

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: 042009-003 Project Number: 2008-12-059

Parent Company: Sabreliner Corporation

Parent Company Address: 7733 Forsyth Boulevard, Suite 1500, St. Louis, MO 63105

Installation Name: Sabreliner Corporation Perryville

Installation Address: 1390 Highway H, Perryville, MO 63775

Location Information: Perry County, S31, T36N, R11E

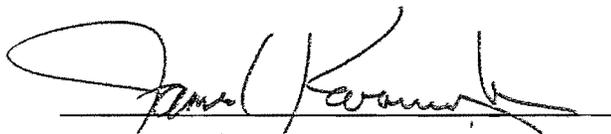
Application for Authority to Construct was made for:

The installation of a paint hangar. 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.

APR -- 2 2009

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 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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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."

Sabreliner Corporation Perryville
Perry County, S31, T36N, R11E

1. **Superseding Condition**
The special conditions of this permit supersede Special Condition 1.B. found in the previously issued construction permit (Permit Number 012008-006) from the Air Pollution Control Program.
2. **Emission Limitation**
 - A. Sabreliner Corporation shall emit less than ten (10) tons individually or twenty-five (25) tons combined of Hazardous Air Pollutants (HAPs) from the entire installation in any consecutive 12-month period. Attachment A, Attachment B or equivalent forms approved by the Air Pollution Control Program shall be used to demonstrate compliance with this special condition.
 - B. Sabreliner Corporation shall emit less than 0.02 tons of 1,6-hexamethylene diisocyanate (HDI) from the paint hangar in any consecutive 12-month period. Attachment C or equivalent forms approved by the Air Pollution Control Program shall be used to demonstrate compliance with this special condition.
3. **Usage Limitation**
 - A. Sabreliner Corporation shall not use more than 730 gallons of chromium (VI)-containing primer in the paint hangar in any consecutive 12-month period.
 - B. Attachment D or equivalent forms approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Condition 3.A.
4. **Control Device – Filtration System**
 - A. Sabreliner Corporation shall control particulate matter less than ten (10) microns in diameter (PM₁₀) emissions from the paint hangar by using a three-stage filtering system as specified in the permit application. The filtering system shall be operated and maintained in accordance with the manufacturer's specifications.

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SPECIAL CONDITIONS:

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

- B. The filtering system shall be equipped with a gauge or meter that indicates the pressure drop across the control device. These gauges or meters shall be located such that the Department of Natural Resources' personnel may easily observe them.
- C. Replacement filters shall be kept on hand at all times. All components of the three-stage filter shall be made of fibers appropriate for operating conditions expected to occur (e.g. temperature limits, acidic and alkali resistance, abrasion resistance, etc.)
- D. Sabreliner Corporation shall monitor and record the operating pressure drop across the filtering system at least once every twenty-four (24) hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
- E. Sabreliner Corporation shall maintain an operating and maintenance log for the filtering system 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, replacements, etc.
- 5. Sabreliner Corporation shall keep the surface coating material in sealed containers whenever the materials are not in use. Sabreliner Corporation shall provide and maintain suitable, easily read, permanent markings on all coatings containers used with this equipment.
- 6. Use of Alternative Paints, Primers and Activators for the Paint Hangar
 - A. When considering using an alternative material for the paint hangar that is different than a material listed in the Application for Authority to Construct, Sabreliner Corporation must calculate the potential emissions of volatile organic compounds (VOCs) and each individual HAP in the alternative material.
 - B. Sabreliner Corporation must seek approval from the Air Pollution Control Program before use of the alternative material in the following cases:
 - 1. If the potential VOC emissions for the alternative material is equal to or greater than 12.80 tons per year, or

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SPECIAL CONDITIONS:

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

2. If the potential emissions of each individual HAP for the alternative material is equal to or greater than its respective Screening Model Action Levels (SMAL), for any HAP with SMAL less than ten (10) tons per year. A list of current SMAL values can be obtained by contacting the Air Pollution Control Program.

7. Sabreliner Corporation 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.

8. Sabreliner Corporation 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 required in this permit indicate that the source exceeds the limitation of in the Special Conditions of this permit.

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

Project Number: 2008-12-059
Installation ID Number: 157-0002
Permit Number:

Sabreliner Corporation Perryville
1390 Highway H
Perryville, MO 63775

Complete: January 9, 2009

Parent Company:
Sabreliner Corporation
7733 Forsyth Boulevard, Suite 1500

Perry County, S31, T36N, R11E

REVIEW SUMMARY

- Sabreliner Corporation has applied for authority to install a paint hangar and associated heaters.
- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment. HAPs of concern from this process are hexavalent chromium (chromium (VI)) and 1,6-hexamethylene diisocyanate (HDI).
- None of the New Source Performance Standards (NSPS) apply to the proposed equipment.
- The Maximum Achievable Control Technology (MACT) standard, 40 CFR Part 63, Subpart HHHHHH, *National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources* applies to the proposed equipment.
- The MACT standard, 40 CFR Part 63, Subpart GG, *National Emission Standards for Aerospace Manufacturing and Rework Facilities* does not apply to the proposed equipment because the conditioned potential of HAPs are below major source levels.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) regulations apply to the proposed equipment.
- A three-stage filtering system is being used to control PM₁₀ and chromium (VI) emissions from the paint hangar.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of all pollutants are below de minimis levels.

- This installation is located in Perry 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 unconditioned potential emissions of chromium (VI) and conditioned potential emissions of HDI are below their respective Screening Model Action Levels (SMAL).
- The installation shall apply for an Intermediate operating permit within 90 days of equipment startup or a Part 70 operating permit within one (1) year of equipment startup.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

Sabreliner Corporation owns and operates an existing aircraft maintenance, repair and refurbishing installation in Perry County. The plant is located at the Perryville Municipal Airport approximately 1.5 miles to the west of the intersection of Highway H and Highway 51. Activities at this installation include paint stripping, primer and top-coat application, parts washing and engine testing.

The following construction permits have been issued to the installation.

Table 1: Previous Construction Permits Issued to 157-0002

Permit No.	Date	Description
022001-013	2/23/2001	Construction of Paint Booth (Permit Rescinded during Project 2002-01-025)
012008-006	1/23/2008	Construction of Paint Booth

In 2001, a construction permit (Permit No. 022001-013, Project No. 2000-09-010) was issued to the installation for the construction of a paint booth. However, this permit was rescinded in 2002 because the paint booth was a grandfathered operation that the facility decided to move to another area of the plant and should not have required a permit. In the year 2000, the facility applied for and received a basic operating permit, but this operating permit expired in 2006. During the review of project 2000-09-010, it was determined that the potential emissions for the entire facility are above major source levels for operating permits. The fact that the permit was rescinded does not change this determination and the facility will now be required to submit either an intermediate or a Part 70 operating permit application.

PROJECT DESCRIPTION

Sabreliner Corporation has applied for authority to convert an existing hangar to a paint hangar. The paint hangar is equipped with a natural gas fired make-up air heater (HV-1) rated at a maximum of 0.275 MMBTU/hr and two (2) natural gas industrial heaters (MAU-1 and MAU-2) rated at 1.629 MMBTU/hr each.

DeVillbiss high-volume low-pressure (HVLV) spray guns will be utilized in the paint hangar. The spray guns are capable of delivering a maximum of 7.5 gallons of paint/primer per hour, but due to operational constraints, such as spraying and drying times, the spray guns will never be used at its maximum design rate. Sabreliner Corporation expects to paint, in this paint hangar, a maximum of one plane every five (5) days while using a maximum of 65 gallons of paint and primer per plane. The installation can paint a maximum of 73 planes per year in this paint hangar using approximately 4,745 gallons of paint and primer per year.

EMISSIONS/CONTROLS EVALUATION

VOC and HAPs are the main pollutants of concern for this review. For VOCs and volatile HAPs, including HDI, emission were calculated by taking the VOC and HAPs content given in the Material Safety Data Sheets (MSDS) of each chemical and assuming that 100% of the VOC and HAPs are emitted. For PM₁₀ and chromium (VI), which is a particulate HAP, emissions were calculated assuming that 65% of the solids or chromium (VI) in the paint and primer are transferred to the surface and the remaining balance are emitted through the filter. The transfer efficiency was assumed to be 65% due to the use of an HVLV spray gun. The filter efficiency was assumed to be 99%.

Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8,760 hours per year.) The following table provides an emissions summary for this project.

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (EIQ)	Potential Emissions of the Application	New Project Conditioned Potential	New Installation Conditioned Potential
PM ₁₀	15.0	N/D	N/D	0.15	N/A	N/A
SO _x	40.0	N/D	N/D	0.0092	N/A	N/A
NO _x	40.0	N/D	N/D	1.53	N/A	N/A
VOC	40.0	>250	N/D	12.80	N/A	N/A
CO	100.0	N/D	N/D	1.24	N/A	N/A
HAPs	10.0/25.0	<10.0/25.0	N/D	1.02	N/A	<10.0/25.0
Chromium (VI)	*0.002	N/D	N/D	0.001	N/A	N/A
HDI	*0.02	N/D	N/D	0.045	<0.02	N/A

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

*Number signifies the Screening Model Action Level and not the De Minimis Level.

Sabreliner Corporation accepted a 1,6-Hexamethylene Diisocyanate (HDI) limit of 0.02 tons per twelve (12) consecutive months so it will not have to perform HAPs modeling. The only source of HDI is the activator used for the colors and the paint hangar is expected to use approximately 150 gallons of color activators. The limit of 0.02 tons per twelve (12) consecutive months allows the paint hangar to use 481 gallons of color activators per twelve (12) consecutive months period.

The calculation for the chromium (VI) emission is based on 730 gallons of primer containing chromium (VI). Therefore, the hangar is limited in this permit to using 730 gallons of chromium (VI) containing primer in any consecutive 12-month period.

Please note that the limits for chromium (VI) and HDI are for the paint hangar only and not the entire installation.

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Conditioned potential emissions of all pollutants are below de minimis levels.

APPLICABLE REQUIREMENTS

Sabreliner Corporation 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 June 1 for the previous year's emissions.
- *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 10-3.090

SPECIFIC REQUIREMENTS

- *Maximum Achievable Control Technology (MACT) Regulations, 10 CSR 10-6.075, National Emission Standards for, 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources Subpart HHHHHH*
- *Maximum Allowable Emissions of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating, 10 CSR 10-3.060*

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.

Chia-Wei Young
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated December 23, 2008, received December 29, 2008, designating Sabreliner Corporation as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Southeast Regional Office Site Survey, dated January 26, 2009.

Mr. Terry Miner
Director of EHS
Sabreliner Corporation
1390 Highway H
Perryville, MO 63775

RE: New Source Review Permit - Project Number: 2008-12-059

Dear Mr. Miner:

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 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 by telephone at (573) 751-4817. Thank you for your time and attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale
New Source Review Unit Chief

KBH:cwyk

Enclosures

c: Southeast Regional Office
PAMS File: 2008-12-059

Permit Number: