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# NATURAL RESOURCES

Eric R. Greitens, Governor

Carol S. Comer, Director

**JUN 27 2017**

Mr. Anthony Antonellis  
Environmental Support  
Atlas EPS  
P.O. Box 125  
Perryville, MO 63775

RE: New Source Review Temporary Permit Request - Project Number: 2017-04-039  
Installation ID Number: 157-0020  
Expiration Date: January 20, 2018  
Temporary Permit Amendment Number: 022017-007A

Dear Mr. Antonellis:

The Missouri Department of Natural Resources' Air Pollution Control Program has completed a review of your request to temporarily operate a new Modix MDX230 polystyrene shape molding machine, located in Perryville, Missouri. Construction Permit #022017-007 is being amended in order to include the Modix molder in the 100 ton per year installation-wide limit. The Air Pollution Control Program is hereby granting your request to conduct this temporary operation at this location in accordance with Missouri State Rule 10 CSR 10-6.060(3).

Due to a recent fire on December 13, 2016 that destroyed most of the equipment permitted at the facility, Atlas EPS is currently only operating a Weiser Polystyrene Pre-Expander, a wood fired boiler, a 150 horsepower (hp) natural gas backup boiler, and two Kurtz 1014 shape mold machines. A recent temporary permit (Temporary Permit No. 022017-007) established that Atlas EPS may operate the remaining Weiser Pre-Expander and an additional 150 hp backup boiler for steam generation as long as they do not exceed 100 tpy of VOC emissions from expanding and shaping polystyrene.

On 4/18/2017 the Missouri Department of Natural Resources received an additional request to operate a Modix MDX230 polystyrene shape molding machine in place of a single malfunctioning Kurtz 1014 Shape Mold (there are two total at the facility, only one is being removed). The Kurtz Shape Mold was originally permitted under Construction Permit No. 012002-012. However, the maximum hourly design rate (MHDR) of the equipment was set at shaping 360.00 lbs/hour of polystyrene beads which was most likely based upon OEM specifications of the equipment. However, the shape mold was tooled to only process 200 lbs/hour of polystyrene. For the recent temporary permit, unconditioned potential to emit calculations were based upon the MHDR of 200 lbs/hour polystyrene throughput from each Kurtz Shape Mold (400 lbs/hour total). The new Modix MDX230 shape mold will be tooled to



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have the same chest specification as the Kurtz Shape Mold in order to process exactly the same amount of polystyrene. The conditioned potential to emit of 100 tpy of VOC placed upon the Weiser Pre-Expander permitted under Temporary Permit No. 022017-007 is tracked based upon total VOC emissions that result from expanding and shaping polystyrene. Essentially VOC is being tracked on a tons of polystyrene expanded and molded per day basis. Therefore even if the Modix Shape Mold is tooled to shape more than 200 lbs/hour of polystyrene, the 100 tpy VOC limit placed in the Temporary Permit No. 022017-007 will not be exceeded. *If Atlas EPS would like to operate the Modix MDX230 Shape Mold after January 20, 2018, it will need to be included within the next construction permit application for replacing equipment lost in the fire.*

Missouri State Rule 10 CSR 10-6.060(3) states that all temporary emission sources must emit less than 100 tons per year of any criteria pollutant. Therefore the Weiser Pre-Expander, the natural gas backup boiler, and the Modix Shape Mold are limited to less than 100 tons per year of VOC with the special conditions listed below.

**The following Special Conditions apply to the Weiser Pre-Expander, Natural Gas boiler, and the Modix Shape Mold:**

- 1. *Atlas EPS shall emit less than 100.0 tons of VOCs in any consecutive 12-month period from the Weiser Pre-Expander, natural gas boiler, and Modix Shape Mold as of the issuance date of Permit No. 022017-007.***
- 2. *Attachment A or equivalent forms, such as electronic forms, approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Condition 1.***
- 3. *All Pre-Expanded polystyrene shall be fed into the Kurtz and Modix Shape Molders at the facility. Expanded Polystyrene shall not be produced in excess of molder consumption. In the event that a molder malfunctions, Atlas EPS shall immediately reduce pre-expanded polystyrene output to match the lower polystyrene consumption. In the event both molders malfunction, the Weiser Pre-Expander shall immediately cease operation.***
- 4. *The 150 hp backup boiler may only combust natural gas.***

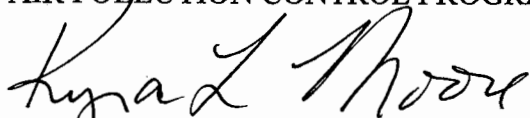
Atlas EPS is still obligated to meet all applicable air pollution control rules, Department of Natural Resources' rules, or any other applicable federal, state, or local agency regulations. Specifically, you should avoid violating 10 CSR 10-6.045 *Open Burning Requirements*, 10 CSR 10-6.220 *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.165 *Restriction of Emission of Odors*, 10 CSR 10-6.170 *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, and 10 CSR 10-6.400 *Restriction of Emission of Particulate Matter From Industrial Processes*.

Mr. Anthony Antonellis  
Page Three

A copy of this letter should be kept at the installation and be made available to Department of Natural Resources' personnel upon verbal request. If you have any questions regarding this determination, please do not hesitate to contact Hans Robinson at the departments' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or by telephone at (573) 751-4817. Thank you for your time and attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

A handwritten signature in cursive script that reads "Kyra L. Moore".

Kyra L. Moore  
Director

KLM:hrj

c: PAMS File: 2017-04-039  
Southeast Regional Office

## Attachment A - VOC Compliance Worksheet

Atlas EPS  
 Perryville, Missouri  
 Project Number: 2017-04-039  
 Installation ID Number: 157-0020

This sheet covers the month of \_\_\_\_\_ in the year \_\_\_\_\_

Column 1	Column 2	Column 3	Column 4	Column 5
Material Used (name, type)	Amount of material used (pounds, lbs.)	Amount of material used (tons)	VOC content (%)	VOC emissions (tons)
(b) Total amount of natural gas used in the 150 hp boiler this month (scf)				
(c) Total VOC emissions calculated for the 150 hp boiler this month (tons)				
(d) Total VOC emissions calculated for this month (tons):				
(e) 12-month VOC emissions total from previous month's worksheet (tons):				
(f) Monthly VOC emissions total from previous year's worksheet (tons):				
(g) Current 12 month total of VOC emissions (tons): [(d)+(e)-(f)]				

**Instructions:**

- (a) Use the following VOC calculation method:
  1. List type of polystyrene material that was fed into the Weiser Pre-Expander [Column 1]
  2. List the pounds (lbs.) of material that was fed into the Pre-Expander [Column 2]
  3. Multiply the lbs. of material in [Column 2] by 2000 and record that number in [Column 3]
  4. Record the mass percent (%) VOC content of the material in [Column 4]
  5. VOC emissions (tons) are as follows; [Column 3] x [Column 4] = [Column 5]
- (b) List the amount of natural gas used in the 150 hp backup natural gas boiler during the month that this sheet covers in scf (standard cubic feet)
- (c) Multiply the amount of natural gas in scf by 5.5 and divide by  $2 \times 10^9$  (yields a value in tons)
- (d) Summation of Column 5 [include the value in row (c) but not the value in row (b)]
- (e) 12-month VOC emissions total from previous month's worksheet (tons).
- (f) Monthly VOC emissions total from previous year's worksheet (tons).
- (g) Calculate the new 12 month VOC emissions total. **A total of less than 100 tons per year indicates compliance.**