

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: **102014-011**

Project Number: 2014-07-037
Installation Number: 047-0197

Parent Company: Paint Removal Systems, Inc.

Parent Company Address: 14310 NW 62nd Pl, Parkville, MO 64152

Installation Name: Paint Removal Systems, Inc.

Installation Address: 1544 Howell St., North Kansas City, MO 64116

Location Information: Clay County, S23, T50N/S, R33E/W

Application for Authority to Construct was made for:
Pyrolysis Oven. 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.

OCT 16 2014

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 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 sources(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.	2014-07-037

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."

Paint Removal Systems, Inc.
Clay County, S23, T50N/S, R33E/W

1. Operational Requirements – Burn-Off Oven (EP01)
 - A. Paint Removal Systems, Inc. shall only remove non-chlorinated, non-hazardous coatings from metal parts with the burn-off oven.
 - B. Paint Removal Systems, Inc. shall only combust natural gas as fuel in the oven.
 - C. Paint Removal Systems, Inc. shall use a direct flame afterburner to control emissions from the burn-off oven. The afterburner shall be operated at a minimum of 1,400 degrees Fahrenheit with more than a one-half (1/2) second residence time to assure a minimum combustion efficiency of 99.9%.
 - D. The burn-off oven shall be equipped with an electronic controlled temperature gauge with digital readout, which is able to monitor and display the temperature in the second combustion chamber to an accuracy of plus or minus two percent (2%).
2. Record Keeping and Reporting Requirements
 - A. Paint Removal Systems, Inc. shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.
 - B. Paint Removal Systems, Inc. shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after the end of the month during which any record required by this permit show an exceedance of a limitation imposed by this permit.

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

Project Number: 2014-07-037
Installation ID Number: 047-0197
Permit Number:

Paint Removal Systems, Inc.
1544 Howell St.
North Kansas City, MO 64116

Complete: August 18, 2014

Parent Company:
Paint Removal Systems, Inc.
14310 NW 62nd PI
Parkville, MO 64152

Clay County, S23, T50N/S, R33E/W

REVIEW SUMMARY

- Paint Removal Systems, Inc. has applied for authority to install a Pyrolysis Oven.
- HAP emissions are expected from the natural gas combustion but only in amounts less than their respective SMAL.
- None of the New Source Performance Standards (NSPS) apply to the installation. 40 CFR 60, Subpart E, *Standards of Performance for Incinerators*, does not apply to the burn-off ovens because the ovens do not burn solid wastes as defined in this subpart. 40 CFR 60, Subpart CCCC, *Emission Guidelines and Compliance Times for Industrial Solid Waste Incineration Units that Commenced Construction On or Before November 30, 1999*, does not apply to the burn-off ovens because burn-off ovens are not considered incinerators under this subpart. 40 CFR 60, Subpart MM, *Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations*, does not apply to this installation because it is not an automobile or truck assembly plant.
- None of the currently promulgated MACT regulations apply to the proposed equipment.
- An afterburner is being used to control the PM, PM₁₀, PM_{2.5}, VOCs, HAPs and CO 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 all pollutant are below de minimis levels. All incinerators are required to get a construction permit according to state definition.
- This installation is located in Clay County, a maintenance area for ozone and an attainment area for all other criteria pollutants.

- 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 since potential emissions of the application are below de minimis levels.
- Emissions testing are 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

Paint Removal Systems, Inc. (FEIN # 46-0835843; MO tax ID # 2520141170) was incorporated in August of 2012. The business provides cleaning services to painting facilities, and is currently exclusive to OEM's (Original Equipment Manufacturer), such as Ford Motor Company and Harley Davidson. Paint Removal Systems, Inc. (PRS) currently utilizes subcontracted services from vendors with burn-off oven to convert cured paint on painting fixtures/tools/aids, or perform an abrasive blasting process to remove any residual ash. PRS handles all the transportation, documentation, sorting, quality assurance, and dimensional gauging of the subcontracted services for burn-off purposes. PRS also self-performs high pressure water blasting operations for larger fixtures (some up to 23' long) that will not fit into the burn-off/pyrolysis oven and to fixtures that are made of synthetics (nylon/Teflon) that would be damaged if exposed to the oven temperatures. The high pressure water stream strips the cured paint from the fixtures, which is then separated from the effluent and discarded via non-hazardous disposal services.

No permits have been issued to Paint Removal Systems, Inc. from the Air Pollution Control Program.

PROJECT DESCRIPTION

Paint Removal Systems, Inc. is a new installation and plans to install a Controlled Pyrolysis™ Cleaning Furnace (Burn-Off Furnace) for removing small amounts of cured organic material such as cured paint, cured varnish, polymer, grease, etc., from metal parts such as paint hangers, electric motor stators, dies, breaker plates, extrusion screws, etc. It will be used in the same manner that is currently being performed by subcontracted vendors. Cured/baked painted fixtures/tools/aids get processed within the oven converting the coatings into ash. The proposed oven is longer than the oven that are owned by vendors, which will allow PRS to "in-source" all of the currently subcontracted services, plus allow PRS to utilize the burn-off/pyrolysis oven for some of the larger fixtures and thus reduce the amount of high pressure water blasting. The burn-off oven, Model PRC-1651L, is rated at 1.8 MMBtu/hr and combusts natural gas as fuel. An afterburner will control emissions from the oven.

EMISSIONS/CONTROLS EVALUATION

There will be emissions from both natural gas combustion and the combustion of the removed coatings from the burn-off oven (EP1). A stack test was performed by Pollution Control Products, December 22, 1994 for the Controlled Pyrolysis Furnaces with J-121 Burners. The furnace emission information was used to calculate emissions for this permit.

The following table provides an emissions summary for this project. Since this is a new facility, there are no Existing Potential Emissions and no Existing Actual Emissions from the previous year's EIQ. Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year).

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (EIQ)	^a Potential Emissions of the Application
PM	25.0	N/A	N/A	N/D
PM ₁₀	15.0	N/A	N/A	0.291
PM _{2.5}	10.0	N/A	N/A	0.291
SOx	40.0	N/A	N/A	0.039
NOx	40.0	N/A	N/A	0.585
VOC	40.0	N/A	N/A	0.381
CO	100.0	N/A	N/A	1.095
GHG (CO ₂ e)	100,000	N/A	N/A	N/D
GHG (mass)	0.0 / 100.0 / 250.0	N/A	N/A	N/D
HAPs	10.0/25.0	N/A	N/A	N/D

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

^a Emission rates taken from the afterburner stack test (December 22, 1994) data provided by Production Control Products Co.

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 all pollutants are below de minimis levels.

APPLICABLE REQUIREMENTS

Paint Removal Systems, Inc. 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
- *Operating Permits*, 10 CSR 10-6.065 (Basic Operating Permit)
- *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

SPECIFIC REQUIREMENTS

- *Restriction of Emission of Sulfur Compounds*, 10 CSR 10-6.260
 - Equipment is subject to this rule and is in compliance.

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.

Kathy Kolb
New Source Review Unit

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated July 15, 2014, received July 18, 2014, designating Paint Removal Systems, Inc. as the owner and operator of the installation.
- Pollution Control Products Co. stack test results, December 22, 1994.

APPENDIX A

Abbreviations and Acronyms

%percent	m/s meters per second
°Fdegrees Fahrenheit	Mgal 1,000 gallons
acfmactual cubic feet per minute	MW megawatt
BACT Best Available Control Technology	MHDR maximum hourly design rate
BMPs Best Management Practices	MMBtu Million British thermal units
Btu British thermal unit	MMCF million cubic feet
CAM Compliance Assurance Monitoring	MSDS Material Safety Data Sheet
CAS Chemical Abstracts Service	NAAQS ... National Ambient Air Quality Standards
CEMS Continuous Emission Monitor System	NESHAPs National Emissions Standards for Hazardous Air Pollutants
CFR Code of Federal Regulations	NO_x nitrogen oxides
COcarbon monoxide	NSPS New Source Performance Standards
CO₂carbon dioxide	NSR New Source Review
CO₂ecarbon dioxide equivalent	PM particulate matter
COMS Continuous Opacity Monitoring System	PM_{2.5} particulate matter less than 2.5 microns in aerodynamic diameter
CSR Code of State Regulations	PM₁₀ particulate matter less than 10 microns in aerodynamic diameter
dscfdry standard cubic feet	ppm parts per million
EQ Emission Inventory Questionnaire	PSD Prevention of Significant Deterioration
EP Emission Point	PTE potential to emit
EPA Environmental Protection Agency	RACT Reasonable Available Control Technology
EU Emission Unit	RAL Risk Assessment Level
fpsfeet per second	SCC Source Classification Code
ft feet	scfm standard cubic feet per minute
GACT Generally Available Control Technology	SDS Safety Data Sheet
GHG Greenhouse Gas	SIC Standard Industrial Classification
gpm gallons per minute	SIP State Implementation Plan
gr grains	SMAL Screening Model Action Levels
GWP Global Warming Potential	SO_x sulfur oxides
HAP Hazardous Air Pollutant	SO₂ sulfur dioxide
hr hour	tph tons per hour
hp horsepower	tpy tons per year
lb pound	VMT vehicle miles traveled
lbs/hr pounds per hour	VOC Volatile Organic Compound
MACT Maximum Achievable Control Technology	
µg/m³micrograms per cubic meter	

Mr. Michael Blank, CEO
Paint Removal Systems, Inc.
14310 NW 62nd PL
Parkville, MO 64152

RE: New Source Review Permit - Project Number: 2014-07-037

Dear Mr. Blank:

Enclosed with this letter is your permit to construct. Please study it carefully and refer to Appendix A for a list of common abbreviations and acronyms used in the permit. Also, note the special conditions 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 were adversely affected by this permit decision, you may be entitled to pursue an appeal before the administrative hearing commission pursuant to Sections 621.250 and 643.075.6 RSMo. To appeal, you must file a petition with the administrative hearing commission within thirty 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 administrative hearing commission, whose contact information is: Administrative Hearing Commission, Truman State Office Building, Room 640, 301 W. High Street, P.O. Box 1557, Jefferson City, Missouri 65102, phone: 573-751-2422, fax: 573-751-5018, website: www.ao.mo.gov/ahc.

If you have any questions regarding this permit, please do not hesitate to contact Kathy Kolb, at the Department of Natural Resources' 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

Susan Heckenkamp
New Source Review Unit Chief

SH:shl

Enclosures

c: Kansas City Regional Office
PAMS File: 2014-07-037
Permit Number: