# MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

August 29, 2008

#### PERMIT TO INSTALL

No. 118-08

## **ISSUED TO**

Capital Region Airport Authority

## **LOCATED AT**

3170 West State Road Lansing, Michigan 48906

# IN THE COUNTY OF

Clinton

## STATE REGISTRATION NUMBER

N8035

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:  5/29/2008		
DATE PERMIT TO INSTALL APPROVED: 8/29/2008	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	СО	Carbon Monoxide	
CEM	Continuous Emission Monitoring	dscf	Dry standard cubic foot	
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter	
COM	Continuous Opacity Monitoring	°F	Degrees Fahrenheit	
EPA	Environmental Protection Agency	gr	Grains	
EU	Emission Unit	Hg	Mercury	
FG	Flexible Group	hr	Hour	
GACS	Gallon of Applied Coating Solids	H <sub>2</sub> S	Hydrogen Sulfide	
GC	General Condition	hp	Horsepower	
HAP	Hazardous Air Pollutant	lb	Pound	
HVLP	High Volume Low Pressure *	m	Meter	
ID	Identification	mg	Milligram	
LAER	Lowest Achievable Emission Rate	mm	Millimeter	
MACT	Maximum Achievable Control Technology	MM	Million	
MAERS	Michigan Air Emissions Reporting System	MW	Megawatts	
MAP	Malfunction Abatement Plan	ng	Nanogram	
MDEQ	Michigan Department of Environmental Quality	NO <sub>x</sub>	Oxides of Nitrogen	
MSDS	Material Safety Data Sheet	PM	Particulate Matter	
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM- 10	Particulate Matter less than 10 microns diameter	
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	

<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. (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, 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 AQD District Supervisor shall be notified, in writing, of a change in ownership or operational control of the stationary source or emission unit(s) authorized by this Permit to Install pursuant to R 336.1219. The notification shall include all of the information required by R 336.1219(1)(a) and (b). In addition, a new owner or operator must submit a written statement pursuant to R 336.1219(1)(c), agreeing to and accepting the terms and conditions of this Permit to Install, and shall notify the AQD District Supervisor of any change in the contact person for this Permit to Install. (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 nor does it affect any liability for past violations under the Natural Resources and Environmental Protection Act, 1994 PA 451.
- 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 Identification**

<b>Emission Unit ID</b>	Emission Unit Description	Stack Identification
EUINCINERATOR	Model 200-CA Destructor Waste Incinerator	SVINCINERATOR
	Natural Gas Fired	
	Burn Rate: 100-200 Pound/Hour	
	Maximum Charge: Burn Rate Divided By Three	

### The following conditions apply to: EUINCINERATOR

#### **Emission Limits**

	Pollutant	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirements
1.1	PM	0.10 pounds per 1,000 pounds of exhaust gases, corrected to 50% excess air.	Test Protocol <sup>1</sup>	GC 11, GC 13	R 336.1331(1)(c)

<sup>&</sup>lt;sup>1</sup> Test Protocol shall specify averaging time.

## **Material Usage Limits**

1.2 The permittee shall not burn any waste in EUINCINERATOR other than the Animal and Plant Health Inspection Service (APHIS) waste removed from international passenger and freight aircraft arrivals as follows: (R 336.1224, R 336.1331, R 336.1702)

Waste Type	Description (See Appendix A)	Burn Rate (pound/hour)
0	Trash	200
1	Rubbish	200
2	Refuse	145
3	Garbage	125
4	Pathological	100

#### **Process/Operational Limits**

- 1.3 The burn rate for EUINCINERATOR shall not exceed a maximum of 200 pounds per hour. (R 336.1224, R 336.1331, R 336.1702)
- 1.4 The maximum charge for EUINCINERATOR shall not exceed the burn rate divided by three. (R 336.1224, R 336.1331, R 336.1702)
- 1.5 The permittee shall not combust waste in EUINCINERATOR unless a minimum temperature of 1600°F and a minimum retention time of 1.0 seconds in the secondary combustion chamber are maintained. (R 336.1224, R 336.1331, R 336.1702)
- 1.6 The incinerator shall be installed, maintained, and operated in a satisfactory manner to control emissions from EUINCINERATOR. A list of recommended operating and maintenance procedures is specified in Appendix B. (R 336.1224, R 336.1331, R 336.1702)

1.7 The permittee shall not operate EUINCINERATOR unless the procedures outlined in the waste management plan attached as Appendix C are implemented and maintained. (R 336.1224, R 336.1331, R 336.1702)

#### Monitoring

1.8 The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the temperature in the secondary combustion chamber of EUINCINERATOR on a continuous basis. (R 336.1224, R 336.1331, R 336.1702)

# Recordkeeping/Reporting/Notification

- 1.9 The permittee shall keep, in a satisfactory manner, daily records of the time, description and weight of waste combusted in EUINCINERATOR, as required by SC 1.2. The permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request. (R 336.1224, R 336.1331, R 336.1702)
- 1.10 The permittee shall keep, in a satisfactory manner, secondary combustion chamber temperature records for EUINCINERATOR, as required by SC 1.8. The permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request. (R 336.1224, R 336.1331, R 336.1702)

#### Stack/Vent Restrictions

Stack	Stack & Vent ID	Maximum Diameter (inches)	Minimum Height Above Ground Level (feet)	Applicable Requirements	
1.11	SVINCINERATOR	15	24.9	R 336.1901	
	The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.				

# APPENDIX A Waste Type Definitions

- Type 0 Trash, a mixture of highly combustible waste such as paper, cardboard cartons, wood boxes, and combustible floor sweepings, from commercial and industrial activities. The mixture may contain up to 10 percent by weight of plastic bags, coated paper, laminated paper, treated corrugated cardboard, oily rags, and plastic or rubber scraps.
- Type 1 Rubbish, a mixture of combustible waste such as paper, cardboard cartons, wood scrap, foliage and combustible floor sweepings, from domestic, commercial and industrial activities. The mixture may contain up to 20 percent by weight of restaurant or cafeteria waste, but contains little or no treated papers, plastic or rubber wastes.
- Type 2 Refuse, a mixture of combustible waste such as paper, cardboard cartons, wood scrap, foliage and combustible floor sweepings; and garbage, consisting of animal and vegetable wastes from restaurants, cafeterias, hotels, hospitals, markets and like installations.
- Type 3 Garbage, consisting of animal and vegetable wastes from restaurants, cafeterias, hotels, hospitals, markets and like installations.
- Type 4 Pathological, consisting of human and animal remains, carcasses, organs and solid organic wastes from hospitals, laboratories, abattoirs, animal pounds, and similar sources.

# APPENDIX B Incinerator Operation and Maintenance Guidelines

- 1. Designate a trained operator for your unit and make that person responsible for compliance with the air pollution control requirements.
- 2. Grates should be cleaned before each day's operation (more often if necessary), and the ashes disposed of properly.
- 3. <u>Preheat</u> the unit with the burners (not with waste) for at least 15 minutes.
- 4. Do not overload the incinerator. Stay within the given loading rates, and follow the manufacturer's instructions.
- 5. Schedule charges to minimize the frequency of opening the charging door. Opening the charging door lets cold air in and quenches the fire causing smoke.
- 6. Burn only the type of wastes that your incinerator has been approved to burn. Follow the manufacturer's instructions to maximize the efficiency of the unit, and to properly burn the waste(s).
- 7. Keep the combustion air adjusted according to the manufacturer's instructions.
- 8. Observe the stack frequently and adjust your operation as necessary to eliminate smoke and fly ash.
- 9. A copy of the manufacturer's manual and this Guideline should be posted near your incinerator.
- 10. Make quarterly inspections to check and service all of the equipment. If you do not have a qualified person available for proper inspections, a service contract with a reputable manufacturer is advisable.

# APPENDIX C Waste Management Plan

This Waste Management Plan (WMP) has been developed for an incinerator installation located on Capital City Airport at Lansing, Michigan. The purpose of the plan is to ensure consistent and proper handling of the disposal of international waste materials at this facility. In order to keep the plan current, management personnel will review the plan on an annual basis and update as necessary.

#### 1. Containers.

The facility will use distinctive plastic bags and sealable containers for the collection and transportation of regulated garbage wastes as approved by United States Customs and Border Protection (USCBP) and United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Plant Protection and Quarantine (PPQ).

## 2. Storage of regulated garbage.

- All areas where waste is collected, stored, or handled will be restricted to deny access by unauthorized persons.
- Have on file and implement a pest control program.
- Waste will be stored to minimize exposure to natural elements.
- The containers used for storage are to be labeled and locked to prevent unauthorized access.
- Warning signs will be posted to prevent unauthorized access.
- Storage and handling of regulated garbage will be as authorized and approved in the Compliance Agreements.

## 3. Process/Control Device.

The collection of charge materials and disposal of ash and/or other air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air.

#### 4. Spill containment and clean up.

When a waste spill or leak is detected anywhere on the facility property, the following actions will be taken per the Compliance Agreement but not limited to these actions:

- An absorbent material shall be used to contain liquids.
- A mechanical method (broom, shovel) shall be used to remove solids.
- The spill area is to be disinfected and cleaned immediately with approved disinfects.
- The spilled material shall be disposed of properly at the treatment facility.

#### Recordkeeping.

In order to facilitate monitoring of its waste management plan, the facility shall maintain on its premises all records as required by the Compliance Agreement including but not limited to:

- The name and address of each customer.
- · A description of any spill incidents and corrective actions taken.
- A description of any incidents where unacceptable waste materials were shipped to or handled at the facility and the corrective actions taken.
- The date of the annual WMP review and reference to any changes made to the plan.

## 6. Prohibited Wastes.

The facility shall not accept or charge in the incinerator any medical or infectious wastes, including sharps.

The facility shall not accept or charge in the incinerator any mercury-containing wastes. Examples include, but are not limited to, mercury-containing thermometers, manometers, esophageal devices or other wastes containing elemental mercury, laboratory chemicals and/or fixatives that contain mercury compounds.