

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

June 4, 2004

**NEW SOURCE REVIEW PERMIT TO INSTALL
No. 213-01B**



ISSUED TO
Perfection Industries, Inc.

LOCATED AT
18571 Weaver Street
Detroit, Michigan 48228

IN THE COUNTY OF
Wayne

STATE REGISTRATION NUMBER
N0305

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: 5/21/2004	
DATE PERMIT TO INSTALL APPROVED: 6/4/2004	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
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 ₂ S	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	NO _x	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 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		

* 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

Emission Unit ID	Emission Unit Description	Stack Identification
EUCHROME2	Hard chrome electroplating tank with a composite mesh pad system for control which is shared with the other four hard chrome electroplating tanks.	SVCHROME1
EUCHROME3	Hard chrome electroplating tank with a composite mesh pad system for control which is shared with the other four hard chrome electroplating tanks.	SVCHROME1
EUCHROME4	Hard chrome electroplating tank with a composite mesh pad system for control which is shared with the other four hard chrome electroplating tanks.	SVCHROME1
EUCHROME5	Hard chrome electroplating tank with a composite mesh pad system for control which is shared with the other four hard chrome electroplating tanks.	SVCHROME1
EUCHROME6	Hard chrome electroplating tank with a composite mesh pad system for control which is shared with the other four hard chrome electroplating tanks.	SVCHROME1
Changes to the equipment described in this table are subject to the requirements of R336.1201, except as allowed by R336.1278 to R336.1290.		

Flexible Group Identification

Flexible Group ID	Emission Units Included in Flexible Group	Stack Identification
FGCHROME1	EUCHROME2, EUCHROME3, EUCHROME4, EUCHROME5 and EUCHROME6	SVCHROME1

The following conditions apply to: FGCHROME1

Emission Limits

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirements
1.1a	Total chromium	FGCHROME1	0.006 milligram per dry standard cubic meter, corrected to 70°F and 29.92 inches Hg	Test Method	SC 1.5, SC 1.7, SC 1.8, SC 1.9	R336.1225, R336.1941 40 CFR Part 63 Subpart N
1.1b	Total chromium	FGCHROME1	4.0 * 10 ⁻⁴ pph	Test Method	SC 1.5, SC 1.7, SC 1.8, SC 1.9	R336.1225, R336.1941 40 CFR Part 63 Subpart N

Equipment

1.2 The permittee shall not operate FGCHROME1 unless the composite mesh pad system is installed, maintained, and operated in a satisfactory manner. [R336.1225, R336.1941, 40 CFR Part 63 Subpart N]

- 1.3 The permittee shall equip and maintain the composite mesh pad system with a differential pressure monitoring device. **[R336.1225, R336.1910, R336.1941, 40 CFR 63.343(c)]**

Process/Operational Limits

- 1.4 Within 30 calendar days after compliance testing, the permittee shall submit to the AQD District Supervisor, a new approvable operation and maintenance plan only if the pressure drop value is different than the pressure drop value determined during the previous compliance test. The plan shall contain all information required by 40 CFR 63.342(f)(3)(i), which includes the following: **[R336.1225, R336.1941, 40 CFR Part 63 Subpart N]**
- a) Operation and maintenance criteria for FGCHROME1, add-on control device(s), and for the process and control device(s) monitoring equipment as well as a standardized checklist to document the operation and maintenance of the equipment;
 - b) The work practice standards for the add-on control device(s) and monitoring equipment;
 - c) Procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur; and
 - d) A systematic procedure for identifying process equipment, add-on control device(s) and monitoring equipment malfunctions and for implementing corrective actions to address such malfunctions.

Monitoring

- 1.5 The permittee shall perform inspections of the composite mesh pad (CMP) system as follows: **[R336.1225, R336.1910, R336.1941, 40 CFR Part 63 Subpart N]**
- a) Determine pressure drop across the CMP system on a daily basis. If the pressure drop across the control varies by more than ± 1 inch of water column, from the pressure drop determined during compliance testing, the variation shall be documented, and the operation and maintenance procedures shall be reviewed. Any corrective action shall be documented.
 - b) Visually inspect the CMP system, on a quarterly basis, to ensure there is proper drainage, no chromic acid build up on the pads, and no evidence of chemical attack on the structural integrity of the control device.
 - c) Visually inspect the back portion of the mesh pad closest to the fan, on a quarterly basis, to ensure there is no breakthrough of chromic acid mist.
 - d) Visually inspect ductwork from tanks to the CMP system, on a quarterly basis, to ensure there are no leaks.
 - e) Perform wash-down of composite mesh pads in accordance with manufacturer's recommendations.
- 1.6 The permittee shall monitor emissions and operating and maintenance information in accordance with the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR Part 63 Subparts A and N. **[R336.1941, 40 CFR Part 63 Subpart N]**

Testing

1.7 By September 30, 2004, verification of chromium emission rates from FGCHROME1, by testing at owner's expense, in accordance with 40 CFR Part 63 Subparts A and N, will be required. The permittee shall notify the District Supervisor in writing of the intention to conduct a performance test at least 60 calendar days before the test is scheduled to begin, in accordance with 40 CFR 63.347(d). Stack testing procedures and the location of stack testing ports shall be in accordance with the applicable federal Reference Methods, 40 CFR Part 63 Appendix A. No less than 60 days prior to testing, a complete stack test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD District Supervisor within 90 days following the last date of the test. **[R336.1225, R336.2001, R336.2002, R336.2003, 40 CFR Part 63 Subpart N]**

Recordkeeping/Reporting/Notification

1.8 The permittee shall maintain records of inspections required to comply with applicable work practice standards of 40 CFR 63.342(f). Each inspection record shall identify the device inspected, the date, approximate time of inspection, and a brief description of the working condition of the device during the inspection. The permittee shall also record any actions taken to correct the deficiencies found during the inspection. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1225, R336.1910, R336.1941, 40 CFR Part 63 Subpart N]**

1.9 The permittee shall keep records of emission information and operating and maintenance information to comply with the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR Part 63 Subparts A and N. All source emissions and operating and maintenance information shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1941, 40 CFR Part 63 Subpart N]**

1.10 The permittee shall submit the Ongoing Compliance Status notification to the Department in accordance with 40 CFR Part 63.347: **[R336.1941, 40 CFR Part 63 Subpart N]**

Stack/Vent Restrictions

	Stack & Vent ID	Maximum Area (square inches)	Minimum Height Above Ground Level (feet)	Applicable Requirements
1.11a	SVCHROME1	991	26	R336.1225
The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.				