

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION**

February 25, 2015

**PERMIT TO INSTALL**  
47-03D

**ISSUED TO**  
Peterson Spring

**LOCATED AT**  
16805 Heimbach Road  
Three Rivers, Michigan

**IN THE COUNTY OF**  
Saint Joseph

**STATE REGISTRATION NUMBER**  
A6417

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203:

**January 21, 2015**

DATE PERMIT TO INSTALL APPROVED:

**February 25, 2015**

SIGNATURE:

DATE PERMIT VOIDED:

SIGNATURE:

DATE PERMIT REVOKED:

SIGNATURE:

**PERMIT TO INSTALL**

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**Common Abbreviations / Acronyms**

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	BTU	British Thermal Unit
BACT	Best Available Control Technology	°C	Degrees Celsius
CAA	Clean Air Act	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
CO <sub>2</sub> e	Carbon Dioxide Equivalent	°F	Degrees Fahrenheit
COM	Continuous Opacity Monitoring	gr	Grains
EPA	Environmental Protection Agency	Hg	Mercury
EU	Emission Unit	hr	Hour
FG	Flexible Group	H <sub>2</sub> S	Hydrogen Sulfide
GACS	Gallon of Applied Coating Solids	hp	Horsepower
GC	General Condition	lb	Pound
GHGs	Greenhouse Gases	kW	Kilowatt
HAP	Hazardous Air Pollutant	m	Meter
HVLP	High Volume Low Pressure *	mg	Milligram
ID	Identification	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	NO <sub>x</sub>	Oxides of Nitrogen
MDEQ	Michigan Department of Environmental Quality (Department)	PM	Particulate Matter
MSDS	Material Safety Data Sheet	PM10	PM with aerodynamic diameter ≤10 microns
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	PM with aerodynamic diameter ≤ 2.5 microns
NSPS	New Source Performance Standards	pph	Pounds per hour
NSR	New Source Review	ppm	Parts per million
PS	Performance Specification	ppmv	Parts per million by volume
PSD	Prevention of Significant Deterioration	ppmw	Parts per million by weight
PTE	Permanent Total Enclosure	psia	Pounds per square inch absolute
PTI	Permit to Install	psig	Pounds per square inch gauge
RACT	Reasonably Available Control Technology	scf	Standard cubic feet
ROP	Renewable Operating Permit	sec	Seconds
SC	Special Condition	SO <sub>2</sub>	Sulfur Dioxide
SCR	Selective Catalytic Reduction	THC	Total Hydrocarbons
SRN	State Registration Number	tpy	Tons per year
TAC	Toxic Air Contaminant	µg	Microgram
TEQ	Toxicity Equivalence Quotient	VOC	Volatile Organic Compound
VE	Visible Emissions	yr	Year

\* For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (psig).

### GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**
2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**
3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**
4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**
5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(R 336.1219)**
6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**
7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**
8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.
9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
  - a. A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
  - b. A visible emission limit specified by an applicable federal new source performance standard.
  - c. A visible emission limit specified as a condition of this Permit to Install.
  
12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). **(R 336.1370)**
  
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

**SPECIAL CONDITIONS**

**EMISSION UNIT SUMMARY TABLE**

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

<b>Emission Unit ID</b>	<b>Emission Unit Description (Process Equipment &amp; Control Devices)</b>	<b>Flexible Group ID</b>
EU-BURNOFF	One (1) Model PTR-52 Controlled Pyrolysis™ Cleaning Furnace, natural gas-fired, for cleaning metal parts racks used on the powder-coat line.	NA
EU-Torit	Four grinders used to grind die springs which are exhausted to a dry filter particulate control system.	NA
EU-Tensionoven1	Electrically heated tension release oven used to relax metal springs.	FG-Tensionovens
EU-Tensionoven2	Electrically heated tension release oven used to relax metal springs.	FG-Tensionovens
EU-Tensionoven3	Electrically heated tension release oven used to relax metal springs.	FG-Tensionovens
EU-Tensionoven4	Electrically heated tension release oven used to relax metal springs.	FG-Tensionovens
EU-Tensionoven5	Electrically heated tension release oven used to relax metal springs.	FG-Tensionovens
EU-Tensionoven6	Electrically heated tension release oven used to relax metal springs.	FG-Tensionovens
EU-Tensionoven7	Electrically heated tension release oven used to relax metal springs.	FG-Tensionovens
EU-Tensionoven8	Electrically heated tension release oven used to relax metal springs.	FG-Tensionovens
EU-Tensionoven9	Electrically heated tension release oven used to relax metal springs.	FG-Tensionovens
EU-Tensionoven10	Electrically heated tension release oven used to relax metal springs.	FG-Tensionovens
EU-Tensionoven11	Electrically heated tension release oven used to relax metal springs.	FG-Tensionovens
EU-Tensionoven12	Electrically heated tension release oven used to relax metal springs.	FG-Tensionovens
EU-Tensionoven13	Electrically heated tension release oven used to relax metal springs.	FG-Tensionovens
EU-Tensionoven14	Electrically heated tension release oven used to relax metal springs.	FG-Tensionovens
EU-Tensionoven15	Electrically heated tension release oven used to relax metal springs.	FG-Tensionovens
EU-Tensionoven16	Electrically heated tension release oven used to relax metal springs.	FG-Tensionovens
EU-Tensionoven17	Electrically heated tension release oven used to relax metal springs.	FG-Tensionovens

<b>Emission Unit ID</b>	<b>Emission Unit Description (Process Equipment &amp; Control Devices)</b>	<b>Flexible Group ID</b>
EU-Tensionoven18	Electrically heated tension release oven used to relax metal springs.	FG-Tensionovens
EU-Tensionoven19	Electrically heated tension release oven used to relax metal springs.	FG-Tensionovens
EU-Tensionoven20	Electrically heated tension release oven used to relax metal springs.	FG-Tensionovens
EU-Tensionoven21	Natural gas-fired tension release oven used to relax metal springs.	FG-Tensionovens
EU-Tensionoven22	Natural gas-fired tension release oven used to relax metal springs.	FG-Tensionovens
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.		

**The following conditions apply to: EU-BURNOFF**

**DESCRIPTION:** One (1) Model PTR-52 Controlled Pyrolysis™ Cleaning Furnace, natural gas-fired, for cleaning metal parts racks used on the powder-coat line.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT:** Afterburner

**I. EMISSION LIMITS**

1. There shall be no visible emissions from EU-BURNOFF. **(R 336.1301)**

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not process in EU-BURNOFF any material other than cured paint, grease, or oil on metal parts. In addition, no transformer cores, no metal parts with uncured paints, and no metal parts with coatings or attached materials that include organic compounds containing chlorine or fluorine such as polyvinyl chloride (PVC), plastisol, or Teflon® shall be processed in EU-BURNOFF.<sup>1</sup> **(R 336.1224, R 336.1225)**

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall not operate EU-BURNOFF unless the afterburner is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the afterburner includes maintaining a minimum temperature of 1500°F and a minimum retention time of 0.5 seconds. **(R 336.1225, R 336.1301, R 336.1702(a), R 336.1910)**
2. The permittee shall equip and maintain EU-BURNOFF with an automatic temperature control system for the primary chamber and the afterburner. **(R 336.1225, R 336.1301, R 336.1702(a), R 336.1910)**
3. The permittee shall equip and maintain EU-BURNOFF with an interlock system that shuts down the primary chamber burner when the afterburner is not operating properly. **(R 336.1225, R 336.1301, R 336.1702(a), R 336.1910)**

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall monitor and record the temperature in the afterburner portion of EU-BURNOFF at the start and mid-way through each batch in a manner and with instrumentation acceptable to the Air Quality Division. The instrumentation shall be installed, calibrated, maintained, and operated in accordance with the manufacturer's specifications. All records shall be kept on file and made available to the Department upon request. **(R 336.1225, R 336.1301, R 336.1702(a), R 336.1910)**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SV-53	10	23	R 336.1225, 40 CFR 52.21(c) & (d)

**IX. OTHER REQUIREMENTS**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

**The following conditions apply to: EU-Torit**

**DESCRIPTION:** Four grinders used to grind die springs which are exhausted to a dry filter particulate control system.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT:** Torit dust collector

**I. EMISSION LIMITS**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Testing / Monitoring Method</b>	<b>Underlying Applicable Requirements</b>
1. PM	0.05 lb per 1000 lb exhaust gas calculated on a dry gas basis	Test Protocol	EU-Torit	GC 13	R 336.1331(1)(c)
2. PM	2.25 pph	Test Protocol	EU-Torit	GC 13	40 CFR 52.21(c) & (d)

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

NA

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall not operate EU-Torit unless the dry filter particulate control system is installed, maintained and operated in a satisfactory manner. **(R 336.1331, R 336.1910)**
2. The permittee shall install, maintain and operate in a satisfactory manner a device to monitor the pressure drop from the dry filter portion of EU-Torit on a continuous basis. **(R 336.1331, R 336.1910)**

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall record at least once per calendar week (when operating) and keep, in a satisfactory manner, records of pressure drop from the dry filter portion of EU-Torit. All records shall be kept on file and made available to the Department upon request. **(R 336.1331, R 336.1910)**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SV-50	22.0 x 15.0	9.5	40 CFR 52.52 (c) & (d)

**IX. OTHER REQUIREMENTS**

NA

**FLEXIBLE GROUP SUMMARY TABLE**

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

<b>Flexible Group ID</b>	<b>Flexible Group Description</b>	<b>Associated Emission Unit IDs</b>
FG-Tensionovens	Twenty-two (22) tension release ovens used to relax metal springs.	EU-Tensionoven1, EU-Tensionoven2, EU-Tensionoven3, EU-Tensionoven4, EU-Tensionoven5, EU-Tensionoven6, EU-Tensionoven7, EU-Tensionoven8, EU-Tensionoven9, EU-Tensionoven10, EU-Tensionoven11, EU-Tensionoven12, EU-Tensionoven13, EU-Tensionoven14, EU-Tensionoven15, EU-Tensionoven16, EU-Tensionoven17, EU-Tensionoven18, EU-Tensionoven19, EU-Tensionoven20, EU-Tensionoven21, EU-Tensionoven22

**The following conditions apply to: FG-Tensionovens**

**DESCRIPTION:** Twenty-two (22) tension release ovens used to relax metal springs.

**Emission Units:** EU-Tensionoven1, EU-Tensionoven2, EU-Tensionoven3, EU-Tensionoven4,  
 EU-Tensionoven5, EU-Tensionoven6, EU-Tensionoven7, EU-Tensionoven8, EU-Tensionoven9,  
 U-Tensionoven10, EU-Tensionoven11, EU-Tensionoven12, EU-Tensionoven13, EU-Tensionoven14,  
 EU-Tensionoven15, EU-Tensionoven16, EU-Tensionoven17, EU-Tensionoven18, EU-Tensionoven19,  
 EU-Tensionoven20, EU-Tensionoven21, EU-Tensionoven22

**POLLUTION CONTROL EQUIPMENT:** NA

**I. EMISSION LIMITS**

NA

**II. MATERIAL LIMITS**

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Oil coating on wire	0.0002 lb oil per lb wire	Test protocol	FG-Tensionovens	GC 13	R 336.1205(1)(a), R 336.1702(a)
2. Oil-coated wire processed	5,500,000 lb/yr	12-month rolling time period as determined at the end of each calendar month	FG-Tensionovens	SC VI.3	R 336.1205(1)(a), R 336.1702(a)

**III. PROCESS/OPERATIONAL RESTRICTIONS**

NA

**IV. DESIGN/EQUIPMENT PARAMETERS**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1201(3))

NA

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1201(3))

1. All required calculations shall be completed in a format acceptable to the AQD District Supervisor and made available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. (R 336.1205, R 336.1225, R 336.1702)

2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1225, R 336.1702)**
3. The permittee shall keep the following information on a monthly basis for FG-Tensionovens:
  - a. The pounds of oil-coated wire processed on a calendar month basis.
  - b. The pounds of oil-coated wire processed on an annual basis per 12-month rolling time period as determined at the end of each calendar month.

The records shall be kept in a format acceptable to the AQD District Supervisor. All records shall be kept on file and made available to the Department upon request. **(R 336.1205, R 336.1702(a))**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SV-001	14.0	15.8	R 336.1225, 40 CFR 52.21(c) & (d)
2. SV-002	14.0	16.1	R 336.1225, 40 CFR 52.21(c) & (d)
3. SV-003	5.0	18.0	R 336.1225, 40 CFR 52.21(c) & (d)
4. SV-004	24.0	15.1	R 336.1225, 40 CFR 52.21(c) & (d)
5. SV-005	12.0	25.3	R 336.1225, 40 CFR 52.21(c) & (d)
6. SV-52 (non-vertical)	NA	21	R 336.1225, 40 CFR 52.21(c) & (d)
7. SV-021 (obstructed)	12	23.3	R 336.1225, 40 CFR 52.21(c) & (d)
8. SV-022 (obstructed)	10	31	R 336.1225, 40 CFR 52.21(c) & (d)

**IX. OTHER REQUIREMENTS**

NA