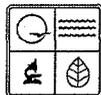


STATE OF MISSOURI



## 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: **092008-006** Project Number: 2008-07-055

Parent Company: Continental Manufacturing

Parent Company Address: 561 State Drive, Mount Vernon, MO 65712

Installation Name: Continental Manufacturing Company

Installation Address: 561 State Drive, Mount Vernon, MO 65712

Location Information: Lawrence County, S25, T28, R27W

Application for Authority to Construct was made for:  
Construction of two (2) primer paint booths. 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.

SEP 18 2008

EFFECTIVE DATE

  
for J L K  
DIRECTOR OR DESIGNEE  
DEPARTMENT OF NATURAL RESOURCES

STANDARD CONDITIONS:

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 departments' Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. 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 this (these) air contaminant source(s).

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 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 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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Permit No.	
Project No.	2008-07-055

**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."*

Continental Manufacturing Company  
Lawrence County, S25, T28, R27W

1. **Superseding Condition**  
The conditions of this permit supersede all special conditions found in the previously issued construction permit (Permit Number 102001-016) from the Air Pollution Control Program.
2. **Emission Limitations**
  - A. Continental Manufacturing Company shall emit less than 40 tons of Volatile Organic Compounds (VOCs) from the entire installation as listed in Table 2 in any consecutive 12-month period.
  - B. Continental Manufacturing Company shall emit less than ten (10) tons individually or twenty-five (25) tons combined of Hazardous Air Pollutants (HAPs) from the entire installation as listed in Table 2 in any consecutive 12-month period.
  - C. Continental Manufacturing Company shall not discharge into the atmosphere from this installation as listed in Table 2 more than twenty (20) pounds of lead in any consecutive 12-month period.
  - D. Continental Manufacturing Company shall not discharge into the atmosphere from this installation as listed in Table 2 more than forty (40) pounds of 1, 6-Hexamethylene diisocyanate (CAS No. 822-06-0) in any consecutive 12-month period.
  - E. Attachment A, Attachment B and Attachment C or equivalent forms approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Conditions 1(A), (B), (C) and (D). Continental Manufacturing Company shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. These records shall include Material Safety Data Sheets (MSDS) for all materials used at the installation.

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Permit No.	
Project No.	2008-07-055

**SPECIAL CONDITIONS:**

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

- F. Continental Manufacturing Company shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the end of the month during which the records from Special Condition Number 1(E) indicate that the source exceeds the limitation of Special Conditions Number 1(A), (B), (C) and (D).
3. **Housekeeping Requirements**  
Continental Manufacturing Company shall keep cleaning solutions in sealed containers whenever the materials are not in use. Continental Manufacturing Company shall provide and maintain suitable, easily read, permanent markings on all solvent and cleaning solution containers used with this equipment.

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

Project Number: 2008-07-055  
Installation ID Number: 109-0051  
Permit Number:

Continental Manufacturing Company  
561 State Drive  
Mount Vernon, MO 65712

Complete: July 15, 2008

Parent Company:  
Continental Manufacturing  
561 State Drive  
Mount Vernon, MO 65712

Lawrence County, S25, T28, R27W

REVIEW SUMMARY

- Continental Manufacturing Company has applied for authority to construct two (2) primer paint booths.
- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment. The HAP of concern from this process is xylene.
- None of the New Source Performance Standards (NSPS) apply to the proposed equipment.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) or currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed equipment.
- Fabric filters will be used to control the particulate matter 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 and HAPs are conditioned to de minimis levels.
- This installation is located in Lawrence County, an attainment area for all criteria air pollutants.
- This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].
- Ambient air quality modeling was not performed since potential emissions of the application are below de minimis levels. In addition, the Screen Modeling Action

Levels (SMAL) were not exceeded by any individual HAP.

- 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

Continental Manufacturing Company (Continental) operates an existing installation in Mt. Vernon, Missouri, which constructs conveyors for dry, bulk materials handling. Continental, formerly known as E.F. Marsh Engineering Company, moved its operation from Monett to Mt. Vernon, Missouri in 2004. The installation has been limited to below major levels for HAPs and VOC in a previous construction permit and to intermediate levels for operating permits. The following permits have been issued to Continental from the Air Pollution Control Program.

Table 1: Issued Permits from the Air Pollution Control Program

Permit Number	Description
102001-016	Installation of spray booths and welding equipment. Limit on VOC and HAP to below major levels.
OP2006-085	Intermediate operating permit.

## PROJECT DESCRIPTION

Continental has proposed the construction of two (2) primer paint booths each controlling particulate emissions with a fabric filter. Continental will be removing an existing wash station and using the salvaged parts to construct the new primer booths. Currently, Continental uses both primer and paint in their existing spray booths. With the new configuration, the priming and painting work will be separated into their individual booths. Table 2 gives a summary of the emission points at the installation at the time of permit issuance.

Table 2: Emission Point Summary

Emission Point	Description	MHDR
EP-01	Large Spray Booth	
EP-03	Spray Booth – East (filter control)	10 gallons
EP-03	Spray Booth – West (filter control)	10 gallons
EP-05	Wash Station for Large Spray Booth	Removed
EP-06	Wash Station for Small Spray Booth	N/A
EP-07	Make-up Air Unit	3.906 MMBTU
EP-08	Make-up Air Unit	3.928 MMBTU
EP-09	Make-up Air Unit	2.828 MMBTU
EP-10	Make-up Air Unit	2.20 MMBTU
EP-12	Mixing Room	N/A
EP-13	Primer Booth (filter control)	9 gallons
EP-14	Primer Booth (filter control)	9 gallons

N/A = Not Applicable

## EMISSIONS/CONTROLS EVALUATION

Potential emissions were estimated using a mass balance approach with data from Material Safety Data Sheets (MSDS) supplied by the applicant. A transfer efficiency of 70% and a control efficiency of 90% for the fabric filter were used to determine particulate emissions. Potential VOC emissions were calculated assuming continuous usage of the maximum VOC content primer and potential HAP emissions were calculated assuming continuous usage of the maximum HAP content primer. Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year).

Existing potential emissions were taken from Permit 102001-016. Existing actual emissions were taken from the installation's 2007 Emissions Inventory Questionnaire (EIQ). The following table provides an emissions summary for this project.

Table 3: Emissions Summary (tons per year)

Pollutant	*Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (2007 EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM <sub>10</sub>	15.0	2.63	N/A	17.46	N/A
SO <sub>x</sub>	40.0	0.03	N/A	N/A	N/A
NO <sub>x</sub>	40.0	5.09	N/A	N/A	N/A
VOC	40.0	250	8.0	667	<40
CO	100.0	4.28	N/A	N/A	N/A
HAPs	10.0/25.0	10.0/25.0	N/A	204	<10.0/25.0
Lead	0.6 (0.01)	0.01	N/D	N/A	<0.01
1,6- Hexamethylene diisocyanate	10.0 (0.02)	0.02	N/D	N/A	<0.02
Xylene	10.0 (10)	N/A	N/A	102	<10.0

N/A = Not Applicable; N/D = Not Determined \*Numbers indicated by ( ) are the SMAL for the listed HAP.

Continental currently operates under a 100 ton per year limit on VOC based on their operating permit issued in 2006. However, the applicant has requested an installation-wide 40 ton per year limit on VOC and 10 ton per year limit on xylene to establish their installation as a de minimis source. Upon issuance of this construction permit, an operating permit will no longer be required.

In order to establish a lower installation-wide limit, the conditions of Permit 102001-016 are being superseded by this construction permit. Two conditions that will be carried over from the previous permit are Special Conditions 2(C) and 2(D) which limit the amount of lead and 1, 6-Hexamethylene diisocyanate being emitted. These limits were based on the limited quantity of a specialized paint that the applicant proposed to use. The remaining conditions pertain to the VOC and HAP limits that are being re-established in this construction permit.

## 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 VOC and HAPs are conditioned to de minimis levels.

## APPLICABLE REQUIREMENTS

Continental Manufacturing Company 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*  
The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required June 1 for the previous year's emissions.
- *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 10-3.090*

### SPECIFIC REQUIREMENTS

- *Restriction of Emission of Particulate Matter From Industrial Processes, 10 CSR 10-6.400*
- *Restriction of Emission of Sulfur Compounds, 10 CSR 10-6.260*

## 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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Emily Wilbur  
Environmental Engineer

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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 July 19, 2008, received July 15, 2008, designating Continental Manufacturing as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Southwest Regional Office Site Survey, dated July 24, 2008.

## Attachment A - VOC Compliance Worksheet

Continental Manufacturing Company  
 Lawrence County, S25, T28, R27W  
 Project Number: 2008-07-055  
 Installation ID Number: 109-0051  
 Permit Number: \_\_\_\_\_

This sheet covers the period from \_\_\_\_\_ to \_\_\_\_\_.  
(month, year) (month, year)

Column A	Column B	Column C	Column D
<b>Type of Paint</b>	<b>Amount Used (gallons)</b>	<b>VOC Content (lb VOC/gal paint) (from MSDS)</b>	<b>VOC Emissions (tons) (Note 1)</b>
Total VOC From Painting Operation (Note 2)			
<b>Make-up Air Units (Note 3)</b>	<b>Amount of Natural Gas Used (MMCF) (Note 4)</b>	<b>VOC Emission Factor (lb VOC/MMCF) (Note 5)</b>	<b>VOC Emissions (tons)</b>
Total VOC from Combustion sources (Note 6)			
Total VOC emissions from installation for this month (Note 7)			
12-Month VOC Emission Total from Previous Month's Worksheet (Note 8)			
Monthly VOC Emissions Total From Previous Year's Worksheet (Note 9)			
Current 12-Month Total VOC Emissions (Note 10)			

- Note 1:  $Column D = [(Column B) \cdot (Column C)] / 2000$
- Note 2: Sum of VOC emissions from the paint booths
- Note 3: Since all of the Make-up air units are relatively the same size and all burn natural gas, each unit does not have to be listed separately.
- Note 4: Amount of natural gas used in units of million of cubic feet.
- Note 5: Should use emission factor in most current version of AP-42 Section 1.4. Current emission factor is 5.5 lb VOC/MMCF
- Note 6: Sum of VOC emissions from combustion units.
- Note 7: Sum of VOC emissions from paint booths and combustion units.
- Note 8: Running 12-month total of VOC emissions from previous month's worksheet.
- Note 9: VOC emissions reported for this month in the last calendar year.
- Note 10: Amount reported for Note 8 minus amount reported for Note 9 plus amount reported for Note 7, not to exceed 40 tons for any consecutive 12-month period.

## Attachment B - Monthly HAP Tracking Worksheet

Continental Manufacturing Company  
 Lawrence County, S25, T28, R27W  
 Project Number: 2008-07-055  
 Installation ID Number: 109-0051  
 Permit Number:

This sheet covers the period from \_\_\_\_\_ to \_\_\_\_\_.  
 (month, year) (month, year)

Column A	Column B	Column C	Column D	Column E	Column F	Column G	Column H	Column I	Column J	Column K	Column L
Paint	Amount Used (gallons)	Density of Paint (lbs/gal)	% Xylene (Note 1 & 2)	% Ethyl benzene (Note 2)	% Toluene (Note 2)	% Isopropyl benzene (Note 2)	% Lead (Note 2)	% HDI Isocyanate (CAS # 822-06-0) (Note 2)	% Other HAP (specify)	Total HAPs % (Note 3)	Total HAPs emitted for month (tons) (Note 4)
Kepen											
Carboline 8701 Part A											
Carboline 8701 Part B											
Carbothane 8815A											
Urethane Coverter 8800											
Solvent Usage											
Primer											
Total Monthly HAP emissions in tons (Note 5)											
12-Month HAP emissions total from previous month's worksheet (Note 6)											
Monthly HAP emissions total from previous year's worksheet (Note 7)											
Current 12-Month total HAP emissions (Note 8)											

Note 1: % Xylene is the sum of the % m-xylene, % p-xylene, and % o-xylene

Note 2: Should be obtained from the MSDS for each type of paint used.

Note 3: Column K = Column D + Column E + Column F + Column G + Column H + Column I + Column J

Note 4: Column L = [(Column B • Column C) • (Column K/100)]/2000

Note 5: Sum of Column L

Note 6: Running 12-Month total of HAP emissions from previous month's worksheet

Note 7: HAP emissions reported for this month in the last calendar year

Note 8: Amount reported for Note 6 minus amount reported for Note 7 plus amount reported for Note 5, not to exceed 25 tons for any consecutive 12-month period.

## Attachment C - Monthly Individual HAP Tracking Worksheet

Continental Manufacturing Company  
Lawrence County, S25, T28, R27W  
Project Number: 2008-07-055  
Installation ID Number: 109-0051  
Permit Number:

This sheet covers the period from \_\_\_\_\_ to \_\_\_\_\_.  
(month, year) (month, year)

Column A	Column B	Column C	Column D	Column E
Paint	Amount Used (gallons)	Density (lbs/gal)	Weight % of HAP (from MSDS) (Note 1)	Total HAP Emitted for the Month (Note 2)
Kepen				
Carboline 8701 Part A				
Carboline 8701 Part B				
Carbothane 8815A				
Urethane Coverter 8800				
Solvent Usage				
Primer				
Total Monthly HAP emissions in tons (Note 3)				
12-Month HAP emissions total from previous month's worksheet (Note 4)				
Monthly HAP emissions total from previous year's worksheet (Note 5)				
Current 12-Month total HAP emissions (Note 6)				

**Note:** Please specify the specific HAP for which this worksheet is for. A separate worksheet should be maintained for each HAP that is being emitted. The following is a list of HAPs that are being emitted: xylene, ethyl benzene, toluene, isopropylbenzene, lead, HDI isocyanate. This list represents the HAPs that were submitted in the application. If Continental should change paints, it may be necessary to maintain a worksheet on any HAPs.

Note 1: Please specify HAP for which the worksheet is for.

Note 2: Column E = [(Column B • Column C)•(Column D/100)]/2000

Note 3: Sum of Column E

Note 4: Running 12-Month total of HAP emissions from previous month's worksheet

Note 5: HAP emissions reported for this month in the last calendar year

Note 6: Amount reported for Note 4 minus amount reported for Note 5 plus amount reported for Note 3, not to exceed 0.01 tons lead, 0.02 tons of HDI Isocyanate (CAS # 822-060), or 10.0 tons of any other HAP for any consecutive 12-month period

Mr. Barry Wilfong  
Plant Operations Manager  
Continental Manufacturing Company  
561 State Drive  
Mount Vernon, MO 65712

RE: New Source Review Permit - Project Number: 2008-07-055

Dear Barry Wilfong:

Enclosed with this letter is your permit to construct. Please study it carefully. Also, note the special conditions, if any, 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.

If you have any questions regarding this permit, please do not hesitate to contact Emily Wilbur, at the departments' 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

Kendall B. Hale  
New Source Review Unit Chief

KBH:ewl

Enclosures

c: Southwest Regional Office  
PAMS File: 2008-07-055

Permit Number: