

**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: **11 2 0 1 4 - 0 0 2**

Project Number: 2014-06-023  
Installation Number: 175-0082

Parent Company: Mid Am Building Supply, Inc.

Parent Company Address: 1615 Omar Bradley Drive, Moberly, MO 65270

Installation Name: Mid Am Building Supply, Inc.

Installation Address: 1615 Omar Bradley Drive, Moberly, MO 65270

Location Information: Randolph County, S7, T53N, R13W

Application for Authority to Construct was made for:  
an open end paint booth, an air exchanger, a lineal trim line, and a horizontal door line. Each line includes a coating booth, a drying oven, and a scuff or denibbing operation. At the applicant's request, this permit will also cover the existing equipment which was given an applicability determination of "No Permit Required" by Project 2009-04-070. 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.

**NOV 5 - 2014**

*Kendall B. Halo for Kyra Moore*

**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 these air contaminant sources. The information must be made available within 30 days of actual startup. Also, you must notify the Department of Natural Resources' Regional office responsible for the area within which you are located within 15 days after the actual start up of these air contaminant sources.

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 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 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.

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**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."*

Mid Am Building Supply, Inc.  
 Randolph County, S7, T53N, R13W

1. Control Device Requirement - Filters and Dust Collectors
  - A. Mid Am Building Supply, Inc. shall control emissions from the following equipment using control devices as specified in Table 1 and the permit application.

Table 1: Controlled Equipment

Emission Unit ID	Equipment Description	Control Device Description	Control Device ID
EU1	Open Front Paint Booth	Fabric filter	CD1
EU4	Sanding and Prepping	Fabric filter	CD4
EU6	Open Front Paint Booth	Fabric filter	CD6
EU8	Trim Line Denibber	Dust collector	CD8
EU9	Trim Line Coating Booth	Pocket filters	CD9
EU11	Door Line Coating Booth	Bag and blanket filters	CD11
EU13	Door Line Scuff Booth	Dust collector	CD13

- B. The control devices shall be operated and maintained in accordance with the manufacturer's specifications
- C. Replacement filters for the control devices shall be kept on hand at all times. The filters shall be made of materials appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance). Dust collector filters are reusable and do not require replacement filters.
- D. Mid Am Building Supply, Inc. shall maintain a copy of the manufacturer's performance warranty for each control device on site.

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**SPECIAL CONDITIONS:**

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

- E. Mid Am Building Supply, Inc. shall maintain an operating and maintenance log for the control devices 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. Coating and Coating Component Usage Limitations
- A. Mid Am Building Supply, Inc. shall use coatings from the following table or those that meet the requirements of Special Condition 3, 4 or 5.

Table 2: Allowable Coatings

Manufacturer	Coating Description	Coating ID
AkzoNobel	Almond Basecoat	630-Y029-535
AkzoNobel	Bahama Brown Basecoat	630-D029-534
AkzoNobel	Beige Basecoat	630-D029-536
AkzoNobel	Black Basecoat	630-B029-539
AkzoNobel	Bronze Basecoat	630-D029-530
AkzoNobel	Eggshell Basecoat	630-W029-532
AkzoNobel	Green Basecoat	630-G029-531
AkzoNobel	Sandstone Basecoat	630-D029-537
AkzoNobel	Terratone Basecoat	630-D029-533
AkzoNobel	Wineberry Basecoat	630-R029-538
AkzoNobel	Ez White Mono B/C	64-W029-621
AkzoNobel	Ez Light Oak B/C	630-D029-367
AkzoNobel	Walnut Basecoat	630-D029-491
AkzoNobel	Medium Oak Basecoat	630-D029-493
AkzoNobel	Dark Oak Basecoat	630-D029-494
AkzoNobel	Chestnut Basecoat	630-D029-495
AkzoNobel	Medium Danish Walnut Basecoat	630-D029-514
AkzoNobel	Medium Teak Natural Basecoat	630-D029-515
AkzoNobel	Medium Fruitwood/Early American Basecoat	630-D029-516
AkzoNobel	Mahogany/Cherry Basecoat	630-R029-492
AkzoNobel	Dark Mahogany Basecoat	630-R029-513
AkzoNobel	High Load Black Wiping Stain	644-B029-304
AkzoNobel	Cherry/Walnut W/B Wiping Glaze	644-D029-186B
AkzoNobel	New Breeze Special Walnut Wiping Stain	644-D029-264B

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**SPECIAL CONDITIONS:**

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

Manufacturer	Coating Description	Coating ID
AkzoNobel	High Load Burnt Umber Wiping Stain	644-D029-303
AkzoNobel	Dark Mahogany Glaze	644-D029-313
AkzoNobel	Medium Danish Walnut Glaze	644-D029-314
AkzoNobel	Medium Teak Natural Glaze	644-D029-315
AkzoNobel	Medium Fruitwood Glaze	644-D029-316
AkzoNobel	Medium Early American Glaze	644-D029-317
AkzoNobel	Waterbase Topcoat	684-30L029-19
AkzoNobel	Pecan Spray Stain	622-D029-18
AkzoNobel	General Purpose Primer	650-931A-H5001
AkzoNobel	Interior White Finish	660-1354-H5PBS
AkzoNobel	Clear Interior Finish	680-45L5W-1209

3. Use of Alternative Interior Coatings
  - A. Mid Am Building Supply, Inc. may use any alternative interior coating which meets the following four criteria:
    - 1) Its potential emissions of VOC are less than than 39.5 tpy;
    - 2) Its potential emissions of each individual HAP are less than the screening model action level (SMAL) for that HAP listed in Appendix B or in the most recent HAP SMAL table located at <http://dnr.mo.gov/env/apcp/docs/cp-hapsmaltbl6.pdf>;
    - 3) Its potential emissions of each individual HAP are less than 9.5 tpy; and
    - 4) Its potential emissions of all HAPs combined are less than 24.5 tpy. For multi-component coatings, each component must meet the above four criteria.
  - B. Mid Am Building Supply, Inc. shall seek approval from the Air Pollution Control Program before use of an alternative interior coating in the following four cases:
    - 1) Its potential emissions of VOC equal or exceed 39.5 tpy;
    - 2) Its potential emissions of any individual HAP equal or exceed the respective screening model action level (SMAL) for that HAP listed in Appendix B or in the most recent HAP SMAL table located at <http://dnr.mo.gov/env/apcp/docs/cp-hapsmaltbl6.pdf>;
    - 3) Its potential emissions of any individual HAP equal or exceed 9.5 tpy; or
    - 4) Its potential emissions of all HAPs combined equal or exceed 24.5 tons per year.

