# MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY AIR QUALITY DIVISION

September 22, 2022

PERMIT TO INSTALL 177-19B

**ISSUED TO**Granger Waste Service, Inc.

LOCATED AT

16980 Wood Road, Granger Wood Street Landfill
Lansing, Michigan 48906

IN THE COUNTY OF Clinton and Ingham

## STATE REGISTRATION NUMBER N5997

FRIS PENINSULAM

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environment, Great Lakes, and Energy. 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).

June 8, 2022			
DATE PERMIT TO INSTALL APPROVED: September 22, 2022	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/EGLE Michigan Department of Environment, Great Lakes, and Energy

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

IRSLInitial Risk Screening LevelITSLInitial Threshold Screening LevelLAERLowest Achievable Emission RateMACTMaximum Achievable Control TechnologyMAERSMichigan Air Emissions Reporting System

MAP Malfunction Abatement Plan 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

<sup>\*</sup>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

CO2e Carbon Dioxide Equivalent dscf Dry standard cubic foot dscm Dry standard cubic meter Personal Per

gr Grains

HAP Hazardous Air Pollutant

Hg Mercury hr Hour

 $\begin{array}{ccc} \text{HP} & \text{Horsepower} \\ \text{H}_2 \text{S} & \text{Hydrogen Sulfide} \end{array}$ 

kW Kilowatt
lb Pound
m Meter
mg Milligram
mm Millimeter
MM Million
MW Megawatts

NMOC Non-Methane Organic Compounds

NO<sub>x</sub> 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 absolute Pounds per square inch gauge

scf Standard cubic feet

sec Seconds SO<sub>2</sub> Sulfur Dioxide

TAC Toxic Air Contaminant

Temp Temperature

THC Total Hydrocarbons tpy Tons per year 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 Environment, Great Lakes, and Energy, 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 Environment, Great Lakes, and Energy. (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 condition 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
EUUF1	One landfill gas open utility flare with a rated design capacity of 4,000 standard cubic feet per minute (scfm), used to control excess landfill gas. The flare may utilize a desulfurization system to remove sulfur in the gas stream before flaring.	8/30/21	FGNEWFLARES
EUUF2	One landfill gas open utility flare with a rated design capacity of 2,000 scfm, used to control excess landfill gas. The flare may utilize a desulfurization system to remove sulfur in the gas stream before flaring.	8/30/21	FGNEWFLARES

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.

# **FLEXIBLE GROUP SPECIAL CONDITIONS**

# **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
FGNEWFLARES	Two open utility flares that will burn landfill gas when the Renewable Gas Plant is inoperable or running at a lower capacity. Together the two flares have a maximum capacity of 6,000 scfm.	EUUF1, EUUF2

# FGNEWFLARES FLEXIBLE GROUP CONDITIONS

#### **DESCRIPTION**

Two open utility flares (EUUF1, EUUF2) that burn landfill gas when the Renewable Gas Plant is inoperable or running at a lower capacity. Processed landfill gas that is not pipeline quality will be burned in FGNEWFLARES. Together the two flares have a maximum capacity of 6,000 cubic feet per minute.

Emission Unit: EUUF1, EUUF2

### **POLLUTION CONTROL EQUIPMENT**

NA

### I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. NOx	0.068 Ib/MMBTU* (Limit applies to each emission unit)	Hourly	EUUF1, EUUF2	SC VI.2, SC VI.3	R 336.1205(1)(a) & (3), R 336.2803, R 336.2804
2. NOx	60.0 tpy*  (Limit applies to both emission units as a total)	12-month rolling time period as determined at the end of each calendar month	EUUF1 and EUUF2	SC VI.7, SC VI.8	R 336.1205(1)(a) & (3)
3. CO	0.37 lb/MMBTU* (Limit applies to each emission unit)	Hourly	EUUF1, EUUF2	SC VI.2, SC VI.3	R 336.1205(1)(a) & (3), R 336.2804
4. CO	325.0 tpy*  (Limit applies to both emission units as a total)	12-month rolling time period as determined at the end of each calendar month	EUUF1 and EUUF2	SC VI.7, SC VI.8	R 336.1205(1)(a) & (3)
5. SO <sub>2</sub>	40.2 pph	Hourly	EUUF1 and EUUF2	SC V.1, SC VI.2, SC VI.3, SC VI.5, SC VI.6	R 336.1205(1)(a) & (3), R 336.2803, R 336.2804
6. SO <sub>2</sub>	59.1 tpy (Limit applies to both emission units as a total)	12-month rolling time period as determined at the end of each calendar month	EUUF1 and EUUF2	SC V.1, SC VI.6, SC VI.8	R 336.1205(1)(a) & (3)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
* Limits are based on a Higher Heating Value of landfill gas equal to 557 BTU/scf.					

#### II. MATERIAL LIMIT(S)

NA

#### III. PROCESS/OPERATIONAL RESTRICTION(S)

- 1. The permittee shall not operate either flare unless the PM / MAP, or an alternate plan approved by the AQD District Supervisor, is implemented and maintained. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. At a minimum, the plan shall include:
  - a) Identification of the equipment and, if applicable, air-cleaning device, and the supervisory personnel responsible for overseeing the inspection, maintenance, and repair.
  - b) Description of the items or conditions to be inspected and frequency of the inspections or repairs.
  - c) Identification of the equipment and, if applicable, air-cleaning device, operating parameters that shall be monitored to detect a malfunction or failure, the normal operating range of these parameters and a description of the method of monitoring or surveillance procedures.
  - d) Identification of the major replacement parts that shall be maintained in inventory for quick replacement.
  - e) 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.

If at any time the PM / MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the PM / MAP within 45 days after such an event occurs. The permittee shall also amend the PM / MAP within 45 days, if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the PM / MAP and any amendments to the PM / MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the PM / MAP or amended PM / 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 336.1205(1)(a) & (3), R 336.1224, R 336.1225, R 336.1910, R 336.1911)

2. The permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications, a landfill gas flow rate measuring device for EUUF1 and EUUF2 to record the flow to or bypass of the flare at least every 15 minutes. (R 336.1205(1)(a) & (3), R 336.1225, R 336.1702)

### IV. <u>DESIGN/EQUIPMENT PARAMETER(S)</u>

- 1. The nameplate capacity of EUUF1 and EUUF2 shall not exceed 4,000 scfm and 2,000 scfm, respectively, as specified by the equipment manufacturer. (R 336.1205(1)(a) & (3), R 336.1225, R 336.1702, R 336.2802(4))
- The heat input capacity of EUUF1 and EUUF2 shall not exceed a maximum of 134.4 MMBTU per hour or 66.9 MMBTU per hour, respectively. (R 336.1205(1)(a) & (3), R 336.1224, R 336.1225, R 336.1702(a), R 336.2803, R 336.2804)

#### V. TESTING/SAMPLING

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

1. When raw landfill gas (not pipeline-conditioned gas from the RNG facility) is routed directly to FGNEWFLARES, gas sampling shall occur within one business day and shall continue weekly, at a minimum, thereafter as long as flaring continues. During flaring of raw landfill gas, the permittee shall do the following:

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- a) The hydrogen sulfide (H<sub>2</sub>S) or total reduced sulfur (TRS) equivalent content of the raw landfill gas burned in FGNEWFLARES, weekly by gas sampling (e.g. Draeger Tubes, Tedlar Sampling Bags, etc.) and semi-annually by gas sampling using an EPA approved method and laboratory analysis, at the owner's expense, in accordance with Department requirements.
  - (i) Within an hour of the time each gas sample taken, the permittee shall record the actual landfill gas flow to the flare(s).
  - (ii) Calculate the SO<sub>2</sub> emissions, in pounds per hour (pph) at each operating flare using the gas sampling result and recorded flare gas flow at the time of sampling using Appendix A.
- b) If, at any time, the SO<sub>2</sub> emissions exceeds 30 pounds per hour (pph) for the two flares combined the permittee shall route the gas through the desulfurization process before flaring. The permittee shall also review all operating and maintenance activities for the landfill gas collection and treatment system along with keeping records of any corrective actions taken. Thereafter, the permittee shall:
  - (i) Use either Appendix A or B to determine when sulfur removal is no longer required. Once sulfur concentrations and gas flow rates are maintained at levels below 30 pph for at least five (5) consecutive business days, the permittee may bypass the desulfurization process and resume weekly monitoring.

