



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: **102016-007** Project Number: 2016-07-007
Installation Number: 001-0030

Parent Company: The Kraft Heinz Company

Parent Company Address: 200 East Randolph Street Suite 7600, Chicago, IL 60601

Installation Name: Kraft Heinz Foods Company

Installation Address: 2504 North Industrial Road, Kirksville, MO 63501

Location Information: Adair County, S33 T63N R15W

Application for Authority to Construct was made for:
Adding Boilers and processes. This review was conducted in accordance with
Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

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- Standard Conditions (on reverse) are applicable to this permit.
- Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

Jordan Hull
Prepared by
Jordan Hull
New Source Review Unit

Kendall B. Hall
Director or Designee
Department of Natural Resources

10/27/2016
Effective Date

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Enforcement and Compliance Section of the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Enforcement and Compliance Section of the Department's Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available within 30 days of actual startup. Also, you must notify the Department's regional office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of the permit application and this permit and permit review shall be kept at the installation address and shall be made available to Department's personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit using the contact information below.

Contact Information:
Missouri Department of Natural Resources
Air Pollution Control Program
P.O. Box 176
Jefferson City, MO 65102-0176
(573) 751-4817

The regional office information can be found at the following website:
<http://dnr.mo.gov/regions/>

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."

Kraft Heinz Foods Company
Adair County, S33 T63N R15W

1. Control Device Requirement-Baghouse
 - A. Kraft Heinz Foods Company shall control emissions from the spice blending operation (EP-15&16) using baghouses as specified in the permit application.
 - B. The baghouses shall be operated and maintained in accordance with the manufacturer's specifications. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that Department of Natural Resources' employees may easily observe them.
 - C. Replacement filters for the baghouses shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).
 - D. Kraft Heinz Foods Company shall monitor and record the operating pressure drop across the baghouses at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
 - E. Kraft Heinz Foods Company shall maintain a copy of the baghouse manufacturer's performance warranty on site.
 - F. Kraft Heinz Foods Company shall maintain an operating and maintenance log for the baghouses which shall include the following:
 - 1) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - 2) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
2. Control Device Requirement-Dust Collectors/Bag filter
 - A. Kraft Heinz Foods Company shall control particulate emissions from the following equipment using dust collectors, as specified in the permit application:
 - 1) EP-17 Starch Silo
 - 2) EP-18 Salt unloading

- B. The dust collectors shall be operated and maintained in accordance with the manufacturer's specifications. The dust collectors shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that Department of Natural Resources' employees may easily observe them.
 - C. Replacement filters for the dust collectors shall be kept on hand at all times. The filters shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).
 - D. Kraft Heinz Foods Company shall monitor and record the operating pressure drop across the dust collectors at least once every 24 hours while the plant is operating. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
 - E. Kraft Heinz Foods Company shall maintain a copy of the dust collector manufacturer's performance warranty on site.
 - F. Kraft Heinz Foods Company shall maintain an operating and maintenance log for the dust collectors which shall include the following:
 - 1) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - 2) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
3. Fuel Requirement-Boilers
Kraft Heinz Foods Company shall burn exclusively natural gas for their two boilers (EP-13, 14)
4. Operating Permit Requirement
- A. Kraft Heinz Food Company shall amend their current Basic Operating Permit within 180 days of equipment startup
 - B. Kraft Heinz Food Company shall submit the following supplemental information with the application of renewal of the Basic Operating Permit (2020).:
 - 1. Installation wide potential to emit.
 - 2. List of all emission points
 - 3. List of all control devices and the equipment and pollutants they control.
 - 4. List of the control devices required by a permitted condition.
5. Record Keeping and Reporting Requirements
- A. Kraft Heinz Foods Company shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.

Project No. 2016-07-007

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- B. Kraft Heinz Foods Company shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after the end of the month during which any record required by this permit shows an exceedance of a limitation imposed by this permit.

SECTION (5) REVIEW
Project Number: 2016-07-007
Installation ID Number: 001-0030
Permit Number: 102016-007

Installation Address:
Kraft Heinz Foods Company
2504 North Industrial Road
Kirksville, MO 63501

Parent Company:
The Kraft Heinz Company
200 East Randolph Street Suite 7600
Chicago, IL 60601

Adair County, S33 T63N R15W

REVIEW SUMMARY

- Kraft Heinz Foods Company has applied for authority to adding boilers and processes.
- The application was deemed complete on July 25, 2016.
- HAP emissions are expected from the proposed equipment. HAPs of concern from this process are from the combustion of natural gas in the boilers. The HAPs potential emissions are below de minimis levels.
- 40 CFR Part 60, Subpart (Dc) - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.
- A baghouse and bag filters are being used to control the PM, PM₁₀, and PM_{2.5} emissions from the spice blending, starch silo, and salt unloading equipment in this permit.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of all pollutants are below de minimis levels.
- This installation is located in Adair County, an attainment area for all criteria pollutants.
- Ambient air quality modeling was not performed since potential emissions of the application are below de minimis levels.
- Emission testing is not required for the equipment as a part of this permit. Testing may be required as part of other state, federal or applicable rules.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

Kraft Heinz Food Company is a food manufacturing plant whose main products are smoked meats (bacon and ham). The facility in Kirksville, Missouri currently operates meat processing equipment that involves mixing, grinding, stuffing, and smoking along with combustion equipment (boilers). Raw materials such as starch and salt arrive to the facility via trucks. The facility currently operates under a basic operating permit.

No New Source Review permits have been issued to Kraft Heinz Foods Company from the Air Pollution Control Program. For this reason there are no existing potential emissions to refer to from Kraft Foods Companies installation. When reviewing existing equipment it appeared potential emission levels installation wide would be at or above deminimis levels. For this reason we ask that you send installation wide potential to emit calculations upon the next renewal of your basic operating permit (2020).

The following permits have been issued to Kraft Heinz Foods Company from the Air Pollution Control Program.

Table 1 Permit History for Kraft Heinz Food Company

Permit Number	Description
Basic OP	Basic Operating Permit issued (9/27/2001)
Basic OP renewal	Basic Operating Permit renewal (1/10/2006)
Basic OP renewal	Basic Operating Permit renewal (9/9/2010)
Basic OP renewal	Basic Operating Permit renewal (7/20/2015)

*The current basic operating permit expires 12/24/2020

The following table lists the emission points and a description of the equipment included in the project.

Table 2: Project Emission Points

Emission Point	Description	Project #
EP-13	Natural Gas Fired Boiler 1	2016-07-007
EP-14	Natural Gas Fired Boiler 2	2016-07-007
EP-15 &16	Spice Blending	2016-07-007
EP-17	Starch Silo	2016-07-007
EP-18	Salt Unloading	2016-07-007
EP-19	Haul Roads	2016-07-007

PROJECT DESCRIPTION

Kraft Heinz Food Company intends to remodel the existing processing areas which involves the addition of two 54.4 MMBtu/hr boilers as well as other new processes. The other new processes consist of spice blending (EP-15&16), a starch silo (EP-17), and

salt unloading (EP-18). The trucks delivering starch, spices, and salt enter and exit the facility on existing paved haul roads.

EMISSIONS/CONTROLS EVALUATION

Emissions for the project were calculated using emission factors found in the United States EPA document AP-42 *Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources*, Fifth Edition (AP-42).

The emissions factors used to calculate the emission from the boilers were taken from AP-42, chapter 1.4- Natural Gas Combustion (July 1998). The boiler has a manufacture guarantee of 30 parts per million by volume exhaust concentration which changes the NOx emissions factor to 37.16 lb/MMscf.

The emission factors used in calculating PM emissions from the spice blending, starch silo, and salt unloading were taken from AP-42 section 9.9.7 table 9.9.7 (January 1995)- 1 SCC 30201408 (Starch Bulk Loadout). AP-42 Appendix B.2 category 7 was used to determine the emission factors for the PM₁₀ and PM_{2.5}. The potential emissions for PM_{2.5} of the spice blending, starch silo, and salt unloading were adjusted to be the same as PM₁₀ because 95% control efficiency on PM_{2.5} resulted in higher PM_{2.5} emissions than PM₁₀ which is not possible as PM_{2.5} is a subset of PM₁₀.

The haul road emission factors were taken from AP-42 section 13.2.1. Paved Roads (January 2011). The additional haul road data was taken from supplemental data given by the applicant.

The following table provides an emissions summary for this project. Existing potential emissions were not available as there are no previous permit besides the basic operating permit. Existing actual emissions were taken from the installation's 2015 EIQ. Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year).

Table 3: Emissions Summary (tpy)

Pollutant	Regulatory <i>De Minimis</i> Levels	*Existing Potential Emissions	Existing Actual Emissions (2015 EIQ)	Potential Controlled Emissions of the Project
PM	25.0	N/A	N/D	3.83
PM ₁₀	15.0	N/A	2.87	3.65
PM _{2.5}	10.0	N/A	1.83	3.63
SOx	40.0	N/A	0.02	0.28
NOx	40.0	N/A	3.81	17.36
VOC	40.0	N/A	2.34	2.57
CO	100.0	N/A	3.2	39.24
GHG (CO ₂ e)	75,000 / 100,000	N/A	N/D	56,397.16
GHG (mass)	0.0 / 100.0 / 250.0	N/A	N/D	56,066.10
HAPs	10.0/25.0	N/A	0.00	0.88

*N/A = Not Available-This refers to installation description about installation wide PTE (Special Condition 4).

N/D = Not Determined

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of all pollutants are below de minimis levels.

APPLICABLE REQUIREMENTS

Kraft Heinz Foods Company shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved.

GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
 - Per 10 CSR 10-6.110(4)(B)2.B(II) and (4)(B)2.C(II) a full EIQ is required for the first full calendar year the equipment (or modifications) approved by this permit are in operation.
- *Operating Permits*, 10 CSR 10-6.065
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-6.165

SPECIFIC REQUIREMENTS

- *New Source Performance Regulations*, 10 CSR 10-6.070 (Dc) Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, it is recommended that this permit be granted with special conditions.

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated July 5, 2016, received July 7, 2016, designating The Kraft Heinz Company as the owner and operator of the installation.

APPENDIX A

Abbreviations and Acronyms

%	percent	m/s	meters per second
°F	degrees Fahrenheit	Mgal	1,000 gallons
acfm	actual cubic feet per minute	MW	megawatt
BACT	Best Available Control Technology	MHDR	maximum hourly design rate
BMPs	Best Management Practices	MMBtu ...	Million British thermal units
Btu	British thermal unit	MMCF	million cubic feet
CAM	Compliance Assurance Monitoring	MSDS	Material Safety Data Sheet
CAS	Chemical Abstracts Service	NAAQS ..	National Ambient Air Quality Standards
CEMS	Continuous Emission Monitor System	NESHAPs	National Emissions Standards for Hazardous Air Pollutants
CFR	Code of Federal Regulations	NO_x	nitrogen oxides
CO	carbon monoxide	NSPS	New Source Performance Standards
CO₂	carbon dioxide	NSR	New Source Review
CO_{2e}	carbon dioxide equivalent	PM	particulate matter
COMS	Continuous Opacity Monitoring System	PM_{2.5}	particulate matter less than 2.5 microns in aerodynamic diameter
CSR	Code of State Regulations	PM₁₀	particulate matter less than 10 microns in aerodynamic diameter
dscf	dry standard cubic feet	ppm	parts per million
EIQ	Emission Inventory Questionnaire	PSD	Prevention of Significant Deterioration
EP	Emission Point	PTE	potential to emit
EPA	Environmental Protection Agency	RACT	Reasonable Available Control Technology
EU	Emission Unit	RAL	Risk Assessment Level
fps	feet per second	SCC	Source Classification Code
ft	feet	scfm	standard cubic feet per minute
GACT	Generally Available Control Technology	SDS	Safety Data Sheet
GHG	Greenhouse Gas	SIC	Standard Industrial Classification
gpm	gallons per minute	SIP	State Implementation Plan
gr	grains	SMAL	Screening Model Action Levels
GWP	Global Warming Potential	SO_x	sulfur oxides
HAP	Hazardous Air Pollutant	SO₂	sulfur dioxide
hr	hour	tph	tons per hour
hp	horsepower	tpy	tons per year
lb	pound	VMT	vehicle miles traveled
lbs/hr	pounds per hour	VOC	Volatile Organic Compound
MACT	Maximum Achievable Control Technology		
µg/m³	micrograms per cubic meter		



Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

DEPARTMENT OF NATURAL RESOURCES

www.dnr.mo.gov

Ms. Jackie Durham
Organizational Risk Manager
Kraft Heinz Foods Company
2504 N Industrial Road
Kirksville, MO 63501

RE: New Source Review Permit - Project Number: 2016-07-007

Dear Ms. Jackie Durham:

Enclosed with this letter is your permit to construct. Please study it carefully and refer to Appendix A for a list of common abbreviations and acronyms used in the permit. Also, note the special conditions on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files. Operation in accordance with these conditions, your new source review permit application and with your amended operating permit is necessary for continued compliance. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

This permit may include requirements with which you may not be familiar. If you would like the department to meet with you to discuss how to understand and satisfy the requirements contained in this permit, an appointment referred to as a Compliance Assistance Visit (CAV) can be set up with you. To request a CAV, please contact your local regional office or fill out an online request. The regional office contact information can be found at the following website: <http://dnr.mo.gov/regions/>. The online CAV request can be found at <http://dnr.mo.gov/cav/compliance.htm>.

If you were adversely affected by this permit decision, you may be entitled to pursue an appeal before the administrative hearing commission pursuant to Sections 621.250 and 643.075.6 RSMo. To appeal, you must file a petition with the administrative hearing commission within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the administrative hearing commission, whose contact information

Ms. Jackie Durham
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is: Administrative Hearing Commission, United States Post Office Building, 131 West High Street, Third Floor, P.O. Box 1557, Jefferson City, Missouri 65102, phone: 573-751-2422, fax: 573-751-5018, website: www.oa.mo.gov/ahc.

If you have any questions regarding this permit, please do not hesitate to contact Jordan Hull, at the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale

Susan Heckenkamp
New Source Review Unit Chief

SH:jhj

Enclosures

c: Northeast Regional Office
PAMS File: 2016-07-007

Permit Number: 102016-007