)	401 KAR 59:010	Potential to emit any criteria pollutant is less than 5 tpy.
Sugar Silo (#6)	401 KAR 59:010	Potential to emit any criteria pollutant is less than 5 tpy.
Dextrose Silo (#7)	401 KAR 59:010	Potential to emit any criteria pollutant is less than 5 tpy.
Eleven (11) indirect heat exchangers rated less than or equal to 1 MMBtu/hr	N/A	Potential to emit any criteria pollutant is less than 5 tpy.
Wastewater treatment plant	N/A	Potential to emit any criteria pollutant is less than 5 tpy. All emissions vents through digester flare. Flare combusts only digester gas, no sludge.
Wastewater Digestor flare (0.01 MMBtu/hr)	401 KAR 59:010 401 KAR 63:015	Potential to emit any criteria pollutant is less than 5 tpy.
Packaging Marking	N/A	Potential to emit any criteria pollutant is less than 5 tpy.
Two (2) on-site natural gas production wells	N/A	Potential to emit any criteria pollutant is less than 5 tpy. Not subject to 40 CFR Part 63 Subpart HH.

Process Equipment	Generally Applicable Regulations	Comments
Various natural gas and kerosene space heaters for comfort heating	N/A	Distillate oil-fired space heaters or ovens rated at less than 2 MMBtu/hr actual heat input. Gas-fired space heaters or ovens rated at less than 1 MMBtu/hr of actual heat input. Potential to emit any criteria pollutant is less than 5 tpy.
Ingredient mixing equipment with dust collection (exhausts indoors)	401 KAR 59:010	Potential to emit any criteria pollutant is less than 5 tpy.

3. EMISSIONS QUANTIFICATION

The primary pollutants emitted by the Pikeville plant are particulate matter (PM), total PM less than 10 microns in diameter (PM_{10}), total PM less than 2.5 microns in diameter ($PM_{2.5}$), carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO_X), sulfur dioxide (SO_2), greenhouse gases (GHGs), and Hazardous Air Pollutants (HAPs). The primary HAP of concern is hexane from natural gas combustion. The primary source of VOC emissions at this facility is from the evaporation of VOC-containing flavorings during product baking.

The following subsections provide an overview of the methodologies used to calculate potential emissions from the various emission units at the Pikeville plant. The results of these calculations, as well as detailed documentation of the associated emission factors and calculation methodologies, are provided in Appendix C.

3.1 Combustion Sources: Boilers and Ovens

Appendix C Tables 2 through 4 provide a complete summary of the parameters used in the potential emissions calculations for all combustion sources in operation at the Pikeville plant, including those combustion sources that are categorized as insignificant activities. In general, potential emissions calculations rely on the rated maximum heat input capacity of the unit, continuous annual operation (8,760 hours per year), and EPA's AP-42 emission factors from Chapter 1.4 for natural gas combustion and from Chapter 13.5 for flare combustion. For the purposes of this emissions summary, the same AP-42 emission factor for external fuel combustion was used for the boiler emissions as well as the oven combustion emissions. Potential GHG emissions from all combustion units are calculated using the appropriate factors from Subpart C of EPA's Mandatory GHG Reporting Rule (40 CFR 98), along with the Global Warming Potentials (GWP) established by Subpart A.

3.2 Cleaners and Sanitizers

Appendix C Table 5 calculates the VOC emissions associated with the use of cleaners and sanitizers at the facility. The VOC content of each cleaner/sanitizer was provided by the manufacturer. All actual VOC emissions were based on cleaner/sanitizer usage for the facility (June 2022 – May 2023). For each cleaner/sanitizer, VOC emissions were calculated as the product of the cleaner/sanitizer usage (lb/yr) and VOC content (w/w). These calculations assume that 100% of the volatile compounds are emitted during cleaner/sanitizer use. In addition, HAP emissions for cleaner/sanitizer use were calculated in a similar fashion, and air toxics emissions associated with cleaning and sanitizing processes were reviewed and found acceptable by KDAQ as part of the issuance of Revision 1 of Permit F-09-001-R1[4].

Potential VOC and HAP emissions for cleaning and sanitizing are as calculated in the July 2010 minor modification permit application.

3.3 VOC Emissions: Flavoring

Appendix C Table 6 lists the VOC-containing flavors in use at the facility and the fraction of each major VOC component in each flavoring, as specified by the flavoring manufacturers. It is assumed that 80% of the

[4] Permit F-09-001-R1 was issued on August 11, 2010.

propylene glycol is retained in the finished product and only 20% is actually emitted during baking. All other VOC fractions, however, were assumed 100% emitted during baking.[5]

Appendix C Tables 7 and 8 provide a complete summary of the parameters used in the potential emissions calculations for flavoring at the Pikeville plant. The VOC emissions from the use of flavorings at the facility are calculated on a mass balance basis. The VOC emissions are calculated as the product of the Flavor Application Rate (lb/hr) and the Effective VOC Content of each Flavor (%) as calculated in Appendix C Table 6. All products that result in VOC emissions from flavorings are specified in Appendix C Table 8. This table demonstrates how the PTE-controlling products for each line are selected, and how that information is used to determine the facility-wide uncontrolled PTE VOC from flavorings. The process throughput represents the tons per hour of finished product derived from design capacity based upon engineering evaluations performed by the facility.

Appendix C Table 9 presents the actual flavor usage for June 2022 through May 2023.

3.4 Insignificant Activities

3.4.1 PM Emissions: Process Equipment

Appendix C Table 10 calculates the particulate matter emissions from various manufacturing equipment including use bins and silos. The particulate matter emissions are calculated via the use of AP-42 emission factors. The AP-42 emission factors are from Chapter 9.9.1, "Grain Elevators and Processes", May 2003, Table 9.9.1-1. The emission factors used are for total particulate matter (all particle sizes). The particulate matter emissions were determined by multiplying the production rate by the hours of operation and the emission factor. For the basis of this emissions summary, the total hours of operation are considered to be 8,760 hours per year for potential emissions. The material throughput for the use bins and silos is derived from the capacity of each emission unit divided by 12 hours for the use bins (filled twice per day) and 24 hours for the silos (filled once per day).

3.4.2 Wastewater Treatment Flare Emissions

The facility's wastewater digester is used for pre-treatment of its sewage. The digestion process produces a steady stream of digester gas, which is primarily methane and CO_2, with traces of hydrogen sulfide (H_2S). This gas is disposed of through a small, basic ground-level flare, which continuously combusts the digester gas. The quantity of digester gas combusted has been estimated at 10,000 Btu/hour calculated using an emission factor for VOC emissions from municipal sewage treatment plants (from the EPA FIRE database) and conservatively assuming 75% VOC control efficiency for the digester flare. Emissions from the flare have been estimated using the AP-42 emission factors for flares and the above heat input rate. The resulting estimated emissions are far below the levels required to qualify as an Insignificant Activity under 401 KAR 52:030, Section 6.

3.4.3 On-Site Natural Gas Production Wells Emissions

The Pikeville plant also houses two on-site natural gas production wells which supplement the facility's utility-provided natural gas supply. This natural gas supply from the on-site wells is metered and combusted on-site. The resulting emissions associated with extraction of natural gas from these wells are far below the

[5] These retention rates were developed from empirical source testing performed at the Pikeville facility on October 13, 2009.

levels required to qualify as an Insignificant Activity under 401 KAR 52:030, Section 6, and emissions from the combustion of on-site well-extracted natural gas are accounted for in the emission calculations in Section 3.1.

3.4.4 Package Marking Emissions

Appendix C Table 11 presents the VOC emissions from the use of inks at the facility as calculated on a mass balance basis. VOC emissions were calculated as the product of the ink usage (lb/yr) and VOC content (w/w). These calculations assume that 100% of the volatile compounds are emitted during ink use. There are no HAP content in inks used by Pikeville plant. For the Fujifilm ink, the safety data sheet (SDS) does not provide VOC content so it is very conservatively assumed to be 100%. Ink usage was reviewed from the past 5 years to determine conservative assumption for potential ink usage.

3.4.5 Space Heaters for Comfort Heating Emissions

Emissions from space heaters were not estimated as part of this application. However, the Pikeville plant expects that potential emissions of any criteria pollutant is less than 5 tpy.

3.5 Summary of Source-Wide Potential Emissions

As shown in Table 3-1 below, using the aforementioned emission calculation methodologies, the plant-wide potential emissions remain below the Title V major source thresholds (100 tpy for any regulated pollutant, 10 tpy of a single HAP, 25 tpy of total HAPs). The facility-wide emissions also illustrate that the facility-wide VOC emissions limit is still relevant at 90 tpy.

Table 3-1. Potential Emissions

Pollutant	Potential Emissions (tpy)	Title V Major Source Threshold (tpy)	Above Threshold? (Y/N)
NO_X	18.73	100	N
CO	15.74	100	N
SO_2	0.11	100	N
Filterable PM	7.33	100	N
Total PM_{10}	7.33	100	N
Total $PM_{2.5}$	7.33	100	N
VOC	90.00	100	N
Total HAP	0.35	25	N
Max Single HAP	0.34	10	N
GHG (CO_2e)	22,355	N/A	N/A

4. REGULATORY REQUIREMENTS SUMMARY

Operations at the Pikeville facility are subject or potentially subject to certain federal and state air quality regulations. This section of the permit application summarizes the air permitting requirements and the key air quality regulations that apply to the facility.

In general, the Pikeville plant's regulatory applicability has not changed since the 2018 permit application.

4.1 Federally Enforceable Operation Permit Program

Under 401 KAR 52:030, KDAQ has incorporated provisions for sources that accept permit conditions (legally and practically enforceable) to limit their PTE below the major source thresholds listed in 401 KAR 52:020. As specified in 401 KAR 52:020, a major source with respect to the Title V regulations encompasses facilities with potential emissions of 100 tpy of any regulated pollutant, 10 tpy of any single HAP, and/or 25 tpy of any combination of HAPs.

To avoid being classified as a major source for the purposes of Title V permitting, the Pikeville facility has accepted a source-wide emission limit of 90 tons per rolling 12-month period for VOC as identified by Section D of the current operating permit. Compliance with this emission limit will be demonstrated by calculating actual emissions per rolling 12-month period monthly. At these operating levels, potential HAP emissions are well below the major source threshold, as demonstrated by Table 3-1. As such, the Pikeville facility is currently classified as a conditional major source because the facility has accepted limits to prevent emissions from exceeding the major source thresholds.

4.2 New Source Review Permitting Program

The New Source Review (NSR) permitting program generally requires a source to obtain a permit and undertake other obligations prior to construction of any project at an industrial facility if the proposed project results in the potential to emit air pollution in excess of certain threshold levels. The NSR program is comprised of two elements: Nonattainment NSR (NNSR) and Prevention of Significant Deterioration (PSD). The NNSR program potentially applies to new construction or modifications that result in emission increases of a particular pollutant for which areas classified as "nonattainment." The PSD program applies to project increases of those pollutants for which the area the facility is located in is classified as "attainment" or "unclassifiable."

The Pikeville plant is located in Pike County, which has been designated by U.S. EPA as an unclassified/attainment area for all criteria pollutants. Therefore, with respect to the NSR permitting program, only PSD requirements could potentially apply to the source for emissions of all regulated NSR pollutants.

Kentucky has incorporated the requirements of the PSD permitting program into its State Implementation Plan as 401 KAR 51:017. PSD regulations specifically define 28 industrial source categories for which the "major" source threshold is 100 tpy of any regulated pollutant.[6] The major source threshold for facilities not on this "List of 28" is 250 tpy. As discussed previously, the primary function of the Pikeville plant is production of baked goods intended for human consumption. As such, the Pikeville plant is classified under

[6] 401 KAR 51:001, Section 1 (120)(a)(1)(b)

SIC 2051 (Bread, Cake, and Related Products). This facility classification is not included on the "List of 28" source categories. Thus, the major source threshold under the PSD program for the facility is 250 tpy of a regulated pollutant. As demonstrated by Table 3-1, potential emissions of all regulated NSR pollutants from the Pikeville plant are less than 250 tpy. Consequently, the PSD program is not applicable to the plant based on current operations.

4.3 Federal Air Regulations

4.3.1 New Source Performance Standards

New Source Performance Standards (NSPS), promulgated under 40 CFR Part 60, require new, modified, or reconstructed sources to control emissions to the level achievable by the best-demonstrated technology as specified in the applicable provisions.

Any source subject to a NSPS is also subject to the general provisions of NSPS Subpart A, except as noted within the applicable source specific regulation. Subpart A requires initial notification, performance testing, recordkeeping and monitoring, provides reference methods, and mandates general control device requirements for all other subparts as applicable. The facility is not subject to any NSPS standard; therefore, the requirements of Subpart A are not applicable.

NSPS Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, applies to steam generating units for which construction, modification, or reconstruction commenced after June 9, 1989 and that have a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr). Steam generating unit is defined as

> *…a device that combusts any fuel and produces steam or heats water or heats any heat transfer medium.*

The three baking ovens are direct-fired combustions units. Therefore, the ovens do not meet the definition of steam generating units. In addition, all of the indirect heat exchangers at the Pikeville plant are less than 10 MMBtu/hr and therefore, these units are not subject to Subpart Dc.

NSPS are primarily developed for particular industrial source categories. Therefore, the applicability of a particular NSPS to a facility can be readily ascertained based on the industrial source category covered. There are no other NSPS standards potentially applicable to the operations at the facility.

4.3.2 National Emission Standards for Hazardous Air Pollutants

National Emission Standards For Hazardous Air Pollutants (NESHAP), codified under 40 CFR 63, establish the maximum degree of HAP emission reductions that is achievable for new or existing sources which fall under specific industrial source categories. The facility has potential HAP emissions less than 25 tpy and single HAP emissions less than 10 tpy. Therefore, the facility is classified as an area source of HAP.

Any source subject to a specific NESHAP is also subject to the general provisions of NESHAP Subpart A. Subpart A establishes compliance dates, operation and maintenance standards, and compliance, testing, monitoring, notification, recordkeeping, and reporting requirements for all other subparts as applicable. The facility is not subject to any NESHAP standard; therefore, the requirements of Subpart A are not applicable.

NESHAP Subpart HH, *National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities*, applies to oil and natural gas production facilities located at major and area sources of HAPs. The Pikeville facility is classified as an area source. An "affected source" at an area source via 40 CFR 63.760(b)(2) includes triethylene glycol (TEG) dehydration units, which does not represent the unit at the Pikeville facility. As an area source without a TEG dehydration unit, the Pikeville facility is not subject to Subpart HH.

NESHAP Subpart JJJJJ, *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, applies to industrial, commercial, or institutional boiler at an area source of HAP. Pursuant to 40 CFR 63.11237, a boiler is defined as:

> *…an enclosed device using controlled flame combustion in which water is heated to recover thermal energy in the form of steam and/or hot water…*

The three baking ovens are direct-fired combustions units. Therefore, the ovens do not meet the definition of a boiler. In addition, all of the indirect heat exchangers at the Pikeville plant are natural gas-fired. Pursuant to 40 CFR 63.11195, a gas-fired boiler is not subject to Subpart JJJJJ. Therefore, the Pikeville facility is not subject to Subpart JJJJJ.

NESHAP standards are developed for particular industrial source categories for either major or area sources of HAP and the applicability of a particular NESHAP to a facility can be readily ascertained based on the industrial source category covered. All other NESHAP are categorically not applicable to the facility.

4.4 Kentucky Air Regulations

Emission units at the Pikeville plant are subject to Kentucky Administrative Regulations (401 KAR). The applicability of key state regulations is discussed in the following subsections.

4.4.1 401 KAR 50:012 RAP Rule

Pursuant to 401 KAR 50:012, Section 1(2), all major air contaminant sources shall, at a minimum, apply control procedures that are reasonable, available, and practical (RAP), in the absence of a standard specified in Kentucky's Administrative Regulations. The Pikeville plant is not a major air pollution source for Title V purposes and therefore, the RAP rule is not applicable.

4.4.2 401 KAR 59:010 New Process Operations

Kentucky regulates the emissions of particulate through 401 KAR 59:010 for sources that are not subject to another emission standard for particulates. The cleaning and sanitizing process and various IA units are not sources of particulate and therefore, not subject to 401 KAR 59:010. For Section 3(2), the allowable emission rate for PM is based on the process weight which, as defined by 401 KAR 59:010 Section 2(2), means the total weight of all materials introduced into any affected facility which may cause any emission of particulate matter, but does not include liquid or gaseous fuels charged, combustion air, or uncombined water. The only process weight for the various indirect heat exchangers/comfort heaters is the natural gas fuel charged, therefore, they are not affected by the 401 KAR 59:010 requirements.

The opacity of the gaseous emissions from Oven Nos. 1, 2, and 5 are subject to 401 KAR 59:010 since the equipment was installed after the rule applicability date of July 2, 1975; the facility was constructed in 1990. The opacity from each emission unit specified above is limited to below 20 percent. The particulate matter emissions limit for each unit is based upon the following equation: $E = 3.59P^{0.62}$; where E is equal to the PM emission rate in pounds per hour and P is equal to the process input rate in tons per hour. This equation is

applicable to these emission units because the process input rates for the ovens are each less than 30 tons per hour. The exclusive use of natural gas as the fuel for the ovens as well as their inherent design ensures compliance with this rule. No specific recordkeeping or monitoring needs to be implemented in order to demonstrate continuous compliance with this standard.

Additionally, raw material use bins, the wastewater digestor flare, and ingredient mixing equipment are considered IA sources of particulate matter which are inspected monthly via a qualitative visible emissions evaluation as required in Section C of the permit.

4.4.3 401 KAR 59:015 New Indirect Heat Exchangers

This regulation applies to equipment, apparatuses, or contrivances used for the combustion of fuel in which the energy produced is transferred to its point of usage through a medium that does not come into contact with or add to the products of combustion. An "affected facility" is an indirect heat exchanger having a heat input capacity greater than one (1) MMBtu/hr. The eleven (11) indirect heat exchangers rated at less than or equal to 1 MMBtu/hr are not subject to these requirements, but the three (3) indirect heat exchangers rated greater than 1 MMBtu/hr (EU 07, 08, and 09) are subject to the requirements of 401 KAR 59:015. Pursuant to 401 KAR 59:015 Section 2(2), affected facilities under 40 CFR 60 Subpart Dc subject to a specific emissions standard are exempt from 401 KAR 59:015. Since the indirect heat exchangers rated greater than 1 MMBtu/hr are not subject to an emissions standard under NSPS Subpart Dc, they are still subject to the requirements of 401 KAR 59:015.

For the units affected by 401 KAR 59:015, particulate matter (PM) emissions are limited to 0.56 lb/MMBtu heat input per Section 4(1)(a). Opacity is limited to 20 percent (except for one 6-minute period of not more than 40 percent) per Section 4(2). Sulfur dioxide emissions are limited to 3.0 lb/MMBtu per Section 5(1)(a) of the rule as its heat input rating is below 10 MMBtu. All units affected by 401 KAR 59:015 will comply with its limits on PM emissions, sulfur dioxide emissions, and opacity by combusting only natural gas. No specific recordkeeping or monitoring needs to be implemented in order to demonstrate continuous compliance with this standard.

4.4.4 401 KAR 59:185 New Solvent Metal Cleaning Equipment

401 KAR 59:185 applies to any affected facility commenced on or after June 29, 1979 that is in an ozone nonattainment area or any affected facility commenced on or after June 29, 1979 that is part of a major source of VOC located in an ozone attainment area. The Pikeville facility is located in Pike County which is not currently classified as a nonattainment area for ozone. As the Pikeville facility has adopted a 90 tpy limit on VOC emissions, it is not classified as a major source and, therefore, is not subject to the VOC control technology for metal cleaning equipment requirements in 401 KAR 59:185.

4.4.5 401 KAR 63:015 Flares

Pursuant to 401 KAR 63:015, Section 2(1), flares, meaning a device at the tip of a stack or other opening used for disposal of waste gas streams by combustion, that are constructed after July 2, 1975 are subject to this generally-applicable rule. Section 3 of the rule establishes an opacity standard for particulate matter. Opacity of continuous emissions (visible emissions of particulate matter persisting for more than three minutes) is limited to 20 percent from any control device or stack associated with an affected operation. The digester flare complies with the opacity limit by proper operation of the flare.

4.4.6 401 KAR 63:020 Potentially Hazardous Matter or Toxic Substances

Kentucky regulates the emissions of toxic air pollutant emissions through 401 KAR 63:020. KDAQ can require that dispersion modeling or other analyses be completed by facilities constructing or modifying equipment when there is an increase in air toxic pollutant emissions, as defined in 401 KAR 63:020 Section 2 (2), deemed to be significant. This is done so that there is a documented basis for affirming that a facility does not cause an adverse impact. However, pursuant to 401 KAR 63:020, Section 1, the requirements of this rule are applicable only to the extent that such emissions are not elsewhere subject to the provisions of the Kentucky Administrative Regulations.

Although the Pikeville plant emits toxic air pollutants, the facility is an area source of HAP emissions as demonstrated by Table 3-1. The Pikeville plant ensures that HAP emissions are minimized by reviewing the HAP content of any flavor and sanitizer/cleaner considered for use on site. While 401 KAR 63:020 is applicable to the Pikeville plant, there are no ongoing requirements at this time.

5. REQUESTED PERMIT UPDATES

The Pikeville facility requests that the following updates be made to the current version of the operating permit (F-18-040, issued on January 26, 2019):

- The Pikeville plant submitted a notification of an off-permit change on April 4, 2019 to add a new natural gas-fired indirect heat exchanger with heat input capacity of 0.85 MMBtu/hr to the insignificant activities list in the IA08 group.
- The Pikeville plant submitted a notification of an off-permit change on June 1, 2022 to replace two (2) indirect heat exchangers less than or equal to 1 MMBtu/hr with two (2) new indirect heat exchangers each with heat input capacity of 1.85 MMBtu/hr. The two replacement indirect heat exchangers should be added with Emission Unit 07 and the IA08 group number should reflect 11 units.
- As noted in both off-permit changes, 401 KAR 59:010 should be removed from various IAs as reflected on the current DEP7007DD form in Appendix B.

These changes are reflected on the relevant DEP7007 permitting forms in Appendix B as well.

APPENDIX A. CONFIDENTIALITY SUBSTANTIATION

Identification of Information for Which Confidentiality is Asserted:

1. Portion of Appendix C, Tables 7-8: Product formulation data (proportion of flavorings used in each product) and maximum production rate.

Pursuant to the federal Freedom of Information Act (FOIA), 28 U.S.C. § 552 and 40 C.F.R. Part 2, the federal Clean Air Act, 42 U.S.C. § 7414(c), § 7661b(e), KRS 61.878(c), and 400 KAR 1:060, Kellanova USA, LLC hereby claims that the enclosed information, labeled as confidential, contains confidential business information and trade secrets. As such, the identified information is entitled to confidential treatment and excerpted from public disclosure. Disclosure of the identified confidential portions of this application would cause substantial injury to the Kellanova USA, LLC competitive position. Accordingly, Kellanova USA, LLC requests that product formulation data and material input rates are kept confidential from the public at all times and not be disclosed by the Kentucky Department of Environmental Protection (DEP) or USEPA. Furthermore, pursuant to the Federal Trade Secrets Act, 18 U.S.C. § 1905, this information is entitled to protection as a trade secret. Kellanova USA, LLC asserts a property right in its trade secrets. Therefore, disclosure of such information without compensation would violate the protections of the Fifth Amendment to the United States Constitution. Kellanova USA, LLC has submitted a public copy of the submittal from which the confidential information and secrets have been redacted.

If any person (including any representative or employee of any governmental agency) should request an opportunity to inspect or copy of this submittal, Kellanova USA, LLC should be notified immediately of any such request. Kellanova USA, LLC requests that a copy of all written material pertaining to such requests (including but not limited to the request itself and any agency determination with respect to such request) also be provided to Kellanova USA, LLC. Kellanova USA, LLC respectfully requests that sufficient advance notice of any intended release be provided so that Kellanova USA, LLC may avoid an inadvertent waiver of its rights and may pursue any remedies available to it, if necessary. See 40 C.F.R. § 2.213.

Kellanova USA, LLC requests set forth in the preceding paragraphs also apply to third-party requests directed to, or the intended release of, any memoranda, notes, transcripts, or other writing of any source whatsoever which would be made by or at the direction of any employee of the USEPA, Kentucky DEP, or any other government agency or entity, and which incorporates, includes, or relates to any of the matters (1) contained in any materials furnished by, or on behalf of, Kellanova USA, LLC to USEPA, Kentucky DEP, or to any other governmental agency or entity; or (2) referred to in any conference, meeting, telephone conversation, or interview between (A) representative, agents, and/or counsel for Kellanova USA, LLC and (B) employees of USEPA, Kentucky DEP, or any other governmental agency or entity.

Kellanova USA, LLC hereby certifies that the company has no knowledge that the information provided in this submittal has ever been published, disseminated, or otherwise become a matter of general public knowledge. The following Kellanova USA, LLC policies, which are currently in effect and are intended to remain in effect, serve as justifications for this claim:

1. Kellanova USA, LLC has always maintained an active policy of prohibiting disclosure of such information to third parties on a non-confidential basis. Kellanova USA, LLC attorneys review any proposed disclosures to ensure against inadvertent disclosure of such information.

2. Only employees with a need to know, third parties bound to secrecy by contract, and government agencies bound by law to keep such information confidential have received this information.
3. Third parties given access to such information on a non-confidential basis would be able to operate their own plants better without undertaking the substantial investment in research and development that Kellanova USA, LLC has undertaken.
4. Information pertaining to process information represents vital parameters of a process which is proprietary to Kellanova USA, LLC. Kellanova USA, LLC has expended substantial amounts of money, time, and manpower to develop these processes. Disclosure of such information would cause Kellanova USA, LLC to lose its investment and its competitive edge.

If Kentucky DEP is not satisfied that the enclosed information contains trade secrets or is entitled to confidential treatment, Kellanova USA, LLC requests a hearing on the confidentiality claim. In the event that USEPA or Kentucky DEP receives a FOIA or other request that applies to the enclosed information, Kellanova USA, LLC will cooperate fully in defending against that request. Kellanova USA, LLC has made and will continue to make every effort to comply with the reporting regulations of USEPA, Kentucky DEP, and other governmental agencies. Nothing contained in this letter is intended to waive any rights or to conflict with any requirements under those regulations. The assertions, claims, and requests contained in this letter and in the attached documents are intended to supplement the confidentiality provision of the statutes and regulations mentioned herein.

Section 3 Response. The following are responses to the requirements of 400 KAR 1:060, Section 3 for facilities submitting confidential information. To facilitate comparison of this information to the requirements of the regulation, it is organized as a direct, item-for-item response to each Section 3 requirement.

(1) See above.

(2)

(a) The facility's owner is
Kellanova USA, LLC
One Kellogg Square
Battle Creek, MI 49017

(b) This confidential information is being submitted to the Commonwealth of Kentucky in order to obtain a permit to discharge air pollutants. The facility is required by law to obtain an air pollution permit, and Kellanova USA, LLC believes that disclosure of the enclosed confidential information is necessary in order for a permit application to be successful. Therefore, submittal of this information is required by law.

(c) There has been no previous EPA or court decision regarding the acceptability of holding this information confidential. This information is not, and has never been, reasonably obtainable by other persons using legitimate means without the consent of Kellanova USA, LLC.

(d) Kellanova USA, LLC takes, and intends to continue taking, the following measures to protect the confidentiality of this information:

1. Kellanova USA, LLC has always maintained an active policy of prohibiting disclosure of such information to third parties on a non-confidential basis. Kellanova USA, LLC attorneys review any proposed disclosures to ensure against inadvertent disclosure of such information.

2. Only employees with a need to know, third parties bound to secrecy by contract, and government agencies bound by law to keep such information confidential have received this information.

3. Third parties given access to such information on a non-confidential basis would be able to operate their own plants better without undertaking the substantial investment in research and development that Kellanova USA, LLC has undertaken.

4. Information pertaining to process information represents vital parameters of a process which is proprietary to Kellanova USA, LLC. Kellanova USA, LLC has expended substantial amounts of money, time, and manpower to develop these processes. Disclosure of such information would cause Kellanova USA, LLC to lose its investment and its competitive edge.

(e) This information is not, and has never been, reasonably obtainable by other persons using legitimate means without the consent of Kellanova USA, LLC.

(f) Production capacity is customarily held confidential in the commercial baking industry as a strategic measure to prevent competitors from using such information strategically in making their own production decisions. As production capacity serves as an upper bound to sales volume, maintaining confidentiality around production capacity also limits the ability of competitors to determine the actual sales volume of a given product.

Product formulation information is the most valuable intellectual property owned by a commercial bakery. As such, this information is afforded the utmost protection and secrecy. Companies expend significant labor and cost into product research to produce a product with the exact characteristics desired, and avoid at all costs disclosure of any details that could aid a competitor in developing a competing product. Protected details include the identity of the manufacturer of the flavoring agents in use, the composition of those flavoring agents, and the formulation and production techniques used to manufacture the product. As such, the description and chemical composition of each proprietary flavoring in use is customarily held confidential in this industry. The name and product formulation data of each product made is also customarily held confidential in order to conceal aspects of the formulation of each product; for example, the presence or absence of flavoring agents used and the number of flavorings used are in themselves information regarding the formulation of a product.

(g) Third parties given access to such information on a non-confidential basis would be better able to operate their own plants without undertaking the substantial investment in research and development that Kellanova USA, LLC has undertaken. Disclosure of such information would cause Kellanova USA, LLC to lose its investment and its competitive edge.

(h) Public disclosure of this confidential information will impair the Cabinet's ability to obtain necessary information in the future because it would cause Kellanova USA, LLC, and other similar facilities, to avoid sharing such information with the Cabinet in order to avoid public disclosure of their valuable intellectual property. This is the case because these production activities cannot be undertaken on sufficiently large scale without the need to apply for and obtain a permit to discharge to the atmosphere, and such a permit cannot be issued without disclosure of this information to the Cabinet. The Cabinet's protection of this information as confidential business information is therefore essential in maintaining a cooperative information flow between Kellanova USA, LLC and the Cabinet.

Clarification of Confidentiality of Raw Material Throughput Capacities. Kellanova USA, LLC believes that the raw material throughput capacities of the baking ovens at this facility do not constitute "emissions data" as defined in 400 KAR 1:060(6)(a) and (b) with respect to VOC emissions from the volatilization of flavorings. In cases such as this facility's baking ovens, which do not bake yeast leavened products, the bulk raw material throughputs (flour, sugar, eggs, etc.) are inert materials with respect to air emissions. What determines the VOC emissions of each oven, beyond the ordinary emissions from the combustion of natural gas, is the mass balance of VOC-containing flavorings processed in the oven per hour and the VOC content of each flavoring used. This information is disclosed in the public version of this submittal (Appendix C, Tables 7 and 8). Unlike with ovens baking yeast-leavened products, this information alone is sufficient to determine "the identity, amount, concentration, and other characteristics" of the emissions from these sources, as these are the only parameters that directly affect the potential emission rates of the ovens.

APPENDIX B. DEP7007 APPLICATION FORMS

DEP7007 AI

DEP7007 A

DEP7007 N

DEP7007 V

DEP7007 DD

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

None

___ Additional Documentation attached

Source Name: Kellanova USA LLC (Pikeville Bakery)

KY EIS (AFS) #: 21- 195-00234

Permit #: F-18-040

Agency Interest (AI) ID: 3673

Date: Jul-23

Section AI.1: Source Information

Physical Location Address:	**Street:**	3321 State Highway 194 E				
	City:	Kimper	**County:**	Pike	**Zip Code:**	41539
Mailing Address:	**Street or P.O. Box:**	3321 State Highway 194 E				
	City:	Kimper	**State:**	KY	**Zip Code:**	41539

Standard Coordinates for Source Physical Location

Longitude: -82.4011 (decimal degrees) **Latitude:** 37.5457 (decimal degrees)

Primary (NAICS) Category: Commercial Bakeries **Primary NAICS #:** 311812

Classification (SIC) Category: Bread, Cake, and Related Products **Primary SIC #:** 2051

Briefly discuss the type of business conducted at this site: Kellogg's Pikeville site produces a variety of baked goods/pastries.

Description of Area Surrounding Source: ☑ Rural Area ☐ Industrial Park ☐ Residential Area ☐ Urban Area ☐ Industrial Area ☐ Commercial Area

Is any part of the source located on federal land? ☐ Yes ☑ No

Number of Employees: 425

Approximate distance to nearest residence or commercial 2,394 feet

Property Area: 10 Acres

Is this source portable? ☐ Yes ☑ No

What other environmental permits or registrations does this source currently hold or need to obtain in Kentucky?

NPDES/KPDES:	☑ Currently Hold	☐ Need	☐ N/A
Solid Waste:	☐ Currently Hold	☐ Need	☑ N/A
RCRA:	☐ Currently Hold	☐ Need	☑ N/A
UST:	☐ Currently Hold	☐ Need	☑ N/A

Type of Regulated Waste Activity: ☐ Mixed Waste Generator ☐ Generator ☐ Recycler ☐ Other: _____ ☐ U.S. Importer of Hazardous Waste ☐ Transporter ☐ Treatment/Storage/Disposal Facility ☑ N/A

Section AI.2: Applicant Information

Applicant Name: Kellanova USA LLC

Title: (if individual)

Mailing Address: **Street or P.O. Box:** 3321 State Highway 194 E

City: Kimper **State:** KY **Zip Code:** 41539

Email: (if individual)

Phone:

Technical Contact

Name: Robert Townley

Title: Environmental, Health & Safety Manager

Mailing Address: **Street or P.O. Box:** Same As Applicant

City: **State:** **Zip Code:**

Email: Robert.Townley@kellogg.com

Phone: (606) 631-9365 ext 305

Air Permit Contact for Source

Name: Same As Technical Contact

Title:

Mailing Address: **Street or P.O. Box:**

City: **State:** **Zip Code:**

Email:

Phone:

Section AI.3: Owner Information

☐ **Owner same as applicant**

Name: Kellanova USA LLC

Title:

Mailing Address:

Street or P.O. Box: One Kellogg Square

City: Battle Creek **State:** MI **Zip Code:** 49017

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: *(check all that apply)*

☐ Name Change	☐ Initial Registration	☐ Significant Revision	☐ Administrative Permit Amendment
☑ Renewal Permit	☐ Revised Registration	☐ Minor Revision	☐ Initial Source-wide OperatingPermit
☐ 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-Origir ☐ PSD ☐ NSR ☐ Other: _____

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

Pollutant:	Requested Limit:	Pollutant:	Requested Limit:
☐ Particulate Matter		☐ Single HAP	
☐ Volatile Organic Compounds (VOC)		☐ Combined HAPs	
☐ Carbon Monoxide		☐ Air Toxics (40 CFR 68, Subpart F)	
☐ Nitrogen Oxides		☐ Carbon Dioxide	
☐ Sulfur Dioxide		☐ Greenhouse Gases (GHG)	
☐ Lead		☐ Other	

For New Construction:

Proposed Start Date of Construction: *(MM/YYYY)* na

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

For Modifications:

Proposed Start Date of Modification: *(MM/YYYY)* na

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

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:

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

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.

[signature]	7-25-2023
Authorized Signature	**Date**
Richard Ray	Plant Manager
Type or Printed Name of Signatory	**Title of Signatory**

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

Section AI.7: Notes, Comments, and Explanations

Division for Air Quality

300 Sower Boulevard

Frankfort, KY 40601

(502) 564-3999

DEP7007A

Indirect Heat Exchangers and Turbines

___ Section A.1: General Information

___ Section A.2: Operating and Fuel Information

___ Section A.3: Notes, Comments, and Explanation

Additional Documentation

___ Complete DEP7007AI, DEP7007N, DEP7007V, and DEP7007GG.

____ Manufacturer's specifications

Source Name: Kellanova USA LLC (Pikeville Bakery)

KY EIS (AFS) #: 21- 195-00234

Permit #: F-18-040

Agency Interest (AI) ID: 3673

Date: Jul-23

Section A.1: General Information

Emission Unit #	Emission Unit Name	Process ID	Process Name	Identify General Type: Indirect Heat Exchanger, Gas Turbine, or Combustion Turbine	Indirect Heat Exchanger Configuration	Manufacturer	Model No./ Serial No.	Proposed/Actual Date of Construction Commencement *(MM/YYYY)*	SCC Code	SCC Units	Control Device ID	Stack ID
08	Indirect Heat Exchangers Greater than 1 MMBtu/hr	1	Natural Gas Combustion	Indirect Heat Exchanger	Condensing Boiler	Fulton Heating Solutions, Inc.	EDR-2000	na	10200603	Million Cubic Feet Natural Gas Burned	na	08
09	Indirect Heat Exchangers Greater than 1 MMBtu/hr	1	Natural Gas Combustion	Indirect Heat Exchanger	Condensing Boiler	Fulton Heating Solutions, Inc.	EDR-2000	na	10200603	Million Cubic Feet Natural Gas Burned	na	09

Section A.2: Operating and Fuel Information

Emission Unit #	If multipurpose unit, identify the percentage of use by purpose				Rated Capacity Heat Input *(MMBTU/hr)*	Rated Capacity Power Output		Describe Operating Scenario (only if this unit will be used in different configurations)	Classify Fuel as Primary or Secondary	Identify Fuel Type: Coal, Natural Gas, Wood, Biomass, Landfill/Digester Gas, Fuel Oil # (specify 1-6), or Other	Heat Content (HHV)		Maximum Operating Hours	Ash Content *(%)*	Sulfur Content *(%)*
	Space Heat	Process Heat	Power	Emergency			*(Specify units: hp, MW, or lb steam/hr)*					*(Specify units: Btu/lb, Btu/gal, or Btu/scf)*			
08		100%			1.85	na	na	na	Primary	Natural Gas	1,020	Btu/scf	8,760	Neg.	0.002 gr/scf
09		100%			1.85	na	na	na	Primary	Natural Gas	1,020	Btu/scf	8,760	Neg.	0.002 gr/scf

Section A.3: Notes, Comments, and Explanations

Division for Air Quality

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

DEP7007N

Source Emissions Profile

__ Section N.1: Emission Summary
__ Section N.2: Stack Information
__ Section N.3: Fugitive Informatic
__ Section N.4: Notes, Comments, and Explanations

Additional Documentation

___ Complete DEP7007AI

Source Name: Kellanova USA LLC (Pikeville Bakery)
KY EIS (AFS) #: 21- 195-00234
Permit #: F-18-040
Agency Interest (AI) ID: 3673
Date: Jul-23

N.1: Emission Summary

Emission Unit #	Emission Unit Name	Process ID	Process Name	Control Device Name	Control Device ID	Stack ID	Maximum Design Capacity *(SCC Units/hour)*	Pollutant	Uncontrolled Emission Factor *(lb/SCC Units)*	Emission Factor Source (e.g. AP-42, Stack Test, Mass Balance)	Capture Efficiency *(%)*	Control Efficiency *(%)*	Hourly Emissions		Annual Emissions	
													Uncontrolled Potential *(lb/hr)*	Controlled Potential *(lb/hr)*	Uncontrolled Potential *(tons/yr)*	Controlled Potential *(tons/yr)*
08	Indirect Heat Exchanger Greater than 1 MMBtu/hr	1	Natural Gas Combustion	na	na	08	1.81E-03	NO_x	100.00	AP-42 Section 1.4	na	na	0.18	na	0.79	na
							1.81E-03	CO	84.00	AP-42 Section 1.4	na	na	0.15	na	0.67	na
							1.81E-03	SO_2	0.60	AP-42 Section 1.4	na	na	1.09E-03	na	4.77E-03	na
							1.81E-03	Total $PM/PM_{10}/PM_{2.5}$	7.60	AP-42 Section 1.4	na	na	0.014	na	0.060	na
							1.81E-03	VOC	5.50	AP-42 Section 1.4	na	na	0.010	na	0.044	na
							1.81E-03	Total HAP	1.89	AP-42 Section 1.4	na	na	3.42E-03	na	0.015	na
							1.81E-03	Single Largest HAP (Hexane)	1.80	AP-42 Section 1.4	na	na	3.26E-03	na	0.014	na
							1.81E-03	GHG (CO_2e)	119,350	AP-42 Section 1.4	na	na	216.47	na	948.13	na
							1.81E-03	CO_2	119,227	AP-42 Section 1.4	na	na	216.24	na	947.15	na

Emission Unit #	Emission Unit Name	Process ID	Process Name	Control Device Name	Control Device ID	Stack ID	Maximum Design Capacity *(SCC Units/hour)*	Pollutant	Uncontrolled Emission Factor *(lb/SCC Units)*	Emission Factor Source (e.g. AP-42, Stack Test, Mass Balance)	Capture Efficiency *(%)*	Control Efficiency *(%)*	Hourly Emissions		Annual Emissions	
													Uncontrolled Potential *(lb/hr)*	Controlled Potential *(lb/hr)*	Uncontrolled Potential *(tons/yr)*	Controlled Potential *(tons/yr)*
							1.81E-03	CH_4	2.25	AP-42 Section 1.4	na	na	4.08E-03	na	0.018	na
							1.81E-03	N_2O	0.22	AP-42 Section 1.4	na	na	4.08E-04	na	1.79E-03	na
09	Indirect Heat Exchanger Greater than 1 MMBtu/hr	1	Natural Gas Combustion	na	na	09	1.81E-03	NO_x	100.00	AP-42 Section 1.4	na	na	0.18	na	0.79	na
							1.81E-03	CO	84.00	AP-42 Section 1.4	na	na	0.15	na	0.67	na
							1.81E-03	SO_2	0.60	AP-42 Section 1.4	na	na	1.09E-03	na	4.77E-03	na
							1.81E-03	Total $PM/PM_{10}/PM_{2.5}$	7.60	AP-42 Section 1.4	na	na	0.014	na	0.060	na
							1.81E-03	VOC	5.50	AP-42 Section 1.4	na	na	0.010	na	0.044	na
							1.81E-03	Total HAP	1.89	AP-42 Section 1.4	na	na	3.42E-03	na	0.015	na
							1.81E-03	Single Largest HAP (Hexane)	1.80	AP-42 Section 1.4	na	na	3.26E-03	na	0.014	na
							1.81E-03	GHG (CO_2e)	119,350	AP-42 Section 1.4	na	na	216.47	na	948.13	na
							1.81E-03	CO_2	119,227	AP-42 Section 1.4	na	na	216.24	na	947.15	na
							1.81E-03	CH_4	2.25	AP-42 Section 1.4	na	na	4.08E-03	na	0.018	na
							1.81E-03	N_2O	0.22	AP-42 Section 1.4	na	na	4.08E-04	na	1.79E-03	na

Section N.2: Stack Information

UTM Zone: 17

Stack ID	Identify all Emission Units (with Process ID) and Control Devices that Feed to Stack	Stack Physical Data			Stack UTM Coordinates		Stack Gas Stream Data		
		Equivalent Diameter *(ft)*	Height *(ft)*	Base Elevation *(ft)*	Northing *(m)*	Easting *(m)*	Flowrate *(acfm)*	Temperature *(° F)*	Exit Velocity *(ft/sec)*
08	08-1	0.67	6.67	786	4,156,334	376,229	543	210	25.93
09	09-1	0.67	6.67	786	4,156,334	376,229	543	210	25.93

Section N.3: Fugitive Information

UTM Zone:

Emission Unit #	Emission Unit Name	Process ID	Area Physical Data		Area UTM Coordinates		Area Release Data	
			Length of the X Side *(ft)*	Length of the Y Side *(ft)*	Northing *(m)*	Easting *(m)*	Release Temperature *(°F)*	Release Height *(ft)*
Not applicable for this application.								

Section N.4: Notes, Comments, and Explanations

Division for Air Quality

300 Sower Boulevard

Frankfort, KY 40601

(502) 564-3999

DEP7007V

Applicable Requirements and Compliance Activities

___ Section V.1: Emission and Operating Limitation(s)

___ Section V.2: Monitoring Requirements

___ Section V.3: Recordkeeping Requirements

___ Section V.4: Reporting Requirements

___ Section V.5: Testing Requirements

___ Section V.6: Notes, Comments, and Explanations

Additional Documentation
___ Complete DEP7007AI

Source Name: Kellanova USA LLC (Pikeville Bakery)

KY EIS (AFS) #: 21- 195-00234

Permit #: F-18-040

Agency Interest (AI) ID: 3673

Date: Jul-23

Section V.1: Emission and Operating Limitation(s)

Emission Unit #	Emission Unit Description	Applicable Regulation or Requirement	Pollutant	Emission Limit (if applicable)	Voluntary Emission Limit or Exemption (if applicable)	Operating Requirement or Limitation (if applicable)	Method of Determining Compliance with the Emission and Operating Requirement(s)

Emission Unit #	Emission Unit Description	Applicable Regulation or Requirement	Pollutant	Emission Limit (if applicable)	Voluntary Emission Limit or Exemption (if applicable)	Operating Requirement or Limitation (if applicable)	Method of Determining Compliance with the Emission and Operating Requirement(s)
08 09	Indirect Heat Exchangers Greater than 1 MMBtu/hr	401 KAR 59:015, Section 7	na	na	na	During a startup period or shutdown period, comply with the work practice standards established in 401 KAR 59:015, Section 7: (1) i. Comply with 401 KAR 50:055, Section 2(5); ii. The frequency and duration of startup periods or shutdown periods shall be minimized by the affected facility; iii. All reasonable steps shall be taken by the permittee to minimize the impact of emissions on ambient air quality from the affected facility during startup periods and shutdown periods; iv. Startups and shutdowns shall be conducted according to either: 1. The manufacturer's recommended procedures; 2. Recommended procedures for a unit of similar design, for which manufacturer's recommended procedures are available, as approved by the cabinet based on documentation provided by the permittee.	Maintain logs or other relevant evidence.
08 09	Indirect Heat Exchangers Greater than 1 MMBtu/hr	401 KAR 59:015, Section 4(1)(a)	PM	Except as established in 401 KAR 59:015, Sections 3(3) and 7, the permittee shall not cause emissions of particulate matter in excess of 0.56 lb/MMBtu	na	na	Compliance is assumed while burning natural gas.
08 09	Indirect Heat Exchangers Greater than 1 MMBtu/hr	401 KAR 59:015, Section 4(2)	Opacity	Except as established in 401 KAR 59:015, Sections 3(3) and 7, the permittee shall not cause emissions in excess of 20% opacity.	na	na	Compliance is assumed while burning natural gas.

Emission Unit #	Emission Unit Description	Applicable Regulation or Requirement	Pollutant	Emission Limit (if applicable)	Voluntary Emission Limit or Exemption (if applicable)	Operating Requirement or Limitation (if applicable)	Method of Determining Compliance with the Emission and Operating Requirement(s)
08 09	Indirect Heat Exchangers Greater than 1 MMBtu/hr	401 KAR 59:015, Section 5(1)(a)	SO2	Except as established in 401 KAR 59:015, Sections 3(3) and 7, the permittee shall not cause emissions of gases that contain sulfur dioxide in excess of 3.00 lb/MMBtu	na	na	Compliance is assumed while burning natural gas.

Section V.2: Monitoring Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Monitored	Description of Monitoring
08 09	Indirect Heat Exchangers Greater than 1 MMBtu/hr	na	401 KAR 52:030, Section 10	na	Monitor natural gas usage (MMscf) on a monthly basis.

Section V.3: Recordkeeping Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Recorded	Description of Recordkeeping
08 09	Indirect Heat Exchangers Greater than 1 MMBtu/hr	na	401 KAR 59:015, Section 7	na	Document via a signed, contemporaneous log or other relevant evidence the actions, including duration of the startup period, of the permittee during startup periods and shutdown periods.
08 09	Indirect Heat Exchangers Greater than 1 MMBtu/hr	na	401 KAR 52:030, Section 10	na	Record natural gas usage (MMscf) on a monthly basis.

Section V.4: Reporting Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Reported	Description of Reporting
08 09	Indirect Heat Exchangers Greater than 1 MMBtu/hr	na	na	na	na

Section V.5: Testing Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Tested	Description of Testing
08 09	Indirect Heat Exchangers Greater than 1 MMBtu/hr	na	na	na	na

Section V.6: Notes, Comments, and Explanations

Division for Air Quality
300 Sower Boulevard
Frankfort, KY 40601
(502) 564-3999

DEP7007DD

Insignificant Activities

___ Section DD.1: Table of Insignificant Activities
___ Section DD.2: Signature Block
___ Section DD.3: Notes, Comments, and Explanations

Source Name: Kellanova USA LLC (Pikeville Bakery)

KY EIS (AFS) : 21- 195-00234

Permit #: F-18-040

Agency Interest (AI) ID: 3673

Date: Jul-23

Section DD.1: Table of Insignificant Activities

*Identify each activity with a unique Insignificant Activity number (IA #); for example: 1, 2, 3… etc.

Insignificant Activity #	Description of Activity including Rated Capacity	Serial Number or Other Unique Identifier	Applicable Regulation(s)	Calculated Emissions
1	Dextrose Use Bin (#1)		401 KAR 59:010	
2	Sugar Use Bin (#2)		401 KAR 59:010	
3	Flour Use Bins (#3-5)		401 KAR 59:010	
4	Flour Silos (#6)		401 KAR 59:010	
5	Graham Flour Silo (#5)		401 KAR 59:010	
6	Sugar Silo (#6)		401 KAR 59:010	
7	Dextrose Silo (#7)		401 KAR 59:010	
8	Eleven (11) indirect heat exchangers rated less than or equal to 1 MMBtu/hr		N/A	
9	Wastewater treatment plant		N/A	

Insignificant Activity #	Description of Activity including Rated Capacity	Serial Number or Other Unique Identifier	Applicable Regulation(s)	Calculated Emissions
10	Wastewater Digestor flare (0.01 MMBtu/hr)		401 KAR 59:010 401 KAR 63:015	
11	Packaging Marking		N/A	
12	Two (2) on-site natural gas production wells		N/A	
13	Various natural gas and kerosene space heaters for comfort heating		N/A	
14	Ingredient mixing equipment with dust collection (exhaust indoors)		401 KAR 59:010	

Section DD.2: 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

7-25-2023

Date

By:

Richard Ray

Type/Print Name of Siguatory

Plant Manager

Title of Siguatory

Section DD.3: Notes, Comments, and Explanations

APPENDIX C. EMISSIONS CALCULATIONS

Table 1. Potential Emissions Summary

Emission Unit ID	Emission Group ID (Description)	NO_X (tpy)	CO (tpy)	SO_2 (tpy)	Filterable PM (tpy)	Total PM_{10} (tpy)	Total $PM_{2.5}$ (tpy)	VOC[1] (tpy)	Total HAP	Max Single HAP[2]	GHG (CO_2e)
Combustion Emissions											
EU01	Direct-Fired Oven (10.4 MMBtu/hr)	4.47	3.75	0.027	0.34	0.34	0.34	0.25	0.084	0.080	5,330
EU02	Direct-Fired Oven (10.4 MMBtu/hr)	4.47	3.75	0.027	0.34	0.34	0.34	0.25	0.084	0.080	5,330
EU05	Direct-Fired Oven (11.82 MMBtu/hr)	5.08	4.26	0.030	0.39	0.39	0.39	0.28	0.096	0.091	6,058
EU07	Indirect Heat Exchangers Greater than 1 MMBtu/hr	0.62	0.52	3.71E-03	0.047	0.047	0.047	0.034	0.012	0.011	738
EU08	Indirect Heat Exchangers Greater than 1 MMBtu/hr	0.79	0.67	4.77E-03	0.060	0.060	0.060	0.044	0.015	0.014	948
EU09	Indirect Heat Exchangers Greater than 1 MMBtu/hr	0.79	0.67	4.77E-03	0.060	0.060	0.060	0.044	0.015	0.014	948
Flavoring Emissions											
EU01	Direct-Fired Oven (10.4 MMBtu/hr)	--	--	--	--	--	--		--	--	--
EU02	Direct-Fired Oven (10.4 MMBtu/hr)	--	--	--	--	--	--	<90	--	--	--
EU05	Direct-Fired Oven (11.82 MMBtu/hr)	--	--	--	--	--	--		--	--	--
Cleaning and Sanitizing Processes Emissions											
EU06	Cleaning and Sanitizing Processes	--	--	--	--	--	--	6.85	--	--	--
Insignificant Activities: Material Handling Emissions											
IA	Dextrose Use Bin (#1)	--	--	--	0.20	0.20	0.20	--	--	--	--
IA	Sugar Use Bin (#2)	--	--	--	0.24	0.24	0.24	--	--	--	--
IA	Flour Use Bins (#3-5)	--	--	--	0.65	0.65	0.65	--	--	--	--
		--	--	--	0.65	0.65	0.65	--	--	--	--
		--	--	--	0.65	0.65	0.65	--	--	--	--
IA	Flour Silos (#1-4)	--	--	--	0.53	0.53	0.53	--	--	--	--
		--	--	--	0.53	0.53	0.53	--	--	--	--
		--	--	--	0.53	0.53	0.53	--	--	--	--
		--	--	--	0.53	0.53	0.53	--	--	--	--
IA	Graham Flour Silo (#5)	--	--	--	0.46	0.46	0.46	--	--	--	--
IA	Sugar Silo (#6)	--	--	--	0.53	0.53	0.53	--	--	--	--
IA	Dextrose Silo (#7)	--	--	--	0.37	0.37	0.37	--	--	--	--
Insignificant Activities: Combustion Emissions											
IA	11 Indirect heat exchangers rated less than 1 MMBtu/hr	2.51	2.11	0.015	0.19	0.19	0.19	0.14	0.047	0.045	2,998
IA	Wastewater Treatment Flare (0.01 MMBtu/hr)	2.98E-03	0.014	--	--	--	--	6.13E-03	--	--	5.05
Insignificant Activities: Other Emissions											
IA	Package Marking	--	--	--	--	--	--	0.92	--	--	--
Total[3]		18.73	15.74	0.11	7.33	7.33	7.33	90.00	0.35	0.34	22,355

1. Facility-wide potential VOC emissions are based on permit limit.
2. Hexane is the largest individual HAP emission resulting from external combustion of natural gas in a small boiler.
3. Emissions from trivial sources are not listed. If a listed insignificant source is also regulated under a federal standard, then emissions were quantified.

Table 2. Operational Parameters for Combustion Sources

EU Description	EU ID#	Location	Maximum Heat Input (MMBtu/hr	Indirect/ Direct Heating	Fuel Type	Fuel Heat Content (Btu/scf)
Oven No. 1	EU01	Production Area	10.4	Direct	Natural Gas	
Oven No. 2	EU02	Production Area	10.4	Direct	Natural Gas	
Oven No. 5	EU05	Production Area	11.82	Direct	Natural Gas	
Indirect Heat Exchangers Greater than 1 MMBtu/hr	EU07		1.44	Indirect	Natural Gas	1,020
Indirect Heat Exchangers Greater than 1 MMBtu/hr	EU08		1.85	Indirect	Natural Gas	
Indirect Heat Exchangers Greater than 1 MMBtu/hr	EU09		1.85	Indirect	Natural Gas	
11 Indirect heat exchangers rated less than 1 MMBtu/hr	Insignificant	Various	5.85	Indirect	Natural Gas	
Wastewater Treatment Flare (0.01 MMBtu/hr)[1]	Insignificant	Wastewater Plant	0.01	N/A	Digester Gas	--

1. Max Heat Input, Digester Flare = [8.9 lb VOC/MMGal Wastewater (From WebFIRE)] * [0.015 MMGal/day (Facility Reported)] / [0.14 lb VOC/MMBTU (From AP-42)] * (1 day/24 hr) * [1 - 0.75 (Assume 75% Control Efficiency)]

Table 3. Potential Emissions From Combustion Sources

Pollutant	Emission Factors		Potential Emissions[6]															
	Natural Gas[1] (lb/MMscf)	Flare[2] (lb/MMBtu)	Oven No. 1 (lb/hr)	Oven No. 1 (tpy)	Oven No. 2 (lb/hr)	Oven No. 2 (tpy)	Oven No. 5 (lb/hr)	Oven No. 5 (tpy)	11 Indirect heat exchangers rated less than 1 MMBtu/hr (lb/hr)	11 Indirect heat exchangers rated less than 1 MMBtu/hr (tpy)	Indirect Heat Exchangers Greater than 1 MMBtu/hr (EU07) (lb/hr)	Indirect Heat Exchangers Greater than 1 MMBtu/hr (EU07) (tpy)	Indirect Heat Exchangers Greater than 1 MMBtu/hr (EU08) (lb/hr)	Indirect Heat Exchangers Greater than 1 MMBtu/hr (EU08) (tpy)	Indirect Heat Exchangers Greater than 1 MMBtu/hr (EU09) (lb/hr)	Indirect Heat Exchangers Greater than 1 MMBtu/hr (EU09) (tpy)	Flare (lb/hr)	Flare (tpy)
NO_X	100.00	0.07	1.02	4.47	1.02	4.47	1.16	5.08	0.57	2.51	0.14	0.62	0.18	0.79	0.18	0.79	6.80E-04	2.98E-03
CO	84.00	0.31	0.86	3.75	0.86	3.75	0.97	4.26	0.48	2.11	0.12	0.52	0.15	0.67	0.15	0.67	3.10E-03	0.014
SO_2	0.60	--	6.12E-03	0.03	6.12E-03	0.03	6.95E-03	0.03	3.44E-03	0.015	8.47E-04	3.71E-03	1.09E-03	4.77E-03	1.09E-03	4.77E-03	--	--
Total PM_{10}[3]/$PM_{2.5}$/PM	7.60	--	0.077	0.34	0.077	0.34	0.088	0.39	0.044	0.19	0.011	0.047	0.014	0.060	0.014	0.060	--	--
VOC	5.50	0.14	0.056	0.25	0.056	0.25	0.064	0.28	0.032	0.14	7.76E-03	0.034	9.98E-03	0.044	9.98E-03	0.044	1.40E-03	6.13E-03
Total HAP[5]	1.89	--	0.019	0.084	0.019	0.084	0.022	0.10	0.011	0.047	2.67E-03	0.012	3.42E-03	0.015	3.42E-03	0.015	--	--
Single Largest HAP[5]	1.80	--	0.018	0.080	0.018	0.080	0.021	0.091	0.010	0.045	2.54E-03	0.011	3.26E-03	0.014	3.26E-03	0.014	--	--
GHG (CO_2e)[4]	119,350	115	1,217	5,330	1,217	5,330	1,383	6,058	685	2,998	168	738	216	948	216	948	1.15	5.05
CO_2[4]	119,227	115	1,216	5,325	1,216	5,325	1,382	6,052	684	2,995	168	737	216	947	216	947	1.15	5.03
CH_4[4]	2.25	7.05E-03	0.02	0.10	0.02	0.10	0.03	0.11	0.01	0.056	3.17E-03	0.014	4.08E-03	0.018	4.08E-03	0.018	7.05E-05	3.09E-04
N_2O[4]	0.22	1.39E-03	2.29E-03	0.010	2.29E-03	0.01	2.61E-03	0.011	1.29E-03	5.65E-03	3.17E-04	1.39E-03	4.08E-04	1.79E-03	4.08E-04	1.79E-03	1.39E-05	6.08E-05

1. Emission factors per AP-42 Section 1.4, *Natural Gas Combustion* , Tables 1.4-1, 1.4-2, 1.4-3 and 1.4-4 (July 1998).
2. Emission factors from AP-42 Section 13.5, *Industrial Flares* , Tables 13.5-1 and 13.5-2 (February 2018). PM factor assumed to be 0 based on "soot" value for "non-smoking" flares. Total hydrocarbon factor assumed equal to VOC.
3. It is conservatively assumed that PM = PM_{10} = $PM_{2.5}$.
4. Emission factors per 40 CFR 98, Subpart C, Table C-1 and C-2 (converted to lb/MMscf for natural gas). Flare emissions based on biomass gas factors.
CO_2e factor calculated based on the emission factors for CO_2, CH_4, and N_2O and the global warming potential (GWP) for each pollutant per 40 CFR 98, Subpart A, Table A-1 (rule effective January 1, 2014), as follows:
CO_2 = 1
CH_4 = 25
N_2O = 298
5. Hexane is the largest individual HAP emission resulting from external combution of natural gas in a small boiler. See Table 4. for detailed HAP emission factors.
6. Potential Emissions (lb/hr) = Emission Factor (lb/MMscf) * Maximum Heat Input (MMBtu/hr) / Fuel Heat Content (Btu/scf)
Potential Emissions (lb/hr) = Emission Factor (lb/MMBtu) * Maximum Heat Input (MMBtu/hr)
Potential Emissions (tpy) = Potential Emissions (lb/hr) * Potential Operation Hours (8,760 hrs/yr) / 2,000 lbs/ton

Table 4. HAP Emissions Factors from Natural Gas Combustion

Pollutant	Natural Gas Emission Factor[1] (lb/MMscf)
2-Methylnaphthalene*	2.40E-05
3-Methylchloranthrene*	1.80E-06
7,12-Dimethylbenz(a) anthracene*	1.60E-05
Acenaphthene*	1.80E-06
Acenaphthylene*	1.80E-06
Anthracene*	2.40E-06
Benz(a)anthracene*	1.80E-06
Benzene	2.10E-03
Benzo(a)pyrene*	1.20E-06
Benzo(b)fluoranthene*	1.80E-06
Benzo(g,h,i)perylene*	1.20E-06
Benzo(k)fluoranthene*	1.80E-06
Chrysene*	1.80E-06
Dibenzo(a,h)anthracene*	1.20E-06
Dichlorobenzene	1.20E-03
Fluoranthene*	3.00E-06
Fluorene*	2.80E-06
Formaldehyde	0.075
Hexane	1.80
Indeno(1,2,3-cd)pyrene*	1.80E-06
Naphthalene	6.10E-04
Phenanathrene*	1.70E-05
Pyrene*	5.00E-06
Toluene	3.40E-03
Arsenic	2.00E-04
Beryllium	1.20E-05
Cadmium	1.10E-03
Chromium	1.40E-03
Cobalt	8.40E-05
Manganese	3.80E-04
Mercury	2.60E-04
Nickel	2.10E-03
Selenium	2.40E-05

1. Emission factors per AP-42 Section 1.4, *Natural Gas Combustion* , Tables 1.4-3 and 1.4-4 (July 1998).

* Polycyclic Organic Matter (POM)

Table 5. Emissions from Cleaning and Sanitizing Processes

Manufacturer	Product	Actual Usage[1] (gal/yr)	Density (lb/gal)	Actual Usage[1] (lb/yr)	VOC Content (w/w)	VOC Emission[2] (lb/yr)	VOC Emission[3] (tpy)	HAP Content (w/w)	HAP Emission[2] (lb/yr)	HAP Emission[3] (tpy)
Ecolab	Eco-Wipe Duo	NA	NA	26,729	40%	10,692	5.35	0%	0.00	0.00
Ecolab	Drysan Duo	1,350	8.20	11,070	11%	1,207	0.60	0%	0.00	0.00
Ecolab	ECOCARE 250	55.00	8.50	467.50	10%	45.35	0.02	0%	0.00	0.00
Ecolab	ECOCARE 275	1.32	8.90	11.74	12%	1.42	0.00	0%	0.00	0.00
Ecolab	ECOCARE 280	165.00	8.4	1,379.68	15%	206.97	0.10	0%	0.00	0.00
Ecolab	ECOCARE 350	168.00	7.0	1,176.00	75%	882.00	0.44	0%	0.00	0.00
Ecolab	OCTAVE FS	50.00	10.1	505.00	4%	19.70	0.01	0%	0.00	0.00
Ecolab	GLASS CLEANER	7.50	8.8	65.68	100%	65.68	0.03	0%	0.00	0.00
Ecolab	EXELERATE TUFSOIL_18.	115.00	9.7	1,112.56	20%	222.51	0.11	5%	0.010	5.00E-06
						Actual Potential[4]	**6.67 6.85**		**Actual Potential[4]**	**5.00E-06 0.050**

1. Actual usage data for most recent 12 month period (June 2022 - May 2023). Other chemicals may be used in the future.
2. Emissions (lb/yr) = (Pollutant Content , w/w) * (Actual usage lb/yr)
3. Emissions (tpy) = (Emissions, lb/yr) / (2000 lb/ton)
4. Potential emissions from 2010 minor permit modification to add Cleaning and Sanitizing processes as a significant emission source.

Table 6. Flavor VOC Content

Flavor Number	Ethanol (%)	PG Content (%)	Other VOC Content (%)	Effective VOC Content[1]
R000220140	--	25.00		5.00
R000220340	12	--	10	22.00
R000220719	--	--	100.00	100.00
R000220991	11	60.00		23.00
R000272268	60	--	15	75.00
R000272270	20	80		36.00
R000272271	2	76.00		17.20
R000272366	--	98.00		19.60
R000272490	1	--		1.00
R100624000	--	--	100.00	100.00
R100633000	10	--		10.00
R100652000	15	--		15.00
R100655000	18	63.00		30.60
R102351000	4	--		4.00
R102364000	60		5.00	65.00
R102369000	--	100		20.00
R110037000	--	25.00		5.00
R113922000	15	85.00	--	32.00
R113943000	10	--	--	10.00
R120016000	20.5	60.00		32.50
R123439000	--	100.00		20.00
R124417000	15	15.000		18.00
R127141000	10	25.00		15.00
R133299000	19	33.00		25.60
R133300000	27	25.00		32.00
R133303000	50	--		50.00
R136018000	--	60.00		12.00
R136123000	100	--		100.00
R140418000	--	43.00		8.60
R142548000	--	78.00	28.00	43.60
R149249000	5.00	--		5.00
R153413000	--	57.00		11.40
R155771000	10.00	88.00		27.60
R158058000	--	81.00		16.20
R165854000	--	95.00		19.00
R172095000	--	100.00		20.00
R196706000	Direct			91.00
R165740000	Direct			65.80
R143580000	Direct			77.20
R115189000	--	--	1.00	1.00
R143412000	--	--	100.00	100.00
R184807001	25.00	60.00	10.00	47.00

Table 6. Flavor VOC Content

Flavor Number	Ethanol (%)	PG Content (%)	Other VOC Content (%)	Effective VOC Content[1]
R209500000	--	95.00	16.00	35.00
R209619000	--	90.00	42.00	60.00
R209620000	2.00	80.00	5.50	23.50
R140417000	Direct			84.45
R211234000	--	66.00	7.00	20.20
R165976000	5.00	90.00	--	23.00
R171711000	1.00	90.00	10.76	29.76
R214588000	Direct			21.83
R214910000	Direct			22.17
R107746000	Direct			94.28
R148382000	10.00	--	25.00	35.00
R215155000	--	--	10.00	10.00
R142547000	--	--	41.00	41.00
R189490000	15.00	10.00	10.20	27.20
R216569000	--	78.00	28.00	43.60
R184808000	8.00	72.00	20.00	42.40
R171711001	1.00	90.00	11.16	30.16
R174281001	--	--	26.00	26.00
R222009000	--	100.00	26.00	46.00
R228513000	10.00	--	10.50	20.50
R228510000	1.00	100.00	10.80	31.80
R184807000	25.00	60.00	10.00	47.00

Table 6. Flavor VOC Content

Flavor Number	Ethanol (%)	PG Content (%)	Other VOC Content (%)	Effective VOC Content[1]
Co-Manufactured Fillings Containing VOC Flavorings[2]				
R000200200	0.00E+00	0.00E+00	100.00	0.029
R121471001	0.00E+00	0.00E+00	100.00	0.029
R194110000	--	81.00	19.00	35.20
R151766000	--	100.00	--	20.00
R216293000F	17.00	--	--	17.00
R216561000F	11.00	89.00	--	28.80
R216656000F	--	100.00	15.00	35.00
R216657000F	3.00	36.00	28.00	38.20
R223379000F	11.00	89.00	--	28.80
R224614000F	17.00	--	--	17.00
R224895000F	11.00	89.00	--	28.80

1. Effective VOC Content = (Ethanol Content, %) + (PG Content, %) * (PG Emittance R
PG Emission Rate 20%

2. Co-manufactured fillings are fully prepared before arriving at the Kellogg plant. The ethanol and other VOC content listed is assumed to be fully emitted at the co-man plant.

Table 7. Operating Parameters of Production Lines [PUBLIC VERSION]

Boiler ID	EU ID#	Maximum Production Rate (lb/hr) [CONFIDENTIAL]	PG Emission Rate[7]
Oven No. 1	10019025	[redacted]	20%
Oven No. 2	10019075		20%
Oven No. 5	10119073		20%

Table 8. Potential VOC Emissions per Oven from Flavorings [PUBLIC VERSION]

Product Name [CONFIDENTIAL]	Recipe ID	Flavor Added (% of finished product) [CONFIDENTIAL]	Flavor ID Number	Effective VOC Content (%)	Oven 1 (EU01)			Oven 2 (EU02)			Oven 5 (EU05)		
					Flavor Usage Rate[1] (lb/hr)	Potential VOC Emissions per Flavor[2] (lb/hr)	Potential VOC Emissions per Product[3,4] (lb/hr)	Flavor Usage Rate[1] (lb/hr)	Potential VOC Emissions per Flavor[2] (lb/hr)	Potential VOC Emissions per Product[3,4] (lb/hr)	Flavor Usage Rate[1] (lb/hr)	Potential VOC Emissions per Flavor[2] (lb/hr)	Potential VOC Emissions per Product[3,4] (lb/hr)
TOASTER PASTRIES													
[redacted]			R000272268	61.00	28.97	17.67	17.67	39.58	24.14	24.14	19.99	12.20	12.20
			R000220340	22.80	6.31	1.44	8.77	8.62	1.96	11.98	4.35	0.99	6.05
			R120016000	32.50	7.57	2.46	-	10.34	3.36	-	5.22	1.70	-
			R133303000	50.00	9.75	4.87	-	13.32	6.66	-	6.73	3.36	-
			R137729000	0.00	5.11	0.00	0.00	6.98	0.00	0.00	3.53	0.00	0.00
			R167594000	0.10	31.24	0.03	4.52	42.68	0.04	6.18	21.56	0.02	3.12
			R136873000	18.60	24.14	4.49	-	32.98	6.13	-	16.66	3.10	-
			R128578000	0.00	1.42	0.00	-	1.94	0.00	-	0.98	0.00	-
			R000102360	0.00	17.83	0.00	0.77	24.36	0.00	1.05	12.30	0.00	0.53
			R102369000	20.00	1.23	0.25	-	1.69	0.34	-	0.85	0.17	-
			R110037000	5.00	2.47	0.12	-	3.37	0.17	-	1.70	0.09	-
			R140418000	8.60	4.62	0.40	-	6.32	0.54	-	3.19	0.27	-
			R000272200	40.00	30.32	12.13	12.13	41.42	16.57	16.57	20.92	8.37	8.37
			R000272200	40.00	4.59	1.84	1.84	6.27	2.51	2.51	3.17	1.27	1.27
			R102351000	4.00	31.85	1.27	1.27	43.51	1.74	1.74	21.98	0.88	0.88
			None	-	0.00	-	0.00	0.00	-	0.00	0.00	-	0.00
			R000272490	1.00	0.84	0.01	0.09	1.15	0.01	0.13	0.58	0.01	0.07
			R000272200	40.00	0.22	0.09	-	0.29	0.12	-	0.15	0.06	-
			R102364000	55.00	8.82	4.85	10.52	12.05	6.63	14.37	6.09	3.35	7.26
			R000272490	1.00	49.63	0.50	-	67.81	0.68	-	34.25	0.34	-
			R000272366	19.60	26.37	5.17	-	36.02	7.06	-	18.20	3.57	-
			R133300000	32.00	5.25	1.68	1.68	7.18	2.30	2.30	3.63	1.16	1.16
			R000272200	40.00	4.69	1.88	1.88	6.40	2.56	2.56	3.24	1.29	1.29
			None	-	0.00	-	0.00	0.00	-	0.00	0.00	-	0.00
			R155771000	27.60	14.48	4.00	4.00	19.79	5.46	5.46	10.00	2.76	2.76
			None	-	0.00	-	0.00	0.00	-	0.00	0.00	-	0.00
			R150276000	0.00	34.93	0.00	1.18	47.72	0.00	1.61	24.11	0.00	0.81
			R136018000	12.00	9.80	1.18	-	13.39	1.61	-	6.76	0.81	-
			R000272270	31.40	4.38	1.38	1.38	5.98	1.88	1.88	3.02	0.95	0.95
			R000272200	40.00	4.69	1.88	1.88	6.41	2.56	2.56	3.24	1.29	1.29
			R158058000	16.20	14.91	2.42	2.42	20.37	3.30	3.30	10.29	1.67	1.67
			R000272268	61.00	26.39	16.10	16.10	36.06	22.00	22.00	18.22	11.11	11.11
			None	-	0.00	-	0.00	0.00	-	0.00	0.00	-	0.00

Table 8. Potential VOC Emissions per Oven from Flavorings [PUBLIC VERSION]