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### SPECIAL CONDITIONS:

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

- C. Attachment A or an equivalent form, such as an electronic form, approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Condition 3.A.
  - D. Mid Am Building Supply, Inc. shall maintain on site a copy of the completed Attachment A for each alternative interior coating used. Mid Am Building Supply, Inc. shall also maintain on site a copy of the manufacturer's documentation used to fill in the Attachment A (such as an MSDS or Regulatory Report) for each alternative interior coating used.
4. Use of Alternative Exterior Clear Coatings (Exterior Top Coatings)
- A. Mid Am Building Supply, Inc. may use any alternative exterior clear coating (exterior top coating) which meets the following four criteria:
    - 1) Its density is less than or equal to 10.00 pounds per gallon;
    - 2) Its VOC content weight % is less than or equal to 15.0%;
    - 3) Its potential emissions of each individual HAP are less than the screening model action level (SMAL) for that HAP listed in Appendix B or in the most recent HAP SMAL table located at <http://dnr.mo.gov/env/apcp/docs/cp-hapsmaltbl6.pdf>; and
    - 4) Its total HAP weight % is less than or equal to 2.75%.
  - B. Mid Am Building Supply, Inc. shall seek approval from the Air Pollution Control Program before use of an alternative exterior clear coating (exterior top coating) in the following four cases:
    - 1) Its density exceeds 10.00 pounds per gallon;
    - 2) Its VOC content weight % exceeds 15.0%;
    - 3) Its potential emissions of each individual HAP exceed the screening model action level (SMAL) for that HAP listed in Appendix B or in the most recent HAP SMAL table located at <http://dnr.mo.gov/env/apcp/docs/cp-hapsmaltbl6.pdf>, or
    - 4) Its total HAP weight % exceeds 2.75%.
  - C. Attachment B or an equivalent form, such as an electronic form, approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Condition 4.A.
  - D. Mid Am Building Supply, Inc. shall maintain on site a copy of the completed Attachment B for each alternative exterior clear coating (exterior top coating) used. Mid Am Building Supply, Inc. shall also maintain on site a copy of the manufacturer's documentation used to fill in

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## SPECIAL CONDITIONS:

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

the Attachment B (such as an MSDS or Regulatory Report) for each alternative exterior clear coating (exterior top coating) used.

### 5. Use of Alternative Exterior Color Coatings

A. Mid Am Building Supply, Inc. may use any alternative exterior color coating which meets the following four criteria:

- 1) Its density is less than or equal to 12.00 pounds per gallon;
- 2) Its VOC content weight % is less than or equal to 9.50%;
- 3) Its potential emissions of each individual HAP are less than the screening model action level (SMAL) for that HAP listed in Appendix B or in the most recent HAP SMAL table located at <http://dnr.mo.gov/env/apcp/docs/cp-hapsmaltbl6.pdf>; and
- 4) Its total HAP weight % is less than or equal to 3.50%.

B. Mid Am Building Supply, Inc. shall seek approval from the Air Pollution Control Program before use of an alternative exterior color coating in the following four cases:

- 1) Its density exceeds 12.00 pounds per gallon;
- 2) Its VOC content weight % exceeds 9.50%;
- 3) Its potential emissions of each individual HAP exceed the screening model action level (SMAL) for that HAP listed in Appendix B or in the most recent HAP SMAL table located at <http://dnr.mo.gov/env/apcp/docs/cp-hapsmaltbl6.pdf>, or
- 4) Its total HAP weight % exceeds 3.50%.

C. Attachment C or an equivalent form, such as an electronic form, approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Condition 5.A.

D. Mid Am Building Supply, Inc. shall maintain on site a copy of the completed Attachment C for each alternative exterior color coating used. Mid Am Building Supply, Inc. shall also maintain on site a copy of the manufacturer's documentation used to fill in the Attachment C (such as an MSDS or Regulatory Report) for each alternative exterior color coating used.

### 6. Operational Requirement – Coating Identification

A. Mid Am Building Supply, Inc. shall keep the coatings, solvents and cleaning solutions in sealed containers whenever the materials are not in use. Mid Am Building Supply, Inc. shall provide and maintain suitable,

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**SPECIAL CONDITIONS:**

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

easily read, permanent markings on all coating, solvent and cleaning solution containers used with this equipment.

7. Record Keeping and Reporting Requirements
  - A. Mid Am Building Supply, Inc. 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. These records shall include MSDS for all materials used.
  - B. Mid Am Building Supply, Inc. 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 show an exceedance of a limitation imposed by this permit.

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

Project Number: 2014-06-023  
Installation ID Number: 175-0082  
Permit Number:

Mid Am Building Supply, Inc.  
1615 Omar Bradley Drive  
Moberly, MO 65270

Complete: June 17, 2014

Parent Company:  
Mid Am Building Supply, Inc.  
1615 Omar Bradley Drive  
Moberly, MO 65270

Randolph County, S7, T53N, R13W

REVIEW SUMMARY

- Mid Am Building Supply, Inc. has applied for authority to construct an open end paint booth, an air exchanger, a lineal trim line, and a horizontal door line. Each line includes a coating booth, a drying oven, and a scuff or denibbing operation. At the applicant's request, this permit will also cover the existing equipment which was given an applicability determination of "No Permit Required" by Project 2009-04-070.
- HAP emissions are expected from the proposed equipment. HAPs of concern from this process are methanol (CAS 67-56-1), triethylamine (CAS 121-44-8), and glycol ethers. Some of the coatings also contain diethylene glycol monobutyl ether (CAS 112-34-5), which is also called 2-(2-butoxyethoxy)ethanol, but that chemical is now delisted.
- 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.
  1. The MACT standard, 40 CFR Part 63, Subpart M, *National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products* does not apply because the facility is not a major source of HAP.
  2. Subpart Q, *National Emission Standards for Hazardous Air Pollutants: Surface Coating of Wood Building Products*, does not apply for the same reason.
  3. Subpart R, *National Emissions Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources* does not apply because the facility is not emitting any of the target HAPs.

4. Subpart XXXXXX, *National Emissions Standards for Hazardous Air Pollutants: Area Source Standards for Nine Metal Fabrication and Finishing Source Categories*, does not apply for the same reason.

- 10 CSR 10-6.400, *Restriction of Particulate Matter Emissions From Industrial Processes*, does not apply because particulate emissions are controlled by devices with greater than 90% efficiency.
- 10 CSR 10-6.405, *Restriction of Particulate Matter Emissions From Fuel Burning Equipment Used for Indirect Heating*, does not apply because the ovens and air exchange units are powered by either electricity or pipeline grade natural gas.
- Filters are being used to control the PM<sub>10</sub> emissions from the equipment in 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 VOC, HAP and PM<sub>10</sub> are conditioned below de minimis levels.
- This installation is located in Randolph County, an attainment 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.
- A Basic Operating Permit application is required for this installation within 30 days of equipment startup.
- Approval of this permit is recommended with special conditions.

#### INSTALLATION DESCRIPTION

Mid-Am Building Supply, Inc. is an existing de minimis source that paints or stains and then distributes steel, fiberglass, and fiberglass/wood mixture doors and trim, such as casements. It is located at 1615 Omar Bradley Drive in Moberly, MO 65270, in Randolph County. Units EU1 through EU5 were installed after obtaining a No Permit Required letter (Project 2990-04-070) from the Air Pollution Control Program. Unit EU3 represented an alternative use of unit EU1, and is no longer in use. The installation later obtained two other No Permit Required letters (Projects 2010-07-030 and 2014-06-049) when paints and stains used in the process were changed. No Operating Permit was required for the existing equipment.

No permits have been issued to Mid Am Building Supply, Inc. from the Air Pollution Control Program. No NOEE/NOV's have been issued to the installation in the last five years.

### PROJECT DESCRIPTION

The installation after this project includes the equipment in the following table.

Table 3: Equipment List

Emission Unit ID	Unit Description	MHDR	Control Unit ID	Control Description	Control Eff.
EU1	Colmet open front paint booth	0.5 gal/hr	CD1	Fabric filter	99%
EU2	Colmet convection drying chamber (natural gas)	0.0007 mmcf/hr	N/A	N/A	N/A
EU3	Stain room – no longer in use	N/A	N/A	N/A	N/A
EU4	Sanding and prepping	42 doors/hr	CD4	Fabric filter	95%
EU5	Paint booth air exchange unit (natural gas)	0.0023 mmcf/hr	N/A	N/A	N/A
EU6	GFS open front paint booth	0.5 gal/hr	CD6	Fabric filter	99%
EU7	Air exchange unit (natural gas)	3.402 mmBtu/hr	N/A	N/A	N/A
EU8	Deimco lineal trim line denibber	2,143 lineal ft per hour	CD8	Dust collector	98%
EU9	Deimco lineal trim line coating booth	4.29 gal/hr	CD9	Pocket filters	97%
EU10	Deimco lineal trim line IR/ convection oven (electric)	893 ft <sup>2</sup> /hr	N/A	N/A	N/A
EU11	Deimco horizontal door line coating booth	2.14 gal/hr	CD11	Bag and blanket filters	97%
EU12	Deimco horizontal door line IR/ convection oven (electric)	14.3 doors/hr	N/A	N/A	N/A
EU13	Horizontal door line scuff booth	14.3 doors/hr	CD13	Dust collector	98%

EU1, EU2, EU4, and EU5 are existing units. EU1 and EU3 were the same physical unit, but EU1 was for paint usage and EU3 was for stain usage. Stain is no longer in use at that unit. During the review of this project, Mid-Am Building Supply, Inc. requested a determination on changing coating exterior paints on their existing process and increasing the volume of doors produced from 10 to 20 doors. The new coatings were evaluated as part of this project. The

original potential to emit calculations were based on 100 doors produced per day; therefore, the actual increase from 10 to 20 doors has no effect on PTE calculations.

EU6 through EU13 are proposed new equipment. They consist of a new line for finish interior doors and trim although exterior doors could also be used in this equipment.

All units except the Colmet convection drying chamber EU2 and the two air exchange units EU5 and EU7 are electric. EU2 is fueled by pipeline grade natural gas. The two air exchange units are electric, but in cold weather they also burn pipeline grade natural gas to warm the incoming air.

The emission unit numbering for this operation is a little out of sync with the actual workflow. The finishing process starts with raw doors and trim. Fiberglass and fiberglass/wood doors first go through "Sand/Prep" (EU4). Steel doors do not.

After that, the doors and trim can take one of four paths.

- (1) Exterior doors and trim are usually processed through the existing equipment. They are painted in Col-Met open front paint booth EU1 and dried in Col-Met convection drying chamber EU2. However, sometimes they may be processed through the new equipment.
- (2) Interior doors and trim to be stained or painted in a custom color go through GFS open front paint booth EU6, and then through the same EU2 drying chamber used in the original process. After this, trim goes to path (3) and doors go to path (4) to be clear-coated.
- (3) Interior trim which is to be painted in standard colors and trim which has been through path 2 goes to a DEIMCO lineal trim line. Each piece of trim is put on the line lying flat and goes through denibber EU8, coating booth EU9, and cure oven EU10. The trim is put through the line a second time for a second coat. Sometimes "wet-on-wet" coating is done, or the trim has already had one coat applied in path 2. Other times the trim may be put through the line more than once on each side.
- (4) Interior doors which are to be painted in standard colors and doors which have been through path 2 go to a DEIMCO horizontal door line. Each door is put on the line lying flat and goes through coating booth EU11 and cure oven EU12. If the door has not already been coated once in path 2, it is then put through the line a second time to put a second coat on that side. After flipping it over, it is put through the line one or two more times (depending on whether it has already been coated once in path 2) to coat the

other side. After each coat on each side, the door is put through scuff booth EU13 to scuff it up enough that the second coat adheres well. Note: The scuff booth consists of a downdraft sand table built by Spray Equipment and Service Center plus a DVLE-60 heavy duty electric reciprocator from DEIMCO plus a fan.

Since the control devices vent to the outside of the building, air is constantly being taken out of the building. To compensate, two electric air exchange units, EU5 and EU7, bring outside air into the building. When the outside air is cold, the units also burn natural gas, to heat the air.

## EMISSIONS/CONTROLS EVALUATION

It is assumed that 100% of the VOC and HAP content of the coatings will be emitted to the atmosphere. Density, VOC content, HAP content, and solids content for the coatings was provided by the manufacturer on MSDS or on other documents entitled Regulatory Constant Reports.

It is assumed that the entire solids content of the coatings is PM. The EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 4.2.2.8-2 (August 1982) states that "Transfer efficiency for typical air atomized spraying ranges from 30 to 50 percent." Since the air-assisted spray guns used in this installation have higher efficiencies than air atomized spray guns, the high end of the range is used for transfer efficiency. A transfer efficiency of 50% means that 50% of the solids content of the coatings will be transferred to the door and trim. The filters on the paint and coating booths capture from 97% to 99% of the remaining 50%. To be conservative, the lower figure of 97% was used in the calculations.

The particle size distribution of the solids during coating applications was taken from the CALIFORNIA EMISSION INVENTORY AND REPORTING SYSTEM (CEIDARS). The particle size distribution is estimated to be 96% PM<sub>10</sub> and 92.5% PM<sub>2.5</sub>.

The MHDR of the existing equipment is 0.5 gal/hr, the MHDR of the new open front paint booth is 0.5 gal/hr, the MHDR of the trim line is 4.29 gal/hr, and the MHDR of the door line is 2.14 gal/hr, giving a total of 7.43 gal/hr for the entire installation. In order to ease the calculations, all paint booths were assumed to be used for coating both interior and exterior doors and trim.

For exterior doors and trim, one color coat is applied and then one or two coats of clear coat (also called top coat) is applied. To reflect this, the worst case of each type of exterior coating and coating ratio is used in the calculations. For interior doors and trim, two coats are applied, but both coats can be the same, or one can be a primer and the other a color coat, or one can be a color coat and the other a clear coat. So for interior coatings, each coating was calculated by itself. In either case, VOC must not exceed 39.5 tpy and individual HAPs must not exceed 9.50 tpy HAP. These maximums allow for 0.50 tpy VOC and 0.50 tpy HAP generated by the ovens and air exchangers. After calculating VOC, HAP and PM<sub>10</sub> emissions for each coating, the maximum in each category was used in this analysis.

Usually, 8,760 hr/yr (24 hrs/day X 365 days/yr) is used in calculating emissions. However, each coating operation has to be shut down for at least one hour every shift to do clean-up and refill or change the coatings. This is 3 hours out of every 24. Therefore, for calculating emissions from the coating operations, 7,665 hrs/yr (21 hrs/day X 365 days/yr) was used.

There will be an increase in particulate emissions from the sanding/prepping lines due to the new coating lines. A study was conducted on the existing EU4. The study showed that based on 100 doors per day approximately 6.26 lb/hr of dust was collected from the existing bagfilter. According to a memo from North Carolina's Department of Environment, Health and Natural Resources dated April 18, 1996, 23.8% of wood dust collected from sanding is PM less than 44 microns in diameter. Assuming that 99.5% of PM greater than 44 microns is collected in the baghouse and 95% less than 44 microns in diameter is collected, backcalculating the total amount of particulate generated corresponds to a value of 6.36 lb/hr or 0.10 lb/hr emitted from EP04 (6.36 lb/hr minus 6.26 lb/hr). The new door line is designed for a throughput of 300 doors. The new trim line uses 3 times as much paint (4.29 gal/hr to the door line's 2.14 gal/hr), so its throughput is the equivalent of 600 doors per day (300 x 2). This gives the equivalent of 1000 doors throughput per day through EU4 compared to the existing 100 doors per day. Therefore, the new PTE total from EU4 is based on 1000 equivalent doors per day.

The denibber and scuff booth are assumed to also generate particulate. The emission factors for these operations are not readily available, but are expected to be much less than those from the existing sanding operation. Only the trim goes through the denibber and the doors through the scuff booth, therefore the PTE of the combined operations were based on a total of 1000 equivalent doors per day. Half of the emission rate of EU4 was assumed for each emission point.

The particle size distribution found in the CALIFORNIA EMISSION INVENTORY AND REPORTING SYSTEM (CEIDARS) for sanding was used for the sanding/prepping, denibber and scuff booth. The particle size distribution was found to be 92% PM<sub>10</sub> and 88.5% PM<sub>2.5</sub>.

Emissions of the existing equipment and coatings were taken from the documentation on Project 2009-04-070. Some of the emission units for this project were calculated differently for this project. The installation conditioned potential reflects the newest calculation methodology.

In order to give the facility more flexibility in choosing coatings, and to avoid future permitting work when coatings are changed, special conditions allowing alternative coatings are included in this permit. Calculation worksheet (Attachments A, B and C) are provided. If the calculations show that the VOC and HAP contents of a potential alternative coating are within acceptable limits, the coating may be used without applying to the Air Pollution Control Program for a permit amendment or applicability determination.

The following table provides an emissions summary for this project. Since this is the first permit for the installation, existing actual emissions are not available. Existing potential emissions were taken from applicability determination Project 2009-04-070. The uncontrolled potential emissions of the application are greater than de minimis levels and therefore a permit was required. The controlled potential emissions of the installation represent the potential of

the new and existing equipment, assuming continuous operation (7,665 hours per year for coating equipment, which must be down 1 hour out of every 8, and 8,760 hours per year for other equipment).

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Uncontrolled Potential Emissions of the Application	Controlled Potential Emissions of the Installation
PM	25.0	N/D	N/D	7.85
PM <sub>10</sub>	15.0	7.62	>15.0	8.01
PM <sub>2.5</sub>	10.0	N/D	N/D	7.62
SO <sub>x</sub>	40.0	0.01	0.01	0.02
NO <sub>x</sub>	40.0	1.33	1.46	2.79
VOC	40.0	5.70	0.08	39.65
CO	100.0	1.11	1.23	2.34
HAPs <sup>a</sup>	10.0/25.0	1.26	0.03	9.56
GHG (CO <sub>2</sub> e)	N/A	1,578	1754	3,331
GHG (mass)	N/A	1,667	1853	3,520

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

<sup>a</sup>All of the coatings listed in Special Condition 3.A contain, at most, one HAP. This means that individual HAP equals total HAPs.

### 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 PM<sub>10</sub> are conditioned below de minimis levels by requiring control devices.

### APPLICABLE REQUIREMENTS

Mid Am Building Supply, Inc. 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*
- *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 10-6.165*

SPECIFIC REQUIREMENTS

- *None*

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.

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Susan Heckenkamp  
New Source Review Unit

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Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated June 3, 2014, received June 5, 2014, designating Mid Am Building Supply, Inc. as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.

## Attachment A – Alternative *Interior Coating* Compliance Sheet

Installation Name: Mid-Am Building Supply, Inc.  
Project Number: 2014-06-023

Installation ID: 175-0082

County, S, T, R: Randolph County, S7, T53N, R13W  
Permit Number:

Coating Name: \_\_\_\_\_

Date: \_\_\_\_\_ Copy this sheet as needed.

To fill in this compliance sheet, you will need the following information. Maximum usage is always 56,950 gal/yr. The remaining information can be obtained from the manufacturer, usually on a Material Safety Data Sheet or other informational sheet such as a Regulatory Constant Report.

\_\_\_\_\_ 56,950 Maximum usage in gal/yr

\_\_\_\_\_ Density in lb/gal (Note: Sometimes relevant density is given instead of density. If it is, multiply by 8.345 lb/gal to get density.)

\_\_\_\_\_ VOC Weight % (Note: Sometimes this is given in lb/gal. If it is, divide by density and multiply by 100 to get %.)

A list of all the HAPs contained in the coating or coating component, with the weight percent for each. Put this information in the table below. If a weight percent is given as a range, use the high end of the range. If the MSDS lists all ingredients, identify the HAPs by checking the table in Appendix B or the *Table of Hazardous Air Pollutants, Screening Model Action Levels* available at <http://dnr.mo.gov/env/apcp/docs/cp-hapsmaltbl6.pdf>.

Calculate VOC PTE =  $\frac{\text{Density} \times \text{VOC Weight \%}}{100} \times \frac{56,950}{2000}$  = \_\_\_\_\_ tons/yr

*Example: Density is 11. lb/gal and VOC Weight % is 4.696%. Then VOC PTE = 11.0 X 4.696 / 100 X 56,950 / 2000 = 14.7 tons/yr*

**If VOC PTE exceeds 39.5 tons per year, seek approval from the Air Pollution Control Program New Source Review Unit before using.**

A	B	C	D	E
Individual HAP Name and CAS #	Individual HAP Weight %	Calculation for Individual HAP PTE = Density X Individual HAP Weight % / 100 X 56,950 / 2000=	Individual HAP PTE (tons/yr)	Screening Model Action Level (SMAL)
Example HAP 123-45-6	0.5	11.0 X 0.5 / 100 X 56,950 / 2000 =	1.56	5.0
Total HAP PTE (tons/yr)				

- A. Record each individual HAP from this coating or coating component on a separate line.
- B. Record the weight percent for each individual HAP.
- C. Calculate the PTE for each individual HAP.
- D. Record the results of the calculations.
- E. Copy the SMAL for each individual HAP from Appendix B or from the *Table of Hazardous Air Pollutants, Screening Model Action Levels*, which is available at <http://dnr.mo.gov/env/apcp/docs/cp-hapsmaltbl6.pdf>. **If any individual HAP's PTE is greater than its SMAL, seek approval from the Air Pollution Control Program New Source Review Unit before using.**
- F. **If any individual HAP's PTE is greater than 9.5 tpy, seek approval from the Air Pollution Control Program New Source Review Unit before using.**
- G. Sum individual HAP PTEs to get Total HAP PTE. (Do not include example HAP in total.)
- H. **If Total HAP PTE exceeds 24.5 tons/yr, seek approval from the Air Pollution Control Program New Source Review Unit before using.**



## Attachment C – Alternative **Exterior Color Coating** Coating Compliance Sheet

Installation Name: Mid-Am Building Supply, Inc.  
Project Number: 2014-06-023

Installation ID: 175-0082

County, S, T, R: Randolph County, S7, T53N, R13W  
Permit Number:

Coating Name: \_\_\_\_\_

Date: \_\_\_\_\_ Copy this sheet as needed.

To fill in this compliance sheet, you will need the following information. Maximum usage is always 56,950 gal/yr. The remaining information can be obtained from the manufacturer, usually on a Material Safety Data Sheet or other informational sheet such as a Regulatory Constant Report.

\_\_\_\_\_ 56,950 Maximum usage in gal/yr

\_\_\_\_\_ Density in lb/gal (Note: Sometimes relevant density is given instead of density. If it is, multiply by 8.345 lb/gal to get density.)

**If Density exceeds 12.00 lb/gal, seek approval from the Air Pollution Control Program New Source Review Unit before using**

\_\_\_\_\_ VOC Weight % (Note: Sometimes this is given in lb/gal. If it is, divide by density and multiply by 100 to get %.)

**If VOC weight % exceeds 9.50%, seek approval from the Air Pollution Control Program New Source Review Unit before using**

A list of all the HAPs contained in the coating or coating component, with the weight percent for each. Put this information in the table below. If a weight percent is given as a range, use the high end of the range. If the MSDS lists all ingredients, identify the HAPs by checking the table in Appendix B or the *Table of Hazardous Air Pollutants, Screening Model Action Levels* available at <http://dnr.mo.gov/env/apcp/docs/cp-hapsmaltbl6.pdf>.

A	B	C	D	E
Individual HAP Name and CAS #	Individual HAP Weight %	Calculation for Individual HAP PTE = 1/2 X Density X Individual HAP Weight % / 100 X 56,950 / 2000 =	Individual HAP PTE (tons/yr)	Screening Model Action Level (SMAL)
Example HAP 123-45-6	1.439	1/2 X 11.0 X 1.439 / 100 X 56,950 / 2000 =	2.3	5.0
Total HAP Weight %		Total HAP PTE (tons/yr)		

- A. Record each individual HAP from this coating or coating component on a separate line.
- B. Record the weight percent for each individual HAP.
- C. Calculate the PTE for each individual HAP.
- D. Record the results of the calculations.
- E. Copy the SMAL for each individual HAP from Appendix B or from the *Table of Hazardous Air Pollutants, Screening Model Action Levels*, which is available at <http://dnr.mo.gov/env/apcp/docs/cp-hapsmaltbl6.pdf>. **If any individual HAP's PTE is greater than its SMAL, seek approval from the Air Pollution Control Program New Source Review Unit before using.**
- F. Sum individual HAP Weight %s to get Total HAP Weight %. (Do not include example HAP in total.)
- G. **If Total HAP Weight % exceeds 3.50%, seek approval from the Air Pollution Control Program New Source Review Unit before using.**

## APPENDIX A

### Abbreviations and Acronyms

<b>%</b> .....percent	<b>m/s</b> .....meters per second
<b>°F</b> .....degrees Fahrenheit	<b>Mgal</b> .....1,000 gallons
<b>acfm</b> .....actual cubic feet per minute	<b>MW</b> .....megawatt
<b>BACT</b> .....Best Available Control Technology	<b>MHDR</b> .....maximum hourly design rate
<b>BMPs</b> .....Best Management Practices	<b>MMBtu</b> .....Million British thermal units
<b>Btu</b> .....British thermal unit	<b>MMCF</b> .....million cubic feet
<b>CAM</b> .....Compliance Assurance Monitoring	<b>MSDS</b> .....Material Safety Data Sheet
<b>CAS</b> .....Chemical Abstracts Service	<b>NAAQS</b> .....National Ambient Air Quality Standards
<b>CEMS</b> .....Continuous Emission Monitor System	<b>NESHAPs</b> .....National Emissions Standards for Hazardous Air Pollutants
<b>CFR</b> .....Code of Federal Regulations	<b>NO<sub>x</sub></b> .....nitrogen oxides
<b>CO</b> .....carbon monoxide	<b>NSPS</b> .....New Source Performance Standards
<b>CO<sub>2</sub></b> .....carbon dioxide	<b>NSR</b> .....New Source Review
<b>CO<sub>2e</sub></b> .....carbon dioxide equivalent	<b>PM</b> .....particulate matter
<b>COMS</b> .....Continuous Opacity Monitoring System	<b>PM<sub>2.5</sub></b> .....particulate matter less than 2.5 microns in aerodynamic diameter
<b>CSR</b> .....Code of State Regulations	<b>PM<sub>10</sub></b> .....particulate matter less than 10 microns in aerodynamic diameter
<b>dscf</b> .....dry standard cubic feet	<b>ppm</b> .....parts per million
<b>EQ</b> .....Emission Inventory Questionnaire	<b>PSD</b> .....Prevention of Significant Deterioration
<b>EP</b> .....Emission Point	<b>PTE</b> .....potential to emit
<b>EPA</b> .....Environmental Protection Agency	<b>RACT</b> .....Reasonable Available Control Technology
<b>EU</b> .....Emission Unit	<b>RAL</b> .....Risk Assessment Level
<b>fps</b> .....feet per second	<b>SCC</b> .....Source Classification Code
<b>ft</b> .....feet	<b>scfm</b> .....standard cubic feet per minute
<b>GACT</b> .....Generally Available Control Technology	<b>SIC</b> .....Standard Industrial Classification
<b>GHG</b> .....Greenhouse Gas	<b>SIP</b> .....State Implementation Plan
<b>gpm</b> .....gallons per minute	<b>SMAL</b> .....Screening Model Action Levels
<b>gr</b> .....grains	<b>SO<sub>x</sub></b> .....sulfur oxides
<b>GWP</b> .....Global Warming Potential	<b>SO<sub>2</sub></b> .....sulfur dioxide
<b>HAP</b> .....Hazardous Air Pollutant	<b>tph</b> .....tons per hour
<b>hr</b> .....hour	<b>tpy</b> .....tons per year
<b>hp</b> .....horsepower	<b>VMT</b> .....vehicle miles traveled
<b>lb</b> .....pound	<b>VOC</b> .....Volatile Organic Compound
<b>lbs/hr</b> .....pounds per hour	
<b>MACT</b> .....Maximum Achievable Control Technology	
<b>µg/m<sup>3</sup></b> .....micrograms per cubic meter	

## APPENDIX B: Table of Hazardous Air Pollutants and Screening Model Action Levels (May 3, 2012 Revision 10)

Chemical	CAS #	SMAL (tons/yr)	Group ID	VOC	PM	Chemical	CAS #	SMAL (tons/yr)	Group ID	VOC	PM	Chemical	CAS #	SMAL (tons/yr)	Group ID	VOC	PM
ACETALDEHYDE	75-07-0	9		Y	N	CARBARYL	63-25-2	10	V	Y	Y	DICHLOROPROPANE, [1,2-]	78-87-5	1		Y	N
ACETAMIDE	60-35-5	1		Y	N	CARBON DISULFIDE	75-15-0	1		Y	N	DICHLOROPROPENE, [1,3-]	542-75-6	1		Y	N
ACETONITRILE	75-05-8	4		Y	N	CARBON TETRACHLORIDE	56-23-5	1		Y	N	DICHLOROVOS	62-73-7	0.2		Y	N
ACETOPHENONE	98-86-2	1		Y	N	CARBONYL SULFIDE	463-58-1	5		Y	N	DIETHANOLAMINE	111-42-2	5		Y	N
ACETYLAMINOFLUORINE, [2-]	53-96-3	0.005	V	Y	Y	CATECHOL	120-80-9	5		Y	N	DIETHYL SULFATE	64-67-5	1		Y	N
ACROLEIN	107-02-8	0.04		Y	N	CHLORAMBEN	133-90-4	1		Y	Y	DIETHYLENE GLYCOL MONOBUTYL ETHER	112-34-5	5	P	Y	N
ACRYLAMIDE	79-06-1	0.02		Y	N	CHLORDANE	57-74-9	0.01		Y	Y	DIMETHOXYBENZIDINE, [3,3-]	119-90-4	0.1	V	Y	Y
ACRYLIC ACID	79-10-7	0.6		Y	N	CHLORINE	7782-50-5	0.1		N	N	DIMETHYL BENZIDINE, [3,3-]	119-93-7	0.008	V	Y	Y
ACRYLONITRILE	107-13-1	0.3		Y	N	CHLOROACETIC ACID	79-11-8	0.1		Y	N	DIMETHYL CARBAMOYL CHLORIDE	79-44-7	0.02		Y	N
ALLYL CHLORIDE	107-05-1	1		Y	N	CHLOROACETOPHENONE, [2-]	532-27-4	0.06		Y	N	DIMETHYL FORMAMIDE	68-12-2	1		Y	N
AMINOBIHENYL, [4-]	92-67-1	1	V	Y	N	CHLOROBENZENE	108-90-7	10		Y	N	DIMETHYL HYDRAZINE, [1,1-]	57-14-7	0.008		Y	N
ANILINE	62-53-3	1		Y	N	CHLOROBENZILATE	510-15-6	0.4	V	Y	Y	DIMETHYL PHTHALATE	131-11-3	10		Y	N
ANISIDINE, [ORTHO-]	90-04-0	1		Y	N	CHLOROFORM	67-66-3	0.9		Y	N	DIMETHYL SULFATE	77-78-1	0.1		Y	N
ANTHRACENE	120-12-7	0.01	V	Y	N	CHLOROMETHYL METHYL ETHER	107-30-2	0.1		Y	N	DIMETHYLAMINOAZOBENZENE, [4-]	60-11-7	1		Y	N
ANTIMONY COMPOUNDS		5	H	N	Y	CHLOROPRENE	126-99-8	1		Y	N	DIMETHYLANILINE, [N-N]	121-69-7	1		Y	N
ANTIMONY PENTAFLUORIDE	7783-70-2	0.1	H	N	Y	CHROMIUM (VI) COMPOUNDS		0.002	L	N	Y	DINITRO-O-CRESOL, [4,6-] (Note 6)	534-52-1	0.1	E	Y	Y
ANTIMONY POTASSIUM TARTRATE	28300-74-5	1	H	N	Y	CHROMIUM COMPOUNDS		5	L	N	Y	DINITROPHENOL, [2,4-]	51-28-5	1		Y	N
ANTIMONY TRIOXIDE	1309-64-4	1	H	N	Y	CHRYSENE	218-01-9	0.01	V	Y	N	DINITROTOLUENE, [2,4-]	121-14-2	0.02		Y	N
ANTIMONY TRISULFIDE	1345-04-6	0.1	H	N	Y	COBALT COMPOUNDS		0.1	M	N	Y	DIOXANE, [1,4-]	123-91-1	6		Y	N
ARSENIC COMPOUNDS		0.005	I	N	Y	COKE OVEN EMISSIONS	8007-45-2	0.03	N	Y	N	DIPHENYLHYDRAZINE, [1,2-]	122-66-7	0.09	V	Y	Y
ASBESTOS	1332-21-4	0	A	N	Y	CRESOL, [META-]	108-39-4	1	B	Y	N	DIPHENYLMETHANE DIISOCYANATE, [4,4-]	101-68-8	0.1	V	Y	N
BENZ(A)ANTHRACENE	56-55-3	0.01	V	Y	N	CRESOL, [ORTHO-]	95-48-7	1	B	Y	N	EPICHLOROHYDRIN	106-89-8	2		Y	N
BENZENE	71-43-2	2		Y	N	CRESOL, [PARA-]	106-44-5	1	B	Y	N	ETHOXYETHANOL, [2-]	110-80-5	10	P	Y	N
BENZIDINE	92-87-5	0.0003	V	Y	N	CRESOLS (MIXED ISOMERS)	1319-77-3	1	B	Y	N	ETHOXYETHYL ACETATE, [2-]	111-15-9	5	P	Y	N
BENZO(A)PYRENE	50-32-8	0.01	V	Y	N	CUMENE	98-82-8	10		Y	N	ETHYL ACRYLATE	140-88-5	1		Y	N
BENZO(B)FLUORANTHENE	205-99-2	0.01	V	Y	N	CYANIDE COMPOUNDS		0.1	O	Y	N	ETHYL BENZENE	100-41-4	10		Y	N
BENZO(K)FLUORANTHENE	207-08-9	0.01	V	Y	N	DDE	72-55-9	0.01	V	Y	Y	ETHYL CHLORIDE	75-00-3	10		Y	N
BENZOTRICHLORIDE	98-07-7	0.006		Y	N	DI(2-ETHYLHEXYL) PHTHALATE, (DEHP)	117-81-7	5		Y	N	ETHYLENE GLYCOL	107-21-1	10		Y	N
BENZYL CHLORIDE	100-44-7	0.1		Y	N	DIAMINOTOLUENE, [2,4-]	95-80-7	0.02		Y	N	ETHYLENE GLYCOL MONOBUTYL ETHER (Delisted)	111-76-2				
BERYLLIUM COMPOUNDS		0.008	J	N	Y	DIAZOMETHANE	334-88-3	1		Y	N	ETHYLENE GLYCOL MONOHEXYL ETHER	112-25-4	5	P	Y	N
BERYLLIUM SALTS		2E-05	J	N	Y	DIBENZ(A,H)ANTHRACENE	53-70-3	0.01	V	Y	N	ETHYLENE IMINE [AZIRIDINE]	151-56-4	0.003		Y	N
BIPHENYL, [1,1-]	92-52-4	10	V	Y	N	DIOXINS/FURANS		6E-07	D,V	Y	N	ETHYLENE OXIDE	75-21-8	0.1		Y	N
BIS(CHLOROETHYL)ETHER	111-44-4	0.06		Y	N	DIBENZOFURAN	132-64-9	5	V	Y	N	ETHYLENE THIOUREA	96-45-7	0.6		Y	Y
BIS(CHLOROMETHYL)ETHER	542-88-1	0.0003		Y	N	DIBROMO-3-CHLOROPROPANE, [1,2-]	96-12-8	0.01		Y	N	FORMALDEHYDE	50-00-0	2		Y	N
BROMOFORM	75-25-2	10		Y	N	DIBROMOETHANE, [1,2-]	106-93-4	0.1		Y	N	GLYCOL ETHER (ETHYLENE GLYCOL ETHERS)		5	P	Y	N
BROMOMETHANE	74-83-9	10		Y	N	DIBUTYL PHTHALATE	84-74-2	10		Y	Y	GLYCOL ETHER (DIETHYLENE GLYCOL ETHERS)		5	P	Y	N
BUTADIENE, [1,3-]	106-99-0	0.07		Y	N	DICHLOROBENZENE, [1,4-]	106-46-7	3		Y	N	HEPTACHLOR	76-44-8	0.02		Y	N
BUTOXYETHANOL ACETATE, [2-]	112-07-2	5	P	Y	N	DICHLOROBENZIDENE, [3,3-]	91-94-1	0.2	V	Y	Y	HEXACHLOROBENZENE	118-74-1	0.01		Y	N
BUTYLENE OXIDE, [1,2-]	106-88-7	1		Y	N	DICHLOROETHANE, [1,1-]	75-34-3	1		Y	N	HEXACHLOROBUTADIENE	87-68-3	0.9		Y	N
CADMIUM COMPOUNDS		0.01	K	N	Y	DICHLOROETHANE, [1,2-]	107-06-2	0.8		Y	N	HEXACHLOROCYCLOHEXANE, [ALPHA-]	319-84-6	0.01	F	Y	N
CALCIUM CYANAMIDE	156-62-7	10		Y	Y	DICHLOROETHYLENE, [1,1-]	75-35-4	0.4		Y	N	HEXACHLOROCYCLOHEXANE, [BETA-]	319-85-7	0.01	F	Y	N
CAPROLACTAM (Delisted)	105-60-2					DICHLOROMETHANE	75-09-2	10		N	N	HEXACHLOROCYCLOHEXANE, [DELTA-]	319-86-8	0.01	F	Y	N
CAPTAN	133-06-2	10		Y	Y	DICHLOROPHENOXY ACETIC ACID, [2,4-]	94-75-7	10	C	Y	Y	HEXACHLOROCYCLOHEXANE, [TECHNICAL]	608-73-1	0.01	F	Y	N

## APPENDIX B: Table of Hazardous Air Pollutants and Screening Model Action Levels (May 3, 2012 Revision 10)

Chemical	CAS #	SMAL (tons/yr)	Group ID	VOC	PM	Chemical	CAS #	SMAL (tons/yr)	Group ID	VOC	PM	Chemical	CAS #	SMAL (tons/yr)	Group ID	VOC	PM
HEXACHLOROCYCLOPENTADIENE	77-47-4	0.1		Y	N	NITROSODIMETHYLAMINE, [N-]	62-75-9	0.001		Y	N	TRIMETHYLPENTANE, [2,2,4-]	540-84-1	5		Y	N
HEXACHLOROETHANE	67-72-1	5		Y	N	NITROSOMORPHOLINE, [N-]	59-89-2	1		Y	N	URETHANE [ETHYL CARBAMATE]	51-79-6	0.8		Y	N
HEXAMETHYLENE,-1,6-DIISOCYANATE	822-06-0	0.02		Y	N	NITROSO-N-METHYLUREA, [N-]	684-93-5	0.0002		Y	N	VINYL ACETATE	108-05-4	1		Y	N
HEXAMETHYLPHOSPHORAMIDE	680-31-9	0.01		Y	N	OCTACHLORONAPHTHALENE	2234-13-1	0.01	V	Y	N	VINYL BROMIDE	593-60-2	0.6		Y	N
HEXANE, [N-]	110-54-3	10		Y	N	PARATHION	56-38-2	0.1		Y	Y	VINYL CHLORIDE	75-01-4	0.2		Y	N
HYDRAZINE	302-01-2	0.004		N	N	PCB [POLYCHLORINATED BIPHENYLS]	1336-36-3	0.009	X	Y	Y	XYLENE, [META-]	108-38-3	10	G	Y	N
HYDROGEN CHLORIDE	7647-01-0	10		N	N	PENTACHLORONITROBENZENE	82-68-8	0.3		Y	N	XYLENE, [ORTHO-]	95-47-6	10	G	Y	N
HYDROGEN FLUORIDE	7664-39-3	0.1		N	N	PENTACHLOROPHENOL	87-86-5	0.7		Y	N	XYLENE, [PARA-]	106-42-3	10	G	Y	N
HYDROQUINONE	123-31-9	1		Y	N	PHENOL	108-95-2	0.1		Y	N	XYLENES (MIXED ISOMERS)	1330-20-7	10	G	Y	N
INDENO(1,2,3CD)PYRENE	193-39-5	0.01	V	Y	N	PHENYLENEDIAMINE, [PARA-]	106-50-3	10		Y	N						
ISOPHORONE	78-59-1	10		Y	N	PHOSGENE	75-44-5	0.1		Y	N						
LEAD COMPOUNDS		0.01	Q	N	Y	PHOSPHINE	7803-51-2	5		N	N						
LINDANE [GAMMA-HEXACHLOROCYCLOHEXANE]	58-89-9	0.01	F	Y	N	PHOSPHOROUS (YELLOW OR WHITE)	7723-14-0	0.1		N	N	Legend					
MALEIC ANHYDRIDE	108-31-6	1		Y	N	PTHALIC ANHYDRIDE	85-44-9	5		Y	N	Group ID	Aggregate Group Name				
MANGANESE COMPOUNDS		0.8	R	N	Y	POLYCYLIC ORGANIC MATTER		0.01	V	Y	N	A	Asbestos				
MERCURY COMPOUNDS		0.01	S	N	N	PROPANE SULTONE, [1,3-]	1120-71-4	0.03		Y	Y	B	Cresols/Cresylic Acid (isomers and mixtures)				
METHANOL	67-56-1	10		Y	N	PROPIOLACTONE, [BETA-]	57-57-8	0.1		Y	N	C	2,4 - D, Salts and Esters				
METHOXYCHLOR	72-43-5	10	V	Y	Y	PROPIONALDEHYDE	123-38-6	5		Y	N	D	Dibenzofurans, Dibenzodioxins				
METHOXYETHANOL, [2-]	109-86-4	10	P	Y	N	PROPOXUR [BAYGON]	114-26-1	10		Y	Y	E	4, 6 Dinitro-o-cresol, and Salts				
METHYL CHLORIDE	74-87-3	10		Y	N	PROPYLENE OXIDE	75-56-9	5		Y	N	F	Lindane (all isomers)				
METHYL ETHYL KETONE (Delisted)	78-93-3					PROPYLENEIMINE, [1,2-]	75-55-8	0.003		Y	N	G	Xylenes (all isomers and mixtures)				
METHYL HYDRAZINE	60-34-4	0.06		Y	N	QUINOLINE	91-22-5	0.006		Y	N	H	Antimony Compounds				
METHYL IODIDE	74-88-4	1		Y	N	QUINONE	106-51-4	5		Y	N	I	Arsenic Compounds				
METHYL ISOBUTYL KETONE	108-10-1	10		Y	N	RADIONUCLIDES		Note 1	Y	N	Y	J	Beryllium Compounds				
METHYL ISOCYANATE	624-83-9	0.1		Y	N	SELENIUM COMPOUNDS		0.1	W	N	Y	K	Cadmium Compounds				
METHYL METHACRYLATE	80-62-6	10		Y	N	STYRENE	100-42-5	1		Y	N	L	Chromium Compounds				
METHYL TERT-BUTYL ETHER	1634-04-4	10		Y	N	STYRENE OXIDE	96-09-3	1		Y	N	M	Cobalt Compounds				
METHYLCYCLOPENTADIENYL MANGANESE	12108-13-3	0.1	R	N	Y	TETRACHLORODIBENZO-P-DIOXIN,[2,3,7,8]	1746-01-6	6E-07	D,V	Y	Y	N	Coke Oven Emissions				
METHYLENE BIS(2-CHLOROANILINE), [4,4-]	101-14-4	0.2	V	Y	Y	TETRACHLOROETHANE, [1,1,2,2-]	79-34-5	0.3		Y	N	O	Cyanide Compounds				
METHYLENEDIANILINE, [4,4-]	101-77-9	1	V	Y	N	TETRACHLOROETHYLENE	127-18-4	10		N	N	P	Glycol Ethers				
METHYLNAPHTHALENE, [2-]	91-57-6	0.01	V	Y	N	TITANIUM TETRACHLORIDE	7550-45-0	0.1		N	N	Q	Lead Compounds (except elemental Lead)				
MINERAL FIBERS		0	T	N	Y	TOLUENE	108-88-3	10		Y	N	R	Manganese Compounds				
NAPHTHALENE	91-20-3	10	V	Y	N	TOLUENE DIISOCYANATE, [2,4-]	584-84-9	0.1		Y	N	S	Mercury Compounds				
NAPHTHYLAMINE, [ALPHA-]	134-32-7	0.01	V	Y	N	TOLUIDINE, [ORTHO-]	95-53-4	4		Y	N	T	Fine Mineral Fibers				
NAPHTHYLAMINE, [BETA-]	91-59-8	0.01	V	Y	N	TOXAPHENE	8001-35-2	0.01		Y	N	U	Nickel Compounds				
NICKEL CARBONYL	13463-39-3	0.1	U	N	Y	TRICHLOROETHANE, [1,2,4-]	120-82-1	10		Y	N	V	Polycyclic Organic Matter				
NICKEL COMPOUNDS		1	U	N	Y	TRICHLOROETHANE, [1,1,1-]	71-55-6	10		N	N	W	Selenium Compounds				
NICKEL REFINERY DUST		0.08	U	N	Y	TRICHLOROETHANE, [1,1,2-]	79-00-5	1		Y	N	X	Polychlorinated Biphenyls (Aroclors)				
NICKEL SUBSULFIDE	12035-72-2	0.04	U	N	Y	TRICHLOROETHYLENE	79-01-6	10		Y	N	Y	Radionuclides				
NITROBENZENE	98-95-3	1		Y	N	TRICHLOROPHENOL, [2,4,5-]	95-95-4	1		Y	N						
NITROBIPHENYL, [4-]	92-93-3	1	V	Y	N	TRICHLOROPHENOL, [2,4,6-]	88-06-2	6		Y	N						
NITROPHENOL, [4-]	100-02-7	5		Y	N	TRIETHYLAMINE	121-44-8	10		Y	N	Note 1	The SMAL for radionuclides is defined as the effective dose equivalent to 0.3 millirems per year for 7 years exposure associated with a cancer risk of 1 in 1 million				
NITROPROPANE, [2-]	79-46-9	1		Y	N	TRIFLURALIN	1582-09-8	9		Y	Y						

Mr. Mark Hays  
Regional Manager  
Mid Am Building Supply, Inc.  
1615 Omar Bradley Drive  
Moberly, MO 65270

RE: New Source Review Permit - Project Number: 2014-06-023

Dear Mr. Hays:

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, 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.

The permitting authority has exceeded the 90 day timeframe cited for making a final permit determination. In accordance with (12)(A)9.C, when the permitting authority exceeds the review time, the applicant is not required to pay the processing fee associated with the application. Therefore, no permit fees are due in conjunction with this permit.

If you have any questions regarding this permit, please do not hesitate to contact me 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:shl

Enclosures

c: Northeast Regional Office  
PAMS File: 2014-06-023