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 the first test for each type of gas sampling. Thereafter, the permittee shall submit a test plan upon the request of the AQD District Supervisor or if any changes are made to the approved testing protocol. The permittee may petition the AQD District Supervisor to reduce the frequency of gas sampling of the landfill gas. The permittee shall keep all records on file at the facility and make them available to the Department upon request. (R 336.1205(1)(a) & (3), R 336.2001, R 336.2003, R 336.2004, R 336.2802(4))

#### 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 by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. (R 336.1205(1)(a) & (3), R 336.1224, R 336.1225, R 336.1702(a), R 336.1910, R 336.1911, R 336.2803, R 336.2804)
- 2. The permittee shall continuously monitor and record the gas flow rate for EUUF1 and EUUF2 as specified in SC III.2. The permittee shall keep all records on file at the facility and make them available to the Department upon request. (R 336.1205(1)(a) & (3), R 336.1224, R 336.1225, R 336.1331, R 336.1702(a), R 336.1910, R 336.2803, R 336.2804)
- 3. The permittee shall monitor and record, in a satisfactory manner, the monthly higher heating value (BTU/scf) of the landfill gas burned in EUUF1 and EUUF2. The higher heating value shall be used to calculate the heat input on a monthly basis. The permittee shall keep all records on file at the facility and make them available to the Department upon request. (R 336.1205(1)(a) & (3), R 336.1224, R 336.1225, R 336.1702(a), R 336.2803, R 336.2804)
- 4. The permittee shall keep, in a satisfactory manner, all records related to, or as required by, the PM / MAP for EUUF1 and EUUF2. (R 336.1205(1)(a) & (3), R 336.1224, R 336.1225, R 336.1702(a), R 336.1910, R 336.1911, R 336.1912, R 336.2803, R 336.2804)
- 5. The permittee shall keep, in a satisfactory manner, records of gas sampling and analysis for H₂S and TRS concentration in the raw landfill gas routed to FGNEWFLARES and any corrective actions taken to determine exceedance of sampling concentrations. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1205(1)(a) & (3), R 336.1224, R 336.1225, R 336.1901, R 336.2803, R 336.2804)
- 6. The permittee shall calculate and keep, in a satisfactory manner, records of hourly, monthly and 12-month rolling total SO<sub>2</sub> mass emissions for EUUF1 and EUUF2. Calculations shall be performed according to

Appendix A or other method as approved by the AQD District Supervisor. The calculations shall utilize, at a minimum, weekly gas sampling data collected from SC V.1, the daily gas usage, daily hours of operation, gas flow to the flare, and the ratio of total sulfur to sulfur as  $H_2S$  from the most recent semi-annual laboratory test. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1205(1)(a) & (3), R 336.2803, R 336.2804)

- 7. The permittee shall calculate and keep, in a satisfactory manner, records of hourly, monthly and 12-month rolling NO<sub>x</sub> and CO mass emissions for EUUF1 and EUUF2. Calculations shall be performed according to Appendix A. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1205(1)(a) & (3), R 336.2803, R 336.2804)
- 8. The permittee shall keep, in a satisfactory manner, records of the daily and monthly hours of operation and the type of gas burned (i.e., raw landfill gas, desulfurized gas, or RNG) for EUUF1 and EUUF2. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1205(1)(a) & (3), R 336.1224, R 336.1225, R 336.2803, R 336.2804)
- 9. The permittee shall keep, in a satisfactory manner, records of when EUUF1 or EUUF2 is not operating. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1205(1)(a) & (3), R 336.1224, R 336.1225, R 336.2803, R 336.2804)

#### 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 FGNEWFLARES. (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. SVUF1	16	45	R 336.1225,
			R 336.2803, R 336.2804
2. SVUF2	12	35	R 336.1225,
			R 336.2803, R 336.2804

### IX. OTHER REQUIREMENT(S)

 The permittee shall comply with all provisions of the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR Part 63 Subparts A and AAAA, as they apply to FGNEWFLARES. (40 CFR Part 63 Subparts A & AAAA)

#### Footnotes:

<sup>&</sup>lt;sup>1</sup> This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

# APPENDIX A Calculations for Criteria Pollutants

#### SO<sub>2</sub> Mass Emissions

The following calculation for SO<sub>2</sub> emissions shall utilize the actual gas flow, actual hours of operation, and the sulfur concentration from gas sampling and/or a gas chromatograph.

 $SO_2 = [(scfm) \ x \ (60 \ min/hr) \ x \ (ppmv_{TRS} \ ^*1E-06) \ x \ (MW_{SO_2})] \div [(R \ x \ T)] = pph \ x \ (H) = pounds/day$ 

#### Where:

scfm = standard cubic feet per minute gas flow ppmv<sub>TRS</sub> = parts per million by volume of Total Reduced Sulfur (TRS) in the gas  $MW_{SO_2}$  = Molecular Weight of  $SO_2$  = 64.066 lb/lb-mol H = Actual Hours of Operation per day R = Universal Gas Constant = 0.7302 atm-ft³/lb-mol-R

T = Standard Temperature (absolute) = 519 R

#### NO<sub>X</sub> and CO Mass Emissions

The following calculation for  $\overline{NO}_X$  and  $\overline{CO}$  emissions shall utilize the actual HHV of the gas, gas flow rate, and hours of operation.

NO<sub>X</sub> or CO = [(HI) x (EF)] = pph x (H) = pounds/day HI = (HHV) x (scfm) x (1/1.0E+06) x 60 min/hr

#### Where:

EF<sub>NOX</sub> = 0.068 lb/MMBTU (open flare)
EF<sub>CO</sub> = 0.37 lb/MMBTU (open flare)
scfm = standard cubic feet per minute gas flow
H = Actual Hours of Operation per day
HI = Heat Input (MMBTU/hr)
HHV = Average Hourly LFG Higher Heating Value (BTU/ft³)

# **APPENDIX B**

# Flare SO<sub>2</sub> Estimation Table

SO2 (lbs.hr) = LFG flow (s.dfmin) \* TRS (ppmv) \* 1,000,000 \* MW SO2 (lbs.mol) \* 60 min/hr \*Sulfur conversion to SO2 (%) / (Resolute Standard Temperature (R) \* Universal Cas Constant (atm.)

\*Flares were permitted to allow any lbhr value under 650 TRS without evaluating flow. H2S conversion to TRS assumes AP-42 default concentration of non-hydrogen sulfide LFG sulfur constituents

1650 1750 1250 1350 1450 1550 1150 950 1050 ġ 8 ë \$ ŝ 8 8 8 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 | 2000 | 2100 | 2200 | 2300 | 2400 | 2500 | 2600 | 2700 | 2600 | 2700 | 2600 | 2700 | 2600 | 2000 | 2100 | 2200 | 3200 | 3200 | 3200 | 3200 | 3200 | 3200 | 3200 | 3200 | 3200 | 3200 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 4000 | 400 41.4 42.8 44.2 45.5 46.9 48.3 49.7 51.1 52.4 53.8 55.2 56.6 58.0 66.0 67.8 69.6 71.4 480 490 5000 5100 5200 5300 5400 5500 5600 65.9 43.3 5700 58 00 . 8.5

UF-1 & UF-2 Maximum Combined Permitted Emission Limit

Maximum Combined Emission Limit Prior to Using Desulfurization 30.0 lbs/h