Product Name [CONFIDENTIAL]	Recipe ID	Flavor Added (% of finished product) [CONFIDENTIAL]	Flavor ID Number	Effective VOC Content (%)	Oven 1 (EU01)			Oven 2 (EU02)			Oven 5 (EU05)		
					Flavor Usage Rate[1] (lb/hr)	Potential VOC Emissions per Flavor[2] (lb/hr)	Potential VOC Emissions per Product[3,4] (lb/hr)	Flavor Usage Rate[1] (lb/hr)	Potential VOC Emissions per Flavor[2] (lb/hr)	Potential VOC Emissions per Product[3,4] (lb/hr)	Flavor Usage Rate[1] (lb/hr)	Potential VOC Emissions per Flavor[2] (lb/hr)	Potential VOC Emissions per Product[3,4] (lb/hr)
[redacted]			R000272200	40.00	21.30	8.52	14.59	29.10	11.64	19.93	14.70	5.88	10.07
			R159732000	17.80	34.08	6.07	-	46.56	8.29	-	23.52	4.19	-
			R115188000	0.00	9.94	0.00	-	13.58	0.00	-	6.86	0.00	-
			R115189000	0.00	21.30	0.00	-	29.10	0.00	-	14.70	0.00	-
			R124417000	11.40	16.45	1.88	1.88	22.48	2.56	2.56	11.36	1.29	1.29
			R100624000	100.00	0.22	0.22	0.22	0.30	0.30	0.30	0.15	0.15	0.15
			R180886000	20.00	15.62	3.12	3.12	21.34	4.27	4.27	10.78	2.16	2.16
			R142548000	15.60	21.02	3.28	3.28	28.71	4.48	4.48	14.50	2.26	2.26
			None	-	0.00	-	0.00	0.00	-	0.00	0.00	-	0.00
			R102369000	20.00	2.84	0.57	0.57	3.88	0.78	0.78	1.96	0.39	0.39
			R133300000	32.00	5.25	1.68	1.68	7.18	2.30	2.30	3.63	1.16	1.16
			R149290000	20.10	13.63	2.74	3.69	18.62	3.74	5.04	9.41	1.89	2.55
			R149291000	20.30	4.69	0.95	-	6.40	1.30	-	3.23	0.66	-
			R000220340	22.80	11.93	2.72	12.74	16.30	3.72	17.40	8.23	1.88	8.79
			R120016000	32.50	16.90	5.49	-	23.09	7.50	-	11.66	3.79	-
			R150276000	0.00	16.90	0.00	-	23.09	0.00	-	11.66	0.00	-
			R159732000	17.80	25.42	4.52	-	34.73	6.18	-	17.54	3.12	-
			R000272490	1.00	90.88	0.91	6.48	124.16	1.24	8.85	62.72	0.63	4.47
			R000272366	19.60	28.40	5.57	-	38.80	7.60	-	19.60	3.84	-
			R159732000	17.80	44.30	7.89	7.97	60.53	10.77	10.88	30.58	5.44	5.50
			R00233	19.00	0.43	0.08	-	0.58	0.11	-	0.29	0.06	-
			R133303000	50.00	9.23	4.62	4.93	12.61	6.31	6.73	6.37	3.19	3.40
			R102369000	20.00	1.56	0.31	-	2.13	0.43	-	1.08	0.22	-
			R000272268	61.00	48.89	29.82	29.82	66.79	40.74	40.74	33.74	20.58	20.58
			R168852000	0.00	36.92	0.00	7.95	50.44	0.00	10.86	25.48	0.00	5.49
			R000272200	40.00	19.88	7.95	-	27.16	10.86	-	13.72	5.49	-
			R128578000	0.00	9.94	0.00	-	13.58	0.00	-	6.86	0.00	-
			R155783000	1.00	4.97	0.05	0.66	6.79	0.07	0.90	3.43	0.03	0.45
			R102369000	20.00	2.41	0.48	-	3.30	0.66	-	1.67	0.33	-
			R138308000	12.40	0.99	0.12	-	1.36	0.17	-	0.69	0.09	-
			None	-	0.00	-	0.00	0.00	-	0.00	0.00	-	0.00
			R126880000	5.80	23.03	1.34	2.74	31.46	1.82	3.75	15.89	0.92	1.89
			R128862000	23.10	6.09	1.41	-	8.31	1.92	-	4.20	0.97	-
			R128863000	0.00	9.98	0.00	-	13.63	0.00	-	6.89	0.00	-
			R000272200	40.00	31.24	12.50	12.50	42.68	17.07	17.07	21.56	8.62	8.62
			R142548000	15.60	21.81	3.40	3.40	29.79	4.65	4.65	15.05	2.35	2.35
			R000272271	17.20	9.94	1.71	1.71	13.58	2.34	2.34	6.86	1.18	1.18
			None	-	0.00	-	0.00	0.00	-	0.00	0.00	-	0.00
			None	-	0.00	-	0.00	0.00	-	0.00	0.00	-	0.00
			R120016000	32.50	28.40	9.23	14.79	38.80	12.61	20.20	19.60	6.37	10.21
			R133303000	50.00	9.51	4.76	-	13.00	6.50	-	6.57	3.28	-
			R000272490	1.00	80.09	0.80	-	109.42	1.09	-	55.27	0.55	-
			R100655000	30.60	27.29	8.35	8.35	37.29	11.41	11.41	18.83	5.76	5.76
			R000220340	22.80	14.48	3.30	23.27	19.79	4.51	31.79	10.00	2.28	16.06
			R000272200	40.00	18.89	7.55	-	25.80	10.32	-	13.03	5.21	-
			R120016000	32.50	38.20	12.41	-	52.19	16.96	-	26.36	8.57	-
			R153413000	11.40	18.89	2.15	2.15	25.80	2.94	2.94	13.03	1.49	1.49

Table 8. Potential VOC Emissions per Oven from Flavorings [PUBLIC VERSION]

Product Name [CONFIDENTIAL]	Recipe ID	Flavor Added (% of finished product) [CONFIDENTIAL]	Flavor ID Number	Effective VOC Content (%)	Oven 1 (EU01)			Oven 2 (EU02)			Oven 5 (EU05)		
					Flavor Usage Rate[1] (lb/hr)	Potential VOC Emissions per Flavor[2] (lb/hr)	Potential VOC Emissions per Product[3,4] (lb/hr)	Flavor Usage Rate[1] (lb/hr)	Potential VOC Emissions per Flavor[2] (lb/hr)	Potential VOC Emissions per Product[3,4] (lb/hr)	Flavor Usage Rate[1] (lb/hr)	Potential VOC Emissions per Flavor[2] (lb/hr)	Potential VOC Emissions per Product[3,4] (lb/hr)
[redacted]			R000272200	40.00	9.94	3.98	9.44	13.58	5.43	12.90	6.86	2.74	6.52
			R102364000	55.00	9.94	5.47	-	13.58	7.47	-	6.86	3.77	-
			R000220340	22.80	22.86	5.21	8.93	31.23	7.12	12.20	15.78	3.60	6.16
			R133299000	25.60	7.95	2.04	-	10.86	2.78	-	5.49	1.40	-
			R133300000	32.00	5.25	1.68	-	7.18	2.30	-	3.63	1.16	-
			R149289000	20.00	26.98	5.40	5.40	36.86	7.37	7.37	18.62	3.72	3.72
			R110037000	5.00	4.26	0.21	13.28	5.82	0.29	18.15	2.94	0.15	9.17
			R140418000	8.60	7.10	0.61	-	9.70	0.83	-	4.90	0.42	-
			R120016000	32.50	38.34	12.46	-	52.38	17.02	-	26.46	8.60	-
			R124417000	11.40	16.44	1.87	1.87	22.46	2.56	2.56	11.34	1.29	1.29
			R149249000	5.00	10.22	0.51	0.51	13.97	0.70	0.70	7.06	0.35	0.35
			R153413000	11.40	17.18	1.96	1.96	23.47	2.68	2.68	11.86	1.35	1.35
			R133299000	25.60	8.52	2.18	3.68	11.64	2.98	5.03	5.88	1.51	2.54
			R133300000	32.00	4.69	1.50	-	6.40	2.05	-	3.23	1.03	-
			R124417000	11.40	16.45	1.88	1.88	22.48	2.56	2.56	11.36	1.29	1.29
			R150276000	0.00	22.72	0.00	2.30	31.04	0.00	3.14	15.68	0.00	1.59
			R165854000	19.00	11.36	2.16	-	15.52	2.95	-	7.84	1.49	-
			R000220140	5.00	2.84	0.14	-	3.88	0.19	-	1.96	0.10	-
			None	-	0.00	-	0.00	0.00	-	0.00	0.00	-	0.00
			R133300000	32.00	7.10	2.27	2.27	9.70	3.10	3.10	4.90	1.57	1.57
			R000272200	40.00	4.26	1.70	4.48	5.82	2.33	6.11	2.94	1.18	3.09
			R133300000	32.00	8.66	2.77	-	11.83	3.79	-	5.98	1.91	-
			R102364000	55.00	9.70	5.34	9.68	13.25	7.29	13.23	6.70	3.68	6.68
			R133302000	15.90	0.97	0.15	-	1.33	0.21	-	0.67	0.11	-
			R133303000	50.00	8.38	4.19	-	11.45	5.72	-	5.78	2.89	-
			R158058000	16.20	14.91	2.42	2.42	20.37	3.30	3.30	10.29	1.67	1.67
			R124417000	11.40	16.82	1.92	1.92	22.98	2.62	2.62	11.61	1.32	1.32
			R100633000	10.00	5.57	0.56	0.56	7.61	0.76	0.76	3.84	0.38	0.38
			R100633000	10.00	8.31	0.83	0.83	11.35	1.14	1.14	5.73	0.57	0.57
			R000220340	22.80	11.93	2.72	12.74	16.30	3.72	17.40	8.23	1.88	8.79
			R120016000	32.50	16.90	5.49	-	23.09	7.50	-	11.66	3.79	-
			R150276000	0.00	16.90	0.00	-	23.09	0.00	-	11.66	0.00	-
			R159732000	17.80	25.42	4.52	-	34.73	6.18	-	17.54	3.12	-
			R120016000	32.50	49.39	16.05	16.92	67.48	21.93	23.12	34.09	11.08	11.68
			R133303000	50.00	0.72	0.36	-	0.98	0.49	-	0.50	0.25	-
			R000220719	100.00	0.51	0.51	-	0.69	0.69	-	0.35	0.35	-
			R167594000	0.10	31.24	0.03	1.37	42.68	0.04	1.87	21.56	0.02	0.95
			R136791000	17.16	7.81	1.34	-	10.67	1.83	-	5.39	0.92	-
			R000272270	31.40	4.87	1.53	1.53	6.66	2.09	2.09	3.36	1.06	1.06
			R115188000	0.00	15.74	0.00	1.02	21.50	0.00	1.39	10.86	0.00	0.70
			R128863000	0.00	19.12	0.00	-	26.12	0.00	-	13.20	0.00	-
			R132601000	19.80	5.15	1.02	-	7.03	1.39	-	3.55	0.70	-
			R000272271	17.20	12.26	2.11	2.11	16.75	2.88	2.88	8.46	1.46	1.46
			R115188000	0.00	19.51	0.00	1.81	26.65	0.00	2.47	13.46	0.00	1.25
			R000272271	17.20	10.51	1.81	-	14.36	2.47	-	7.26	1.25	-
			R000272271	17.20	12.31	2.12	2.12	16.82	2.89	2.89	8.50	1.46	1.46
			R172095000	20.00	5.68	1.14	1.14	7.76	1.55	1.55	3.92	0.78	0.78

Table 8. Potential VOC Emissions per Oven from Flavorings [PUBLIC VERSION]

Product Name [CONFIDENTIAL]	Recipe ID	Flavor Added (% of finished product) [CONFIDENTIAL]	Flavor ID Number	Effective VOC Content (%)	Oven 1 (EU01)			Oven 2 (EU02)			Oven 5 (EU05)		
					Flavor Usage Rate[1] (lb/hr)	Potential VOC Emissions per Flavor[2] (lb/hr)	Potential VOC Emissions per Product[3,4] (lb/hr)	Flavor Usage Rate[1] (lb/hr)	Potential VOC Emissions per Flavor[2] (lb/hr)	Potential VOC Emissions per Product[3,4] (lb/hr)	Flavor Usage Rate[1] (lb/hr)	Potential VOC Emissions per Flavor[2] (lb/hr)	Potential VOC Emissions per Product[3,4] (lb/hr)
[redacted]	[redacted]	[redacted]	R102364000	55.00	8.82	4.85	10.51	12.05	6.63	14.36	6.09	3.35	7.26
			R000272490	1.00	49.62	0.50	-	67.79	0.68	-	34.24	0.34	-
			R000272366	19.60	26.36	5.17	-	36.01	7.06	-	18.19	3.57	-
			R150276000	0.00	22.72	0.00	2.57	31.04	0.00	3.51	15.68	0.00	1.77
			R165854000	19.00	12.78	2.43	-	17.46	3.32	-	8.82	1.68	-
			R000220140	5.00	2.84	0.14	-	3.88	0.19	-	1.96	0.10	-
			R100631000	34.40	2.81	0.97	0.97	3.84	1.32	1.32	1.94	0.67	0.67
			R128578000	0.00	28.40	0.00	2.30	38.80	0.00	3.14	19.60	0.00	1.59
			R000220430	32.40	7.10	2.30	-	9.70	3.14	-	4.90	1.59	-
			R100652000	15.00	23.39	3.51	3.51	31.95	4.79	4.79	16.14	2.42	2.42
			R000272366	19.60	27.17	5.33	10.24	37.12	7.28	13.99	18.75	3.68	7.07
			R102364000	55.00	8.93	4.91	-	12.20	6.71	-	6.16	3.39	-
			R142548000	15.60	21.81	3.40	3.40	29.79	4.65	4.65	15.05	2.35	2.35
			R000272200	40.00	4.77	1.91	1.91	6.51	2.61	2.61	3.29	1.32	1.32
			R000272200	40.00	4.83	1.93	1.93	6.60	2.64	2.64	3.33	1.33	1.33
			R000272268	61.00	44.16	26.94	26.94	60.33	36.80	36.80	30.48	18.59	18.59
			None	-	0.00	-	0.00	0.00	-	0.00	0.00	-	0.00
			R115188000	0.00	2.58	0.00	12.63	3.53	0.00	17.25	1.78	0.00	8.71
			R120016000	32.50	34.89	11.34	-	47.67	15.49	-	24.08	7.83	-
			R120027000	0.00	12.91	0.00	-	17.63	0.00	-	8.91	0.00	-
			R133302000	15.90	1.18	0.19	-	1.62	0.26	-	0.82	0.13	-
			R133303000	50.00	1.61	0.81	-	2.20	1.10	-	1.11	0.56	-
			R000272490	1.00	29.10	0.29	-	39.76	0.40	-	20.08	0.20	-
			R000272200	40.00	4.69	1.88	1.88	6.40	2.56	2.56	3.24	1.29	1.29
			R124417000	11.40	15.62	1.78	1.78	21.34	2.43	2.43	10.78	1.23	1.23
			R000272366	19.60	28.68	5.62	7.61	39.19	7.68	10.40	19.80	3.88	5.25
			R000272200	40.00	4.97	1.99	-	6.79	2.72	-	3.43	1.37	-
			R113922000	17.00	6.82	1.16	6.73	9.31	1.58	9.20	4.70	0.80	4.65
			R113943000	13.20	17.04	2.25	-	23.28	3.07	-	11.76	1.55	-
			R115188000	0.00	6.82	0.00	-	9.31	0.00	-	4.70	0.00	-
			R120016000	32.50	10.22	3.32	-	13.97	4.54	-	7.06	2.29	-
			R136123000	100.00	8.52	8.52	8.52	11.64	11.64	11.64	5.88	5.88	5.88
			R123439000	19.00	35.78	6.80	6.80	48.89	9.29	9.29	24.70	4.69	4.69
			R000272200	40.00	6.82	2.73	5.49	9.31	3.72	7.51	4.70	1.88	3.79
			R180117000	11.60	23.86	2.77	-	32.59	3.78	-	16.46	1.91	-
			R000272200	40.00	54.53	21.81	24.58	74.50	29.80	33.58	37.63	15.05	16.96
			R180117000	11.60	23.86	2.77	-	32.59	3.78	-	16.46	1.91	-
			R180886000	20.00	20.45	4.09	4.09	27.94	5.59	5.59	14.11	2.82	2.82
			22*506069	27.00	20.45	5.52	5.52	27.94	7.54	7.54	14.11	3.81	3.81
			R113943000	13.20	17.04	2.25	5.26	23.28	3.07	7.18	11.76	1.55	3.63
			R000272271	17.20	10.22	1.76	-	13.97	2.40	-	7.06	1.21	-
			R100169000	16.20	6.82	1.10	-	9.31	1.51	-	4.70	0.76	-
			R113922000	17.00	0.85	0.14	-	1.16	0.20	-	0.59	0.10	-
			R158058000	16.20	17.04	2.76	2.76	23.28	3.77	3.77	11.76	1.91	1.91
			R100633000	10.00	15.34	1.53	1.53	20.95	2.10	2.10	10.58	1.06	1.06
			R133303000	50.00	0.97	0.48	0.48	1.32	0.66	0.66	0.67	0.33	0.33
			R133303000	50.00	0.97	0.48	0.48	1.32	0.66	0.66	0.67	0.33	0.33

Table 8. Potential VOC Emissions per Oven from Flavorings [PUBLIC VERSION]

Product Name [CONFIDENTIAL]	Recipe ID	Flavor Added (% of finished product) [CONFIDENTIAL]	Flavor ID Number	Effective VOC Content (%)	Oven 1 (EU01)			Oven 2 (EU02)			Oven 5 (EU05)		
					Flavor Usage Rate[1] (lb/hr)	Potential VOC Emissions per Flavor[2] (lb/hr)	Potential VOC Emissions per Product[3,4] (lb/hr)	Flavor Usage Rate[1] (lb/hr)	Potential VOC Emissions per Flavor[2] (lb/hr)	Potential VOC Emissions per Product[3,4] (lb/hr)	Flavor Usage Rate[1] (lb/hr)	Potential VOC Emissions per Flavor[2] (lb/hr)	Potential VOC Emissions per Product[3,4] (lb/hr)
[redacted]			22*510112	91.00	36.15	32.89	32.89	0.00	0.00	0.00	0.00	0.00	0.00
			R209500000	35.00	0.00	0.00	0.00	20.66	7.23	7.23	0.00	0.00	0.00
			R209619000	60.00	42.90	25.74	25.74	0.00	0.00	0.00	0.00	0.00	0.00
			R209620000	23.50	78.71	18.50	18.50	0.00	0.00	0.00	0.00	0.00	0.00
			22*511505	20.20	0.00	0.00	0.00	40.35	8.15	8.15	0.00	0.00	0.00
			22*511595	21.83	0.00	0.00	0.00	62.99	13.75	13.75	0.00	0.00	0.00
			22*511848	22.17	0.00	0.00	0.00	60.90	13.50	13.50	0.00	0.00	0.00
			R189490000	27.20	0.00	0.00	0.00	73.72	20.06	20.06	0.00	0.00	0.00
			R215155000	10.00	0.00	0.00	0.00	48.50	4.85	4.85	0.00	0.00	0.00
			22*512705	46.00	25.14	11.57	11.57	0.00	0.00	0.00	0.00	0.00	0.00
			22*513531	31.80	0.00	0.00	0.00	107.03	34.04	34.04	0.00	0.00	0.00
			22*513593	20.50	0.00	0.00	0.00	9.70	1.99	1.99	0.00	0.00	0.00
			22*512709	22.50	0.00	0.00	0.00	25.85	5.82	5.82	0.00	0.00	0.00
			22*513711	26.10	34.53	9.01	9.01	0.00	0.00	0.00	0.00	0.00	0.00
			22*513697	39.60	91.37	36.18	36.18	0.00	0.00	0.00	0.00	0.00	0.00
			22*513698	26.60	19.01	5.06	5.06	0.00	0.00	0.00	0.00	0.00	0.00
			22*513699	44.60	0.00	0.00	0.00	38.80	17.30	17.30	0.00	0.00	0.00
FOOD BARS													
[redacted]			R100169000	16.20	28.12	4.55	4.55	38.41	6.22	6.22	19.40	3.14	3.14
			R100169000	16.20	35.64	5.77	5.84	48.69	7.89	7.98	24.60	3.98	4.03
			BRF 344	10.20	0.36	0.04	-	0.49	0.05	-	0.25	0.03	-
			BRF 345	16.80	0.20	0.03	-	0.27	0.05	-	0.14	0.02	-
			R100169000	16.20	35.64	5.77	5.77	48.69	7.89	7.89	24.60	3.98	3.98
			R100169000	16.20	35.64	5.77	7.68	48.69	7.89	10.49	24.60	3.98	5.30
			R114793000	6.80	27.97	1.90	-	38.22	2.60	-	19.31	1.31	-
			R100169000	16.20	35.64	5.77	5.77	48.69	7.89	7.89	24.60	3.98	3.98
			R101815000	0.00	25.70	0.00	-	35.11	0.00	-	17.74	0.00	-
			R100169000	16.20	35.64	5.77	8.31	48.69	7.89	11.35	24.60	3.98	5.73
			R119775000	3.00	84.48	2.53	-	115.42	3.46	-	58.30	1.75	-
			R100169000	16.20	35.64	5.77	5.77	48.69	7.89	7.89	24.60	3.98	3.98
			R100169000	16.20	35.64	5.77	5.77	48.69	7.89	7.89	24.60	3.98	3.98
			R119774000	0.00	29.11	0.00	-	39.77	0.00	-	20.09	0.00	-
			R100169000	16.20	35.22	5.70	5.70	48.11	7.79	7.79	24.30	3.94	3.94
			R119774000	0.00	29.09	0.00	-	39.75	0.00	-	20.08	0.00	-
			R100169000	16.20	35.64	5.77	10.82	48.69	7.89	14.78	24.60	3.98	7.47
			R161070000	16.00	31.52	5.04	-	43.07	6.89	-	21.76	3.48	-
			R100169000	16.20	35.64	5.77	7.68	48.69	7.89	10.49	24.60	3.98	5.30
			R114793000	6.80	27.97	1.90	-	38.22	2.60	-	19.31	1.31	-
			R000272200	40.00	44.02	17.61	19.51	60.14	24.06	26.65	30.38	12.15	13.46
			R114793000	6.80	27.97	1.90	-	38.22	2.60	-	19.31	1.31	-
			R100169000	16.20	35.64	5.77	5.77	48.69	7.89	7.89	24.60	3.98	3.98
			R101815000	0.00	25.74	0.00	-	35.16	0.00	-	17.76	0.00	-
			R100169000	16.20	35.64	5.77	5.77	48.69	7.89	7.89	24.60	3.98	3.98
			R100169000	16.20	35.64	5.77	8.32	48.69	7.89	11.37	24.60	3.98	5.74
			R119775000	3.00	84.92	2.55	-	116.01	3.48	-	58.60	1.76	-
			R100169000	16.20	35.64	5.77	5.77	48.69	7.89	7.89	24.60	3.98	3.98
			R119774000	0.00	29.09	0.00	-	39.75	0.00	-	20.08	0.00	-

Table 8. Potential VOC Emissions per Oven from Flavorings [PUBLIC VERSION]

Product Name [CONFIDENTIAL]	Recipe ID	Flavor Added (% of finished product) [CONFIDENTIAL]	Flavor ID Number	Effective VOC Content (%)	Oven 1 (EU01)			Oven 2 (EU02)			Oven 5 (EU05)		
					Flavor Usage Rate[1] (lb/hr)	Potential VOC Emissions per Flavor[2] (lb/hr)	Potential VOC Emissions per Product[3,4] (lb/hr)	Flavor Usage Rate[1] (lb/hr)	Potential VOC Emissions per Flavor[2] (lb/hr)	Potential VOC Emissions per Product[3,4] (lb/hr)	Flavor Usage Rate[1] (lb/hr)	Potential VOC Emissions per Flavor[2] (lb/hr)	Potential VOC Emissions per Product[3,4] (lb/hr)
[redacted]	[redacted]	[redacted]	R100169000	16.20	35.64	5.77	5.84	48.69	7.89	7.98	24.60	3.98	4.03
			BRF 344	10.20	0.36	0.04	-	0.49	0.05	-	0.25	0.03	-
			BRF 345	16.80	0.20	0.03	-	0.27	0.05	-	0.14	0.02	-
			R100169000	16.20	35.22	5.70	5.70	48.11	7.79	7.79	24.30	3.94	3.94
			R101815000	0.00	25.74	0.00	-	35.16	0.00	-	17.76	0.00	-
			R100169000	16.20	35.22	5.70	9.57	48.11	7.79	13.07	24.30	3.94	6.60
			R119773000	9.20	41.96	3.86	-	57.33	5.27	-	28.96	2.66	-
			R100169000	16.20	35.64	5.77	10.94	48.69	7.89	14.95	24.60	3.98	7.55
			R161071000	16.40	31.52	5.17	-	43.07	7.06	-	21.76	3.57	-
			R100169000	16.20	35.22	5.70	8.24	48.11	7.79	11.26	24.30	3.94	5.69
			R119775000	3.00	84.48	2.53	-	115.42	3.46	-	58.30	1.75	-
			R100169000	16.20	35.22	5.70	7.61	48.11	7.79	10.39	24.30	3.94	5.25
			R114793000	6.80	27.97	1.90	-	38.22	2.60	-	19.31	1.31	-
			R100169000	16.20	35.22	5.70	5.70	48.11	7.79	7.79	24.30	3.94	3.94
			R100169000	16.20	35.64	5.77	7.70	48.69	7.89	10.51	24.60	3.98	5.31
			R114793000	6.80	28.26	1.92	-	38.61	2.63	-	19.50	1.33	-
			R100169000	16.20	35.64	5.77	9.63	48.69	7.89	13.16	24.60	3.98	6.65
			R119773000	9.20	41.96	3.86	-	57.33	5.27	-	28.96	2.66	-
			R100169000	16.20	35.64	5.77	9.67	48.69	7.89	13.21	24.60	3.98	6.67
			R119773000	9.20	42.32	3.89	-	57.81	5.32	-	29.20	2.69	-
			R100169000	16.20	35.64	5.77	5.77	48.69	7.89	7.89	24.60	3.98	3.98
			R119774000	0.00	29.11	0.00	-	39.77	0.00	-	20.09	0.00	-
			R100169000	16.20	35.64	5.77	7.68	48.69	7.89	10.49	24.60	3.98	5.30
			R114793000	6.80	27.97	1.90	-	38.22	2.60	-	19.31	1.31	-
			R100169000	16.20	35.64	5.77	7.89	48.69	7.89	10.78	24.60	3.98	5.44
			R135560000	19.00	11.13	2.12	-	15.21	2.89	-	7.68	1.46	-
			R100169000	16.20	35.64	5.77	7.89	48.69	7.89	10.78	24.60	3.98	5.45
			R135560000	19.00	11.14	2.12	-	15.22	2.89	-	7.69	1.46	-
			R119773000	9.20	50.35	4.63	16.90	68.79	6.33	23.09	34.75	3.20	11.66
			R180143000	12.00	100.54	12.06	0.00	137.35	16.48	0.00	69.38	8.33	0.00
			R180139000	0.00	73.27	0.00	-	100.10	0.00	-	50.57	0.00	-
			R000272200	40.00	30.67	12.27	-	41.90	16.76	-	21.17	8.47	-
			R000272200	40.00	21.30	8.52	**110.76**	29.10	11.64	**151.32**	14.70	5.88	**76.44**
			22*503990	2.00	5112.00	102.24	-	6984.00	139.68	-	3528.00	70.56	-
			R151766000	20.00	0.00	0.00	0.00	0.00	0.00	0.00	48.62	9.72	9.72
			R151766000	20.00	0.00	0.00	0.00	0.00	0.00	0.00	48.62	9.72	9.72
			R151766000	20.00	0.00	0.00	0.00	0.00	0.00	0.00	48.62	9.72	9.72
			R151766000	20.00	0.00	0.00	0.00	0.00	0.00	0.00	48.62	9.72	9.72
			R151766000	20.00	0.00	0.00	0.00	0.00	0.00	0.00	48.62	9.72	20.16
			R176788000	17.00	0.00	0.00	0.00	0.00	0.00	0.00	61.41	10.44	-
			R151766000	20.00	0.00	0.00	0.00	0.00	0.00	0.00	48.62	9.72	27.12
			R175177000	28.80	0.00	0.00	0.00	0.00	0.00	0.00	60.40	17.39	-
			22*511543	0.01	0.00	0.00	0.00	0.00	0.00	0.00	36.75	0.00	12.11
			22*511543F	35.00	0.00	0.00	0.00	0.00	0.00	0.00	10.17	3.56	-
			R194110000	35.20	0.00	0.00	0.00	0.00	0.00	0.00	24.28	8.55	-
			22*511615	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.38	0.00	-

Table 8. Potential VOC Emissions per Oven from Flavorings [PUBLIC VERSION]

Product Name [CONFIDENTIAL]	Recipe ID	Flavor Added (% of finished product) [CONFIDENTIAL]	Flavor ID Number	Effective VOC Content (%)	Oven 1 (EU01)			Oven 2 (EU02)			Oven 5 (EU05)		
					Flavor Usage Rate[1] (lb/hr)	Potential VOC Emissions per Flavor[2] (lb/hr)	Potential VOC Emissions per Product[3,4] (lb/hr)	Flavor Usage Rate[1] (lb/hr)	Potential VOC Emissions per Flavor[2] (lb/hr)	Potential VOC Emissions per Product[3,4] (lb/hr)	Flavor Usage Rate[1] (lb/hr)	Potential VOC Emissions per Flavor[2] (lb/hr)	Potential VOC Emissions per Product[3,4] (lb/hr)
[redacted]			22*511544	0.01	0.00	0.00	0.00	0.00	0.00	0.00	36.75	0.00	19.13
			22*511544F	38.20	0.00	0.00	0.00	0.00	0.00	0.00	27.70	10.58	-
			R175175000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.09	0.00	-
			R194110000	35.20	0.00	0.00	0.00	0.00	0.00	0.00	24.28	8.55	-
			22*511614	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.38	0.00	-
		Potential VOC Emissions Per Oven (lb/hr)[5]					110.76			151.32			76.44
		Potential VOC Emissions Per Oven (tpy)[6]					<90			<90			<90
		Total Potential VOC from Flavorings with Facility-Adopted Limit (tpy)[8]								<90			

1. Flavor Usage Rate (lb/hr) = (Maximum Production Rate, lb/hr) * (Flavor Added, % of Finished Product) / 100
2. Potential VOC Emissions per Flavor (lb/hr) = (Flavor Usage Rate, lbs/hr) * (Effective VOC Content, %) / 100
3. Potential VOC Emissions per Product (lb/hr) = sum of Potential VOC Emissions (lb/hr) for all flavors in product
4. PTE-controlling product is bolded and highlighted in yellow. Each line can manufacture only one product at a time.
5. Potential Flavor VOC emissions from each oven if the maximum VOC-emitting product from each line were produced on a continuous basis. PTE-controlling product is bolded and highlighted.
6. Uncontrolled VOC PTE of each oven exceeds 90 tpy facility-wide limit. Therefore, each oven's VOC PTE is 90 tpy.
7. PG is considered to have an emittance rate of 20% based on stack testing performed at the Pikeville plant on October 13, 2009.
8. Facility has adopted a 90 tpy limit on VOC emissions in compliance with Conditional Major Source Operating Permit No. F-09-001-R2 Condition 3 of Section D

Table 9. Actual Flavor Emissions over 12-Month Period[1]

Flavor Number	VOC Content	Flavor Usage (lb/month)												Total Usage
		Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	
R000272270	36%	1,000	100.00	759.99	531.88	508.13	685.00	--	615.00	534.69	325.51	159.31	339.69	5,559
R000272366	20%	425.00	--	965.00	--	550.00	--	--	--	--	--	--	--	1,940
R100624000	100%	23.00	--	45.00	81.00	12.00	--	--	57.00	--	--	27.00	--	245
R107746000	94%	855.00	524.00	--	--	--	--	175.67	--	--	--	315.00	315.00	2,185
R124417000	18%	--	--	--	--	--	--	--	--	--	160.00	--	--	160
R140417000	84%	240.00	85.00	110.00	--	225.00	--	--	--	--	--	--	255.00	915
R142547000	41%	614.72	665.28	--	1,180.00	209.93	155.07	619.54	155.46	--	996.00	814.40	30.60	5,441
R148382000	35%	--	100.00	--	--	--	45.00	371.11	--	--	288.89	--	--	805
R165854000	19%	431.22	543.78	--	900.00	218.79	1,256.22	587.60	212.40	--	1,050.00	931.25	18.75	6,150
R171711000	30%	7,450.00	--	1,450.00	--	600.00	600.00	--	1,450.00	2,950.00	--	3,000.00	--	17,500
R171711001	30%	--	--	--	--	--	1,050.00	--	1,200.00	--	--	--	--	2,250
R174281001	26%	--	--	--	--	--	--	--	2,000.00	--	--	700.00	700.00	3,400
R184807000	47%	--	--	--	--	--	--	--	--	--	--	211.36	--	211
R184807001	47%	--	--	--	--	223.00	--	939.00	1,217.00	--	999.00	1,353.00	--	4,731
R184808000	42%	--	--	--	--	570.00	--	6,813.68	2,960.00	--	2,510.00	3,730.00	--	16,584
R189490000	27%	--	343.00	1,144.50	--	553.00	765.00	--	1,417.50	--	1,112.00	--	--	5,335
R214588000	22%	3,125.00	1,135.00	1,195.00	--	2,180.00	--	--	--	--	--	--	2,524.00	10,159
R214910000	22%	3,840.00	1,320.00	1,200.00	--	3,654.00	--	--	--	--	--	--	2,226.00	12,240
R215155000	10%	700.00	790.00	1,345.00	--	840.00	1,190.00	--	2,030.00	280.00	805.00	280.00	--	8,260
R216569000	44%	--	3,185.50	--	213.00	52.50	424.50	141.00	109.00	500.00	675.00	465.50	409.50	6,176
R222009000	46%	--	--	--	--	--	--	--	--	1,660.00	--	240.00	760.00	2,660
CO-MANUFACTURED FILLINGS CONTAINING FLAVORS WITH VOC CONTENT														
R000200200	0.0290%	105,258	100,104	145,754	157,594	71,529	95,481	85,955	70,554	100,059	40,765	53,907	75,577	1,102,537
R121471001	0.0290%	--	10,841	--	30,460	--	5,800	3,158	816	--	5,130	--	1,635	57,839
R194110000	35%	13,497	10,935	12,142	11,572	12,073	10,556	10,441	12,810	10,875	7,399	2,865	12,096	127,259
R216293000	0.0044%	813,533	745,934	452,652	513,386	6,269	--	--	--	--	--	--	--	2,531,774
R216293000F	17%	4,230	3,879	2,354	2,670	33	--	--	--	--	--	--	--	13,165
R216561000	0.0044%	139,966	240,275	298,000	148,423	--	--	--	--	--	--	--	--	826,664
R216561000F	29%	714	1,225	1,520	757	--	--	--	--	--	--	--	--	4,216
R216292000	0.0044%	627,439	203,149	212,174	78,400	--	--	--	--	--	--	--	--	1,121,162
R216294000	0.0044%	221,499	182,965	318,501	196,504	--	194,014	228,800	--	288,430	158,035	--	317,415	2,106,163
R216562000	0.0044%	--	107,400	90,841	161,070	149,871	--	227,590	93,988	107,114	--	95,768	97,420	1,131,062
R217662000	0.0044%	101,300	--	107,200	110,988	--	--	99,182	99,050	174,450	--	22,400	76,718	791,288
R216656000	0.0102%	--	--	93,042	--	--	42,624	--	95,103	--	55,800	--	--	286,569
R216656000F	35%	--	--	257	--	--	118	--	263	--	154	--	--	793
R216657000	0.0087%	--	--	118,046	--	--	103,798	--	--	39,200	--	--	--	261,044
R216657000F	38%	--	--	1,630	--	--	1,433	--	--	541	--	--	--	3,605
R223379000F	29%	--	--	--	--	--	--	--	--	--	--	--	666	666
R224614000	0.0044%	--	--	--	136,400	639,828	447,139	368,587	549,000	445,200	327,600	75,815	443,560	3,433,129
R224614000F	17%	--	--	--	709	3,327	2,325	1,917	2,855	2,315	1,704	394	2,307	17,852
R224895000	0.0044%	--	--	--	98,000	200,238	372,260	230,000	454,300	254,660	102,530	--	193,456	1,905,444
R224895000F	29%	--	--	--	500	1,021	1,899	1,173	2,317	1,299	523	--	987	9,718
R224643000	0.0044%	--	--	--	159,016	640,092	278,140	336,000	493,473	113,800	332,700	199,060	359,945	2,912,226
													Total (lb/yr)	**93,463**
													Total (tpy)	**46.73**

1. Actual usage data for most recent 12 month period (June 2022 - May 2023). Other flavors may be used in the future.

Table 10. Potential PM Emissions from Material Handling Sources[1]

Emission Unit ID	Equipment Description	Unit Capacity (tons/hr)	Emission Factor[2] (lb/ton throughput)	Control Efficiency[3]	Controlled Potential Emissions[4] (tpy)	Uncontrolled Potential Emissions[5] (tpy)
DU1	Use Bin No. 1	1.81	0.025	99.5%	9.91E-04	0.20
SU1	Use Bin No. 2	2.21	0.025	99.5%	1.21E-03	0.24
FU1	Use Bin No. 3	5.98	0.025	99.5%	3.27E-03	0.65
FU2	Use Bin No. 4	5.98	0.025	99.5%	3.27E-03	0.65
FU3	Use Bin No. 5	5.98	0.025	99.5%	3.27E-03	0.65
FS1	Silo No. 1	4.88	0.025	99.5%	2.67E-03	0.53
FS2	Silo No. 2	4.88	0.025	99.5%	2.67E-03	0.53
FS3	Silo No. 3	4.88	0.025	99.5%	2.67E-03	0.53
FS4	Silo No. 4	4.88	0.025	99.5%	2.67E-03	0.53
FS5	Silo No. 5	4.18	0.025	99.5%	2.29E-03	0.46
SS1	Silo No. 6	4.88	0.025	99.5%	2.67E-03	0.53
DS1	Silo No. 7	3.36	0.025	99.5%	1.84E-03	0.37
Total Potential Particulate Matter Emissions[6]:					**0.030**	**5.90**

1. Potential particulate matter emissions assume operation at full capacity for 8,760 hr/yr
2. Emission Factor from AP-42 Table 9.9.1-1, SCC 3-02-005-40, for PM (all particulate matter)
3. Control efficiency from AP-42 Appendix B-2 Table B.2-3 for fabric filter. All PM assumed to be $PM_{2.5}$ and PM_{10}.
4. Controlled Potential Emissions (tpy) = (Unit Capacity, tph) * (Operating hours per year) * (Emission Factor, lb/ton) * (1 - CE) / (2000 lb/ton
5. Uncontrolled Potential Emissions (tpy) = (Unit Capacity, tph) * (Operating hours per year) * (Emission Factor, lb/ton) / (2000 lb/ton)
6. Total particulate emissions calculated as the sum of particulate emissions for each emission unit

Table 11. Emissions from Package Marking/Serializing

Ink	Specific Gravity[1]	% VOC by weight[1]	Density[2] (lb/gal)	VOC Content[3] (lb/gal)	Ink Usage[4] (gal/yr)	VOC Emissions[5] (lb/yr)	VOC Emissions[6] (tpy)
Graphic Controls WTRBS Black	1.00	11.00	8.32	0.92	140.00	128	0.064
Videojet Marsh M512-K	0.88	4.00	7.32	0.29	62.64	18	9.17E-03
Videojet Ink V411-D	0.86	77.00	7.16	5.51	33.81	186	0.093
Videojet Make-up Fluid V706-D	0.80	97.00	6.66	6.46	33.81	218	0.11
Fujifilm Food Grade Ink	1.05	100.00	8.74	8.74	147.09	1,285	0.64
					Actual	**1,836**	**0.92**
					Potential[7]	**1,836**	**0.92**

1. Conservative estimate if Safety Data Sheet (SDS) does not provide; otherwise, determined from SDS
2. Density of ink, lb/gal = (Specific gravity of ink) * (Density of water, lb/gal)

   Density of water 8.32 lb/gal
3. VOC content, lb/gal = (%VOC by weight) * (Density of Ink, lb/gal)
4. Ink usage based on combination of historical data and sum of average purchases from 2018-2022 for each color
5. VOC emissions, lb/yr = (Ink usage, gal/yr) * (VOC content, lb/gal)
6. VOC PTE, tpy = (VOC emissions, lb/yr) / (2000 lb/ton)
7. Actual emissions are used to conservatively estimate potential emissions as the usage basis and the VOC % basis for the Fujifilm ink are conservative

Pikeville Bakery
3321 State Highway 194E
Kimper, Kentucky 41539
(606)631-9365

July 10, 2023

Mr. Zachary Bittner
Permit Review Branch – Combustion Section Supervisor
Kentucky Department for Environmental Protection – Division for Air Quality
300 Sower Boulevard, 2nd Floor
Frankfort, KY 40601

RE: Kellogg USA, Inc. – Pikeville Plant (AI #3673)
Administrative Permit Amendment – Ownership/Name Change

Dear Mr. Bittner:

Kellogg's Snacks (Kellogg) is submitting notification of an administrative permit amendment associated with Federally Enforceable State Operating Permit (Conditional Major) F-18-040 for the facility located in Pikeville, Kentucky for an ownership/name change.

1. PERMIT AMENDMENT DESCRIPTION

As of October 2nd, 2023, the name of Kellogg's Pikeville plant will be changed to **Kellanova USA LLC** (Kellanova) and the owner name will change as well.

2. AIR PERMIT REQUIREMENTS

2.1 Qualification as an Administrative Permit Amendment

Pursuant to 401 KAR 52:030 Section 13(1)(b), name/ownership changes may be instituted via an administrative permit amendment. Therefore, Kellanova assumes that an administrative permit amendment is sufficient to provide this information to the Division.

2.2 Required Information for an Administrative Permit Amendment

Pursuant to 401 KAR 52:030 Section 13(2)-(3), an administrative permit amendment must include the necessary DEP 7007 series forms to institute the change. Kellanova is providing a DEP7007 AI form in Attachment A to provide KDAQ with the necessary administrative information to process the application. Kellanova is also providing an Ownership Change Form in Attachment A.

3. CERTIFICATION STATEMENT

Based on information and belief formed after reasonable inquiry, the statements and information contained in this notification are true, accurate, and complete and the planned change meets the criteria of an administrative permit amendment. This declaration is affirmed by the Pikeville facility responsible official via the signature on the DEP 7007AI form in Attachment A. Through this letter and application, Kellogg requests use of these procedures in accordance with 401 KAR 52:030, Section 13.

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

If you have any questions or comments about the information presented in this letter, please do not hesitate to contact Ms. Elisabeth Martin at (859) 341-8100 or via email at emartin@trinityconsultants.com.

Thank you for your consideration.

Sincerely,

Richard Ray
Plant Manager

cc: Mr. Robert Townley, Kellogg Company (Pikeville, KY)
Ms. Elisabeth Martin, Trinity Consultants (Covington, KY)
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

ATTACHMENT A

Ownership Change Form/DEP 7007 AI Form

AGREEMENT FOR ADMINISTRATIVE PERMIT AMENDMENT

Pursuant to 401 Kentucky Administrative Regulation ("KAR") (52:020 Section 13(3)(b), 52:030 Section 13(3)(b), or 52:040 Section 14(2), the manufacturing facility operated by Kellogg USA Inc. , located at 3321 State Highway 194 E, Kimper, Kentucky (*hereafter* "SELLER") currently operates air pollution sources(s) under permit(s) issued by the Energy and Environment Cabinet which are listed in the attached schedule. SELLER has transferred responsibility for its operations at the above identified source(s) to Kellanova USA LLC located at One Kellogg Square, Battle Creek, Michigan, (*hereafter* "BUYER") at a closing which will occur on or after October 2, 2023 (the "closing"). At closing BUYER will assume from SELLER ownership *and* operational control of the air pollution source(s) listed in the attached schedule and BUYER hereby acknowledges and accepts the transfer to it of permit responsibility, coverage, and liability for the listed sources. BUYER has not and will not make operational changes that would require a change in the current operating permit(s) at the time of transfer. Prospective permit changes, if any, will not be made until and unless they conform with all permit amendment procedures of (52:020 Section 13(3)(b), 52:030 Section 13(3)(b), or 52:040 Section 14(2).

SELLER: Kellogg USA Inc.

BY: _____ Gordon Paulson

TITLE: Assistant Secretary July 10, 2023

DATE

BUYER: Kellanova USA LLC

BY: _____ Sarah Hesse

TITLE: Assistant Secretary July 10, 2023

DATE

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

None

___ Additional Documentation attached

Source Name: Kellanova USA LLC (Pikeville Bakery)

KY EIS (AFS) #: 21- 195-00234

Permit #: F-18-040

Agency Interest (AI) ID: 3673

Date: Jul-23

Section AI.1: Source Information

Physical Location Address:	**Street:**	3321 State Highway 194 E				
	City:	Kimper	**County:**	Pike	**Zip Code:**	41539
Mailing Address:	**Street or P.O. Box:**	3321 State Highway 194 E				
	City:	Kimper	**State:**	KY	**Zip Code:**	41539

Standard Coordinates for Source Physical Location

Longitude: -82.4011 (decimal degrees) **Latitude:** 37.5457 (decimal degrees)

Primary (NAICS) Category: Commercial Bakeries **Primary NAICS #:** 311812

#

Classification (SIC) Category: Bread, Cake, and Related Products **Primary SIC #:** 2051

Briefly discuss the type of business conducted at this site: Kellogg's Pikeville site produces a variety of baked goods/pastries.

Description of Area Surrounding Source: ☑ Rural Area ☐ Industrial Park ☐ Residential Area ☐ Urban Area ☐ Industrial Area ☐ Commercial Area

Is any part of the source located on federal land? ☐ Yes ☑ No

Number of Employees: 425

Approximate distance to nearest residence or commercial 2,394 feet

Property Area: 10 Acres

Is this source portable? ☐ Yes ☑ No

What other environmental permits or registrations does this source currently hold or need to obtain in Kentucky?

NPDES/KPDES:	☑ Currently Hold	☐ Need	☐ N/A
Solid Waste:	☐ Currently Hold	☐ Need	☑ N/A
RCRA:	☐ Currently Hold	☐ Need	☑ N/A
UST:	☐ Currently Hold	☐ Need	☑ N/A

Type of Regulated Waste Activity:

☐ Mixed Waste Generator ☐ Generator ☐ Recycler ☐ Other: _____

☐ U.S. Importer of Hazardous Waste ☐ Transporter ☐ Treatment/Storage/Disposal Facility ☑ N/A

Section AI.2: Applicant Information

Applicant Name: Kellanova USA LLC

Title: (if individual)

Mailing Address:
Street or P.O. Box: 3321 State Highway 194 E
City: Kimper **State:** KY **Zip Code:** 41539

Email: (if individual)

Phone:

Technical Contact

Name: Robert Townley

Title: Environmental, Health & Safety Manager

Mailing Address:
Street or P.O. Box: Same As Applicant
City: **State:** **Zip Code:**

Email: Robert.Townley@kellogg.com

Phone: (606) 631-9365 ext 305

Air Permit Contact for Source

Name: Same As Technical Contact

Title:

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

Email:

Phone:

Section AI.3: Owner Information

☐ **Owner same as applicant**

Name: Kellanova USA LLC

Title:

Mailing Address:

Street or P.O. Box: One Kellogg Square

City: Battle Creek **State:** MI **Zip Code:** 49017

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: *(check all that apply)*

☐ Name Change	☐ Initial Registration	☐ Significant Revision	☑ Administrative Permit Amendment
☐ Renewal Permit	☐ Revised Registration	☐ Minor Revision	☐ Initial Source-wide OperatingPermit
☐ 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-Origir ☐ PSD ☐ NSR ☐ Other: _____

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

Pollutant:	Requested Limit:	Pollutant:	Requested Limit:
☐ Particulate Matter		☐ Single HAP	
☐ Volatile Organic Compounds (VOC)		☐ Combined HAPs	
☐ Carbon Monoxide		☐ Air Toxics (40 CFR 68, Subpart F)	
☐ Nitrogen Oxides		☐ Carbon Dioxide	
☐ Sulfur Dioxide		☐ Greenhouse Gases (GHG)	
☐ Lead		☐ Other	

For New Construction:

Proposed Start Date of Construction: *(MM/YYYY)* na

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

For Modifications:

Proposed Start Date of Modification: *(MM/YYYY)* na

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

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:

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

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

7-13-2023
Date

Richard Ray
Type or Printed Name of Signatory

Plant Manager
Title of Signatory

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

Section AI.7: Notes, Comments, and Explanations

Pikeville Bakery
3321 State Highway 194E
Kimper, Kentucky 41539
(606)631-9365

June 1, 2022

Mr. Zachary Bittner
Permit Review Branch – Combustion Section Supervisor
Kentucky Department for Environmental Protection – Division for Air Quality
300 Sower Boulevard, 2nd Floor
Frankfort, KY 40601

RE: Kellogg USA, Inc. – Pikeville Plant (AI #3673)
Off-Permit Change Notification –Replacement of 2 Boilers and Insignificant Activities Regulatory Applicability Correction

Dear Mr. Bittner:

Kellogg's Snacks (Kellogg) is submitting notification of an off-permit change associated with Federally Enforceable State Operating Permit (Conditional Major) F-18-040 for the facility located in Pikeville, Kentucky to replace two (2) indirect heat exchangers less than 1 MMBtu/hr with two (2) new indirect heat exchangers greater than 1 MMBtu/hr. A variety of DEP7007 forms are included in Attachment A. First, DEP7007AI forms provide necessary administrative information for the Kellogg Pikeville facility. Next, DEP7007A forms provide information relevant to the new indirect heat exchangers. DEP7007N and DEP7007V forms are also enclosed to document relevant emission information and applicable requirements, respectively. In addition, Kellogg would like to take this opportunity to correct the applicable regulations in the Section C insignificant activity list as presented on the DEP7007DD form provided in Attachment A. Proposed changes in regulatory applicability and removal of the two units being replaced are highlighted in green on the DEP7007DD form. Note that the DEP7007DD form reflects the updates from an off-permit change submitted in April 2019 as well.

Kellogg has reviewed the proposed changes and has concluded that the proposed changes qualify for treatment as an off-permit change as defined by the criteria specified in 401 KAR 52:030, Section 17(1). This letter and attachments include all information necessary for submittal of a complete off-permit change notification.

1. PROJECT DESCRIPTION

Kellogg plans to install 2 indirect heat exchangers with heat input capacity of 1.85 MMBtu/hr to replace 2 existing boilers currently grouped with insignificant activity #8 as indirect heat exchangers less than or equal to 1 MMBtu/hr. The only emissions from this project are the combustion of natural gas. Kellogg proposes to start installation and operation in early June 2022.

2. AIR EMISSION IMPACTS OF PROPOSED CHANGES

Based on representative emission factors obtained from reference EPA publications (i.e., AP-42 Chapter 1.4 for external natural gas combustion), the annual potential emissions for the indirect heat exchangers are below the threshold for treatment as insignificant activities under 401 KAR 52:030 as presented in Table 1; however, the new boilers will be added to the significant activities Section B as subject to 401 KAR 59:015.

Table 1. Potential Emissions Summary for the Indirect Heat Exchangers Greater than 1 MMBtu/hr (EU08 and EU09)

Pollutant	**Potential Emission Rate per Unit** (tpy)	**Total Potential Emission Rate** (tpy)
Total $PM/PM_{10}/PM_{2.5}$	0.060	0.12
NO_x	0.79	1.59
CO	0.67	1.33
SO_2	4.77E-03	9.53E-03
VOC	0.044	0.087
Single Largest HAP (Hexane)	0.014	0.029
GHG (CO_2e)	948.13	1896.3
CO_2	947	1894.3
CH_4	0.018	0.036
N_2O	1.79E-03	3.57E-03
Total HAP	0.015	0.030

3. REGULATORY AND AIR PERMIT REQUIREMENTS

Pursuant to 401 KAR 52:030 Section 6(1)(c), an insignificant activity cannot be subject to a federally-enforceable requirement other than generally applicable requirements. As demonstrated by the following state and federal air regulatory applicability analysis, the proposed indirect heat exchangers greater than 1 MMBtu/hr are subject to 401 KAR 59:015.

3.1 Analysis of Applicable Regulations

3.1.1 401 KAR 59:010 – New Process Operations

Kentucky regulates the emissions of particulate through 401 KAR 59:010 for sources that are not subject to another emission standard for particulates. For Section 3(2), the allowable emission rate for PM is based on the process weight which, as defined by 401 KAR 59:010 Section 2(2), means the total weight of all materials introduced into any affected facility which may cause any emission of particulate matter, but does not include liquid or gaseous fuels charged, combustion air, or uncombined water. The only process weight for the proposed indirect heat exchangers is the natural gas fuel charged, therefore, they are exempt from the 401 KAR 59:010 requirements.

In addition, Kellogg would like to take this opportunity to correct the applicable regulations in the Section C insignificant activity list as presented on the DEP7007DD form provided in Attachment A. Kellogg is requesting the applicability of 401 KAR 59:010 be removed from the packaging marking (IA11) as it is neither a source of PM emissions nor has a stack. The ink used for the packaging marking has a small amount of VOC as characterized in the calculations with the 2018 permit renewal but does not have a solids content for PM emissions.

3.1.2 401 KAR 59:015 – New Indirect Heat Exchangers

Kentucky regulates indirect heat exchangers with a heat input capacity greater than one (1) MMBtu/hr per 401 KAR 59:015 Section 1(1). The new indirect heat exchangers are rated at 1.85 MMBtu/hr and therefore are affected facilities under 401 KAR 59:015. For this reason, Kellogg is requesting these indirect heat exchangers to be grouped into the significant activities list with the already permitted indirect heat exchanger (EU07) as presented in the DEP7007V form provided in Attachment A.

3.2 Qualification for Treatment as an Off-Permit Change

Kellogg has concluded that the addition of the new boilers in the Title V permit meets the criteria specified in 401 KAR 52:030, Section 17(1) for processing as an off-permit change based on the following review of the applicability criteria:

a. The addition of the boilers will not be a modification under Title I of the Clean Air Act defined at 401 KAR 52:001, Section 1(52). Modification under Title I of the Act is defined as "*a change at a facility that would constitute a modification under 42 U.S.C. 7470 to 7492, or 42 U.S.C. 7501 to 7515*", which includes Prevention of Significant Deterioration and non-attainment New Source Review modifications.

b. Use of the boilers will not violate any existing terms or conditions of the permit.

c. The boilers will meet all applicable requirements.

3.3 Required Information for an Off-Permit Change Notification

Kellogg has provided the required items for an off-permit notification listed in 401 KAR 52:030, Section 17(1)(b)1. through 4. in this letter. Additionally, Attachment A contains DEP 7007AI, A, N, V, and DD forms to facilitate processing of this permit action. Pursuant to 401 KAR 52:030 Section 17(1)(b), Kellogg is permitted to commence with the change covered by this off-permit notification seven (7) workdays from submittal.

4. CERTIFICATION STATEMENT

Based on information and belief formed after reasonable inquiry, the statements and information contained in this notification are true, accurate, and complete and the planned operational change meets the criteria of an off-permit change. This declaration is affirmed by the Pikeville facility responsible official via the signature on the DEP 7007AI form in Attachment A. Through this letter and application, Kellogg requests use of these procedures in accordance with 401 KAR 52:030, Section 17.

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

If you have any questions or comments about the information presented in this letter, please do not hesitate to contact Ms. Elisabeth Martin at (859) 341-8100 or via email at emartin@trinityconsultants.com.

Thank you for your consideration.

Sincerely,

Richard Ray
Plant Manager

cc: Mr. Robert Townley, Kellogg Company (Pikeville, KY)
Ms. Elisabeth Martin, Trinity Consultants (Covington, KY)
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

ATTACHMENT A

DEP 7007 AI, A, N, V, and DD Form

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

None

___ Additional Documentation attached

Source Name: Kellogg USA, Inc. (Pikeville Bakery)

KY EIS (AFS) #: 21- 195-00234

Permit #: F-18-040

Agency Interest (AI) ID: 3673

Date: Jun-22

Section AI.1: Source Information

Physical Location Address:	**Street:**	3321 State Highway 194 E				
	City:	Kimper	**County:**	Pike	**Zip Code:**	41539
Mailing Address:	**Street or P.O. Box:**	3321 State Highway 194 E				
	City:	Kimper	**State:**	KY	**Zip Code:**	41539

Standard Coordinates for Source Physical Location

Longitude: -82.4011 (decimal degrees) **Latitude:** 37.5457 (decimal degrees)

Primary (NAICS) Category: Commercial Bakeries **Primary NAICS #:** 311812

Classification (SIC) Category: Bread, Cake, and Related Products **Primary SIC #:** 2051

Briefly discuss the type of business conducted at this site: Kellogg's Pikeville site produces a variety of baked goods/pastries.

