

## 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: **022007 - 015** Project Number: 2006-11-074

Parent Company: Magnet Holdings, LLP

Parent Company Address: 7 Chamber Drive, Washington, MO 63090

Installation Name: The Bag Factory (A Division of Magnet, LLC)

Installation Address: 1100 Stafford Street, Washington, MO 63090

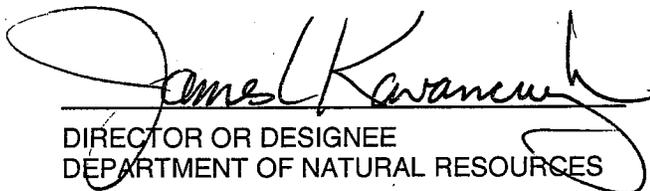
Location Information: Franklin County, S22, T44N, R1W

Application for Authority to Construct was made for the addition of silk screen printing equipment. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

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- Standard Conditions (on reverse) are applicable to this permit.
- Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

FEB 28 2007

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 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 with 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.	
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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."*

The Bag Factory (A Division of Magnet, LLC)  
Franklin County, S22, T44N, R1W

1. The Bag Factory (A Division of Magnet, LLC) shall keep the ink solvents and cleaning solutions in sealed containers whenever the materials are not in use. The Bag Factory (A Division of Magnet, LLC) shall provide and maintain suitable, easily read, permanent markings on all inks, solvent and cleaning solution containers used with these equipment.
2. The Bag Factory (A Division of Magnet, LLC) shall not operate any combustion equipment.

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

Project Number: 2006-11-074  
Installation ID Number: 071-0218  
Permit Number:

The Bag Factory (A Division of Magnet, LLC)  
1100 Stafford Street  
Washington, MO 63090

Complete: 11/21/2006  
Reviewed: 12/22/2006

Parent Company:  
Magnet Holdings, LLP  
7 Chamber Drive  
Washington, MO 63090

Franklin County, S22, T44N, R1W

REVIEW SUMMARY

- The Bag Factory (A Division of Magnet, LLC) has applied for authority to install silk screen printing equipment at their existing location (071-0218) in Franklin County.
- In February and October of 2006, Magnet LLC requested to add equipment to this site in three (3) separate projects (#2006-02-070, 2006-10-046, 2006-10-064). For permitting purposes, the equipment added in these projects are combined and permitted with the silk screen printing equipment in this project (#2006-11-074).
- Magnet, LLC currently owns three separate sites in Washington, MO (Site ID: 071-0153, 071-0218, and 071-0208). Site 071-0208 has been closed since September, 2006, and currently has no equipment. For permitting purposes, the Air Pollution Control Program considers these three sites as one installation.
- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment. HAPs of concern from this process are xylene, ethyl benzene, hydroquinone, methyl isobutyl ketone, and hydrochloric acid. Various types of glycol ethers and esters emissions are also expected. Only monoethers and diethers of ethylene glycol, diethylene glycol, and triethylen glycol R-(OCH<sub>2</sub>CH<sub>2</sub>)<sub>n</sub>-OR' where n=1, 2, or 3, and 2, 4-D esters are considered HAPs. The MSDS do not differentiate between the types. Therefore, for emissions analysis, all glycol ethers and esters were considered HAPS.
- 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. Subpart KK "National Emissions Standards for Hazardous Air Pollutants for the Printing and Publishing Industry" of

the MACT regulations does not apply to the proposed equipment because the installation is not a major source for hazardous air pollutants.

- No air pollution control equipment is being used in association with the new equipment.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of pollutant are below de minimis levels.
- This installation is located in Franklin County, a nonattainment area for ozone (O<sub>3</sub>) and an attainment area for all other 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.
- Emissions testing is not required for the source.
- The installation is required to apply for either an Intermediate or a Part 70 operating permit within thirty (30) days after equipment startup.
- Approval of this permit is recommended with special conditions.

#### INSTALLATION DESCRIPTION

Magnet, LLC owns three separate sites in Washington, Missouri (071-0153, 071-0208, and 071-0218). For permitting purposes, all three sites shall be considered as one installation. Site 071-0208 has been closed since September, 2006, and currently has no equipment.

Magnet, LLC produces a variety of advertising magnets. Types of printing processes taking place at the plant include digital printing, silk screen printing, flexographic printing, and lithographic printing. The company also produces printed sheets of paper or metal through a silk screen printing process. There are also pad printing operations at the installation.

The following permits have been issued to Magnet, LLC from the Air Pollution Control Program. All permits were issued to site 071-0153. No permits have been issued to the other two sites.

**Table 1: List of Permits**

Permit Number	Completion Date	Description
0396-001	3/1/1996	Installation of flexographic printer.
0898-025	8/24/1998	Section 5 permit issued for installation of lithographic press.
032002-001	3/5/2002	Section 5 permit issued for installation of digital press.
052002-028	5/29/2002	Section 5 permit issued for installation of flexographic press and plate maker.
062003-011	6/17/2003	Section 5 permit to install a computer-to-plate (CTP) system to prepare lithographic printing plates directly from digital files and a lithographic printing press.
082003-005	8/13/2003	Section 5 permit issued for installation of UV roller coaters. Also combined equipment from 062003-011.
062003-011A	9/10/2003	Amending applicable requirements.

The following NOV's have been issued to site 071-0153 in the last five years.

**Table 2: List of NOV's**

NOV Number	Date	Description
2410SL	5/14/2002	Violation of 10 CSR 10-6.065 <i>Operating Permits</i> .
2637SL	1/5/2003	Violation of 10 CSR 10-5.442 <i>Control of Emissions from Lithographic Printing Operations</i> . The plant was not maintaining records as required and not processing cleaning cloths in such way as to recover or destroy the solvent.
043AS2AP	1/5/2003	Violation of 10 CSR 10-6.065 <i>Operating Permits</i> .

No NOV's have been issued to the other two (2) sites.

### PROJECT DESCRIPTION

In February, 2006, Magnet, LLC applied for authority to install equipment for a silk screen printing operation at site 071-0218 (project 2006-02-070). Then, in October, 2006, Magnet, LLC applied for authority to install a Heidelberg 6-color sheet feed offset lithographic printing press and a new Kepes sheet feed converting hybrid machine at site 071-0218 (project 2006-10-064). Magnet, LLC also sent a letter in October, 2006, indicating that the company wanted to relocate a pad printing operation located at site 071-0208 to site 071-0218 (project 2006-10-046). It was determined that none of these projects required a permit and no permit required letters were sent to the company for each project.

Magnet, LLC now proposes to add equipment used for a silk screen printing operation to site 071-0218. The equipment includes two (2) screening machines, an embroider sewing machine, a heat transfer machine, and two (2) conventional ovens (electric). These equipment will be inserted into the current process at the site. it was decided that all the equipment added to the site in 2006 should be considered the same project, and this permit is written for all the equipment added to the site in 2006.

## EMISSIONS/CONTROLS EVALUATION

VOC and HAPS emissions are expected due to the chemicals used in the silk screening process. VOC and HAPs emissions were calculated based on historical usage of chemicals and their VOC and HAPs composition. It was assumed that all VOC and HAPs evaporate onsite. No control device is used. Existing potential emissions of the installation were calculated by adding emissions from previous projects. Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year). Based on the potential emissions of the equipment (34.31 tons per year), this permit is issued under Section (5).

Before this project, the installation was considered a minor source for VOCs because it had the potential to emit 75.53 tons per year of VOCs. With the addition of 34.31 tons per year of VOCs from this project, the installation will now have the potential to emit 109.84 tons of VOCs per year. Since this installation is located in a non-attainment area, major source level for VOCs and NO<sub>x</sub> is 100 tons per year. Therefore, the installation will now be considered a major source for VOCs. Please be aware that this installation is only a major source for VOCs, but not other criteria pollutants.

Regarding its operating permit requirements, the installation can either apply for a part 70 operating permit, or take a limit of 100 tons per year of VOC to permit the installation as an intermediate source.

The following table provides an emissions summary for this project.

Table 1: Emissions Summary (tons per year)

Pollutant	Regulatory De Minimis Levels	*Existing Potential Emissions	Existing Actual Emissions (EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM <sub>10</sub>	15.0	N/A	N/A	N/A	N/A
SO <sub>x</sub>	40.0	N/A	N/A	N/A	N/A
NO <sub>x</sub>	40.0	N/A	N/A	N/A	N/A
VOC	40.0	75.53	9.85	34.31	N/A
CO	100.0	N/A	N/A	N/A	N/A
HAPs	10.0/25.0	3.68	N/D	0.74	N/A

N/A = Not Applicable

\*Existing potential calculated by adding potential emissions from previous projects (2002-04-046, 2003-06-070, 2003-12-110, 2004-09-006)

## 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 pollutant are below de minimis levels.

## APPLICABLE REQUIREMENTS

The Bag Factory (A Division of Magnet, LLC) 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 April 1 for the previous year's emissions.
- *Operating Permits*, 10 CSR 10-6.065
- *Control of Odors in the Ambient Air*, 10 CSR 10-5.160.
- *Control of Emissions from Lithographic Printing Operations*, 10 CSR 10-5.442.

## 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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Chia-Wei Young  
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 11/16/2006, received 11/17/2006, designating Magnet Holdings, LLP as the owner and operator of the installation.
- St. Louis Regional Office Site Survey.

Mr. Jim Achenbach  
VP of Engineering/Strategic Initiatives  
The Bag Factory (A Division of Magnet, LLC)  
1100 Stafford Street  
Washington, MO 63090

RE: New Source Review Permit - Project Number: 2006-11-074

Dear Mr. Achenbach:

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 operating permit, once amended, 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 me at (573) 751-4817, or you may write to me at the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale  
New Source Review Unit Chief

KBH:cwyl

Enclosures

c: St. Louis Regional Office  
PAMS File 2006-11-074

Permit Number: