

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

March 19, 2014

**PERMIT TO INSTALL
34-13A**

**ISSUED TO
Lakeshore Reclamation & Resale**

**LOCATED AT
9702 Portage Road
Portage, Michigan**

**IN THE COUNTY OF
Kalamazoo**

**STATE REGISTRATION NUMBER
P0425**

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 22, 2014

DATE PERMIT TO INSTALL APPROVED:

March 19, 2014

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 ₂ 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 ₂ 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	Malfuction Abatement Plan	NO _x	Oxides of Nitrogen
MDEQ	Michigan Department of Environmental Quality (Department)	PM	Particulate Matter
MSDS	Material Safety Data Sheet	PM10	PM less than 10 microns diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	PM less than 2.5 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 ₂	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.

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EUWIRESTRIPPER	Asbestos insulated copper wires are stripped using a commercial wire stripper. The clean copper feeds out of the wire stripper. The waste material (tar impregnated asbestos sheath) is wetted, double bagged and labeled before being transported to an approved landfill. All activities occur within the containment area (enclosure).	8-13-2013	FGCOPPER
EUBARSTRIPPER	Asbestos insulated copper stator bars are cut with a hydraulic shear and conveyed into a hammer mill grinder. The clean copper is separated and conveyed out of the hammer mill. The waste material is collected by the air separation system (baghouse dust collector), wetted, double bagged and labeled before being transported to an approved landfill. All activities occur within the containment area (enclosure).	3-19-2014	FGCOPPER

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.

FLEXIBLE GROUP SUMMARY TABLE

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGCOPPER	Asbestos insulated copper wire reclamation and recycling operations including a commercial wire stripper, hydraulic shear and hammer mill grinder. The processes occur in a containment area (enclosure) which is equipped with negative air machines with HEPA filters.	EUWIRESTRIPPER, EUBARSTRIPPER

The following conditions apply to: FGCOPPER

DESCRIPTION: Asbestos insulated copper wire reclamation and recycling operations including a commercial wire stripper, hydraulic shear and hammer mill grinder. The processes occur in a containment area (enclosure) which is equipped with negative air machines with HEPA filters.

Emission Unit IDs: EUWIRESTRIPPER, EUBARSTRIPPER

POLLUTION CONTROL EQUIPMENT: Containment area (enclosure), negative air machines with HEPA filters, baghouse dust collector (internally vented)

I. EMISSION LIMITS

1. There shall be no visible emissions from FGCOPPER. **(R 336.1301(1), 40 CFR 61.145(c), 40 CFR 61.150(a))**

II. MATERIAL LIMITS

1. The permittee shall process only asbestos insulated wire and stator bar materials within FGCOPPER. **(R 336.1224, R 336.1225, 40 CFR Part 61 Subpart M)**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall vent the containment area (enclosure) exhaust through the negative air machines during operation of FGCOPPER, during asbestos waste preparation, and during decontamination of the containment area (enclosure) in compliance with the provisions of 40 CFR Part 61 Subpart M. **(40 CFR 61.145(c), 40 CFR 61.150, R 336.1224)**
2. The permittee shall maintain a minimum of -0.02 inches of water column pressure differential between inside and outside the containment area (enclosure) during operation of FGCOPPER including cleaning/decontamination of the process building and equipment. **(R 336.1910)**
3. The permittee shall store and stockpile all asbestos-containing material within the process building and in leak-tight wrapping at all times. At no time shall asbestos-containing material be stored outdoors of the facility. **(R 336.1224, R 336.1225, 40 CFR 61.145(c))**
4. The permittee shall change the HEPA filters in the negative air machines associated with FGCOPPER as recommended by the manufacturer. The permittee shall keep a record of the filter change-outs and keep the records on file at the facility and make them available upon request of the AQD. **(R 336.1224, R 336.1301, R 336.1910)**
5. The permittee shall not operate FGCOPPER, perform asbestos waste preparation, or decontaminate the containment area (enclosure) during HEPA filter change-outs on either of the negative air machines. **(R 336.1224, R 336.1301, R 336.1910)**
6. The permittee shall adequately wet all asbestos-containing material during operation of FGCOPPER as specified in 40 CFR Part 61 Subpart M. **(40 CFR 61.145)**
7. In lieu of wetting the asbestos-containing material during operation of FGCOPPER, the permittee shall submit a request to, and obtain approval from the AQD District Supervisor and Technical Programs Unit for a dry removal variance prior to operation, and then annually every October 1st thereafter. The permittee shall keep the approval for the dry removal variance on file at the facility. **(40 CFR Part 61 Subpart M)**

8. The permittee shall not operate FGCOPPER unless a malfunction abatement plan (MAP) as described in Rule 911(2) has been submitted to the AQD District Supervisor and Technical Programs Unit within 60 days of permit issuance, and is implemented and maintained. The MAP shall, at a minimum, specify the following:
- a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
 - b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
 - c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.
 - d) A description of the procedures to capture, handle, and dispose of all materials to minimize the generation of fugitive emissions.
 - e) A description of the procedure for the decontamination of the containment area (enclosure).

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the AQD District Supervisor and Technical Programs Unit. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor and Technical Programs Unit for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1910, R 336.1911, R 336.1915)**

IV. DESIGN/EQUIPMENT PARAMETERS

- 1. The permittee shall not operate the EUBARSTRIPPER portion of FGCOPPER unless the dust collector is installed, maintained, and operated in a satisfactory manner. **(R 336.1224, R 336.1301, R 336.1910)**
- 2. The permittee shall not operate EUBARSTRIPPER portion of FGCOPPER unless the pressure differential gauge for the dust collector is installed, maintained and operated in a satisfactory manner. **(R 336.1331, R 336.1910, 40 CFR 52.21(c) and (d))**
- 3. The permittee shall not operate FGCOPPER unless all respective HEPA filters are installed, maintained, adequately replaced and operated in a satisfactory manner as defined by the manufacturer's specifications. **(R 336.1224, R 336.1301, R 336.1910)**
- 4. The permittee shall meet all applicable requirements of 40 CFR 61.152. Specifically, the containment area (enclosure) shall be constructed and operated properly, and the HEPA filters shall meet the design criteria of 99.97 percent efficiency for 0.3 micron particles as specified under the Air Cleaning section of 40 CFR Part 61 Subpart M. **(40 CFR 61.152(b), R 336.1224)**
- 5. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the pressure differential between inside and outside the containment area (enclosure) on a continuous basis during operation of FGCOPPER including cleaning/decontamination of the process building. The device shall be equipped with an alarm which sounds when the pressure differential falls out of acceptable range. The device shall be installed such that the alarm is either visible or audible to workers during operation of FGCOPPER. **(R 336.1301, R 336.1910)**

6. The permittee shall install three negative air machines with HEPA filters within the containment area (enclosure). One will serve as a backup to the primary negative air machines. **(R 336.1224, R 336.1301, R 336.1910)**

V. TESTING/SAMPLING

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

1. The permittee shall conduct personal and area air monitoring during all work activities as outlined in the National Institute for Occupational Safety and Health (NIOSH) Method 7400, or another method with prior approval of the AQD Technical Programs Unit. Asbestos air samples shall be collected from areas inside and outside the regulated work area as well as the outlet of the negative air machine. The test results of the NIOSH Method 7400 monitoring shall be at or below the detection limit. **(R 336.1224, R 336.1225)**
2. The permittee shall verify test results as required in SC V.1 from an outside third party certified contractor at least once every five days of operation. **(R 336.1224, R 336.1225)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall perform visible emission observations at least once per day while FGCOPPER is operating. The permittee shall not perform the visible emission observations during any time in which there is a threat of safety or asbestos contamination. The permittee shall keep written records at the facility of each visible emission observation, using "yes" or "no" to indicate whether or not there are visible emissions. If visible emissions are observed, the permittee shall shut down FGCOPPER consistent with the provisions of the malfunction abatement plan. **(R 336.1301(1), R 336.1910)**
2. The permittee shall keep records of the air pressure differential between inside and outside the containment area (enclosure) on an hourly basis during operation of FGCOPPER. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1301, R 336.1910)**
3. The permittee shall monitor and record the static pressure drop across the dust collector once per calendar day when the equipment is in operation. **(R 336.1331, R 336.1910)**
4. The permittee shall maintain all records as specified in 40 CFR Part 61 Subpart M, including but not limited to notification forms, amounts and origins of asbestos-containing material and waste shipment records. **(40 CFR 61.145(b), 40 CFR 61.150(d)(5))**
5. The permittee shall keep on file the manufacturer's specifications indicating 99.97 percent efficiency for 0.3 micron particles of the HEPA filters associated with the negative air machines. **(40 CFR 61.152(b), R 336.1224)**
6. The permittee shall keep records of the personal and area air monitoring test results as required in SC V.1. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1224, R 336.1225)**
7. The permittee shall keep records of the dates and times on which operation of FGCOPPER occurred, types and amounts of materials processed, and the dates and times on which decontamination of the containment area (enclosure) occurred. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1224, R 336.1225, 40 CFR 61.145(b)(4))**

VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of FGCOPPER. **(R 336.1201(7)(a))**
2. The permittee shall submit notification to the AQD District Supervisor and Technical Programs Unit at least 10 working days prior to operation of FGCOPPER, or renovation activities in compliance with all provisions of 40 CFR Part 61 Subpart M. The permittee shall revise the notification as necessary pursuant to 40 CFR 61.145(a). **(R 336.1224, R 336.1225, 40 CFR 61.145)**
3. The permittee shall submit notification to the AQD District Supervisor and Technical Programs Unit no later than 2 business days after any visible emission reading which results in a shutdown of operation of FGCOPPER. **(R 336.1912)**

VIII. STACK/VENT RESTRICTIONS:

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

Stack & Vent ID	Maximum Exhaust Diameter/ Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVNAM1	10	6	R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d)
2. SVNAM2	10	6	R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENTS

1. The permittee shall strip, collect, transport and dispose of all waste material, including spent HEPA filters, in compliance with all provisions of 40 CFR Part 61 Subpart M. **(40 CFR 61.145(c), 40 CFR 61.150)**
2. The permittee shall dispose of all asbestos containing waste at an active waste disposal site that is in compliance with all provisions of 40 CFR Part 61 Subpart M. **(40 CFR 61.150, 40 CFR 61.154)**
3. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 61, Subpart A and Subpart M for asbestos. **(40 CFR Part 61, Subpart A and Subpart M).**