Description of Area Surrounding Source: ☑ Rural Area ☐ Industrial Park ☐ Residential Area ☐ Urban Area ☐ Industrial Area ☐ Commercial Area

Is any part of the source located on federal land? ☐ Yes ☑ No

Number of Employees: 425

Approximate distance to nearest residence or commercial 2,394 feet

Property Area: 10 Acres

Is this source portable? ☐ Yes ☑ No

What other environmental permits or registrations does this source currently hold or need to obtain in Kentucky?

NPDES/KPDES:	☑ Currently Hold	☐ Need	☐ N/A
Solid Waste:	☐ Currently Hold	☐ Need	☑ N/A
RCRA:	☐ Currently Hold	☐ Need	☑ N/A
UST:	☐ Currently Hold	☐ Need	☑ N/A

Type of Regulated Waste Activity: ☐ Mixed Waste Generator ☐ Generator ☐ Recycler ☐ Other: _____ ☐ U.S. Importer of Hazardous Waste ☐ Transporter ☐ Treatment/Storage/Disposal Facility ☑ N/A

Section AI.2: Applicant Information

Applicant Name: Kellogg USA, Inc.

Title: (if individual)

Mailing Address: **Street or P.O. Box:** 3321 State Highway 194 E

City: Kimper **State:** KY **Zip Code:** 41539

Email: (if individual)

Phone:

Technical Contact

Name: Robert Townley

Title: Environmental, Health & Safety Manager

Mailing Address: **Street or P.O. Box:** Same As Applicant

City: **State:** **Zip Code:**

Email: Robert.Townley@kellogg.com

Phone: (606) 631-9365 ext 305

Air Permit Contact for Source

Name: Same As Technical Contact

Title:

Mailing Address: **Street or P.O. Box:**

City: **State:** **Zip Code:**

Email:

Phone:

Section AI.3: Owner Information

☐ **Owner same as applicant**

Name: Kellogg USA, Inc.

Title:

Mailing Address:

Street or P.O. Box: One Kellogg Square - P.O. Box 3599

City: Battle Creek **State:** MI **Zip Code:** 49016-3599

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: *(check all that apply)*

☐ Name Change	☐ Initial Registration	☐ Significant Revision	☐ Administrative Permit Amendment
☐ Renewal Permit	☐ Revised Registration	☐ Minor Revision	☐ Initial Source-wide OperatingPermit
☐ 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-Origir ☐ PSD ☐ NSR ☐ Other: _____

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

Pollutant:	Requested Limit:	Pollutant:	Requested Limit:
☐ Particulate Matter		☐ Single HAP	
☐ Volatile Organic Compounds (VOC)		☐ Combined HAPs	
☐ Carbon Monoxide		☐ Air Toxics (40 CFR 68, Subpart F)	
☐ Nitrogen Oxides		☐ Carbon Dioxide	
☐ Sulfur Dioxide		☐ Greenhouse Gases (GHG)	
☐ Lead		☐ Other	

For New Construction:

Proposed Start Date of Construction: *(MM/YYYY)* 06/2022

Proposed Operation Start-Up Date: *(MM/YYYY)* 06/2022

For Modifications:

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

Proposed Operation Start-Up Date: *(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:

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

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.

Richard Ray	6-1-2022
Authorized Signature	**Date**
Richard Ray	Plant Manager
Type or Printed Name of Signatory	**Title of Signatory**

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

Section AI.7: Notes, Comments, and Explanations

Division for Air Quality

300 Sower Boulevard

Frankfort, KY 40601

(502) 564-3999

DEP7007A

Indirect Heat Exchangers and Turbines

___ Section A.1: General Information

___ Section A.2: Operating and Fuel Information

___ Section A.3: Notes, Comments, and Explanation

Additional Documentation

___ Complete DEP7007AI, DEP7007N, DEP7007V, and DEP7007GG.

____ Manufacturer's specifications

Source Name: Kellogg USA, Inc. (Pikeville Bakery)

KY EIS (AFS) #: 21- 195-00234

Permit #: F-18-040

Agency Interest (AI) ID: 3673

Date: Jun-22

Section A.1: General Information

Emission Unit #	Emission Unit Name	Process ID	Process Name	Identify General Type: Indirect Heat Exchanger, Gas Turbine, or Combustion Turbine	Indirect Heat Exchanger Configuration	Manufacturer	Model No./ Serial No.	Proposed/Actual Date of Construction Commencement *(MM/YYYY)*	SCC Code	SCC Units	Control Device ID	Stack ID
08	Indirect Heat Exchangers Greater than 1 MMBtu/hr	1	Natural Gas Combustion	Indirect Heat Exchanger	Condensing Boiler	Fulton Heating Solutions, Inc.	EDR-2000	Jun-22	10200603	Million Cubic Feet Natural Gas Burned	na	08
09	Indirect Heat Exchangers Greater than 1 MMBtu/hr	1	Natural Gas Combustion	Indirect Heat Exchanger	Condensing Boiler	Fulton Heating Solutions, Inc.	EDR-2000	Jun-22	10200603	Million Cubic Feet Natural Gas Burned	na	09

Section A.2: Operating and Fuel Information

Emission Unit #	If multipurpose unit, identify the percentage of use by purpose				Rated Capacity Heat Input *(MMBTU/hr)*	Rated Capacity Power Output		Describe Operating Scenario (only if this unit will be used in different configurations)	Classify Fuel as Primary or Secondary	Identify Fuel Type: Coal, Natural Gas, Wood, Biomass, Landfill/Digester Gas, Fuel Oil # (specify 1-6), or Other	Heat Content (HHV)		Maximum Operating Hours	Ash Content *(%)*	Sulfur Content *(%)*
	Space Heat	Process Heat	Power	Emergency			*(Specify units: hp, MW, or lb steam/hr)*					*(Specify units: Btu/lb, Btu/gal, or Btu/scf)*			
08		100%			1.85	na	na	na	Primary	Natural Gas	1,020	Btu/scf	8,760	na	0.002
09		100%			1.85	na	na	na	Primary	Natural Gas	1,020	Btu/scf	8,760	na	0.002

Section A.3: Notes, Comments, and Explanations

Division for Air Quality

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

DEP7007N

Source Emissions Profile

__ Section N.1: Emission Summary
__ Section N.2: Stack Information
__ Section N.3: Fugitive Informatic
__ Section N.4: Notes, Comments, and Explanations

Additional Documentation

___ Complete DEP7007AI

Source Name: Kellogg USA, Inc. (Pikeville Bakery)
KY EIS (AFS) #: 21- 195-00234
Permit #: F-18-040
Agency Interest (AI) ID: 3673
Date: Jun-22

N.1: Emission Summary

Emission Unit #	Emission Unit Name	Process ID	Process Name	Control Device Name	Control Device ID	Stack ID	Maximum Design Capacity *(SCC Units/hour)*	Pollutant	Uncontrolled Emission Factor *(lb/SCC Units)*	Emission Factor Source (e.g. AP-42, Stack Test, Mass Balance)	Capture Efficiency *(%)*	Control Efficiency *(%)*	Hourly Emissions		Annual Emissions	
													Uncontrolled Potential *(lb/hr)*	Controlled Potential *(lb/hr)*	Uncontrolled Potential *(tons/yr)*	Controlled Potential *(tons/yr)*
08	Indirect Heat Exchanger Greater than 1 MMBtu/hr	1	Natural Gas Combustion	na	na	08	1.81E-03	NO_x	100.00	AP-42 Section 1.4	na	na	0.18	na	0.79	na
							1.81E-03	CO	84.00	AP-42 Section 1.4	na	na	0.15	na	0.67	na
							1.81E-03	SO_2	0.60	AP-42 Section 1.4	na	na	1.09E-03	na	4.77E-03	na
							1.81E-03	Total $PM/PM_{10}/PM_{2.5}$	7.60	AP-42 Section 1.4	na	na	0.014	na	0.060	na
							1.81E-03	VOC	5.50	AP-42 Section 1.4	na	na	0.010	na	0.044	na
							1.81E-03	Total HAP	1.89	AP-42 Section 1.4	na	na	3.42E-03	na	0.015	na
							1.81E-03	Single Largest HAP (Hexane)	1.80	AP-42 Section 1.4	na	na	3.26E-03	na	0.014	na
							1.81E-03	GHG (CO_2e)	119,350	AP-42 Section 1.4	na	na	216.47	na	948.13	na
							1.81E-03	CO_2	119,227	AP-42 Section 1.4	na	na	216.24	na	947.15	na

Emission Unit #	Emission Unit Name	Process ID	Process Name	Control Device Name	Control Device ID	Stack ID	Maximum Design Capacity *(SCC Units/hour)*	Pollutant	Uncontrolled Emission Factor *(lb/SCC Units)*	Emission Factor Source (e.g. AP-42, Stack Test, Mass Balance)	Capture Efficiency *(%)*	Control Efficiency *(%)*	Hourly Emissions		Annual Emissions	
													Uncontrolled Potential *(lb/hr)*	Controlled Potential *(lb/hr)*	Uncontrolled Potential *(tons/yr)*	Controlled Potential *(tons/yr)*
							1.81E-03	CH_4	2.25	AP-42 Section 1.4	na	na	4.08E-03	na	0.018	na
							1.81E-03	N_2O	0.22	AP-42 Section 1.4	na	na	4.08E-04	na	1.79E-03	na
09	Indirect Heat Exchanger Greater than 1 MMBtu/hr	1	Natural Gas Combustion	na	na	09	1.81E-03	NO_x	100.00	AP-42 Section 1.4	na	na	0.18	na	0.79	na
							1.81E-03	CO	84.00	AP-42 Section 1.4	na	na	0.15	na	0.67	na
							1.81E-03	SO_2	0.60	AP-42 Section 1.4	na	na	1.09E-03	na	4.77E-03	na
							1.81E-03	Total $PM/PM_{10}/PM_{2.5}$	7.60	AP-42 Section 1.4	na	na	0.014	na	0.060	na
							1.81E-03	VOC	5.50	AP-42 Section 1.4	na	na	0.010	na	0.044	na
							1.81E-03	Total HAP	1.89	AP-42 Section 1.4	na	na	3.42E-03	na	0.015	na
							1.81E-03	Single Largest HAP (Hexane)	1.80	AP-42 Section 1.4	na	na	3.26E-03	na	0.014	na
							1.81E-03	GHG (CO_2e)	119,350	AP-42 Section 1.4	na	na	216.47	na	948.13	na
							1.81E-03	CO_2	119,227	AP-42 Section 1.4	na	na	216.24	na	947.15	na
							1.81E-03	CH_4	2.25	AP-42 Section 1.4	na	na	4.08E-03	na	0.018	na
							1.81E-03	N_2O	0.22	AP-42 Section 1.4	na	na	4.08E-04	na	1.79E-03	na

Section N.2: Stack Information

UTM Zone: 17

Stack ID	Identify all Emission Units (with Process ID) and Control Devices that Feed to Stack	Stack Physical Data			Stack UTM Coordinates		Stack Gas Stream Data		
		Equivalent Diameter *(ft)*	Height *(ft)*	Base Elevation *(ft)*	Northing *(m)*	Easting *(m)*	Flowrate *(acfm)*	Temperature *(° F)*	Exit Velocity *(ft/sec)*
08	08-1	0.67	6.67	786	4,156,334	376,229	543	210	25.93
09	09-1	0.67	6.67	786	4,156,334	376,229	543	210	25.93

Section N.3: Fugitive Information

UTM Zone:

Emission Unit #	Emission Unit Name	Process ID	Area Physical Data		Area UTM Coordinates		Area Release Data	
			Length of the X Side *(ft)*	Length of the Y Side *(ft)*	Northing *(m)*	Easting *(m)*	Release Temperature *(°F)*	Release Height *(ft)*
Not applicable for this application.								

Section N.4: Notes, Comments, and Explanations

Division for Air Quality

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

DEP7007V

Applicable Requirements and Compliance Activities

___ Section V.1: Emission and Operating Limitation(s)
___ Section V.2: Monitoring Requirements
___ Section V.3: Recordkeeping Requirements
___ Section V.4: Reporting Requirements
___ Section V.5: Testing Requirements
___ Section V.6: Notes, Comments, and Explanations

Additional Documentation
___ Complete DEP7007AI

Source Name: Kellogg USA, Inc. (Pikeville Bakery)
KY EIS (AFS) #: 21- 195-00234
Permit #: F-18-040
Agency Interest (AI) ID: 3673
Date: Jun-22

Section V.1: Emission and Operating Limitation(s)

Emission Unit #	Emission Unit Description	Applicable Regulation or Requirement	Pollutant	Emission Limit (if applicable)	Voluntary Emission Limit or Exemption (if applicable)	Operating Requirement or Limitation (if applicable)	Method of Determining Compliance with the Emission and Operating Requirement(s)

Emission Unit #	Emission Unit Description	Applicable Regulation or Requirement	Pollutant	Emission Limit (if applicable)	Voluntary Emission Limit or Exemption (if applicable)	Operating Requirement or Limitation (if applicable)	Method of Determining Compliance with the Emission and Operating Requirement(s)
08 09	Indirect Heat Exchangers Greater than 1 MMBtu/hr	401 KAR 59:015, Section 7	na	na	na	During a startup period or shutdown period, comply with the work practice standards established in 401 KAR 59:015, Section 7: (1) i. Comply with 401 KAR 50:055, Section 2(5); ii. The frequency and duration of startup periods or shutdown periods shall be minimized by the affected facility; iii. All reasonable steps shall be taken by the permittee to minimize the impact of emissions on ambient air quality from the affected facility during startup periods and shutdown periods; iv. Startups and shutdowns shall be conducted according to either: 1. The manufacturer's recommended procedures; 2. Recommended procedures for a unit of similar design, for which manufacturer's recommended procedures are available, as approved by the cabinet based on documentation provided by the permittee.	Maintain logs or other relevant evidence.
08 09	Indirect Heat Exchangers Greater than 1 MMBtu/hr	401 KAR 59:015, Section 4(1)(a)	PM	Except as established in 401 KAR 59:015, Sections 3(3) and 7, the permittee shall not cause emissions of particulate matter in excess of 0.56 lb/MMBtu	na	na	Compliance is assumed while burning natural gas.
08 09	Indirect Heat Exchangers Greater than 1 MMBtu/hr	401 KAR 59:015, Section 4(2)	Opacity	Except as established in 401 KAR 59:015, Sections 3(3) and 7, the permittee shall not cause emissions in excess of 20% opacity.	na	na	Compliance is assumed while burning natural gas.

Emission Unit #	Emission Unit Description	Applicable Regulation or Requirement	Pollutant	Emission Limit (if applicable)	Voluntary Emission Limit or Exemption (if applicable)	Operating Requirement or Limitation (if applicable)	Method of Determining Compliance with the Emission and Operating Requirement(s)
08 09	Indirect Heat Exchangers Greater than 1 MMBtu/hr	401 KAR 59:015, Section 5(1)(a)	SO2	Except as established in 401 KAR 59:015, Sections 3(3) and 7, the permittee shall not cause emissions of gases that contain sulfur dioxide in excess of 3.00 lb/MMBtu	na	na	Compliance is assumed while burning natural gas.

Section V.2: Monitoring Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Monitored	Description of Monitoring
08 09	Indirect Heat Exchangers Greater than 1 MMBtu/hr	na	401 KAR 52:030, Section 10	na	Monitor natural gas usage (MMscf) on a monthly basis.

Section V.3: Recordkeeping Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Recorded	Description of Recordkeeping
08 09	Indirect Heat Exchangers Greater than 1 MMBtu/hr	na	401 KAR 59:015, Section 7	na	Document via a signed, contemporaneous log or other relevant evidence the actions, including duration of the startup period, of the permittee during startup periods and shutdown periods.
08 09	Indirect Heat Exchangers Greater than 1 MMBtu/hr	na	401 KAR 52:030, Section 10	na	Record natural gas usage (MMscf) on a monthly basis.

Section V.4: Reporting Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Reported	Description of Reporting
08 09	Indirect Heat Exchangers Greater than 1 MMBtu/hr	na	na	na	na

Section V.5: Testing Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Tested	Description of Testing
08 09	Indirect Heat Exchangers Greater than 1 MMBtu/hr	na	na	na	na

Section V.6: Notes, Comments, and Explanations

Division for Air Quality
300 Sower Boulevard
Frankfort, KY 40601
(502) 564-3999

DEP7007DD

Insignificant Activities

___ Section DD.1: Table of Insignificant Activities
___ Section DD.2: Signature Block
___ Section DD.3: Notes, Comments, and Explanations

Source Name: Kellogg USA, Inc. (Pikeville Bakery)
KY EIS (AFS) : 21- 195-00234
Permit #: F-18-040
Agency Interest (AI) ID: 3673
Date: Jun-22

Section DD.1: Table of Insignificant Activities

*Identify each activity with a unique Insignificant Activity number (IA #); for example: 1, 2, 3… etc.

Insignificant Activity #	Description of Activity including Rated Capacity	Serial Number or Other Unique Identifier	Applicable Regulation(s)	Calculated Emissions
1	Dextrose Use Bin (#1)		401 KAR 59:010	
2	Sugar Use Bin (#2)		401 KAR 59:010	
3	Flour Use Bins (#3-5)		401 KAR 59:010	
4	Flour Silos (#6)		401 KAR 59:010	
5	Graham Flour Silo (#5)		401 KAR 59:010	
6	Sugar Silo (#6)		401 KAR 59:010	
7	Dextrose Silo (#7)		401 KAR 59:010	
8	Eleven (11) indirect heat exchangers rated less than or equal to 1 MMBtu/hr		N/A	
9	Wastewater treatment plant		N/A	

Insignificant Activity #	Description of Activity including Rated Capacity	Serial Number or Other Unique Identifier	Applicable Regulation(s)	Calculated Emissions
10	Wastewater Digestor flare (0.01 MMBtu/hr)		401 KAR 59:010, 401 KAR 63:015	
11	Packaging Marking		N/A	
12	Two (2) on-site natural gas production wells		N/A	
13	Various natural gas and kerosene space heaters for comfort heating		N/A	
14	Ingredient mixing equipment with dust collection (exhaust indoors)		401 KAR 59:010	

Section DD.2: 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	6-1-2022 Date
By:	Richard Ray	Plant Manager
	Type/Print Name of Signatory	Title of Signatory

Section DD.3: Notes, Comments, and Explanations