

STATE OF 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: **112013-007**

Project Number: 2013-10-025

Installation Number: 121-0003

Parent Company: ConAgra Foods

Parent Company Address: 11 ConAgra Drive, Omaha, NE 68102

Installation Name: ConAgra Foods

Installation Address: 204 Vine Street, Macon, MO 63552

Location Information: Macon County, S21, T57N, R14W

Application for Authority to Construct was made for: electric chicken grill (EP-23). This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

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

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

**NOV 25 2013**

EFFECTIVE DATE

A handwritten signature in black ink that reads "Kyrna L Moore".  
\_\_\_\_\_  
DIRECTOR OR DESIGNEE  
DEPARTMENT OF NATURAL RESOURCES

## 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 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 Department's Air Pollution Control Program of the anticipated date of start up of these air contaminant sources. The information must be made available within 30 days of actual startup. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located within 15 days after the actual start up of these air contaminant sources.

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' 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 sources(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 at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

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Permit No.	
Project No.	2013-10-025

#### 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."*

ConAgra Foods  
Macon County, S21, T57N, R14W

1. HAPs Emission Limitation
  - A. ConAgra Foods shall emit no more than 0.01 tons of phenanthrene in any consecutive 12-month period from electric chicken grill EP-23.
  - B. Attachment A or equivalent forms, such as electronic forms, approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Condition 1.A.
2. Record Keeping and Reporting Requirements
  - A. ConAgra Foods 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.
  - B. ConAgra Foods 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 show an exceedance of a limitation imposed by this permit.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE  
SECTION (5) REVIEW

Project Number: 2013-10-025  
Installation ID Number: 121-0003  
Permit Number:

ConAgra Foods  
204 Vine Street  
Macon, MO 63552

Complete: October 10, 2013

Parent Company:  
ConAgra Foods  
11 ConAgra Drive  
Omaha, NE 68102

Macon County, S21, T57N, R14W

REVIEW SUMMARY

- ConAgra Foods has applied for authority to install an electric chicken grill.
- HAP emissions are expected from the proposed equipment. HAPs of concern from this process are phenanthrene, fluoranthene, and pyrene. Other individual polycyclic organic matter (POM) HAPs are also emitted.
- None of the New Source Performance Standards (NSPS) under 40 CFR 60 apply to the project emission units.
- None of the NESHAP regulations under 40 CFR 61 apply to the project emission units.
- None of the MACT regulations under 40 CFR 63 apply to the project emission units.
- No air pollution control equipment is being used in association with the new equipment.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of phenanthrene are conditioned to not exceed the SMAL. Potential emissions of fluoranthene and pyrene are indirectly conditioned below their respective SMAL. Potential emissions of other pollutants remain below respective de minimis levels.
- This installation is located in Macon County, an attainment area for all criteria pollutants.
- This installation is not on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. The installation's major source level is 250 tons per year and

fugitive emissions are not counted toward major source applicability.

- Ambient air quality modeling was not performed since potential emissions of the application are below respective de minimis levels and conditioned potential HAP emissions do not exceed respective SMAL.
- Emissions testing is not required for the equipment.
- Submittal of an application to amend the basic operating permit is required for this installation within 30 days of equipment startup.
- Approval of this permit is recommended with special conditions.

### INSTALLATION DESCRIPTION

ConAgra Foods is a food processing plant located in Macon. The installation consists of two chicken processing lines equipped with two multipurpose ovens followed by a thermal brander. These processing lines are used for grinding, shaping, battering, breading, baking, branding, freezing, and packaging of the final product. The installation is a minor source for New Source Review (construction) permitting and holds a basic operating permit. The following New Source Review permits have been issued to ConAgra Foods from the Air Pollution Control Program.

Table 1: Permit History

Permit Number	Description
0684-002	Installation of equipment for formed chicken
1295-008	Addition of two chicken processing lines
0896-011	Replacement of one existing fryer line by two new chicken fryer lines
1297-025	Addition of two multipurpose ovens
072002-002	Addition of two new fryers and replacement of a brander
022011-011	Replacement of Boiler 1 with a 30.6 MMBtu/hr natural gas boiler

### PROJECT DESCRIPTION

ConAgra Foods proposes to install a chicken cooking grill (EP-23). The grill is powered by electricity which heats belts and transfers the heat to the product. The grill will be installed in series prior to oven EP-19 which was established under permit 1297-005. The new grill will not debottleneck the existing oven as the oven was permitted at its maximum design rate. The new grill is a Stein Pro-Grill model PG1148 rated at 4,000 pounds of boneless, skinless chicken breast per hour. This design rate is based upon the grill searing the chicken while final cooking is accomplished in the oven. Cooking emissions are uncontrolled.

