

PERMIT BOOK

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: **102014-003**

Project Number: 2014-07-035
Installation Number: 095-0298

Parent Company: Clarcor Inc.

Parent Company Address: 840 Crescent Centre Dr, Suite 600, Franklin, TN 37067

Installation Name: Clarcor Industrial Air

Installation Address: 417 SE Thompson, Lee's Summit, MO 64082

Location Information: Jackson County, S17, T47N, R31W

Application for Authority to Construct was made for:
a coating process line unit with a thermal oxidizer to abate volatile organic compound emissions. 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 - 2 2014

EFFECTIVE DATE

A handwritten signature in black ink, appearing to read "Kyma L. Rowe".

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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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."

Clarcor Industrial Air
Jackson County, S17, T47N, R31W

1. Control Device Requirement - Thermal Oxidizer
 - A. Clarcor Industrial Air shall control emissions from Coating Line EP-1 and 5-Stage Tenter Curing Oven EP-2 using thermal oxidizer CD-1 as specified in the permit application.
 - B. The thermal oxidizer must be in use at all times when either Coating Line EP-1 or 5-Stage Tenter Curing Oven EP-2 or both are in operation.
 - C. The operating temperature of the thermal oxidizer shall be continuously monitored and recorded during operations. The operating temperature of the thermal oxidizer shall be maintained at a minimum of 1500° Fahrenheit temperature of the oxidizer.
 - D. Clarcor Industrial Air shall maintain a copy of the thermal oxidizer manufacturer's performance warranty on site.
 - E. The thermal oxidizer shall be operated and maintained in accordance with the manufacturer's specifications. Clarcor Industrial Air shall maintain an operating and maintenance log for the thermal oxidizer 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, and replacements, etc.
2. Record Keeping and Reporting Requirements
 - A. Clarcor Industrial Air 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. These records shall include MSDS for all materials used.

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SPECIAL CONDITIONS:

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

- B. Clarcor Industrial Air 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: 2014-07-035
Installation ID Number: 095-0298
Permit Number:

Clarcor Industrial Air
417 SE Thompson
Lee's Summit, MO 64082

Complete: July 17, 2014

Parent Company:
Clarcor Inc.
840 Crescent Centre Dr, Suite 600
Franklin, TN 37067

Jackson County, S17, T47N, R31W

REVIEW SUMMARY

- Clarcor Industrial Air has applied for authority to construct a coating process line unit with a thermal oxidizer to abate volatile organic compound emissions.
- HAP emissions are not expected from the proposed equipment.
- 40 CFR 60 Subpart VVV, "Standards of Performance for Polymeric Coating of Supporting Substrates Facilities" applies to the equipment.
- None of the NESHAPs apply to this installation. None of the currently promulgated MACT regulations apply to the proposed equipment. 40 CFR 63 Subpart HHHHHH, *National Emissions Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources* does not apply because the surface being coated is not fabric.

10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds* does not apply to the oven or thermal oxidizer because they burn exclusively pipeline grade natural gas.

10 CSR 10-2.230, *Control of Emissions From Industrial Surface Coating Operations*, does not apply to the coating line because the mesh being coated is not a fabric.

- A thermal oxidizer is being used to control the VOC 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 are conditioned below de minimis levels by requiring the use of a thermal oxidizer.

- This installation is located in Jackson 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 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.
- 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

Clarcor Industrial Air, formerly BHA Technologies, Inc. (BHA), manufactures expanded polytetrafluoroethylene (ePTFE) in Lee's Summit, Missouri. Polytetrafluoroethylene, PTFE, also known as Teflon®, is expanded to form a product used in a number of applications such as HEPA filters, industrial filtration media, and health care products. The porous nature of ePTFE provides a controlled level of air permeability. The installation is a minor source and has a Basic Operating Permit which will expire July 25, 2016.

The following New Source Review permits have been issued to Clarcor Industrial Air from the Air Pollution Control Program.

Table 1: Permit History

Permit Number	Description
012004-009	Section 6 New Source Review Permit (Project 2003-09-058)
N/A	Basic Operating Permit (Project 2006-07-079)
N/A	Basic Operating Permit Renewal (Project 2011-01-022)

No NOEE/NOV's have been issued to Clarcor Industrial Air in the last five years.

PROJECT DESCRIPTION

Clarcor Industrial Air intends to install a dip tank/spray coating system (EP-1), a 12.5 MMBtu/hr 5-stage curing oven (EP-2) and 4 MMBtu/hr thermal oxidizer to control VOC emissions.

EMISSIONS/CONTROLS EVALUATION

The emission factors used in this analysis were obtained from the EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition. Emissions from the oven and thermal oxidizer were calculated using emission factors from AP-42, Section 1.4 “Natural Gas Combustion”. It was assumed that the entire VOC content of the coating used was emitted to the atmosphere as pollutants.

The following table provides an emissions summary for this project. Existing potential emissions were taken from Permit 012004-009. Existing actual emissions were taken from the installation’s 2013 EIQ. Uncontrolled potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year) with no control. Controlled potential of the application accounts for a thermal oxidizer with 98% control efficiency.

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (2013 EIQ)	Uncontrolled Potential Emissions of the Application	Controlled Potential of the Application
PM	25.0	N/D	N/D	0.13	0.13
PM ₁₀	15.0	0.06	N/A	0.54	0.54
PM _{2.5}	10.0	N/D	N/D	0.54	0.54
SO _x	40.0	0.00	N/A	0.04	0.04
NO _x	40.0	0.18	N/A	7.09	7.09
VOC	40.0	148.2	36.58	331.6	7.0
CO	100.0	0.15	N/A	5.95	5.95
GHG (CO ₂ e)	100,000	N/D	N/A	8,504	8,504
GHG (mass)	250.0	N/D	N/A	8,989	8,989
HAPs	10.0/25.0	0.01	N/A	0.13	0.13

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

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 are conditioned below de minimis levels.

APPLICABLE REQUIREMENTS

Clarcor Industrial Air 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
- *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

SPECIFIC REQUIREMENTS

- *New Source Performance Regulations*, 10 CSR 10-6.070
 - *Standards of Performance for Standards of Performance for Polymeric Coating of Supporting Substrates Facilities*, 40 CFR Part 60, Subpart VVV
- *MACT Regulations*, 10 CSR 10-6.075
 - *None*
- *Emission Standards for Hazardous Air Pollutants*, 10 CSR 10-6.080
 - *None*
- *Restriction of Particulate Matter Emissions From Fuel Burning Equipment Used for Indirect Heating*, 10 CSR 10-6.405. Since the combustion equipment burns exclusively pipeline grade natural gas, it is deemed 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.

Cheryl Steffan
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 2, 2014, received July 16, 2014, designating Clarcor Industrial Air as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.

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
CO carbon monoxide	NSPS New Source Performance Standards
CO₂ carbon dioxide	NSR New Source Review
CO_{2e} carbon 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
dscf dry 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
fps feet per second	SCC Source Classification Code
ft feet	scfm standard cubic feet per minute
GACT Generally Available Control Technology	SIC Standard Industrial Classification
GHG Greenhouse Gas	SIP State Implementation Plan
gpm gallons per minute	SMAL Screening Model Action Levels
gr grains	SO_x sulfur oxides
GWP Global Warming Potential	SO₂ sulfur dioxide
HAP Hazardous Air Pollutant	tph tons per hour
hr hour	tpy tons per year
hp horsepower	VMT vehicle miles traveled
lb pound	VOC Volatile Organic Compound
lbs/hr pounds per hour	
MACT Maximum Achievable Control Technology	
µg/m³micrograms per cubic meter	

Ms. Kathy French
Environmental Health and Safety Leader
Clarcor Industrial Air
417 SE Thompson
Lee's Summit, MO 64082

RE: New Source Review Permit - Project Number: 2014-07-035

Dear Ms. French:

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 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 me 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:csl

Enclosures

c: Kansas City Regional Office
PAMS File: 2014-07-035

Permit Number: