MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

June 17, 2003

PERMIT TO INSTALL
No. 254-01

ISSUED TO
Mid-American Recyclers, Inc.

LOCATED AT
425 Borchert Park Drive
Monroe, Michigan

IN THE COUNTY OF
Monroe

STATE REGISTRATION NUMBER
N7012

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: **2/13/2003**	
DATE PERMIT TO INSTALL APPROVED: **6/17/2003**	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

NEW SOURCE REVIEW PERMIT TO INSTALL

Table of Contents

Common Abbreviations / Acronyms Used in this Permit to Install

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
GACS	Gallon of Applied Coating Solids	H_2S	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	NOx	Oxides of Nitrogen
MDEQ	Michigan Department of Environmental Quality	PM	Particulate Matter
MIOSHA	Michigan Occupational Safety & Health Administration	PM-10	Particulate Matter less than 10 microns diameter
MSDS	Material Safety Data Sheet	pph	Pound per hour
NESHAP	National Emission Standard for Hazardous Air Pollutants	ppm	Parts per million
NSPS	New Source Performance Standards	ppmv	Parts per million by volume
NSR	New Source Review	ppmw	Parts per million by weight
PS	Performance Specification	psia	Pounds per square inch absolute
PSD	Prevention of Significant Deterioration	psig	Pounds per square inch gauge
PTE	Permanent Total Enclosure	scf	Standard cubic feet
PTI	Permit to Install	sec	Seconds
RACT	Reasonable Available Control Technology	SO_2	Sulfur Dioxide
SC	Special Condition	THC	Total Hydrocarbons
SCR	Selective Catalytic Reduction	tpy	Tons per year
SRN	State Registration Number	µg	Microgram
TAC	Toxic Air Contaminant	VOC	Volatile Organic Compounds
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, altered, 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, reconstruction, relocation, or alteration 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 person to whom this permit was issued, or the designated authorized agent, shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, PO Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or alteration 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 the 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 owner or operator of a source, process, or process equipment shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant in excess of standards for more than one hour, or of any air contaminant in excess of standards for more than two hours, as required in this rule, to the District Supervisor, Air Quality Division. The notice shall be provided no 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 District Supervisor within ten days, with the information required in this rule. **[R336.1912]**

8. Approval of this permit does not exempt the person to whom this permit was issued from complying with any future applicable requirements which may be promulgated under Part 55 of Act 451, PA 1994 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 Act 451, PA 1994, 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, a person 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

Emission Unit ID	Emission Unit Description	Stack Identification
EU-GRIZZLY	GRIZZLY RM-110	NA
EU-DRYER	Rotary Kiln Dryer DS-200 controlled by a baghouse 1	SV-DS-203
EU-MPHS	Material Processing and Handling System (MPHS) controlled by a baghouse 2	SV-TS-540
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.		

Flexible Group Identification

Flexible Group ID	Emission Units Included in Flexible Group
FGFACILITY	EU-GRIZZLY, EU-DRYER and EU-MPHS

SPECIAL CONDITIONS

The following conditions apply to: EU-GRIZZLY

Visible Emission Limits

1.1 Visible emissions from all wheel loaders and all truck traffic, operated in conjunction with EU-GRIZZLY, shall not exceed ten (10) percent opacity during operations. **[R336.1301]**

1.2 Visible emissions from each of the desulfurization slag storage piles, produced and maintained by EU-GRIZZLY, shall not exceed five (5) percent opacity during operations. **[R336.1301]**

Monitoring

1.3 The permittee shall conduct non-certified visible emission reading(s) for all wheel loaders and all truck traffic, operated in conjunction with EU-GRIZZLY at least once per calendar day or more frequently if necessary. If the visible emissions are observed and are greater than the limit specified in S.C. 1.1 from all wheel loaders and all truck traffic, operated in conjunction with EU-GRIZZLY, then an on-site certified Federal Reference Method 9 (40 CFR Part 60, Appendix A) visible emissions reader shall immediately determine the visible emissions. If the visible emissions are observed and exceed the limit specified in S.C. 1.1 from all wheel loaders and all truck traffic, operated in conjunction with EU-GRIZZLY, an immediate investigation to determine cause, and initiate prompt corrective action shall be done. **[R336.1301]**

1.4 The permittee shall observe visible emissions for each of the desulfurization slag storage piles, produced and maintained by EU-GRIZZLY at least once per calendar day or more frequently if necessary. If the visible emissions are observed and are greater than the limit specified in S.C. 1.2 from each of the desulfurization slag storage piles, produced and maintained by EU-GRIZZLY, then an on-site certified Federal Reference Method 9 (40 CFR Part 60, Appendix A) visible emissions reader shall immediately determine the visible emissions. If the visible emissions are observed and exceed the limit specified in S.C. 1.2 from each of the desulfurization slag storage piles, produced and maintained by EU-GRIZZLY, an immediate investigation to determine cause, and initiate prompt corrective action shall be done. **[R336.1301]**

Recordkeeping/Reporting/Notification

1.5 The permittee shall keep, in a satisfactory manner, visible emissions readings from all wheel loaders and all truck traffic, operated in conjunction with EU-GRIZZLY. Records shall be kept only when visible emissions are observed using Method 9 and shall include the time of the visible emissions, cause of the visible emissions, corrective action taken and time of completion of corrective action. All records are for the purpose of compliance demonstration and shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1301]**

1.6 The permittee shall keep, in a satisfactory manner, visible emissions readings from each of the desulfurization slag storage piles, produced and maintained by EU-GRIZZLY. Records shall be kept only when visible emissions are observed using Method 9 and shall include the time of the visible emissions, cause of the visible emissions, corrective action taken and time of completion of corrective action. All records are for the purpose of compliance demonstration and shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1301]**

The following conditions apply to: EU-DRYER

Emission Limits

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirement
2.1a	PM	EU-DRYER	0.010 gr/dscf	Test Protocol	S.C. 2.8	R336.1331, 40 CFR 52.21(c)&(d)
2.1b	PM	EU-DRYER	12.3 tpy	12-month rolling time period as determined at the end of each month	See "Compliance Method" below	R336.1201(3) R336.1205(3)
2.1c	PM-10	EU-DRYER	0.010 gr/dscf	Test Protocol	S.C. 2.8	R336.1201(3) 40 CFR 52.21(c)&(d)
2.1d	PM-10	EU-DRYER	12.3 tpy	12-month rolling time period as determined at the end of each month	See "Compliance Method" below	R336.1201(3) R336.1205(3)
2.1e	NOx	EU-DRYER	41.7 tpy	12-month rolling time period as determined at the end of each month	See "Compliance Method" below	R336.1205, R336.1211
2.1f	NOx	EU-DRYER	170 lb NOx per MM SCF of natural gas	Test Method	S.C. 2.9	R336.1205, R336.1211
2.1g	Manganese	EU-DRYER	80 µg/dscm	Test Protocol	S.C. 2.8	R336.1224, R336.1225
2.1h	Manganese	EU-DRYER	1.08E-2 pph	Test Protocol	S.C. 2.8	R336.1224, R336.1225

Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirement

Compliance Method:
PM and PM-10

Test results [1] for PM and PM-10 shall be used to develop emission factor(s) in terms of pound(s) of pollutant per ton of desulfurization slag through the EU-DRYER. The permittee shall use the worst case emission factor(s) for PM and PM-10 from stack testing. The emission factor(s), along with the desulfurization slag monitoring requirement [2], shall be applied to each hour to ensure compliance with the appropriate time periods.

Notes:
1. All testing references and requirements are specified in Special Condition No. 2.8 for PM and PM-10.
2. The desulfurization slag monitoring requirements are found in Special Condition No. 2.4.

Annual PM and PM-10 emissions (tons/12 month rolling time period as determined at the end of each calendar month)	=	$\sum_{i=1}^{12}$ EF (lb/ton) x A (ton/month) x (ton/2000lb) EF (lb/ton) = the PM and PM-10 emission rates from above A (ton/month) = the desulfurization slag process during calendar month i

NOx
Compliance with the emission factor of 170 lb NOx/MM SCF of natural gas shall be determined for the EU-DRYER.

Annual Natural Gas Combustion NO_X emissions (tons/12 month rolling time period as determined at the end of each calendar month)	=	$\sum_{i=1}^{12}$ EF (lb/MMSCF) x A (CF/month) (ton/2000 lb) EF (lb/MMSCF) = the Natural Gas emission rate from above A (CF) = the Natural Gas used during calendar month i

Visible Emission Limits

2.2 Visible emissions from EU-DRYER shall not exceed a six-minute average of 10 percent opacity. **[R336.1301, R336.1331]**

Material Usage Limits

2.3 The natural gas usage for EU-DRYER shall not exceed 490 MMSCF per 12-month rolling time period as determined at the end of each calendar month. **[R336.1205 (3), R336.1225, R336.1211, R336.1702 (a), 40 CFR 52.21(c) & (d)]**

2.4 The permittee shall not process more than 100 tons of desulfurization slag through the EU-DRYER per hour, on an hourly average. **[R336.1205 (3), R336.1224, R336.1225, R336.1227 (1), 40 CFR 52.21(c) & (d)]**

2.5 The permittee shall only use desulfurization slag from iron blast furnaces in the EU-DRYER. **[R336.1201 (3), R336.1224, R336.1225]**

Process/Operational Limits

2.6 Within 60 days of commencement of operation, the permittee shall submit to the AQD District Supervisor, for review and approval, a compliance program plan for EU-DRYER. The permittee shall not operate EU-DRYER unless the approved compliance program plan approved by the AQD District

Supervisor is implemented and maintained. The plan shall also include procedures for maintaining and operating in a satisfactory manner the monitoring requirements as described in S.C. 2.8, 2.9, 2.10, 2.11, 2.12, 2.13 and 2.14. **[R336.1910, R336.1911, Act 451 324.5521, 40 CFR 60.50c(c)]**

Equipment

2.7 The permittee shall not operate EU-DRYER unless Baghouse 1 is installed, maintained, and operated in a satisfactory manner. **[R336.1224, R336.1225, R336.1301, R336.1331]**

Testing

2.8 Within 180 days after commencement of trial operation, verification of PM, PM-10 and manganese emission rates from EU-DRYER by testing at owner's expense; in accordance with Department requirements will be required. In addition, during the stack test a compliance monitor program consisting of method of sampling and an analysis of the percent of manganese in the Baghouse 1 hopper dust for each run, the desulfurization slag and natural gas rates for each run and an acceptable pressure drop range for the baghouse will be required. No less than 60 days prior to testing, a complete test plan including the compliance monitor program shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **[R336.1205 (3), R336.1224, R336.1225, R336.2001, R336.2003, R336.2004]**

2.9 Within 180 days after commencement of trial operation, verification of NOx emission rates from EU-DRYER, by testing at owner's expense; in accordance with Department requirements will be required. In addition, the emission factor of 170 pounds of NOx per MM SCF of natural gas for EU-DRYER shall be verified. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **[R336.1205 (3), R336.2001, R336.2003, R336.2004, 40 CFR 52.21(c) & (d)]**

Monitoring

2.10 During times of production, the permittee shall observe visible emissions for EU-DRYER at least once per operating day. If the visible emissions are observed and are greater than the limit specified in S.C. 2.2 from the EU-DRYER, then an on-site certified Federal Reference Method 9 (40 CFR Part 60, Appendix A) visible emissions reader shall immediately determine the opacity of the plume(s). If the visible emissions are observed and exceed the limit specified in S.C. 2.2 from the EU-DRYER, an immediate investigation to determine cause, and initiate prompt corrective action shall be done. **[R336.1301, R336.1331]**

2.11 The permittee shall monitor and record the monthly natural gas usage rate in standard cubic feet (SCF) to the EU-DRYER. The permittee shall be responsible for ensuring that the gas meter is install, calibrated, maintained and operated in a satisfactory manner as approved by the Air Quality Division District Supervisor. **[R336.1205 (3), R336.1224, R336.1225, 40 CFR 52.21(c) & (d)]**

2.12 The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor the desulfurization slag feed rate in tons per hour to the EU-DRYER. **[R336.1205 (3), R336.1224, R336.1225, 40 CFR 52.21(c) & (d)]**

2.13 The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the pressure drop on a continuous basis for Baghouse 1 of the EU-DRYER. **[R336.1224, R336.1225, R336.1301, R336.1331, R336.1910]**

2.14 The permittee shall conduct manganese percent analysis of the Baghouse 1 hopper dust of the EU-DRYER at least once per month or less frequently if approved in writing by the Air Quality Division. **[R336.1224, R336.1225]**

Recordkeeping/Reporting/Notification

2.15 The permittee shall calculate the PM and PM-10 emissions, as described under test result for 2.1b. In addition, the permittee shall keep monthly and previous 12-month PM and PM-10 calculation records for the EU-DRYER. All records are for the purpose of compliance demonstration and shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1205 (3), R336.1224 (c), R336.1225, R336.1910, 40 CFR 52.21(c) & (d)]**

2.16 The permittee shall keep, in a satisfactory manner, visible emissions readings from the EU-DRYER. Records shall be kept only when visible emissions are observed using Method 9 and shall include the time of the visible emissions, cause of the visible emissions, corrective action taken and time of completion of corrective action. All records are for the purpose of compliance demonstration and shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1301, R336.1331]**

2.17 The permittee shall keep, in a satisfactory manner, monthly natural gas usage records, indicating the total amount of natural gas used, in cubic feet, on a calendar month basis and a 12-month rolling time period basis for EU-DRYER. In addition, the permittee shall keep monthly and previous 12-month NOx calculation records for the EU-DRYER. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1205 (3), R336.1225, 40 CFR 52.21(c) and (d)]**

2.18 The permittee shall keep, in a satisfactory manner, desulfurization slag feed rate as determined hourly for EU-DRYER. All records are for the purpose of compliance demonstration and shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1205 (3), R336.1224 (c), R336.1225, R336.1910, 40 CFR 52.21(c) & (d)]**

2.19 The permittee shall keep, in a satisfactory manner, pressure drop readings for Baghouse 1 of the EU-DRYER. All records are for the purpose of compliance demonstration and shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1224, R336.1225, R336.1331, R336.1910]**

2.20 The permittee shall keep, in a satisfactory manner, manganese percent analysis of the Baghouse 1 hopper dust of the EU-DRYER, using a method acceptable to the AQD District Supervisor. 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, R336.1225]**

Stack/Vent Restrictions

	Stack & Vent ID	Maximum Diameter (inches)	Minimum Height Above Ground Level (feet)	Applicable Requirement
2.21	SV DS-203	54	90	R336.1225, 40 CFR 52.21(c) & (d)
	The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.			

The following conditions apply to: EU-MPHS

Emission Limits

	Pollutant	Equipment	Limit	Time Period	Compliance Method	Applicable Requirement
3.1a	PM	EU-MPHS	0.010 gr/dscf	Test Protocol	S.C. 3.6	R336.1331, 40 CFR 52.21(c) & (d)
3.1b	PM	EU-MPHS	13.1 tpy	12-month rolling time period as determined at the end of each calendar month	See "Compliance Method" below	R336.1201(3) R336.1205(3)
3.1c	PM-10	EU-MPHS	0.010 gr/dscf	Test Protocol	S.C. 3.6	R336.1201(3) 40 CFR 52.21(c) & (d)
3.1d	PM-10	EU-MPHS	13.1 tpy	12-month rolling time period as determined at the end of each calendar month	See "Compliance Method" below	R336.1201(3) R336.1205(3)
3.1e	ChromiumVI	EU-MPHS	2.4 µg/dscm	Test Protocol	S.C. 3.7	R336.1224, R336.1225
3.1f	ChromiumVI	EU-MPHS	3.4E-4 pph	Test Protocol	S.C. 3.7	R336.1224, R336.1225
3.1g	Manganese	EU-MPHS	0.89 µg/dscm	Test Protocol	S.C. 3.7	R336.1224, R336.1225
3.1h	Manganese	EU-MPHS	1.14E-2 pph	Test Protocol	S.C. 3.7	R336.1224, R336.1225

Compliance Method:

Test results [1] for PM and PM-10 shall be used to develop emission factor(s) in terms of pound(s) of pollutant per ton of desulfurization slag processed through the EU-MPHS. The permittee shall use the worst case emission factor(s) for PM and PM-10 from stack testing. The emission factor(s), along with the desulfurization slag monitoring, shall be applied to each hour to ensure compliance with the appropriate time period.

Notes:

1. All testing references and requirements are specified in Special Condition No. 3.6 for PM and PM-10.

Annual PM and PM-10 emissions (tons/12 month rolling time period as determined at the end of each calendar month) = $\sum_{i=1}^{12}$ EF (lb/ton) x A (ton/month) x (ton/2000 lb)

EF (lb/ton) = the PM and PM-10 emission rates from above
A (ton/month) = the desulfurization slag process during calendar month i

Visible Emission Limits

3.2 Visible emissions from EU-MPHS shall not exceed a six-minute average of 10 percent opacity. **[R336.1301, R336.1331]**

Material Usage Limits

3.3 The permittee shall not process more than 2.45 tons of cement through EU-MPHS per hour, based on hourly average. **[R336.1205 (3), R336.1224, R336.1225, R336.1227 (1), 40 CFR 52.21(c) & (d)]**

Process/Operational Limits

3.4 Within 60 days of commencement of operation, the permittee shall submit to the AQD District Supervisor, for review and approval, a compliance program plan for EU-MPHS. The permittee shall not operate EU-MPHS unless the approved compliance program plan approved by the AQD District Supervisor is implemented and maintained. The plan shall also include procedures for maintaining and operating in a satisfactory manner the monitoring requirements as described in S.C. 3.6, 3.7, 3.8, 3.9 and 3.10. **[R336.1910, R336.1911, Act 451 324.5521, 40 CFR 60.50c(c)]**

Equipment

3.5 The permittee shall not operate EU-MPHS unless the Baghouse 2 is installed, maintained, and operated in a satisfactory manner. **[R336.1224, R336.1225, R336.1301, R336.1331]**

Testing

3.6 Within 180 days after commencement of trial operation, verification of PM, PM-10, chromium VI and manganese emission rates from EU-MPHS, by testing at owner's expense, in accordance with Department requirements will be required. In addition, during the stack test a compliance monitor program consisting of method of sampling and an analysis of the percent of the above metals in the Baghouse 2 hopper dust for each run, the desulfurization slag and cement rates for each run and an acceptable pressure drop range for the baghouse will be required. No less than 60 days prior to testing, a complete test plan including the compliance monitor program shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **[R336.1205 (3), R336.1224, R336.1225, R336.2001, R336.2003, R336.2004]**

Monitoring

3.7 During times of operation, the permittee shall observe visible emissions for EU-MPHS at least once per operating day. If the visible emissions are observed and are greater than the limit specified in S.C. 3.2 from the EU-MPHS, then an on-site certified Federal Reference Method 9 (40 CFR Part 60, Appendix A) visible emissions reader shall immediately determine the opacity of the plume(s). If the visible emissions are observed and exceed the limit specified in S.C. 3.2 from the EU-MPHS, an immediate investigation to determine cause, and initiate prompt corrective action shall be done. **[R336.1301, R336.1331]**

3.8 The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor the cement usage feed rate in tons per hour to the EU-MPHS. **[R336.1205 (3), R336.1224, R336.1225, R336.1901, 40 CFR 52.21(c) & (d)]**

3.9 The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor and record the pressure drop on a continuous basis for Baghouse 2 of the EU-MPHS. **[R336.1224, R336.1225, R336.1301, R336.1331, R336.1910]**

3.10 The permittee shall conduct chromium+6 and manganese percent analysis of the Baghouse 2 hopper dust of the EU-MPHS at least once per month or less frequently if approved in writing by the Air Quality Division. **[R336.1224, R336.1225]**

Recordkeeping/Reporting/Notification

3.11 The permittee shall calculate the PM and PM-10 emissions, as described under test results for 3.1b. In addition, the permittee shall keep monthly and previous 12-month PM and PM-10 calculation records for the EU-MPHS. All records are for the purpose of compliance demonstration and shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1205 (3), R336.1224, R336.1225, R336.1910, 40 CFR 52.21(c) & (d)]**

3.12 The permittee shall keep, in a satisfactory manner, visible emissions readings from the EU-MPHS. Records shall be kept only when visible emissions are observed using Method 9 and shall include the time of the visible emissions, cause of the visible emissions, corrective action taken and time of completion of corrective action. All records are for the purpose of compliance demonstration and shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1301, R336.1331]**

3.13 The permittee shall keep, in a satisfactory manner, cement usage feed rate, as determined hourly for EU-MPHS. All records are for the purpose of compliance demonstration and shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1205 (3), R336.1224, R336.1225, R336.1910, 40 CFR 52.21(c) & (d)]**

3.14 The permittee shall keep, in a satisfactory manner, hourly pressure drop readings for Baghouse 2 of the EU-MPHS. All records are for the purpose of compliance demonstration and shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1224, R336.1225, R336.1301, R336.1331, R336.1910]**

3.15 The permittee shall keep, in a satisfactory manner, chromium VI and manganese percent analysis of the Baghouse 2 hopper dust of the EU-MPHS, using a method acceptable to the AQD District Supervisor. 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, R336.1225]**

Stack/Vent Restrictions

	Stack & Vent ID	Maximum Diameter (inches)	Minimum Height Above Ground Level (feet)	Applicable Requirement
3.16	SV TS-540	48	90	R336.1225, 40 CFR 52.21(c) and (d)
	The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.			

The following conditions apply to: FGFACILITY

Process/Operational Limits

4.1 Within 60 days of commencement of operation, the permittee shall submit to the AQD District Supervisor, for review and approval, a program for continuous fugitive emissions control for all plant roadways, the plant yard, all material storage piles, and all material handling operations for FGFACILITY. The permittee shall not operate FGFACILITY unless the approved program for continuous fugitive emissions control, or an alternate plan approved by the AQD District Supervisor, is implemented and maintained. **[R336.1372, Act 451 324.5521]**

4.2 Within 60 days of commencement of operation, the permittee shall submit to the AQD District Supervisor, for review and approval, a malfunction abatement/prevention maintenance plan for FGFACILITY. The permittee shall not operate FGFACILITY unless the approved maintenance plan, or an alternate plan approved by the AQD District Supervisor, is implemented and maintained. The plan shall include procedures for maintaining and operating in a satisfactory manner, FGFACILITY, add-on air pollution control device, or monitoring equipment during malfunction events, and a program for corrective action for such events. If the malfunction abatement plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the owner or operator shall revise the malfunction abatement plan within 45 days after such an event occurs. **[R336.1910, R336.1911, Act 451 324.5521, 40 CFR 60.50c(c)]**

Recordkeeping/Reporting/Notification

4.3 The permittee shall conduct all necessary maintenance and make all necessary attempts to keep all components of FGFACILITY maintained and operating in a satisfactory manner at all times. The owner or operator shall maintain a log of all significant maintenance activities conducted and all significant repairs made to FGFACILITY. Maintenance records for the baghouse(s) shall be consistent with the preventative maintenance program. All records are for the purpose of compliance demonstration and shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1201, R336.1205 (3), R336.1224, R336.1225, R336.1301, R336.1331, R336.1402, R336.1910, R336.1911]**