

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

July 24, 2013

**PERMIT TO INSTALL
80-12A**

**ISSUED TO
Mid-Michigan Recycling L.C.**

**LOCATED AT
Various Locations
Michigan**

**IN THE COUNTY OF
Various**

**STATE REGISTRATION NUMBER
N2150**

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:

June 24, 2013

DATE PERMIT TO INSTALL APPROVED:

July 24, 2013

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 with aerodynamic diameter ≤10 microns
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	PM with aerodynamic diameter ≤ 2.5 microns
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)	Flexible Group ID
EUWOODSHREDDER1	A diesel-powered Morbark 7600 Wood Hog machine (manufactured in 2000), Serial #185-1011. This PTI covers when this shredder is used to mechanically reduce larger source separated wood waste from demolition down to smaller sizes. Control methods include water sprays on wood materials for dust control. EUWOODSHREDDER1 is a mobile piece of equipment and may move from site to site in accordance with the terms of this PTI.	FGSHREDDERS
EUWOODSHREDDER2	A diesel-powered Morbark 7600 Wood Hog machine (manufactured in 2012), Serial #185-1081. This PTI covers when this shredder is used to mechanically reduce larger source separated wood waste from demolition down to smaller sizes. Control methods include water sprays on wood materials for dust control. EUWOODSHREDDER2 is a mobile piece of equipment and may move from site to site in accordance with the terms of this PTI.	FGSHREDDERS
EUTRUCKTRAFFIC	Loading and trucking activities associated with EUWOODSHREDDER1 and EUWOODSHREDDER2 operations including debris pile handling and truck loading.	NA
EUSTORAGE	Open area stock piles of various debris materials associated with EUWOODSHREDDER1 and EUWOODSHREDDER2. Water spray of materials shall be used when necessary.	NA
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.		

The following conditions apply to: EUTRUCKTRAFFIC

DESCRIPTION: Loading and trucking activities associated with EUWOODSHREDDER1 and EUWOODSHREDDER2 operations including debris pile handling and truck loading.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT: NA

I. EMISSION LIMITS

1. Visible fugitive dust emissions from all loading and all truck traffic, operated in conjunction with EUTRUCKTRAFFIC, shall not exceed 5 percent opacity. (R 336.1301, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate EUTRUCKTRAFFIC unless the fugitive dust control program specified in Appendix A has been implemented and is maintained for all applicable site roadways, yards/temporary sites, material storage piles, and material handling operations associated with the operations of EUWOODSHREDDER1 and EUWOODSHREDDER2. **(R 336.1371, R 336.1372, Act 451 324.5524)**

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

NA

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA

The following conditions apply to: EUSTORAGE

DESCRIPTION: Open area stock piles of various debris materials associated with EUWOODSHREDDER1 and EUWOODSHREDDER2. Water spray of materials shall be used when necessary.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT: NA

I. EMISSION LIMITS

1. Visible fugitive dust emissions from each of the material storage piles maintained under EUSTORAGE shall not exceed 5 percent opacity. **(R 336.1301, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate EUSTORAGE unless the fugitive dust control program specified in Appendix A has been implemented and is maintained for all applicable site roadways, yards/temporary sites, material storage piles, and material handling operations associated with the operations of EUWOODSHREDDER1 and EUWOODSHREDDER2. **(R 336.1371, R 336.1372, Act 451 324.5524)**

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

NA

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA

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
FGSHREDDERS	Two diesel-powered Morbark 7600 Wood Hog machines. This PTI covers when these machines are used to mechanically reduce larger source separated wood waste from demolition down to smaller sizes. EUWOODSHREDDER1 and EUWOODSHREDDER2 are mobile pieces of equipment and may move from site to site in accordance with the terms of this PTI.	EUWOODSHREDDER1, EUWOODSHREDDER2

The following conditions apply to: FGSHREDDERS

DESCRIPTION: Two diesel-powered Morbark 7600 Wood Hog machines. This PTI covers when these machines are used to mechanically reduce larger source separated wood waste from demolition down to smaller sizes. EUWOODSHREDDER1 and EUWOODSHREDDER2 are mobile pieces of equipment and may move from site to site in accordance with the terms of this PTI.

Source separated wood waste from demolition – high quality wood waste resulting from the systematic deconstruction of residential, commercial, and industrial structures. Such wood waste must be source (or site) separated and stored in separate piles or containers. Any wood waste that is to be shredded and used as a fuel must not contain significant amounts of contaminants such as preserved or painted wood, concrete, metal, glass, etc.

Emission Units: EUWOODSHREDDER1, EUWOODSHREDDER2

POLLUTION CONTROL EQUIPMENT: Water sprays on materials for dust control.

I. EMISSION LIMITS

1. Visible fugitive dust emissions from the drop point and transfer point portions of each shredder in FGSHREDDERS shall not exceed 10 percent opacity. **(R 336.1301, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

II. MATERIAL LIMITS

1. The permittee shall not process more than 56,000 cubic yards of source separated wood waste from demolition through FGSHREDDERS per 12-month rolling time period as determined at the end of each calendar month. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
2. The permittee shall not process any asbestos tailing or asbestos containing waste materials in FGSHREDDERS pursuant to the National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 61 Subpart M. **(40 CFR Part 61 Subpart M)**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate either shredder in FGSHREDDERS unless the fugitive dust control program specified in Appendix A has been implemented and is maintained for all applicable site roadways, yards/temporary sites, material storage piles, and material handling operations associated with the operations of FGSHREDDERS. **(R 336.1371)**
2. The permittee shall remove and properly dispose of, at a minimum, heavily painted wood, preserved wood, dry wall, chemical products (liquid and solid), fluorescent light bulbs, fluorescent light ballasts with oil, any non wood materials and all mercury-containing devices from the wood waste to be shredded. **(R 336.1224, R 336.1225)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate either shredder in FGSHREDDERS unless the water spray is maintained and operated in a satisfactory manner. **(R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

V. TESTING/SAMPLING

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

NA

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep, in a satisfactory manner, a written record of the amount of source separated wood waste from demolition processed in FGSHREDDERS in cubic yards per 12-month rolling time period as determined at the end of each calendar month. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

1. The permittee shall not relocate either shredder in FGSHREDDERS to any new geographical site in Michigan unless all of the following criteria are met:
 - a. FGSHREDDERS shall not have any outstanding unresolved violations of any of the MDEQ Air Pollution Control rules, order, or permits; or federal air quality regulations.
 - b. The installation of FGSHREDDERS at the geographical site shall be of a temporary nature lasting not more than 12 consecutive months.

- c. The permittee shall provide a notice of intent to relocate FGSHREDDERS along with a proposed site plan to the AQD district office not less than 10 days prior to the scheduled relocation identifying the proposed new geographical site and the probable duration at the new site. The permittee shall clearly identify all residential or commercial establishments and places of public assembly within 300 feet of the proposed site of FGSHREDDERS on the proposed site plan.
- d. The permittee shall not locate FGSHREDDERS within 100 feet of a residential or commercial establishment or a place of public assembly unless prior written site approval is obtained from the AQD district office.
- e. A copy of this permit and conditions shall be in the possession of the operator at all times and will be made available upon request.
- f. The permittee shall not relocate FGSHREDDERS to any geographical site for which there is a known controversy.
(Act 451 324.5505(5))

APPENDIX A
Fugitive Dust Control Program

I. Site Roadways / Yard

- A. The dust on the site roadways and in the yards associated with the operation of FGWOODSHREDDERS, EUTRUCKTRAFFIC and EUSTORAGE shall be controlled by applications of water, calcium chloride or other acceptable and approved fugitive dust control compounds. Applications of dust suppressants shall be done as often as necessary to meet all applicable emission limits. A record of all watering/dust suppressant applications shall be kept on file and be made available to the AQD upon request.
- B. All paved roadways and the portion of the yards associated with EUTRUCKTRAFFIC and EUSTORAGE shall be swept as needed between applications.
- C. Any material spillage on roads from EUTRUCKTRAFFIC and EUSTORAGE shall be cleaned up immediately.

II. Equipment

The drop distance at each transfer point shall be reduced to the minimum the equipment can achieve.

III. Storage Piles

- A. Stockpiling of all materials associated with EUSTORAGE shall be performed to minimize drop distance and control potential dust problems.
- B. Stockpiles associated with EUSTORAGE shall be watered on an as needed basis in order to meet the opacity limit of 5 percent. Equipment to apply water or dust suppressant shall be available at the site or on call for use at the site within a given operating day. A record of all watering/dust suppressant applications shall be kept on file and be made available to the AQD upon request.

IV. Truck Traffic

Vehicles associated with EUTRUCKTRAFFIC shall be loaded to prevent their contents from dropping, leaking, blowing or otherwise escaping. This shall be accomplished by loading so that no part of the load shall come in contact within 6 inches of the top of any side board, side panel or tailgate. Otherwise, the truck shall be tarped.

V. AQD/MDEQ Inspection

The provisions and procedures of this plan are subject to adjustment by written notification from the AQD if, following an inspection, the AQD finds the fugitive dust requirements and/or permitted emission limits are not being met.