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: 092020-002 Project Number: 2020-08-034
Installation Number: 019-0040

Parent Company: JBS Live Pork, LLC
Parent Company Address: P.O. Box 699, Russelville, AK 72811

Installation Name: JBS Live Pork, LLC - Centralia
Installation Address: 22701 North March Road, Centralia, MO 65240
Location Information: Boone County, S8, T51N, R11W

Application for Authority to Construct was made for:
The replacement of an existing mixer with a larger mixer. 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.

______________________________
Director or Designee
Department of Natural Resources

______________________________
September 8, 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/
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 to 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 (3)(E). “Conditions required by permitting authority.”

JBS Live Pork, LLC
Boone County, S8, T51N, R11W

1. Control Device Requirement – Baghouse
   A. JBS Live Pork, LLC shall control emissions captured from the roller and hammer mills using a baghouse.

   B. The baghouse shall be operated and maintained in accordance with the manufacturer’s specifications.

   C. 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.

   D. Replacement filters for the baghouse shall be kept on hand at all times. The replacement filters shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).

   E. JBS Live Pork, LLC shall monitor and record the operating pressure drop across the baghouse at least once every 24 hours while the emission sources are in operation. The operating pressure drop shall be maintained within the design conditions specified by documentation from the manufacturer.

   F. JBS Live Pork, LLC shall maintain a copy of documentation from the manufacturer of the baghouse containing the design conditions on site.

   G. JBS Live Pork, LLC shall maintain an operating and maintenance log for the baghouse 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. Record Keeping and Reporting Requirements
   A. JBS Live Pork, LLC 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.
SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

B. JBS Live Pork, LLC shall report to the Air Pollution Control Program’s Compliance/Enforcement Section, by mail at P.O. Box 176, Jefferson City, MO 65102 or by email at AirComplianceReporting@dnr.mo.gov, 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.
REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW
Project Number: 2020-08-034
Installation ID Number: 019-0040
Permit Number: 092020-002

Installation Address:
JBS Live Pork, LLC
22701 North March Road
Centralia, MO 65240

Parent Company:
JBS Live Pork, LLC
P.O. Box 699
Russelville, AK 72811

Boone County, S8, T51N, R11W

REVIEW SUMMARY

• JBS Live Pork, LLC has applied for authority to replace an existing mixer with a larger mixer.

• The application was deemed complete on 8/27/2020.

• HAP emissions are not expected from the proposed equipment.

• 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.

• 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 all criteria pollutants are below de minimis levels.

• This installation is located in Boone County, an attainment/unclassifiable 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 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.
• No Operating Permit is required for this installation.

• Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

JBS Live Pork, LLC owns an existing minor source of PM$_{10}$ emissions that operates a livestock feed preparation installation in Centralia, Missouri. Included at this installation are a mixer, two pelletizing coolers, roller and hammer mills, a bagging and loadout station, and a boiler. JBS Live Pork, LLC’s Centralia facility was originally owned by Farmland Industries, and then later by MFA, Incorporated.

The following NSR permits have been issued to JBS Live Pork, LLC from the Air Pollution Control Program.

Table 1: NSR Permit History

<table>
<thead>
<tr>
<th>Permit Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>052003-019</td>
<td>Add bin and conveyor</td>
</tr>
<tr>
<td>0698-020</td>
<td>Two new grain storage bins</td>
</tr>
<tr>
<td>0198-022</td>
<td>Six truck load-out bins</td>
</tr>
<tr>
<td>0394-009</td>
<td>Section 5/6 permit issued</td>
</tr>
<tr>
<td>0793-014</td>
<td>Section 5/6 permit issued</td>
</tr>
</tbody>
</table>

PROJECT DESCRIPTION

JBS Live Pork, LLC will be replacing their existing 3-ton batch mixer with a new 4-ton batch mixer. The new mixer will be a Scott model 108126 Twin Shaft Mixer complete with a Scott surge hopper containing a 16 inch paddle chain conveyor and a Scott 4 ton scale hopper. This modification will debottleneck the plant from 21 tph to 40 tph.

EMISSIONS/CONTROLS EVALUATION

The emission factors used in this analysis were obtained from the EPA document AP-42, Compilation of Air Pollutant Emission Factors, Fifth Edition. PM$_{2.5}$ and PM emissions were derived from PM$_{10}$ emissions using AP-42 Appendix B.2 “Generalized Particle Size Distributions” (September 1996) for grain, where it is shown that 15% of PM is PM$_{10}$ and 1% of PM is PM$_{2.5}$.

Loading/Receiving, Pellet Cooler, Hammer Mill, Roller Mill, Mixer, and Grain Handling Emissions:

• PM, PM$_{10}$, and PM$_{2.5}$ emissions were determined using AP-42 Chapter 9.9.1 “Grain Elevators & Processes” (May 2003).

• The controlled emission factors were used for the pellet coolers due to the use of cyclones. Due to the design of the pellet coolers and cyclones, the control is inherent.
• An overall 90% control efficiency was given for the hammer and roller mills due to the use of a baghouse.

Haul Road Emissions:
• Calculated using the predictive equation from AP-42 Section 13.2.2 “Unpaved Roads,” (November 2006)
• Control was given for the nominal amount of rainy days in Missouri per year.

The following table provides an emissions summary for this project. Existing potential emissions were taken from previously issued permit #052003-019. Existing actual emissions were taken from the installation’s 2019 EIQ. Potential emissions of the project account for the increase of emissions resulting from the increase of overall flowrate. The post-project PTE was calculated and the pre-project PTE was subtracted from it to find the overall increase. PTE emissions were calculated assuming continuous operation (8760 hours per year).

Table 2: Emissions Summary (tpy)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>25.0</td>
<td>N/D</td>
<td>N/D</td>
<td>127.60</td>
<td>N/A</td>
</tr>
<tr>
<td>PM₁₀</td>
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<td>46.63</td>
<td>15.20</td>
<td>13.32</td>
<td>N/A</td>
</tr>
<tr>
<td>PM₂.₅</td>
<td>10.0</td>
<td>N/D</td>
<td>5.14</td>
<td>2.41</td>
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<tr>
<td>SOₓ</td>
<td>40.0</td>
<td>0.02</td>
<td>3.6 x 10⁻³</td>
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<td>N/A</td>
</tr>
<tr>
<td>NOₓ</td>
<td>40.0</td>
<td>3.68</td>
<td>0.60</td>
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<td>N/A</td>
</tr>
<tr>
<td>VOC</td>
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<td>0.15</td>
<td>0.03</td>
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<td>N/A</td>
</tr>
<tr>
<td>CO</td>
<td>100.0</td>
<td>0.92</td>
<td>0.50</td>
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<td>N/A</td>
</tr>
<tr>
<td>GHG (CO₂e)</td>
<td>N/A</td>
<td>N/D</td>
<td>N/D</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>GHG (mass)</td>
<td>N/A</td>
<td>N/D</td>
<td>N/D</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>HAPs</td>
<td>10.0/25.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

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. PM emissions are above de minimis, but since there is no modeling standard associated with PM, and the installation is not a major source, no limits on emissions are established. All other criteria pollutants are below de minimis levels.

APPLICABLE REQUIREMENTS

JBS Live Pork, LLC 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

- **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 for the first full calendar year the equipment (or modifications) approved by this permit are in operation.
- **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

- **Restriction of Emission of Particulate Matter From Industrial Processes**, 10 CSR 10-6.400
- No New Source Performance Regulations, MACT Regulations, or Emission Standards for Hazardous Air Pollutants apply to the permitted equipment.

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 8/27/2020, received 8/27/2020, designating JBS Live Pork, LLC as the owner and operator of the installation.
APPENDIX A

Abbreviations and Acronyms

%.............. percent
°F.............. degrees Fahrenheit
acfm......... actual cubic feet per minute
BACT........ Best Available Control Technology
BMPs......... Best Management Practices
Btu............ British thermal unit
CAM......... Compliance Assurance Monitoring
CAS......... Chemical Abstracts Service
CEMS...... Continuous Emission Monitor System
CFR......... Code of Federal Regulations
CO........... carbon monoxide
CO₂.......... carbon dioxide
CO₂e......... carbon dioxide equivalent
COMS...... Continuous Opacity Monitoring System
CSR......... Code of State Regulations
dscf......... dry standard cubic feet
EIQ......... Emission Inventory Questionnaire
EP......... Emission Point
EPA........... Environmental Protection Agency
EU.......... Emission Unit
fps.......... feet per second
ft............ feet
GACT...... Generally Available Control Technology
GHG........ Greenhouse Gas
gpm......... gallons per minute
gr......... grains
GWP........ Global Warming Potential
HAP......... Hazardous Air Pollutant
hr........... hour
hp......... horsepower
lb............ pound
lbs/hr........ pounds per hour
MACT...... Maximum Achievable Control Technology
μg/m³......... micrograms per cubic meter
m/s......... meters per second
Mgal........ 1,000 gallons
MW......... megawatt
MHDR...... maximum hourly design rate
MMBtu...... Million British thermal units
MMCF...... million cubic feet
MSDS....... Material Safety Data Sheet
NAAQS..... National Ambient Air Quality Standards
NESHAPs National Emissions Standards for Hazardous Air Pollutants
NOx......... nitrogen oxides
NSPS....... New Source Performance Standards
NSR....... New Source Review
PM......... particulate matter
PM₁₀........ particulate matter less than 2.5 microns in aerodynamic diameter
PM₁₀₀...... particulate matter less than 10 microns in aerodynamic diameter
ppm........ parts per million
PSD....... Prevention of Significant Deterioration
PTE....... potential to emit
RACT...... Reasonable Available Control Technology
RAL....... Risk Assessment Level
SCC........ Source Classification Code
scfm......... standard cubic feet per minute
SDS........ Safety Data Sheet
SIC........ Standard Industrial Classification
SIP........ State Implementation Plan
SMAL....... Screening Model Action Levels
SOₓ......... sulfur oxides
SO₂......... sulfur dioxide
SSM....... Startup, Shutdown & Malfunction
tph......... tons per hour
tpy......... tons per year
VMT........ vehicle miles traveled
VOC....... Volatile Organic Compound
September 8, 2020

Jerry Foster
EHS Manager
JBS Live Pork, LLC
PO Box 699
Jefferson City, MO  65109

RE: New Source Review Permit - Project Number: 2020-08-034

Dear Foster:

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 and your new source review permit application are 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 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 Dakota Fox 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:dfa

Enclosures

c: Northeast Regional Office
   PAMS File: 2020-08-034

Permit Number: 092020-002