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: 062018-006  Project Number: 2017-11-036
Installation Number: 047-0032

Parent Company: Henry Wurst Inc. North Kansas City
Parent Company Address: 1331 Saline St., North Kansas City, MO 64116
Installation Name: Henry Wurst Inc. North Kansas City
Installation Address: 1331 Saline St., North Kansas City, MO 64116
Location Information: Clay County, S24, T50N, R33W

Application for Authority to Construct was made for:
Install a paper shredder. This review was conducted in accordance with Section (5) of 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.

Prepared by
Alana Hess
New Source Review Unit

Director or Designee
Department of Natural Resources

JUN 07 2018
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. You 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 startup of this (these) air contaminant source(s). The information must be made available within 30 days of actual startup. In addition, you must notify the Department’s Kansas City Regional Office within 15 days after the actual startup 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: 2017-11-036
Installation ID Number: 047-0032
Permit Number: 062018-006

Installation Address:
Henry Wurst Inc. North Kansas City
1331 Saline St.
North Kansas City, MO 64116

Parent Company:
Henry Wurst Inc. North Kansas City
1331 Saline St.
North Kansas City, MO 64116

Clay County, S24, T50N, R33W

REVIEW SUMMARY

- Henry Wurst Inc. North Kansas City has applied for authority to install a paper shredder.

- The application was deemed complete on April 20, 2018.

- HAP emissions are not expected from the proposed equipment.

- None of the currently promulgated regulations at 40 CFR Parts 60, 61, and 63 apply to the paper shredder.

- The application includes a cyclone separator and cartridge filter; however, these controls are not necessary to demonstrate compliance with any regulation and are not being made practically enforceable at this time. The installation may choose to amend this construction permit to include a practically enforceable requirement for the operation of these controls at a later date.

- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060 Construction Permits Required. Uncontrolled potential emissions of PM, PM_{10}, and PM_{2.5} are below de minimis levels; however, a permit was required as uncontrolled potential PM_{10} emissions exceed the insignificance level in 10 CSR 10-6.061(3)(A)3.A of 1.0 lb/hr.

- This installation is located in Clay County, an attainment/unclassifiable area for all other criteria pollutants.

- This installation is not on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2; therefore, 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.

• The installation shall update their Intermediate Operating Permit renewal application, Project 2015-05-019, no later than 90 days after the effective date of this permit to include the new paper shredder.

• Approval of this permit is recommended without special conditions.

INSTALLATION DESCRIPTION

Henry Wurst, Inc. is a printed products manufacturer. The installation currently operates two lithographic sheet-fed printing presses (EP21 and EP24) and two lithographic web printing presses (EP22 and EP23). Each of the web presses is equipped with a natural gas-fired dryer. The installation also includes two water heaters and a boiler.

The following New Source Review permits have been issued to Henry Wurst, Inc. by the Air Pollution Control Program.

<table>
<thead>
<tr>
<th>Permit Number</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>0890-010</td>
<td>Installation of EU01 paper bale and four paper shredders</td>
<td>Dismantled</td>
</tr>
<tr>
<td>0697-019</td>
<td>Installation of two Planeta sheet-fed printing presses</td>
<td>Dismantled</td>
</tr>
<tr>
<td>0697-020</td>
<td>Installation of EP04 4 unit ASI press dryer – PR8</td>
<td>Dismantled</td>
</tr>
<tr>
<td>112001-004</td>
<td>Installation of EP20 three Heidelberg lithographic sheet-fed printing presses</td>
<td>Dismantled</td>
</tr>
<tr>
<td>052007-010</td>
<td>Installation of EP21 6 unit Komori 40&quot; lithographic sheet-fed printing press</td>
<td>Active</td>
</tr>
</tbody>
</table>

The installation's Intermediate Operating Permit OP2010-040 expired May 2, 2015. An Intermediate Operating Permit renewal application, Project 2015-05-019, was received by the Air Pollution Control Program on May 5, 2015 and is currently under review.

PROJECT DESCRIPTION

installation installed Shredder #5 to replace the four paper shredders constructed in August 1990 under Construction Permit 0890-010. Each of the four existing paper shredders has an individual maximum hourly design rate of 2,000 lb/hr (1.0 tph) and annual shredding was limited to 5,000 tons of paper by Special Condition 1 of Construction Permit 0890-010. As Shredder #5 has a maximum hourly design rate of 3,000 lb/hr (1.5 tph) which is greater than the maximum hourly design rates of each of the four existing paper shredders, this project is not considered a like-kind replacement. No baseline actual emissions from the four existing paper shredders were available; therefore, the potential emissions of the project were evaluated as the potential to emit of Shredder #5.

The application indicates that Shredder #5 is equipped with a cartridge filter rated at 7,800 cfm; however, the cartridge filter was not included in the potential emissions of the project as it is not practically enforceable.

**EMISSIONS/CONTROLS EVALUATION**

No emission factors are available for paper shredding. As paper is made from wood, potential emissions from Shredder #5 were conservatively evaluated using PM and PM$_{10}$ emission factors for the load out of wood waste from a storage bin obtained from WebFIRE for Process SCC 30703002. No PM$_{2.5}$ emission factor was available; therefore, PM$_{2.5}$ emissions were conservatively evaluated by assuming that 100% of PM$_{10}$ emissions are PM$_{2.5}$.

The following table provides an emissions summary for this project. Existing potential emissions were obtained from calculations associated with the Intermediate Operating Permit renewal application, Project 2015-05-019, and limits in Construction Permit 102017-009. Existing actual emissions were taken from the installation’s 2017 EIQ. Potential emissions of the project represent the potential of Shredder #5, assuming continuous operation (8760 hours per year).

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Regulatory De Minimis Levels</th>
<th>Existing Potential Emissions</th>
<th>Existing Actual Emissions (2017 EIQ)</th>
<th>Potential Emissions of the Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>25.0</td>
<td>0.64</td>
<td>N/A</td>
<td>13.14</td>
</tr>
<tr>
<td>PM$_{10}$</td>
<td>15.0</td>
<td>0.64</td>
<td>0.07</td>
<td>7.88</td>
</tr>
<tr>
<td>PM$_{2.5}$</td>
<td>10.0</td>
<td>0.64</td>
<td>0.07</td>
<td>7.88</td>
</tr>
<tr>
<td>SO$_2$</td>
<td>40.0</td>
<td>0.05</td>
<td>0.01</td>
<td>N/A</td>
</tr>
<tr>
<td>NO$_x$</td>
<td>40.0</td>
<td>8.42</td>
<td>0.87</td>
<td>N/A</td>
</tr>
<tr>
<td>VOC</td>
<td>40.0</td>
<td>&lt;250</td>
<td>36.58</td>
<td>N/A</td>
</tr>
<tr>
<td>CO</td>
<td>100.0</td>
<td>7.07</td>
<td>0.73</td>
<td>N/A</td>
</tr>
<tr>
<td>GHG (CO$_2$e)</td>
<td>N/A</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/A</td>
<td>N/A</td>
</tr>
<tr>
<td>HAPs</td>
<td>25.0</td>
<td>&lt;25</td>
<td>0.09</td>
<td>N/A</td>
</tr>
<tr>
<td>Pollutant</td>
<td>Regulatory De Minimis Levels</td>
<td>Existing Potential Emissions</td>
<td>Existing Actual Emissions (2017 EIQ)</td>
<td>Potential Emissions of the Project</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------------------------</td>
<td>------------------------------</td>
<td>-------------------------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>Ethylene Glycol</td>
<td>10.0</td>
<td>&lt;10</td>
<td>N/D</td>
<td>N/A</td>
</tr>
<tr>
<td>Toluene</td>
<td>10.0</td>
<td>9.25</td>
<td>N/D</td>
<td>N/A</td>
</tr>
<tr>
<td>Glycol Ethers</td>
<td>10.0</td>
<td>2.40</td>
<td>N/D</td>
<td>N/A</td>
</tr>
<tr>
<td>Xylene</td>
<td>10.0</td>
<td>1.21</td>
<td>N/D</td>
<td>N/A</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>10.0</td>
<td>0.74</td>
<td>0.08</td>
<td>N/A</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>10.0</td>
<td>0.28</td>
<td>N/D</td>
<td>N/A</td>
</tr>
<tr>
<td>Cumene</td>
<td>10.0</td>
<td>0.27</td>
<td>N/D</td>
<td>N/A</td>
</tr>
<tr>
<td>Hexane</td>
<td>10.0</td>
<td>0.15</td>
<td>N/D</td>
<td>N/A</td>
</tr>
<tr>
<td>Hydroquinone</td>
<td>10.0</td>
<td>0.04</td>
<td>N/D</td>
<td>N/A</td>
</tr>
<tr>
<td>Ethylene Oxide</td>
<td>10.0</td>
<td>0.01</td>
<td>N/D</td>
<td>N/A</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>10.0</td>
<td>0.01</td>
<td>N/D</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. Uncontrolled potential emissions of PM, PM$_{10}$, and PM$_{2.5}$ are below de minimis levels; however, a permit was required as uncontrolled potential PM$_{10}$ emissions exceed the insignificance level in 10 CSR 10-6.061(3)(A)3.A of 1.0 lb/hr.

APPLICABLE REQUIREMENTS

Henry Wurst Inc. North Kansas City 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

- 10 CSR 10-6.065 Operating Permits
- 10 CSR 10-6.050 Start-Up, Shutdown, and Malfunction Conditions
- 10 CSR 10-6.110 Submission of Emission Data, Emission Fees and Process Information
o 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.

- 10 CSR 10-6.165 Restriction of Emission of Odors

STAFF RECOMMENDATION

Based on this review conducted in accordance with Section (5) of 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 April 17, 2018, received April 20, 2018, designating Henry Wurst Inc. North Kansas City 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
PM₂.₅ ...... particulate matter less than 2.5 microns in aerodynamic diameter
PM₁₀ ...... 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

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MHDR:  

3000 lb/hr = 1.5 tph

FIRE EF for Process SCC  
30703002 (lb/ton)  
Wood Waste Storage Bin

Description  
Loadout, Quality = C

PM  
2
PM10  
1.2
PM2.5  
N/D

Shredder #5 PTE:  

<table>
<thead>
<tr>
<th>Description</th>
<th>lb/hr</th>
<th>tpy</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>3</td>
<td>13.14</td>
</tr>
<tr>
<td>PM10</td>
<td>1.8</td>
<td>7.884</td>
</tr>
<tr>
<td>PM2.5</td>
<td>1.8</td>
<td>7.884</td>
</tr>
</tbody>
</table>

Existing shredder MHDR:  

2000 lb/hr = 1 tph, but limited to 5,000 tpy

10 CSR 10-6.061(3)(A)3.A:  
At maximum design capacity the proposed construction or modification shall emit each pollutant at a rate of no more than the 1.0 lb/hr PM10.

10 CSR 10-6.020(2)(M)49.C:  
Modification means an physical change to, or change in the method of operation of, a source operation or attendant air pollution control equipment which would cause an increase in potential emissions of any air pollutant emitted by the source operation.

There is an increase in potential emissions on both an hourly and annual basis; therefore, the replacement of an existing shredder with the new shredder is not a like-kind replacement.

At maximum design capacity (i.e. MHDR), potential emissions of PM10 exceed 1.0 lb/hr; therefore, a permit is required.

10 CSR 10-6.400 Calculations

E = 4.1P^0.67
E = limit in lb/hr
P = MHDR in tph
E = 5.38
Ms. Terry McSparin  
Quality Assurance Manager  
Henry Wurst Inc. North Kansas City  
1331 Saline St.  
North Kansas City, MO 64116

RE: New Source Review Permit - Project Number: 2017-11-036

Dear Ms. McSparin:

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. 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 your new source review permit application and an update of your operating permit application 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 §§621.250 and 643.075.6 RSMo. To appeal, you must file a petition with the administrative hearing commission 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 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 Alana Hess, 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

Enclosures

c: Kansas City Regional Office
PAMS File: 2017-11-036

Permit Number: 06 2 0 1 8 - 0 0 6