### EMISSIONS/CONTROLS EVALUATION

Potential emissions from the grill were calculated using emission factors obtained from *Methods for Developing a National Emission Inventory for Commercial Cooking*

*Processes: Technical Memorandum*, E.H. Pechan & Associates, Inc., December 22, 2003. Criteria pollutants were obtained from Table 1B while HAPs were obtained from Table 2B. The report shows non-detect for PM while PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub>, and NO<sub>x</sub> were not analyzed. This review assumed the any particulate matter emissions would be insignificant compared to respective de minimis levels and that SO<sub>x</sub> and NO<sub>x</sub> emissions would not exist as combustion is not occurring.

Potential emissions from the supporting haul road activity were calculated using the EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Chapter 13.2.1, *Paved Roads*, January 2011.

The following table provides an emissions summary for this project. Existing potential emissions were cited from construction permit history. They may not accurately reflect the installation as some permits involved replacing existing units. Existing potential HAP emissions are from natural gas combustion and cooking and are not expected to approach major source levels. Existing actual emissions were cited from the installation's 2012 EIQ. Potential emissions of the project represent the potential of the new grill and supporting haul road activity, assuming continuous operation (8,760 hours per year). Conditioned potential emissions of the project represent a voluntary phenanthrene emission limit to the SMAL to avoid an ambient air quality impact analysis.

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (2012 EIQ)	Unconditioned Potential Emissions of the Project	Conditioned Potential Emissions of the Project
PM	25.0	N/D	N/D	1.79E-02	5.46E-03
PM <sub>10</sub>	15.0	88.31	6.54	3.58E-03	1.09E-03
PM <sub>2.5</sub>	10.0	N/D	0.08	8.78E-04	2.68E-04
SO <sub>x</sub>	40.0	0.30	0.03	N/A	N/A
NO <sub>x</sub>	40.0	58.08	5.69	N/A	N/A
VOC	40.0	4.81	0.89	7.01	2.14
CO	100.0	18.17	2.66	7.88	2.41
GHG (CO <sub>2</sub> e)	75,000 / 100,000	N/D	N/D	N/A	N/A
GHG (mass)	0.0 / 100.0 / 250.0	N/D	N/D	N/A	N/A
HAPs	10.0 / 25.0	N/D	0.04	0.17	0.05
Combined POM	10.0	N/D	N/D	0.17	0.05
<sup>1</sup> Naphthalene	10.0	N/D	N/D	1.75E-02	5.35E-03
<sup>1</sup> Benzo(a)pyrene	<sup>2</sup> 0.01	N/D	N/D	1.75E-04	5.35E-05
<sup>1</sup> Acenaphthylene	<sup>2</sup> 0.01	N/D	N/D	2.28E-03	6.95E-04
<sup>1</sup> Fluorene	<sup>2</sup> 0.01	N/D	N/D	3.15E-03	9.63E-04
<sup>1</sup> Phenanthrene	<sup>2</sup> 0.01	N/D	N/D	0.03	≤ 0.01
<sup>1</sup> Fluoranthene	<sup>2</sup> 0.01	N/D	N/D	1.09E-02	3.32E-03
<sup>1</sup> Pyrene	<sup>2</sup> 0.01	N/D	N/D	1.44E-02	4.39E-03
<sup>1</sup> Benz(a)anthracene	<sup>2</sup> 0.01	N/D	N/D	2.10E-03	6.42E-04
<sup>1</sup> Acenaphthene	<sup>2</sup> 0.01	N/D	N/D	8.76E-04	2.67E-04
<sup>1</sup> Anthracene	<sup>2</sup> 0.01	N/D	N/D	7.71E-03	2.35E-03
Biphenyl	10.0	N/D	N/D	2.28E-03	6.95E-04

N/A = Not Applicable; N/D = Not Determined

<sup>1</sup> An individual POM. Individual POM are combined for comparison to the major source level, but not combined for comparison to the SMAL.

<sup>2</sup> SMAL

### 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 phenanthrene are conditioned to not exceed the SMAL. Potential emissions of fluoranthene and pyrene are indirectly conditioned below their respective SMAL. Potential emissions of other pollutants remain below respective de minimis levels.

## APPLICABLE REQUIREMENTS

ConAgra Foods 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. For a complete list of applicable requirements for your installation, please consult your operating permit.

### GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
- *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

### 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*, I recommend this permit be granted with special conditions.

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David Little  
New Source Review Unit

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Date

### PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated October 4, 2013, received October 10, 2013, designating ConAgra Foods as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.



## APPENDIX A

### Abbreviations and Acronyms

<b>%</b> .....	percent	<b>m/s</b> .....	meters per second
<b>°F</b> .....	degrees Fahrenheit	<b>Mgal</b> .....	1,000 gallons
<b>acfm</b> .....	actual cubic feet per minute	<b>MW</b> .....	megawatt
<b>BACT</b> .....	Best Available Control Technology	<b>MHDR</b> .....	maximum hourly design rate
<b>BMPs</b> .....	Best Management Practices	<b>MMBtu</b> ....	Million British thermal units
<b>Btu</b> .....	British thermal unit	<b>MMCF</b> .....	million cubic feet
<b>CAM</b> .....	Compliance Assurance Monitoring	<b>MSDS</b> .....	Material Safety Data Sheet
<b>CAS</b> .....	Chemical Abstracts Service	<b>NAAQS</b> ...	National Ambient Air Quality Standards
<b>CEMS</b> .....	Continuous Emission Monitor System	<b>NESHAPs</b>	..... National Emissions Standards for Hazardous Air Pollutants
<b>CFR</b> .....	Code of Federal Regulations	<b>NO<sub>x</sub></b> .....	nitrogen oxides
<b>CO</b> .....	carbon monoxide	<b>NSPS</b> .....	New Source Performance Standards
<b>CO<sub>2</sub></b> .....	carbon dioxide	<b>NSR</b> .....	New Source Review
<b>CO<sub>2e</sub></b> .....	carbon dioxide equivalent	<b>PM</b> .....	particulate matter
<b>COMS</b> .....	Continuous Opacity Monitoring System	<b>PM<sub>2.5</sub></b> .....	particulate matter less than 2.5 microns in aerodynamic diameter
<b>CSR</b> .....	Code of State Regulations	<b>PM<sub>10</sub></b> .....	particulate matter less than 10 microns in aerodynamic diameter
<b>dscf</b> .....	dry standard cubic feet	<b>ppm</b> .....	parts per million
<b>EQ</b> .....	Emission Inventory Questionnaire	<b>PSD</b> .....	Prevention of Significant Deterioration
<b>EP</b> .....	Emission Point	<b>PTE</b> .....	potential to emit
<b>EPA</b> .....	Environmental Protection Agency	<b>RACT</b> .....	Reasonable Available Control Technology
<b>EU</b> .....	Emission Unit	<b>RAL</b> .....	Risk Assessment Level
<b>fps</b> .....	feet per second	<b>SCC</b> .....	Source Classification Code
<b>ft</b> .....	feet	<b>scfm</b> .....	standard cubic feet per minute
<b>GACT</b> .....	Generally Available Control Technology	<b>SIC</b> .....	Standard Industrial Classification
<b>GHG</b> .....	Greenhouse Gas	<b>SIP</b> .....	State Implementation Plan
<b>gpm</b> .....	gallons per minute	<b>SMAL</b> .....	Screening Model Action Levels
<b>gr</b> .....	grains	<b>SO<sub>x</sub></b> .....	sulfur oxides
<b>GWP</b> .....	Global Warming Potential	<b>SO<sub>2</sub></b> .....	sulfur dioxide
<b>HAP</b> .....	Hazardous Air Pollutant	<b>tph</b> .....	tons per hour
<b>hr</b> .....	hour	<b>tpy</b> .....	tons per year
<b>hp</b> .....	horsepower	<b>VMT</b> .....	vehicle miles traveled
<b>lb</b> .....	pound	<b>VOC</b> .....	Volatile Organic Compound
<b>lbs/hr</b> .....	pounds per hour		
<b>MACT</b> .....	Maximum Achievable Control Technology		
<b>µg/m<sup>3</sup></b> .....	micrograms per cubic meter		

Mr. Kent Cavender  
Maintenance Manager  
ConAgra Foods  
204 Vine Street  
Macon, MO 63552

RE: New Source Review Permit - Project Number: 2013-10-025

Dear Mr. Cavender:

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.

If you have any questions regarding this permit, please do not hesitate to contact David Little, 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

Susan Heckenkamp  
New Source Review Unit Chief

SH:dll

Enclosures

c: Northeast Regional Office  
PAMS File: 2013-10-025

Permit Number: