Permit Number: 042011-003 Project Number: 2011-01-028
Installation Number: 115-0001

Parent Company: Walsworth Publishing Company
Parent Company Address: 306 North Kansas Ave, Marceline, MO 64658
Installation Name: Walsworth Publishing Company
Installation Address: 803 South Missouri Avenue, Marceline, MO 64658
Location Information: Linn County (S29, T57N, R18W)

Application for Authority to Construct was made for:

The installation of a Baker Perkins G-14 Web Press and associated natural gas dryer. This review was conducted in accordance with Section (6), 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.

APR 14 2011
EFFECTIVE DATE

DANIEL L. KRAMER
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 Departments' 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 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.
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.”

Walsworth Publishing Company
Linn County (S29, T57N, R18W)

1. Emission Limitation
   A. Walsworth Publishing Company shall emit less than 250.0 tons of Volatile Organic Compounds (VOCs) in any consecutive 12-month period from the entire installation (see Table 1)

Table 1: Equipment that Emits VOCs at the Installation

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP01 Film cleaning</td>
<td>A six-color non-heatset sheet-fed offset lithographic printing press, Komori Lithrone 40 Model L-640-III</td>
</tr>
<tr>
<td>EP01</td>
<td>Two four-color non-heatset sheet-fed offset lithographic printing press with coater, Komori Lithrone 40 Model L-440-III</td>
</tr>
<tr>
<td>EP01</td>
<td>A five-color non-heatset sheet-fed offset lithographic printing press with coater, Komori Lithrone 40 model L-440</td>
</tr>
<tr>
<td>EP04</td>
<td>An eight-color non-heatset, offset lithographic press, Heidelberg SM-102P</td>
</tr>
<tr>
<td>EP04</td>
<td>Five Miller TP-38A non-heatset sheet-fed offset lithographic printing presses</td>
</tr>
<tr>
<td>EP04</td>
<td>A Komori Lithrone 40 L-440 nonheatset sheet-fed offset lithographic printing press</td>
</tr>
<tr>
<td>EP04</td>
<td>A five-color Komori Lithrone 40 L-540 non-heatset lithographic printing press</td>
</tr>
<tr>
<td>EP04</td>
<td>One Heidelberg eight-color lithographic printing press.</td>
</tr>
<tr>
<td>EP20</td>
<td>20 natural gas space heaters, 0.966 MMBtu/hr total</td>
</tr>
<tr>
<td>EP22</td>
<td>0.4 MMBtu/hr natural gas boiler</td>
</tr>
<tr>
<td>EP24</td>
<td>A six-color heatset web offset lithographic printing press with natural gas dryer, Solna C96</td>
</tr>
<tr>
<td>EP25</td>
<td>An ultraviolet cylinder press with associated screen making equipment, Sakurai SC 102</td>
</tr>
<tr>
<td>N/A</td>
<td>Three 165 Btu/hr (each) natural gas hot water heaters</td>
</tr>
<tr>
<td>N/A</td>
<td>Two Parts Washer</td>
</tr>
<tr>
<td>N/A</td>
<td>Hot melt glue application</td>
</tr>
<tr>
<td>N/A</td>
<td>Four Creo Platemakers</td>
</tr>
</tbody>
</table>

N/A – Not Available
SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

B. Attachment A, or equivalent forms, such as electronic forms, approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Conditions 1.A.

2. Operational Requirement
Walsworth Publishing Company shall keep the ink solvents and cleaning solutions in sealed containers whenever the materials are not in use. Walsworth Publishing Company shall provide and maintain suitable, easily read, permanent markings on all inks, solvent and cleaning solution containers used with this equipment.

3. Record Keeping and Reporting Requirements
A. Walsworth Publishing Company shall maintain all records required by this permit for not less than five years and shall make them available to any Missouri Department of Natural Resources’ personnel upon request. These records shall include Material Safety Data Sheets (MSDS) for all materials used.

B. Walsworth Publishing Company shall report to the Air Pollution Control Program’s Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten 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 OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (6) REVIEW
Project Number: 2011-01-028
Installation ID Number: 115-0001
Permit Number:

Walsworth Publishing Company  Complete: January 13, 2011
803 South Missouri Avenue
Marceline, MO 64658

Parent Company:
Walsworth Publishing Company
306 North Kansas Ave
Marceline, MO 64658

Linn County (S29, T57N, R18W)

REVIEW SUMMARY


- Hazardous Air Pollutant (HAP) emissions are expected from the natural gas dryer but only in negligible amounts.

- None of the New Source Performance Standards (NSPS) apply to the installation. 40 CFR Part 60, Subpart QQ, Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing, does not apply because the presses at this installation do not fall under the definition of publication rotogravure printing press as described in the subpart.

- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) apply to this installation. None of the currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed equipment. 40 CFR Part 63, Subpart KK, National Emission Standards for the Printing and Publishing Industry, does not apply since this installation is not a major source for HAPs emissions.

- No air pollution control equipment is being used in association with the new equipment.

- This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060, Construction Permits Required. Potential emissions of VOC for this project are above the de minimis level.

- This installation is located in Linn County, an attainment area for all criteria pollutants.
- 6 -

- 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 for this review. No model is currently available which can accurately predict ambient ozone concentrations caused by this installation's VOC emissions.

- Emissions testing is not required for the equipment.

- An application to modify the facility's Part 70 Operating Permit is required for this installation within one year of equipment startup.

- Approval of this permit is recommended with special conditions.

**INSTALLATION DESCRIPTION**

Walsworth Publishing Company operates a printing installation in Marceline, Missouri. The company elected to take a 250 tons per year installation-wide VOC limit as part of this project to make the installation a minor source for construction permits. The facility was issued a Part 70 Operating Permit in 2008.

The following permits have been issued to Walsworth Publishing Company from the Air Pollution Control Program.

**Table 1: Permit History**

<table>
<thead>
<tr>
<th>Permit Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0195-010</td>
<td>Addition of a Komori Lithrone Model L-640-III offset printing press</td>
</tr>
<tr>
<td>0195-011</td>
<td>Addition of a Komori Lithrone model L-440-111 offset printing press</td>
</tr>
<tr>
<td>042000-013</td>
<td>Addition of four web presses</td>
</tr>
<tr>
<td>042001-009</td>
<td>Addition of a Komori lithographic press with a coater</td>
</tr>
<tr>
<td>052001-004</td>
<td>Addition of a five (5) color Komori lithographic press with a coater</td>
</tr>
<tr>
<td>062002-002</td>
<td>Installation of a six (6) color heat-set web press</td>
</tr>
<tr>
<td>102002-002</td>
<td>Installation of a Sakurai SC28/2011 screen press with associated screen making equipment</td>
</tr>
<tr>
<td>062003-022</td>
<td>Modification of an existing Komori press number K-5 and installation of four Creo Platemakers</td>
</tr>
<tr>
<td>012007-011</td>
<td>Installation of one Heidelberg 8-color lithographic printing press</td>
</tr>
<tr>
<td>122007-004</td>
<td>Installation of one Heidelberg 8-color lithographic printing press</td>
</tr>
</tbody>
</table>

**PROJECT DESCRIPTION**

Walworth Publishing Co. has applied for authority to construct one Baker Perkins G-14 lithographic web press and an associated natural gas dryer. The web press can use a maximum of 200,000 pounds per year of ink, fountain solution, blanket wash and cleaner combined. The dryer has a maximum design rate of 5.567 MMBtu/hr. There is no control device associated with the Baker Perkins G-14 press.
EMISSIONS/CONTROLS EVALUATION

VOC and HAPs emissions from ink usage were calculated by assuming that 80% of the VOC and HAPs in the ink are emitted while the remaining balance is retained. The VOC retention rate from ink usage is taken from an April 27, 2005 memorandum issued by the Director of the Air Pollution Control Program regarding the method that should be used in calculating VOC emissions from lithographic printing presses. VOC and HAPs emissions from fountain solutions, blanket wash and cleaners were calculated assuming that all of the VOC and HAPs are emitted. The VOC and HAPs content were taken from the Material Safety Data Sheets. The emissions from the combustion of natural gas were calculated using emission factors given in Environmental Protection Agency document, AP-42, *Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources*, Fifth Edition, Chapter 1.4, *Natural Gas Combustion* (7/98).

Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year.) Existing actual emissions were taken from the 2009 Emissions Inventory Questionnaire (EIQ). The facility has not yet submitted the 2010 EIQ. Existing potential emissions were taken from the previous permit (no. 012007-004). The installation accepted an installation-wide VOC limit of 250.0 tpy so it would not be a major source.

A majority of the equipment at the installation were permitted before 2005, when the Air Pollution Control Program calculated emissions from lithographic printing presses by assuming that all (100%) of the VOCs contained in the Ink are emitted. However, after 2005, the Air Pollution Control Program calculated emissions from lithographic printing presses by assuming that only 80% of the VOCs in heatset inks and 5% of the VOCs in nonheatset inks are emitted. Therefore, if the post-2005 procedures were used, the existing potential emissions of VOCs at this installation may be less than 250 tons per year. The installation was given the option of either recalculating the existing potential emissions using the post-2005 calculation procedures or keeping the pre-2005 calculations and accept the 250 tons per year VOC limit. The facility elected to keep the previous calculations and accept the 250 tons per year VOC limit so that the permit can be issued quickly without having to go through the procedures of recalculating emissions. However, the facility may use the post-2005 procedure in Attachment A to track the actual VOC emissions for compliance. In the future, the facility may submit an amendment requesting that the potential emissions of the installation be recalculated.
The following table provides an emissions summary for this project.

**Table 2: Emissions Summary (tons per year)**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PM$_{2.5}$</td>
<td>10.0</td>
<td>N/D</td>
<td>0.01</td>
<td>0.17</td>
<td>N/A</td>
</tr>
<tr>
<td>PM$_{10}$</td>
<td>15.0</td>
<td>N/D</td>
<td>0.01</td>
<td>0.17</td>
<td>N/A</td>
</tr>
<tr>
<td>SOx</td>
<td>40.0</td>
<td>N/D</td>
<td>0.00</td>
<td>0.01</td>
<td>N/A</td>
</tr>
<tr>
<td>NOx</td>
<td>40.0</td>
<td>N/D</td>
<td>0.21</td>
<td>2.18</td>
<td>N/A</td>
</tr>
<tr>
<td>VOC</td>
<td>40.0</td>
<td>260.21</td>
<td>58.0</td>
<td>40.22</td>
<td>&lt;250.0</td>
</tr>
<tr>
<td>CO</td>
<td>100.0</td>
<td>N/D</td>
<td>0.04</td>
<td>1.83</td>
<td>N/A</td>
</tr>
<tr>
<td>HAPs</td>
<td>10.0/25.0</td>
<td>8.26</td>
<td>N/D</td>
<td>0.07</td>
<td>N/A</td>
</tr>
<tr>
<td>Hexane</td>
<td>10.0</td>
<td>0.16</td>
<td>N/D</td>
<td>0.04</td>
<td>N/A</td>
</tr>
<tr>
<td>Xylene</td>
<td>10.0</td>
<td>0.47</td>
<td>N/D</td>
<td>0.014</td>
<td>N/A</td>
</tr>
<tr>
<td>Cumene</td>
<td>10.0</td>
<td>0.12</td>
<td>N/D</td>
<td>0.011</td>
<td>N/A</td>
</tr>
<tr>
<td>Ethylene Glycol</td>
<td>10.0</td>
<td>N/D</td>
<td>N/D</td>
<td>0.013</td>
<td>N/A</td>
</tr>
<tr>
<td>Toluene</td>
<td>10.0</td>
<td>N/D</td>
<td>N/D</td>
<td>0.026</td>
<td>N/A</td>
</tr>
</tbody>
</table>

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

**PERMIT RULE APPLICABILITY**

This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of VOCs are above the *de minimis* level.

**APPLICABLE REQUIREMENTS**

Walsworth Publishing 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. 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
  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 by April 1st, if submitting a hardcopy and by May 1st, if submitting online at [www.dnr.mo.gov/moeis/main/login](http://www.dnr.mo.gov/moeis/main/login), for the previous years’ emissions. Payment is due June 1st.
• 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

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, Construction Permits Required, I recommend this permit be granted with special conditions.

________________________________  _________________________________
Chia-Wei Young                      Date
Environmental Engineer

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

• The Application for Authority to Construct form, dated December 16, 2010, received January 13, 2011, designating Walsworth Publishing Company as the owner and operator of the installation.


• Northeast Regional Office Site Survey, dated January 25, 2011.
Attachment A – VOC Compliance Worksheet

Walsworth Publishing Company
Linn County (S29, T57N, R18W)
Project Number: 2011-01-028
Installation ID Number: 115-0001
Permit Number: _________________

This sheet covers the month of ________________ in the year ______________

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Amount of Material Used (gallons)</th>
<th>Density (lbs/gal)</th>
<th>VOC Content (Weight %)</th>
<th>1VOC Emissions (Tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

From Natural Gas Combustion

<table>
<thead>
<tr>
<th>Natural Gas Usage (mmscf)</th>
<th>Emission Factor (lbs/mmscf)</th>
<th>2VOC Emissions (lbs)</th>
<th>3VOC Emissions (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4Total VOC emissions calculated for this month (tons) =

5Total VOC emissions from the previous eleven (11) months (tons) =

6Current 12-Month VOC emissions (tons) =

Note 1: VOC emissions (tons) can be calculated using the following:
For lithographic heatset inks: [Amount of Material Used (gallons)] x [Density (lbs/gal)] x [VOC Content (Wt. %)/100] x 0.0005 x 0.80, Assumes 80% loss of VOCs.
For lithographic nonheatset inks: [Amount of Material Used (gallons)] x [Density (lbs/gal)] x [VOC Content (Wt. %)/100] x 0.0005 x 0.05, Assumes 5% loss of VOCs.
For all other chemicals: [Amount of Material Used (gallons)] x [Density (lbs/gal)] x [VOC Content (Wt. %)/100] x 0.0005, Assumes 100% loss of VOCs.

Note 2: VOC emissions (lbs) from natural gas combustion can be calculated using [Natural Gas Usage (mmscf)] x [Emission Factor (lbs/mmscf)]

Note 3: VOC emissions (tons) from natural gas combustion can be calculated using [VOC Emissions (lbs)] ÷ 2,000 lbs/ton

Note 4: Total VOC emissions (tons) for this month is the sum of the VOC emissions (tons) from all of the sources.

Note 5: Total VOC emissions (tons) from the previous eleven (11) months can be obtained from the adding the Total VOC emissions from Attachment A of the previous eleven (11) months.

Note 6: Current 12-Month VOC emissions(tons) are the sum of Total VOC emissions calculated for this month and the Total VOC emissions from the previous eleven (11) months.

A 12-Month VOC emissions total of less than 250.0 tons from the entire installation indicates compliance.
Mr. Gary O'Toole  
General Manager  
Walsworth Publishing Company  
306 North Kansas Ave  
Marceline, MO 64658


Dear Mr. O'Toole:

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, 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.

If you have any questions regarding this permit, please do not hesitate to contact Chia-Wei Young, 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:cyl

Enclosures

c: Northeast Regional Office  
PAMS File: 2011-01-028

Permit Number: