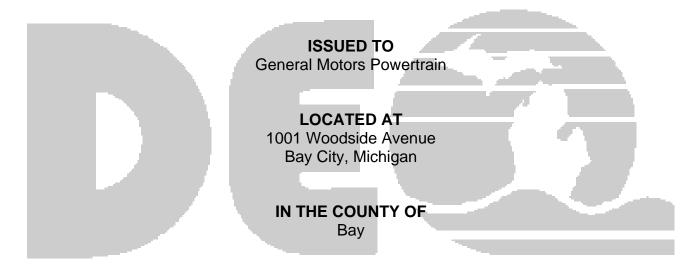
# MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

May 1, 2005

# NEW SOURCE REVIEW PERMIT TO INSTALL 31-05



## STATE REGISTRATION NUMBER B2460

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 Part 5505(1) of Article II, Chapter I, Part 55 (Air Pollution Control) of P.A. 451 of 1994. 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: |              |  |  |  |  |
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## PERMIT TO INSTALL

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## **Common Abbreviations / Acronyms**

|        | Common Agranyms  |        | Pollutant/Measurement Abbreviations              |
|--------|--|--------|--|
| 100    | Common Acronyms  | D.     |  |
| AQD    | Air Quality Division                                       | Btu    | British Thermal Unit                             |
| ANSI   | American National Standards Institute                      | °C     | Degrees Celsius                                  |
| BACT   | Best Available Control Technology                          | CO     | Carbon Monoxide                                  |
| CAA    | Clean Air Act  | dscf   | Dry standard cubic foot                          |
| CEM    | Continuous Emission Monitoring                             | dscm   | Dry standard cubic meter                         |
| CFR    | Code of Federal Regulations                                | °F     | Degrees Fahrenheit                               |
| COM    | Continuous Opacity Monitoring                              | gr     | Grains   |
| EPA    | Environmental Protection Agency                            | Hg     | Mercury  |
| EU     | Emission Unit  | hr     | Hour   |
| FG     | Flexible Group   | $H_2S$ | Hydrogen Sulfide                                 |
| GACS   | Gallon of Applied Coating Solids                           | hp     | Horsepower                                       |
| GC     | General Condition  | lb     | Pound  |
| 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                    | NOx    | Oxides of Nitrogen                               |
| MAP    | Malfunction Abatement Plan                                 | PM     | Particulate Matter                               |
| MDEQ   | Michigan Department of Environmental Quality               | PM-10  | Particulate Matter less than 10 microns diameter |
| MIOSHA | Michigan Occupational Safety & Health Administration       | pph    | Pound per hour                                   |
| MSDS   | Material Safety Data Sheet                                 | ppm    | Parts per million                                |
| NESHAP | National Emission Standard for Hazardous Air<br>Pollutants | ppmv   | Parts per million by volume                      |
| NSPS   | New Source Performance Standards                           | ppmw   | Parts per million by weight                      |
| NSR    | New Source Review  | psia   | Pounds per square inch absolute                  |
| PS     | Performance Specification                                  | psig   | Pounds per square inch gauge                     |
| PSD    | Prevention of Significant Deterioration                    | scf    | Standard cubic feet                              |
| PTE    | Permanent Total Enclosure                                  | sec    | Seconds  |
| PTI    | Permit to Install  | $SO_2$ | Sulfur Dioxide                                   |
| RACT   | Reasonable Available Control Technology                    | THC    | Total Hydrocarbons                               |
| ROP    | Renewable Operating Permit                                 | tpy    | Tons per year                                    |
| SC     | Special Condition Number                                   | μg     | Microgram  |
| SCR    | Selective Catalytic Reduction                              | VOC    | Volatile Organic Compounds                       |
| SRN    | State Registration Number                                  | yr     | Year   |
| TAC    | Toxic Air Contaminant                                      |        |  |
| VE     | Visible Emissions  |        |  |
|        |  |        |  |

<sup>\*</sup> 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. [R336.1201(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, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. [R336.1201(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 R336.1210, 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. [R336.1201(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. [R336.1201(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 R336.1219 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 R336.1219. The written request shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. [R336.1219]
- 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. [R336.1901]
- 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). [R336.1912]
- 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 R336.1301, 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 R336.1303. [R336.1301]
  - 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 R336.1370(2). [R336.1370]
- 13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R336.2001 and R336.2003, under any of the conditions listed in R336.2001. [R336.2001]

#### **SPECIAL CONDITIONS**

## **Emission Unit Identification**

| <b>Emission Unit ID</b>   | Emission Unit Description  | Stack Identification |  |  |
|---|--|----------------------|--|--|
| EU-MACHINING  | Wet and dry machining operations.  | NA                   |  |  |
| EU-INKMARKING   | Marking of numbers or codes on parts by automatic machines.  | NA                   |  |  |
| <b>EU-MAINTPAINTING</b>   | Maintenance paint booths.  | NA                   |  |  |
| EU-AIRMAKEUP  | Natural gas-fired air make up units, space heaters, and other minor gas-fired equipment                | NA                   |  |  |
| EU1-BLR001  | Natural gas fired boiler rated at 72 MMBtu/hr, capable of firing #2 fuel oil as emergency backup fuel. | SV-119               |  |  |
| EU2-BLR002  | Natural gas fired boiler rated at 72 MMBtu/hr, capable of firing #2 fuel oil as emergency backup fuel. | SV-120               |  |  |
| EU3-BLR003 Natural gas fired boiler rated at 72 MMBtu/hr, capable of firing #2 fuel oil as emergency backup fuel. |  |                      |  |  |
| Changes to the equipment allowed by R336.1278 to I  | described in this table are subject to the requirements of R R336.1290.                                | 336.1201, except as  |  |  |

## **Flexible Group Identification**

| Flexible Group ID Emission Units Included in Flexible Group |  | Stack Identification |
|---|--|----------------------|
|   |  | SV-119               |
| FG-BOILERS  | EU1-BLR001, EU2-BLR002, and EU3-BLR003   | SV-120               |
|   |  | SV-121               |
| FGFACILITY  | All process equipment at the facility including equipment covered by other permits, grand-fathered equipment and exempt equipment. | NA                   |

## The following conditions apply to: EU-MACHINING

#### **Emission Limits**

|     | Pollutant | Equipment    | Limit  | Time Period                  | Testing/<br>Monitoring<br>Method | Applicable<br>Requirement             |
|-----|-----------|--------------|--------|------------------------------|----------------------------------|---------------------------------------|
| 1.1 | VOC       | EU-MACHINING | 49 tpy | 12-month rolling time period | SC 1.2 and SC 1.3                | R336.1205,<br>R336.1220,<br>R336.1702 |

### **Material Usage Limits**

1.2 The permittee shall not use more than 610,000 gallons of metal working fluids per year in EU-MACHINING, based on a 12-month rolling time period, as determined at the end of each calendar month. [R336.1205]

## Recordkeeping/Reporting/Notification

- 1.3 By the 15<sup>th</sup> day of every month, the permittee shall calculate and record the usage rate of metal working fluid in gallons/month for the previous month and the usage rate in gallons/year for the 12-month rolling time period for EU-MACHINING, as required by SC 1.2. All records of usage rates and the VOC content of the metal working fluid shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1205, R336.1220, R336.1702]
- 1.4 By the 15<sup>th</sup> day of every month, the permittee shall calculate emission rates of VOC for the previous month and for the 12-month rolling time period, as required by SC 1.1, for EU-MACHINING. All records shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1205, R336.1220, R336.1702]

## The following conditions apply to: EU-INKMARKING

#### **Emission Limits**

|     | Pollutant | Equipment     | Limit    | Time Period                  | Testing/<br>Monitoring<br>Method | Applicable<br>Requirement             |
|-----|-----------|---------------|----------|------------------------------|----------------------------------|---------------------------------------|
| 2.1 | VOC       | EU-INKMARKING | 10.4 tpy | 12-month rolling time period | SC 2.2 and<br>SC 2.3             | R336.1205,<br>R336.1220,<br>R336.1702 |

## **Material Usage Limits**

2.2 The permittee shall not use more than 2,900 gallons of ink per year in EU-INKMARKING, based on a 12-month rolling time period, as determined at the end of each calendar month. [R336.1205]

