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: 092016-006
Project Number: 2016-05-021
Installation Number: 071-0236

Parent Company: Menard, Inc.
Parent Company Address: 5101 Menard Dr, Eau Claire, WI 54703
Installation Name: Menard, Inc. Industrial Facility
Installation Address: 1950 S Service Road E, Sullivan, MO 63080
Location Information: Franklin County, S34, T41 N, R2EW

Application for Authority to Construct was made for:
A new sand drying operation. 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.

Prepared by
Chad Stephenson
New Source Review Unit

Director or Designee
Department of Natural Resources

SEP 07 2016
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 sources(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 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 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 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."

Menard, Inc. Industrial Facility
Franklin County, S34, T41N, R2EW

1. Control Device Requirement-Silo Vent Filters
   A. Menard, Inc. Industrial Facility shall control particulate emissions from the aggregate, lime, dust, and cement silos (EP-20) using silo vent filters, as specified in the permit application.
   B. The vent filters shall be operated and maintained in accordance with the manufacturer's specifications.
   C. Replacement filters shall be kept on hand at all times. The filters shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).
   D. Menard, Inc. Industrial Facility shall maintain a copy of the vent filter manufacturer's performance warranty on site.
   E. Menard, Inc. Industrial Facility shall maintain an operating and maintenance log for the vent filters 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. Control Device Requirement-Dust Collectors
   A. Menard, Inc. Industrial Facility shall control particulate emissions from the following equipment using dust collectors, as specified in the permit application:
      1) EP-18 Sand Dryer
      2) EP-19 Dry Product Conveyors
      3) EP-21 Bagging Operation
   B. The dust collectors shall be operated and maintained in accordance with the manufacturer's specifications. The dust collectors 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
SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

Department of Natural Resources' employees may easily observe them.

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

D. Menard, Inc. Industrial Facility shall monitor and record the operating pressure drop across the dust collectors at least once every 24 hours while the plant is operating. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.

E. Menard, Inc. Industrial Facility shall maintain a copy of the dust collector manufacturer's performance warranty on site.

F. Menard, Inc. Industrial Facility shall maintain an operating and maintenance log for the dust collectors 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.

3. Haul Road Watering
   A. Menard, Inc. Industrial Facility shall water unpaved haul roads whenever conditions exist which would cause visible fugitive emissions to enter the ambient air beyond the property boundary.

   B. Watering may be suspended when no emissions from haul roads are visible, there was a quarter inch or greater of rainfall within the past 24 hours, the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads.

4. Fuel Requirement-Fluid Bed Sand Dryer
   Menard, Inc. Industrial Facility shall burn exclusively natural gas for their fluid bed sand dryer (EP-18)

5. Record Keeping and Reporting Requirements
   A. Menard, Inc. Industrial Facility 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. Menard, Inc. Industrial Facility 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 shows an exceedance of a limitation imposed by this permit.
REVIEW SUMMARY

- Menard, Inc. Industrial Facility has applied for authority to construct a sand drying operation.

- The application was deemed complete on May 31, 2016.

- HAP emissions are expected from the proposed equipment. HAPs of concern from this process are from the combustion of natural gas in the sand dryer.

- New Source Performance Standards (NSPS) Subpart UUU, "Standards of Performance for Calciners and Dryers in Mineral Industries" applies to the equipment.

- None of the NESHAPs apply to this installation. None of the currently promulgated MACT regulations apply to the proposed equipment.

- Silo Vent Filters and dust collectors are being used to control the PM, PM$_{10}$, and PM$_{2.5}$ emissions from the equipment in Special Condition 1 and 2 of this permit.

- 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 Franklin County, a nonattainment area for the 8-hour ozone standard and the PM$_{2.5}$ standard and an attainment 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. 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

Menard, Inc. Industrial Facility is an existing concrete block plant in Sullivan, Missouri. Raw materials consisting of sand, gravel, and cement are shipped to the facility via trucks. After weighing and mixing the raw materials with water, a block machine uses compression and vibration to form the blocks. Heat from the curing blocks help set the finished product, so no additional heat is required. Finished blocks are cut to size as needed and palletized before leaving the facility via trucks. The facility is able to produce up to 119,600 tons of concrete blocks per year at a maximum design rate of 13.65 tons per hour for the main processes.

