# MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

March 2, 2004

# **NEW SOURCE REVIEW PERMIT TO INSTALL**

No. 175-03

## **ISSUED TO**

City of Wyoming

# LOCATED AT

2350 Ivanrest SW Wyoming, Michigan 49418

# IN THE COUNTY OF

Kent

# STATE REGISTRATION NUMBER

B4113

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:  8/14/2003			
DATE PERMIT TO INSTALL APPROVED: 3/2/2004	SIGNATURE:		
DATE PERMIT VOIDED:	SIGNATURE:		
DATE PERMIT REVOKED:	SIGNATURE:		

# PERMIT TO INSTALL

# **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	$H_2S$	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 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 he 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 condition 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-HEADWORKS	ADWORKS The Clean Water Plant (municipal wastewater treatment			
	facility) Headworks Building. The odor emissions (hydrogen			
	sulfide) are controlled by a sodium hydroxide/sodium			
	hypochlorite odor control scrubber.			
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.				

## The following conditions apply to: EU-HEADWORKS

#### **Emission Limits**

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirement
1.1a	Hydrogen Sulfide	EU-HEADWORKS	0.0072 pph	Hourly	GC 13, SC 1.7, 1.8, 1.9, 1.10, 1.11	R336.1901
	Bulliuc				1.7, 1.10, 1.11	

# **Process/Operational Limits**

- 1.2 The permittee shall operate the odor control scrubber when EU-HEADWORKS is operating, except in the event of a scrubber malfunction (which shall be expeditiously corrected) or scheduled maintenance. The operation and maintenance plan required in special condition No. 1.5 shall include provisions to repair the odor control system, and bring it back into operation, as expeditiously as possible. [R336.1224, R 336.1901, R336.1910]
- 1.3 The permittee shall maintain the pH, oxidation-reduction potential, make-up water flow rate, and differential pressure of the odor control scrubber as specified in the operation and maintenance plan. [R336.1224, R336.1901, R336.1910]
- 1.4 Permittee shall not open the doors to the screenings container room except when necessary for ingress and egress required for equipment operation and maintenance. All doors shall be in good operating condition and all personnel doors shall have auto-closing devices. Overhead garage doors shall only be used for accessing and servicing equipment. [R336.1901]
- 1.5 Within 30 calendar days of the date of permit approval, the permittee shall submit to the AQD District Supervisor an approvable operation and maintenance plan for the odor control scrubber. The permittee shall operate the odor control scrubber in accordance with the operation and maintenance plan. [R336.1224, R336.1901, R336.1910]
- 1.6 Permittee shall maintain negative static pressure in the EU-HEADWORKS building at all times. The negative pressure in the EU-HEADWORKS building shall be determined in accordance with SC 1.9. [R336.1224, R336.1901, R3136.1910]

## **Equipment**

1.7 The permittee shall not operate the EU-HEADWORKS odor control scrubber unless an alarm, which notifies the operator when any parameter monitored in SC 1.8 does not meet the required value specified in SC 1.3, is installed, maintained and operated in a satisfactory manner. [R336.1224, R336.1901, R336.1910]

### **Monitoring**

- 1.8 The permittee shall install, calibrate, maintain and operate in a satisfactory manner, devices to monitor, on a continuous basis, the following odor control scrubber operating parameters. [R336.1224, R336.1901, R3136.1910]
  - a.) The scrubber liquid pH,
  - b.) the scrubber liquid oxidation-reduction potential,
  - c.) the scrubber make-up water flow rate, and
  - d.) the scrubber differential pressure.
- 1.9 The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor the static pressure of the EU-HEADWORKS building on a continuous basis. [R336.1224, R336.1901, R336.1910]

## **Recordkeeping/Reporting/Notification**

- 1.10 The permittee shall keep, in a satisfactory manner, records of each odor control scrubber alarm event, including the cause of the alarm, the values of any parameters not meeting the required values specified in SC 1.3, and actions taken to resolve the cause of the alarm condition. All records shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1224, R336.1901, R3136.1910]
- 1.11 The permittee shall keep, in a satisfactory manner, daily records of the EU-HEADWORKS building static pressure, as monitored according to SC 1.9. All records shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1224, R336.1901, R3136.1910]

#### **Stack/Vent Restrictions**

	Stack & Vent ID	Maximum Diameter (inches)	Minimum Height Above Ground Level (feet)	Applicable Requirement
1.12a	SV-HW	30	23	R336.1901
	The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.			