## Recordkeeping/Reporting/Notification

- 2.3 By the 15<sup>th</sup> day of every month, the permittee shall calculate and record the usage rate of ink in gallons/month for the previous month and the usage rate in gallons/year for the 12-month rolling time period for EU-INKMARKING, as required by SC 2.2. All records of usage rates and the VOC content of ink shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1205, R336.1220, R336.1702]
- 2.4 By the 15<sup>th</sup> day of every month, the permittee shall calculate emission rates of VOC for the previous month and for the 12-month rolling time period, as required by SC 2.1, for EU-INKMARKING. All records shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1205, R336.1220, R336.1702]

#### The following conditions apply to: EU-MAINTPAINTING

#### **Emission Limits**

|     | Pollutant | Equipment        | Limit    | Time Period                  | Testing/<br>Monitoring<br>Method | Applicable<br>Requirement             |
|-----|-----------|------------------|----------|------------------------------|----------------------------------|---------------------------------------|
| 3.1 | VOC       | EU-MAINTPAINTING | 10.4 tpy | 12-month rolling time period | SC 3.2 and SC 3.3                | R336.1205,<br>R336.1220,<br>R336.1702 |

#### **Material Usage Limits**

3.2 The permittee shall not use more than 2,400 gallons of paints and solvents per year in EU-MAINTPAINTING, based on a 12-month rolling time period, as determined at the end of each calendar month. [R336.1205]

## Recordkeeping/Reporting/Notification

- 3.3 By the 15<sup>th</sup> day of every month, the permittee shall calculate and record the usage rate of paints and solvents in gallons/month for the previous month and the usage rate in gallons/year for the 12-month rolling time period for EU-MAINTPAINTING, as required by SC 3.2. All records of usage rates and the VOC content of paint shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1205, R336.1220, R336.1702]
- 3.4 By the 15<sup>th</sup> day of every month, the permittee shall calculate emission rates of VOC for the previous month and for the 12-month rolling time period, as required by SC 3.1, for EU-MAINTPAINTING. All records shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1205, R336.1220, R336.1702]

#### The following conditions apply to: EU-AIRMAKEUP

#### **Emission Limits**

|      | Pollutant | Equipment    | Limit    | Time Period                  | Testing/<br>Monitoring<br>Method | Applicable<br>Requirement |
|------|-----------|--------------|----------|------------------------------|----------------------------------|---------------------------|
| 4.1a | NOx       | EU-AIRMAKEUP | 59.1 tpy | 12-month rolling time period | SC 4.3 and SC 4.5                | R336.1205,<br>R336.1220   |
| 4.1b | СО        | EU-AIRMAKEUP | 49.6 tpy | 12-month rolling time period | SC 4.3 and<br>SC 4.4             | R336.1205,<br>R336.1220   |

#### Recordkeeping/Reporting/Notification

- 4.2 By the 15<sup>th</sup> day of every month, the permittee shall calculate and record the natural gas consumption rates in MMcf, of EU-AIRMAKEUP for the previous month and for the 12-month rolling time period for EU-AIRMAKEUP. Because the gas consumption of EU-AIRMAKEUP is not directly metered, its rate shall be determined as being the total facility gas usage minus that used by the boilers. All records of natural gas consumption by EU-AIRMAKEUP shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1205, R336.1220]
- 4.3 By the 15<sup>th</sup> day of every month, the permittee shall calculate emission rates of NOx and CO for the previous month and for the 12-month rolling time period, as required by SC 4.1a and 4.1b, for EU-AIRMAKEUP. Calculations and associated records shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1205, R336.1220]
- 4.4 The permittee shall maintain a current listing of all pieces of equipment comprising EU-AIRMAKEUP, and their respective heat input capacities. All records of equipment and respective heat input capacities of EU-AIRMAKEUP shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1205, R336.1220]

## The following conditions apply to: FG-BOILERS

#### **Emission Limits**

|      | Pollutant | Equipment  | Limit    | Time Period                  | Testing/<br>Monitoring<br>Method | Applicable<br>Requirement |
|------|-----------|------------|----------|------------------------------|----------------------------------|---------------------------|
| 5.1a | NOx       | FG-BOILERS | 19.2 tpy | 12-month rolling time period | SC 5.3 and SC 5.5                | R336.1205,<br>R336.1220   |
| 5.1b | СО        | FG-BOILERS | 16.2 tpy | 12-month rolling time period | SC 5.3 and<br>SC 5.5             | R336.1205,<br>R336.1220   |
| 5.1c | SO2       | FG-BOILERS | 20.3 tpy | 12-month rolling time period | SC 5.3 and<br>SC 5.5             | R336.1205,<br>R336.1220   |

#### **Material Usage Limits**

- 5.2 When firing emergency backup fuel oil, the maximum sulfur content in the fuel oil fired in FG-BOILERS shall not exceed 1.5 percent. [R336.1401(1)-Table 41]
- 5.3 The permittee shall not use more than 383 MMcf of natural gas per year in FG-BOILERS, based on a 12-month rolling time period, as determined at the end of each calendar month. [R336.1205]
- 5.4 The permittee shall not use more than 286,000 gallons of fuel oil per year in FG-BOILERS, based on a 12-month rolling time period, as determined at the end of each calendar month. [R336.1205]

#### Recordkeeping / Reporting / Notification

- 5.5 When firing emergency backup fuel oil, the permittee shall perform a non-certified visible emission observation of the boiler stack(s) SV-119, SV-120, and SV-121. The permittee shall initiate corrective action upon observation of excessive visible emissions and shall maintain a written record of each observation and corrective action. [R336.1303]
- 5.6 By the 15<sup>th</sup> day of every month, the permittee shall monitor and record the fuel oil consumption rates in gallons, in FG-BOILERS for the previous month and for the 12-month rolling time period, as required by SC 5.4. [R336.1205]
- 5.7 The permittee shall maintain a complete record of the fuel oil analysis of all fuel oil shipments, as supplied by the vendor(s). This record shall include the percent sulfur content and the BTU rating per pound of liquid fuel. [R336.1205]
- 5.8 By the 15<sup>th</sup> day of every month, the permittee shall monitor and record the natural gas consumption rates in MMcf, in FG-BOILERS, for the previous month and for the 12-month rolling time period, as required by SC 5.3. **[R336.1205]**
- 5.9 By the 15<sup>th</sup> day of every month, the permittee shall calculate emission rates of NOx, CO, and SO2 for the previous month and for the 12-month rolling time period, as required by SC 5.1a, 5.1b and 5.1c, for FG-BOILERS. Calculations and associated records shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1205, R336.1220]

## The following conditions apply to: FGFACILITY

#### **Emission Limits**

|      | Pollutant | Equipment  | Limit    | Time Period                  | Testing/<br>Monitoring<br>Method | Applicable<br>Requirement |
|------|-----------|------------|----------|------------------------------|----------------------------------|---------------------------|
| 6.1a | NOx       | FGFACILITY | 89.9 tpy | 12-month rolling time period | SC 6.2, SC 6.3,<br>SC 6.4        | R336.1205 (3)             |
| 6.1b | СО        | FGFACILITY | 89.9 tpy | 12-month rolling time period | SC 6.2, SC 6.3,<br>SC 6.4        | R336.1205 (3)             |

## **Process/Operational Limits**

6.2 The permittee shall not use more than 1,740 MMcf of natural gas per year in FGFACILITY, based on a 12-month rolling time period, as determined at the end of each calendar month. [R336.1225]

## **Recordkeeping / Reporting / Notification**

- 6.3 By the 15<sup>th</sup> day of every month, the permittee shall monitor and record the natural gas consumption rates in MMcf, in FGFACILITY, for the previous month and for the 12-month rolling time period, as required by SC 6.2. **[R336.1205]**
- 6.4 By the 15<sup>th</sup> day of every month, the permittee shall calculate emission rates of NOx and CO for the previous month and for the 12-month rolling time period, as required by SC 6.1a and 6.1b, for FGFACILITY. Calculations and associated records shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1205, R336.1220]