A complete list of the installation emission points is included in the table below.

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Description</th>
<th>Installed or last updated in Project #</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP-01</td>
<td>Cement Silo #1</td>
<td>2015-02-009</td>
</tr>
<tr>
<td>EP-02</td>
<td>Cement Silo #2</td>
<td>2015-02-009</td>
</tr>
<tr>
<td>EP-03</td>
<td>Weigh Scale Loading</td>
<td>2015-02-009</td>
</tr>
<tr>
<td>EP-04</td>
<td>Cement Mixer #1</td>
<td>2015-02-009</td>
</tr>
<tr>
<td>EP-05</td>
<td>Cement Mixer #2</td>
<td>2015-02-009</td>
</tr>
<tr>
<td>EP-06</td>
<td>Block Tumbler</td>
<td>2015-02-009</td>
</tr>
<tr>
<td>EP-07</td>
<td>Block Machine</td>
<td>2015-02-009</td>
</tr>
<tr>
<td>EP-08</td>
<td>Block Splitters</td>
<td>2015-02-009</td>
</tr>
<tr>
<td>EP-09</td>
<td>Curing Chamber</td>
<td>2015-02-009</td>
</tr>
<tr>
<td>EP-10</td>
<td>Mixture Transfer Point #1</td>
<td>2015-02-009</td>
</tr>
<tr>
<td>EP-11</td>
<td>Mixture Transfer Point #2</td>
<td>2015-02-009</td>
</tr>
<tr>
<td>EP-12</td>
<td>Mixture Transfer Point #3</td>
<td>2015-02-009</td>
</tr>
<tr>
<td>EP-14</td>
<td>Unpaved Roads</td>
<td>2016-05-021</td>
</tr>
<tr>
<td>EP-16</td>
<td>Feeder</td>
<td>2016-05-021</td>
</tr>
<tr>
<td>EP-17</td>
<td>Dryer Feed Conveyor</td>
<td>2016-05-021</td>
</tr>
</tbody>
</table>
The following New Source Review permits have been issued to Menard, Inc. Industrial Facility from the Air Pollution Control Program.

Table 2: Permit History

<table>
<thead>
<tr>
<th>Permit Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>042015-005</td>
<td>New concrete block plant</td>
</tr>
</tbody>
</table>

PROJECT DESCRIPTION

Menard, Inc. Industrial Facility is constructing a new sand drying operation at their facility in Sullivan, Missouri. This project is within two years from the most recent project at the facility (Permit #042015-005); however the combined emissions for the two projects are less than de minimis levels and this is being considered a separate project. For the proposed operation wet silica sand will be shipped to the facility via trucks and will be taken directly into the natural gas-fired fluid bed sand dryer. Dust collectors will be employed to control emission from the dryer. Dry sand will be bagged inside the building and will also be controlled by a dust collector filter. A total of 13 new storage silos that will hold aggregate, lime dust and cement are being added to support the new sand drying operation. Each silo will have a bin vent filter. The sand drying and bagging plant will be able to produce up to 40 tons of product per hour. Bagged sand will leave the facility via trucks. The trucks will use the facility existing paved and unpaved haul roads (EP-13 and EP-14).

EMISSIONS/CONTROLS EVALUATION

Emissions for the project were calculated using emission factors found in the United States EPA document AP-42 Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources, Fifth Edition (AP-42).

The emissions from the sand dryer were calculated using emission factors from AP-42 Section 11.19.1, Table 11.19.1-1 Emission Factors for Industrial Sand and Gravel Processing, November 1995. The emission from the sand conveying, handling, and screening were calculated using emission factors from AP-42 Section 11.19.2, Table
11.19.2-2 Emission Factors for Crushed Stone and Processing operations, August 2004. The controlled emission factors were used because the emission points are controlled by a baghouse and/or the inherent moisture content of sand prior to drying is at least 4.17% by weight.

Emissions from haul roads and vehicular activity areas were calculated using the predictive equations from AP-42 Section 13.2.1 Paved Roads (January 2011) and Section 13.2.2 Unpaved Roads (November 2006). A 50% control efficiency for PM and PM$_{10}$, and a 22% control efficiency for PM$_{2.5}$ were applied to the emission calculations for the use of undocumented watering of the unpaved haul roads.

The following table provides an emissions summary for this project. Existing potential emissions were taken from permit number 042015-005. There are no existing actual emissions since the facility was first permitted in 2015 and a complete EIQ is not available. Potential emissions of the application represent the potential of the new equipment and additional haul road activity, assuming continuous operation (8760 hours per year).

Table 3: Emissions Summary (tpy)

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Regulatory De Minimis Levels</th>
<th>Existing Potential Emissions</th>
<th>Existing Actual Emissions</th>
<th>Potential Emissions of the Project</th>
<th>New Installation Conditioned Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>25.0</td>
<td>4.99</td>
<td>N/A</td>
<td>5.52</td>
<td>10.51</td>
</tr>
<tr>
<td>PM$_{10}$</td>
<td>15.0</td>
<td>1.77</td>
<td>N/A</td>
<td>3.08</td>
<td>4.85</td>
</tr>
<tr>
<td>PM$_{2.5}$</td>
<td>10.0</td>
<td>1.77</td>
<td>N/A</td>
<td>2.30</td>
<td>4.07</td>
</tr>
<tr>
<td>SOx</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>0.03</td>
<td>0.03</td>
</tr>
<tr>
<td>NOx</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>10.03</td>
<td>10.03</td>
</tr>
<tr>
<td>VOC</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>0.25</td>
<td>0.25</td>
</tr>
<tr>
<td>CO</td>
<td>100.0</td>
<td>N/A</td>
<td>N/A</td>
<td>3.86</td>
<td>3.86</td>
</tr>
<tr>
<td>GHG (CO$_2$e)</td>
<td>75,000 / 100,000</td>
<td>N/A</td>
<td>N/A</td>
<td>10,276.81</td>
<td>10,276.81</td>
</tr>
<tr>
<td>GHG (mass)</td>
<td>0.0 / 100.0 / 250.0</td>
<td>N/A</td>
<td>N/A</td>
<td>5,513.85</td>
<td>5,513.85</td>
</tr>
<tr>
<td>HAPs</td>
<td>10.0/25.0</td>
<td>N/A</td>
<td>N/A</td>
<td>0.09</td>
<td>0.09</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. Potential emissions of all pollutants are below de minimis levels.
APPLICABLE REQUIREMENTS

Menard, Inc. Industrial Facility 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

- 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. The sand dryer (EP-18) has a controlled potential to emit 0.40 pounds per hour. Using the process weight equation in 10 CSR 10-6.400(3)(A)1, EP-18 has an allowable emission rate of 42.53 pounds per hour. The bagging operation (EP-21) has a controlled potential to emit 0.01 pounds per hour. Using the process weight equation in 10 CSR 10-6.400(3)(A)1, EP-21 has an allowable emission rate of 42.53 pounds per hour.

- 40 CFR 60 Subpart UUU, "Standards of Performance for Calciners and Dryers in Mineral Industries" applies to the 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 April 29, 2016, received May 6, 2016, designating Menard, Inc. 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
tph .......... tons per hour
tpy .......... tons per year
VMT .......... vehicle miles traveled
VOC .......... Volatile Organic Compound
SEP 07 2016

Mr. Scott Nuttelman  
Real Estate Representative  
Menard, Inc. Industrial Facility  
5101 Menard Dr  
Eau Claire, WI 54703  

RE: New Source Review Permit - Project Number: 2016-05-021

Dear Mr. Nuttelman:

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 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
Mr. Scott Nuttelman  
Page Two

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 Chad Stephenson, 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:csj

Enclosures

c: St. Louis Regional Office  
PAMS File: 2016-05-021

Permit Number: 092016-006