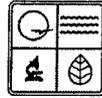


STATE OF MISSOURI



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: **06 2007 - 012** Project Number: 2007-03-084

Parent Company: The Clorox Company

Parent Company Address: P.O. Box 24305, Oakland, CA 94623

Installation Name: Kingsford Manufacturing Company - Belle

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

Location Information: Maries County, S8, T40N, R70W

Application for Authority to Construct was made for:
Replacement of two of the furnace hearths and enlargement of the drop-out holes in these hearths. 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.

JUN 26 2007

EFFECTIVE DATE



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 this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located with 15 days after the actual start up of this (these) air contaminant source(s).

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 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 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.

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: Project Number: 2007-03-084

Parent Company: The Clorox Company

Parent Company Address: P.O. Box 24305, Oakland, CA 94623

Installation Name: Kingsford Manufacturing Company - Belle

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

Location Information: Maries County, S8, T40N, R70W

Application for Authority to Construct was made for:
Replacement of two of the furnace hearths and enlargement of the drop-out holes in these hearths. 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.

EFFECTIVE DATE

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 this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located with 15 days after the actual start up of this (these) air contaminant source(s).

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 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 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.

Page No.	3
Permit No.	
Project No.	2007-03-084

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."

Kingsford Manufacturing Company - Belle
Maries County, S8, T40N, R70W

1. Stack Testing Requirements
 - A. Kingsford Manufacturing Company - Belle shall conduct performance testing on the After Combustion Chamber (ACC) and briquette dryer after the modification of the charcoal furnace to quantify the emission rates of the following criteria pollutants.
 - 1) Particulate Matter with an aerodynamic diameter less than or equal to a nominal ten (10) micrometers (PM₁₀),
 - 2) Sulfur oxides (SO_x), and
 - 3) Nitrogen oxides (NO_x).These tests shall be done in accordance with the procedures outlined below.
 - B. A completed Proposed Test Plan (form enclosed) must be submitted to the Air Pollution Control Program at least 30 days prior to the proposed test date of any such performance tests so that a pretest meeting may be arranged, if necessary, and to assure that the test date is acceptable for an observer to be present. The Proposed Test Plan must include specification of test methods to be used and be approved by the Director prior to conducting the required emissions testing.
 - C. Within 60 days of achieving the maximum production rate of the modified charcoal furnace, the owner/operator shall have conducted the required performance tests.
 - D. Any required performance testing shall be conducted during periods of representative conditions and should also be conducted at the maximum process/production rates or within ten percent (10%) of this stated capacity, not to include periods of start-up, shutdown, or malfunction. However, if performance testing is conducted at a production rate which is less than 90% of the maximum stated capacity of the equipment, then ten percent (10%) above the production rate at which the performance test was conducted shall become the new maximum allowable hourly production rate for the unit.

Page No.	4
Permit No.	
Project No.	2007-03-084

SPECIAL CONDITIONS:

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

- E. Two (2) copies of a written report of the performance test results must be submitted to the Director within 90 days of completion of the performance testing. The report must include legible copies of the raw data sheets, analytical instrument laboratory data, and complete sample calculations from the required Environmental Protection Agency (EPA) Method for at least one (1) sample run for each air pollutant tested.
 - F. No later than thirty (30) days after the performance test results are submitted, Kingsford Manufacturing Company shall provide the Director with a report that establishes the emission rate of each air pollutant tested in Special Conditions No. 1.A. This report shall report the emission rates in pounds per hour, tons per year, and pounds per ton of product from the modified charcoal furnace in order that the Air Pollution Control Program may verify the potential emissions from this project.
 - G. If the results of the performance testing shows that the emission rates for PM₁₀, SO_x, or NO_x are greater than those used in the emissions analysis herein, then Kingsford Manufacturing Company shall evaluate what effects these higher emission rates would have had on the permit applicability of this project. Kingsford Manufacturing Company shall submit the results of any such evaluation within 30 days of submitting the Performance Test Results report required in Special Conditions 1.E. of this permit.
 - H. The above time frames associated with this performance testing condition may be extended upon request of Kingsford Manufacturing Company and approval by the Director.
2. **Record Retention Requirements**
Kingsford Manufacturing Company shall maintain all records required as outlined in 40 CFR 52.21 supporting the findings of the actual-to-projected-actual applicability tests used in Kingsford Manufacturing Company's analysis. Kingsford Manufacturing Company shall maintain records of the baseline, projection, and annual emissions information for 5 years after the modification in this project.

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

Project Number: 2007-03-084
Installation ID Number: 125-0001
Permit Number:

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

Complete: March 26, 2007
Reviewed: May 4, 2007

Parent Company:
The Clorox Company
P.O. Box 24305
Oakland, CA 94623

Maries County, S8, T40N, R70W

REVIEW SUMMARY

- Kingsford Manufacturing Company - Belle has applied for authority to replace two of the furnace hearths and to enlarge the drop-out holes in these hearths.
- Hazardous Air Pollutant (HAP) emissions are expected from the process. The HAP of concern from this process is methanol (CAS#67-56-1). However, methanol emissions are controlled in after combustion chamber (ACC) and are expected to be below the threshold level.
- None of the New Source Performance Standards (NSPS) apply to the proposed equipment.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) or currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed equipment.
- Existing high efficiency cyclones and an ACC are being used to control the particulate matter less than ten microns (PM₁₀) emissions from the entire retort system. The ACC is also being used to control the volatile organic compound (VOC) emissions from the entire retort system.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of PM₁₀, SO_x, and NO_x from the project are above the de minimis level. However, emissions of these pollutants are below de minimis levels based on the actual-to-projected actual test per 40 CFR 52.21. Potential emissions of VOC and carbon monoxide (CO) from the project are below the de minimis level.
- This installation is located in Maries County, an attainment area for all criteria air pollutants.

- This installation is on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2], number 25, *Charcoal Production Facilities*.
- Ambient air quality modeling was not performed for PM₁₀, SO_x, or NO_x since the actual-to-projected actual emissions of the application are below de minimis levels.
- Emissions testing is required for the equipment/source.
- A revision to the Part 70 Operating Permit application is required for this installation within 1 year of equipment startup.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

Kingsford Manufacturing Company is a charcoal briquet manufacturing plant located in Belle, Missouri and is an existing major source. Production of char takes place on-site. Wet wood is first conveyed to a surge bin and then fed into the wood dryer drum. Upon drying, the sawdust is ducted to the wood dryer drop out box. The majority of the dry sawdust is then conveyed to the retort-charring furnace, which turns the sawdust into char, to make the briquets. The airborne portion of the sawdust exiting the wood dryer is fed to high efficiency cyclones; the captured particulate matter is conveyed to the retort-charring furnace. In the same manner, the airborne portion of the char exiting the retort-charring furnace is fed through high efficiency cyclones; the captured particulate matter is returned to the briquetting process. The air streams coming off of the cyclones are ducted to the after combustion chamber (ACC)(EP-4). The waste heat from the ACC is then used as the primary source of energy for the wood dryer drum. A portion of the waste heat is fed to the briquet drying process (EP-23), as well.

A Part 70 operating permit (OP2002-003) was issued to Kingsford Manufacturing Company on January 14, 2002. The installation submitted an application for renewal on July 17, 2006. The following construction permits have been issued to Kingsford Manufacturing Company from the Air Pollution Control Program.

Table 1: Previously Issued Construction Permits

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
102003-014	Replacement of conveyors and wood dryer in the retort system.
102005-008	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.

PROJECT DESCRIPTION

Kingsford Manufacturing Company operates a multi-hearth charcoal retort furnace that produces char from dry wood. The furnace is part of the “wood drying and charring” emissions unit that includes a rotary wood dryer, the furnace, and associated material handling, product recovery, and air pollution control systems. The emissions unit is exhausted through the After Combustion Chamber (ACC). The furnace consists of five (5) hearths, and transfers dry, sized wood from hearth to hearth through drop-out holes via rotating rabble arms attached to a central shaft. The wood is pyrolyzed as it passes through the furnace into a high-carbon char material.

In this project, Kingsford Manufacturing Company plans to replace two of the furnace hearths and to enlarge the drop-out holes in these hearths. According to the application, these modifications will not increase the hourly char production capacity of the furnace because the hearth surface area will be decreased. The enlarged drop-out holes should improve the furnace temperature profile, improve quality consistency, and reduced process upsets. The enlarged holes should also reduce plugging and should allow increased operating hours between scheduled maintenance downtime. The furnace downtime may decrease from once every three weeks to once every four weeks as a result of the furnace modifications.

SIGNIFICANT EMISSIONS INCREASE DETERMINATION

Potential emissions of PM₁₀, SO_x, and NO_x from the project are above de minimis levels, which are also the major source thresholds for a major source. Since this project is a modification of existing emissions units, the emissions increase of PM₁₀, SO_x, and NO_x are determined by calculating the difference between the projected actual emissions and the baseline actual emissions. The baseline actual emissions can be determined by using any consecutive 24-month period in the past 10 years. Kingsford Manufacturing Company has requested to use the consecutive calendar years of 2005 and 2006. The projected actual emissions are the projected maximum annual emissions for the 5 year-period after the change.

Table 2: Baseline Actual-to-Projected Actual Evaluation

Pollutant(s)	2005/2006 Baseline Emissions* (tons/yr)			Projected Actual Emissions** (tons/yr)			Emissions Increase (tons/yr)
	ACC	Briquet Dryer	Total	ACC	Briquet Dryer	Total	
PM ₁₀	55.15	13.91	69.07	64.38	16.24	80.62	11.55
SO _x	25.84	11.68	37.51	30.16	13.63	43.79	6.28
NO _x	149.81	35.78	185.58	174.87	41.76	216.63	31.05

*The average annual production during the baseline was 49,448 tons of charcoal.

**The projected annual production is 58,000 tons of charcoal.

This project is not considered to be a major modification, according to the actual-to-projected actual-test per 40 CFR 52.21.

EMISSIONS/CONTROLS EVALUATION

The emission factors used in this analysis were developed based on the emission testing performed on April 4-7, 2005 and approved by the Air Pollution Control Program. However, Kingsford Manufacturing Company will determine the emission factors of PM₁₀, SO_x, and NO_x from ACC and dryer through stack testing as outlined in Special Condition 1. Existing potential emissions were evaluated from Permit Number 102005-008. Existing actual emissions are taken from Kingsford Manufacturing Company's 2005 Emissions Inventory Questionnaire submittal. Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year). The following table provides an emissions summary for this project.

Table 3: Emissions Summary (tons per year)

Pollutant	Regulatory De Minimis Levels	Existing Potential Emissions	Existing Actual Emissions (2005 EIQ)	Potential Emissions of the Application	Project Increase: Projected Actual – Baseline Actual
PM ₁₀	15.0	202.56	117.03	146.55	11.55
SO _x	40.0	138.6	37.75	97.76	6.28
NO _x	40.0	233.6	178.88	386.71	31.05
VOC	40.0	319.0	51.4	34.25	N/A
CO	100.0	17.7	17.12	63.25	N/A
HAPs	10.0/25.0	< 10.0/25.0**	N/D	4.6	N/A

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

**Operating Permit limitations

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 PM₁₀, SO_x, and NO_x from the project are above their respective de minimis levels. However, emissions of these pollutants are below de minimis levels based on the actual-to-projected actual test per 40 CFR 52.21. Potential emissions of VOC and CO from the project are below de minimis level.

APPLICABLE REQUIREMENTS

Kingsford Manufacturing Company - Belle 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
The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required April 1 for the previous year's emissions.
- *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 10-3.090

SPECIFIC REQUIREMENTS

- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400
- *Restriction of Emission of Sulfur Compounds*, 10 CSR 10-6.260

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.

Fuad Wadud
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated March 23, 2007, received March 28, 2007, designating The Clorox Company as the owner and operator of the installation.
- Emission testing data provided in the Enforcement/Compliance Unit's letter dated June 14, 2005.
- Southeast Regional Office Site Survey, dated April 4, 2007.

Mr. Steve Miller
Plant Manager
Kingsford Manufacturing Company - Belle
21200 Maries Road 314
Belle, MO 65013

RE: New Source Review Permit - Project Number: 2007-03-084

Dear Mr. Miller:

Enclosed with this letter is your permit to construct. Please study it carefully. 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.

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

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale
New Source Review Unit Chief

KBH: fwl

Enclosures

c: Southeast Regional Office
PAMS File 2007-03-084

Permit Number: