

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

March 25, 2019

PERMIT TO INSTALL
193-15A

ISSUED TO
Allied Waste Systems, Inc. dba Westshore Recycling and Transfer

LOCATED AT
4368 60th Street
Holland, Michigan

IN THE COUNTY OF
Allegan

STATE REGISTRATION NUMBER
P0663

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: March 12, 2019	
DATE PERMIT TO INSTALL APPROVED: March 25, 2019	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

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COMMON ACRONYMS

AQD	Air Quality Division
BACT	Best Available Control Technology
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
COMS	Continuous Opacity Monitoring System
Department/department	Michigan Department of Environmental Quality
EU	Emission Unit
FG	Flexible Group
GACS	Gallons of Applied Coating Solids
GC	General Condition
GHGs	Greenhouse Gases
HVLP	High Volume Low Pressure*
ID	Identification
IRSL	Initial Risk Screening Level
ITSL	Initial Threshold Screening Level
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
MAERS	Michigan Air Emissions Reporting System
MAP	Malfunction Abatement Plan
MDEQ	Michigan Department of Environmental Quality
MSDS	Material Safety Data Sheet
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standard for Hazardous Air Pollutants
NSPS	New Source Performance Standards
NSR	New Source Review
PS	Performance Specification
PSD	Prevention of Significant Deterioration
PTE	Permanent Total Enclosure
PTI	Permit to Install
RACT	Reasonable Available Control Technology
ROP	Renewable Operating Permit
SC	Special Condition
SCR	Selective Catalytic Reduction
SNCR	Selective Non-Catalytic Reduction
SRN	State Registration Number
TBD	To Be Determined
TEQ	Toxicity Equivalence Quotient
USEPA/EPA	United States Environmental Protection Agency
VE	Visible Emissions

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig

POLLUTANT / MEASUREMENT ABBREVIATIONS

acfm	Actual cubic feet per minute
BTU	British Thermal Unit
°C	Degrees Celsius
CO	Carbon Monoxide
CO ₂ e	Carbon Dioxide Equivalent
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
°F	Degrees Fahrenheit
gr	Grains
HAP	Hazardous Air Pollutant
Hg	Mercury
hr	Hour
HP	Horsepower
H ₂ S	Hydrogen Sulfide
kW	Kilowatt
lb	Pound
m	Meter
mg	Milligram
mm	Millimeter
MM	Million
MW	Megawatts
NMOC	Non-Methane Organic Compounds
NO _x	Oxides of Nitrogen
ng	Nanogram
PM	Particulate Matter
PM10	Particulate Matter equal to or less than 10 microns in diameter
PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
pph	Pounds per hour
ppm	Parts per million
ppmv	Parts per million by volume
ppmw	Parts per million by weight
psia	Pounds per square inch absolute
psig	Pounds per square inch gauge
scf	Standard cubic feet
sec	Seconds
SO ₂	Sulfur Dioxide
TAC	Toxic Air Contaminant
Temp	Temperature
THC	Total Hydrocarbons
tpy	Tons per year
µg	Microgram
µm	Micrometer or Micron
VOC	Volatile Organic Compounds
yr	Year

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 Rule 210 (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 Rule 219 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 Rule 219 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 Rule 301, 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 Rule 303 (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 Rule 370(2). **(R 336.1370)**
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. **(R 336.2001)**

EMISSION UNIT 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 (Including Process Equipment & Control Device(s))	Installation Date / Modification Date	Flexible Group ID
EU-WOODGRINDING2	Grinding of Scrap Wood: Series of operations consisting of receiving scrap wood via paved road from primarily furniture companies, scrap wood storage pile, transfer via paved plant roadways by front-end loader, Vermeer HG6000 with caterpillar diesel fired 755 horsepower grinding machine (equipped with water spray), transfer conveyors, chipped wood (final product) storage pile, and transfer of final product to off-site via paved plant roadways.	PTI Issuance Date	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 336.1291.

**EU-WOODGRINDING2
 EMISSION UNIT CONDITIONS**

DESCRIPTION

Grinding of Scrap Wood: Series of operations consisting of receiving scrap wood via paved road from primarily furniture companies, scrap wood storage pile, transfer via paved plant roadways by front-end loader, Vermeer HG6000 with caterpillar diesel fired 755 horsepower grinding machine (equipped with water spray), transfer conveyors, chipped wood (final product) storage pile, and transfer of final product to off-site via paved plant roadways.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Water sprays

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. Opacity	15 percent	6-minute average	Grinding machine portion of EU-WOODGRINDING2	SC VI.2	R 336.1301(1)(c)
2. Opacity	15 percent	6-minute average	Conveyors / Transfer points portions of EU-WOODGRINDING2	SC VI.2	R 336.1301(1)(c)
3. NO _x	22.6 tpy	12-month rolling time period as determined at the end of each calendar month	Diesel engine portion of EU-WOODGRINDING2	SC VI.3	R 336.1205(3), 40 CFR 52.21 Subparts (c) & (d)
4. PM	0.53 pph	Hourly	Diesel engine portion of EU-WOODGRINDING2	SC V.1	R 336.1331
5. PM _{2.5}	0.53 pph	Hourly	Diesel engine portion of EU-WOODGRINDING2	SC V.1	R 336.1331
6. PM ₁₀	0.53 pph	Hourly	Diesel engine portion of EU-WOODGRINDING2	SC V.1	R 336.1331

II. MATERIAL LIMIT(S)

1. The permittee shall not grind more than 150,000 tons per 12 month rolling period as determined at the end of each calendar month of scrap wood in EU-WOODGRINDING2. **(R 336.1205(3), 40 CFR 52.21 Subparts (c) & (d))**
2. The permittee shall grind only scrap wood in EU-WOODGRINDING2. Scrap wood is wood that does not contain asbestos or lead based material. **(R 336.1301, 40 CFR Part 61 Subpart M)**
3. The permittee shall burn only diesel fuel in EU-WOODGRINDING2. **(R 336.1205, R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate the grinder engine portion of EU-WOODGRINDING2 for more than 2,496 hours per 12-month rolling time period as determined at the end of each calendar month. **(R 336.1205, R 336.1224, R 336.1225, 40 CFR 52.21(c) and (d))**

- The permittee shall not operate EU-WOODGRINDING2 unless the fugitive dust control plan for all plant roadways, the plant yard, all material storage piles, and all material handling operations specified in Appendix A, or an alternate fugitive dust control plan approved by the AQD District Supervisor, is implemented and maintained. If at any time the plan fails to address or inadequately addresses a fugitive dust event, the permittee shall amend the plan within 45 days after such an event occurs. The permittee shall also amend the plan within 45 days upon request from the AQD District Supervisor. The permittee shall submit the plan and any amendments to the plan to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the plan or amended plan shall be considered approved. **(R 336.1301, R 336.1371, R 336.1372)**
- The permittee shall use the diesel engine portion of EU-WOODGRINDING2 as non-road, non-stationary reciprocating internal combustion engine. **(40 CFR Part 63 Subparts A and ZZZZ, 40 CFR Part 60 Subparts A and IIII)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

- The permittee shall not operate EU-WOODGRINDING2 unless the water sprays on diesel fired grinding machine are installed, maintained, and operated in a satisfactory manner. Satisfactory operation includes applying water as necessary to meet Emission Limit SC I.1 – SC I.2. This requirement does not apply during days when the ambient temperature is below freezing. **(R 336.1205, R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) and (d))**
- The permittee shall equip and maintain the grinder engine portion of EU-WOODGRINDING2 with a non-resettable hour meter to track the number of hours the engine operates. **(R 336.1205(3), 40 CFR 52.21(c) and (d))**

V. TESTING/SAMPLING

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

- Upon request of the AQD District Supervisor, the permittee shall verify either PM, PM10, or PM2.5 emission rates and visible emissions from EU-WOODGRINDING2 by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below.

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules
PM10, PM2.5	40 CFR Part 51, Appendix M
Visible Emission	40 CFR Part 51, Appendix M; 40 CFR Part 60, Appendix A

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205, R 336.1225, R 336.1301, R 336.1331, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) and (d))**

VI. MONITORING/RECORDKEEPING

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

- The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the last day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1301, R 336.1331, R 336.1910, R 336.1702, 40 CFR 52.21(c) and (d))**

2. The permittee shall conduct a daily visible emissions observation, either by a certified or a non-certified reader, as required in Emission Limit SC I.1 – SCI.2, when EU-WOODGRINDING2 is operating. If visible emissions are observed during the daily visible observation the permittee shall perform actions as outlined in the approved fugitive dust control plan. The permittee shall keep records of all daily observations on file in a format approved by the AQD District Office and make them available to the Department upon request. Records shall include the visible emissions observation (date, time, name of reader, whether the reader is certified or not), causes of any abnormal opacity. If abnormal opacity is observed, record the corrective actions taken, and the results of such actions. **(R 336.1301, R 336.1331, R 336.1910)**

3. The permittee shall keep the following information on a monthly basis for EU-WOODGRINDING2:
 - a) The amount, in tons, of scrap wood processed.
 - b) The amount, in tons, of scrap wood processed per 12-month rolling time period, as determined at the end of each calendar month.
 - c) Hours of operation of the grinder engine.
 - d) Hours of operation of the grinder engine per 12-month rolling time period, as determined at the end of each calendar month.
 - e) NO_x emission calculations determining the monthly emission rate in pounds per calendar month and in tons per calendar month.
 - f) NO_x emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records using mass balance or an alternate method and format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(3), 40 CFR 52.21(c) and (d))**

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 the EU-WOODGRINDING2. **(R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTION(S)

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

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-WoodGrinding2	6	12	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

¹ This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

APPENDIX A - Fugitive Dust Control Plan

I. Site Roadways / Plant Yard

- A. The dust on the site roadways and the plant yard 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 plant yards shall be swept as needed between applications.
- C. Any material spillage on roads shall be cleaned up immediately.

II. Plant

The drop distance at each transfer point shall be reduced to the minimum the equipment can achieve. The transfer point from the re-circulating belt to the feed belt shall be equipped with an enclosed chute.

III. Storage Piles

- A. Stockpiling of all scrap wood material shall be performed to minimize drop distance and control potential dust problems.
- B. Stockpiles 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

On-site vehicles 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.