



Missouri Department of dnr.mo.gov

NATURAL RESOURCES

Michael L. Parson, Governor

Carol S. Comer, Director

December 15, 2020

Brian Mistler
Environmental Coordinator
Kingsford Manufacturing Company - Belle
21200 Maries Road 314
Belle, MO 65013

RE: New Source Review Permit - Project Number: 2020-10-008

Dear Brian Mistler:

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, if any, 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 is: Administrative Hearing Commission, United States Post Office



Brian Mistler
Page Two

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.oe.mo.gov/ahc.

If you have any questions regarding this permit, please do not hesitate to contact Kathy Kolb, 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

A handwritten signature in blue ink, appearing to read "S Heckenkamp".

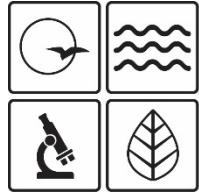
Susan Heckenkamp
New Source Review Unit Chief

SH:kka

Enclosures

c: Southeast Regional Office
PAMS File: 2020-10-008

Permit Number: 122020-002



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: 122020-002 Project Number: 2020-10-008
Installation Number: 125-0001

Owner/Operator: Kingsford Manufacturing Company - Belle

Owner/Operator Address: 21200 Maries Road 314, Belle, MO 65013

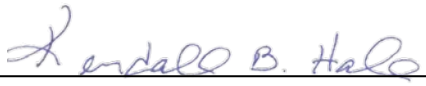
Installation Name: Kingsford Manufacturing Company - Belle

Installation Address: 21200 Maries Road 314, Belle, MO 65013

Location Information: Maries County, S8, T40N, R7W

Application for Authority to Construct was made for:
Add propane as an alternative fuel for EP-23 briquet dryer. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

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



Director or Designee
Department of Natural Resources

December 15, 2020
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/>

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

Project Number: 2020-10-008
Installation ID Number: 125-0001
Permit Number:122020-002

Owner/Operator Address:

Kingsford Manufacturing Company - Belle
21200 Maries Road 314
Belle, MO 65013

Maries County, S8, T40N, R7W

REVIEW SUMMARY

- The permittee has applied for authority to add propane as an alternative fuel for EP-23 briquet dryer.
- The application was deemed complete on October 9, 2020.
- HAP emissions are expected from the proposed equipment. HAPs of concern from this process are from the combustion of propane.
- None of the New Source Performance Standards (NSPS) apply to the installation.
- None of the NESHAPs apply to this installation. None of the currently promulgated MACT regulations apply to the proposed equipment.
- A low NOx burner is already installed on the existing burner as required in Special Condition 5 in CP #1093-019, therefore it is an air pollution control equipment that is being used in association with the existing (burner) 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 all pollutants are below de minimis levels.
- This installation is located in Maries County, an attainment/unclassifiable area for all criteria pollutants.
- This installation is on the List of Named Installations found in 10 CSR 10-6.020(3)(8), Table 2. The installation is classified as item number 25. Charcoal production facilities. The installation's major source level is 100 tons per year and fugitive emissions are counted toward major source applicability.

- Ambient air quality modeling was not performed since potential emissions of the application are below de minimis levels.
- Emissions 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.
- A Part 70 Operating Permit amendment is required for this installation within 1 year of equipment startup.

INSTALLATION DESCRIPTION

Kingsford Manufacturing Company manufactures and packages Kingsford® brand charcoal briquets in several bag sizes. The plant receives wood, which is processed in a wood dryer and retort furnace to produce char. The char is mixed with other additives including a starch binder and pressed into briquets. The briquets are then dried in three briquet dryers, cooled, and then stored in silos prior to bagging and packaging. The plant also has a solvent treated briquet operation to produce Matchlight® brand products. The Belle plant is classified as an existing major source for construction permitting, and is a Named Installation (#25 Charcoal Production Facilities). The installation is classified under SIC 2861 and NAICS 325194.

A Part 70 Operating Permit/Minor Modification (OP2017-088A) was issued to Kingsford Manufacturing Company on June 25, 2020.

The following NSR permits have been issued to Kingsford Manufacturing Company - Belle from the Air Pollution Control Program.

Table 1: Permit History

Permit Number	Description
0979-034..036	Lignite unloading and storage, and a charcoal briquet dryer
0780-001	Charcoal briquet treatment system
1180-002	Wood pyrolysis-charcoal
1189-010	New hammermill for wood chips, includes boiler.
1190-007	Two (2) 100-ton tank silos
1192-023	Replace two (2) boiler and two (2) process heaters
1093-019	Modification of briquet blending system
0793-017	New charcoal retort system, boiler replacement
0697-010	New briquet dryer and integral cooler and revision to Permit Number 1093-019 special conditions
0898-004	Temporary permit to test feasibility of replacing anthracite coal with metallurgical coke
0699-003	Modify the STB system exhaust
092000-001	Modify the Retort ACC Burners
062003-012	Modify the plant's raw material receiving and storage area, briquet blending/mixing/and pressing, and packaging operations
062003-012A	Changes in special conditions wording
062005-008	Construction of a new truck dumping operation (EP-7), sawdust pneumatic transfer system (EP-12a), and like-kind bucket elevator replacement along with various minor repairs and process modifications.
062007-012	Replacement of two furnace hearths and enlargement of the dropout holes
112017-008	Burner Upgrade 41 MMBtu/hr propane upgrade to the After Combustion Chamber (ACC)

PROJECT DESCRIPTION

Kingsford Manufacturing Company (KMC) operates an existing After Combustion Chamber (ACC) for the control of PM₁₀, CO, VOC and HAPs from an existing charcoal manufacturing operation (EU0010, EP04). When the ACC is in operation, a portion of the ACC exhaust is ducted through the existing Briquet Dryers (EU130, EP23) to dry the briquets. When the ACC is not in operation, heat is provided to the briquet dryers by an existing 30 MMBtu/hr, #2 oil-fired auxiliary burner (also EU-130, EP23). The existing burner was designed to fire either propane or fuel oil but KMC never install the propane fuel train. KMC now intends to install the propane fuel train to enable the burner to fire propane as an alternative. This will be an “either/or” situation as the burner will not be able to simultaneously fire propane and fuel oil.

The auxiliary burner is currently identified as a “Low NOx fuel oil burner” in the Title V OP#2017-008 and Special Condition 5 in CP #1093-019. KMC has confirmed that the burner will be “low NOx” when combusting propane. The vendor estimates a 32% reduction for the use of “low NOx burner”.

The modification will increase the rated capacity of the burner when firing propane to 32.5 MMBtu/hr. The capacity when firing oil will remain the same (30 MMBtu/hr). The auxiliary burner will only operate when the ACC is not in operation. The emissions were calculated based on 8760 hours per year to determine the potential to emit (PTE). In actuality the maximum operating schedule (for both propane and oil) will be closer to 760 hours per year.

EMISSIONS/CONTROLS EVALUATION

The emission factors used in this analysis for the combustion of propane were obtained from the EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 1.5 *Liquefied Petroleum Gas Combustion* (July 2008) for SO_x, CO and VOCs and EPA WebFIRE SCC 1-02-010-02 for PM (filterable), PM₁₀, PM_{2.5} and NO_x. The NO_x emissions are controlled with the use of a low NO_x burner which is required in OP#2017-008. These calculations are based on a low-NO_x design and the vendor estimate of 32% reduction of the NO_x emissions. All other emissions are considered uncontrolled.

The following table provides an emissions summary for this project. Existing potential emissions were taken from CP # 112017-008. Existing actual emissions were taken from the installation's 2019 EIQ. Potential emissions of the application represent the potential of the use of propane in EP23, assuming continuous operation (8760 hours per year).

Table 2: Emissions Summary (tpy)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (2019 EIQ)	Potential Emissions of the Project
PM	25.0	N/D	N/D	0.92
PM ₁₀	15.0	238.25	70.5	1.69
PM _{2.5}	10.0	206.72	68.2	1.69
SO _x	40.0	32.84	9.75	2.29
NO _x	40.0	239.17	78.22	13.46
VOC	40.0	117.41	50.86	0.76
CO	100.0	73.32	10.82	11.54
HAPs	10.0/25.0	<10/25.0	0.14	0.26

N/A = Not Applicable; 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

The permittee 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

- *Operating Permits*, 10 CSR 10-6.065; amend OP #2017-088A
- *Start-Up, Shutdown, and Malfunction Conditions*, 10 CSR 10-6.050
- *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 every year for Part 70 installations.
- *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*, it is recommended that this permit be granted without special conditions.

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated October 6, 2020, received October 6, 2020, designating The Clorox Company as the owner and operator of the installation.

APPENDIX A

Abbreviations and Acronyms

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