West Virginia Department of Environmental Protection
Harold D. Ward
Cabinet Secretary

Construction Permit

R13-3563

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§22-5-1 et seq.) and 45 C.S.R. 13 – Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits, Permission to Commence Construction, and Procedures for Evaluation. The permittee identified at the above-referenced facility is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:

Thunder Mountain Environmental Services LLC
West Virginia Plant/Ravenswood
035-00082

DRAFT

Laura M. Crowder
Director, Division of Air Quality

Issued: DRAFT

Facility Location:	5334B Point Pleasant Rd. Ravenswood, Jackson County, West Virginia 26164
Mailing Address:	217 Barefoot Beach Blvd. Bonita Spring, FL
Facility Description:	Medical Waste Treatment using a Gasifier Unit
NAICS Codes:	562219
UTM Coordinates:	533.51 km Easting • 4,465.42 km Northing • Zone 17
Permit Type:	Construction
Description of Change:	This action is for the construction and operation of a gasifier unit that will utilize non-hazardous medical waste as feedstock. The facility will also include a steam generator and turbine/generator which will be used to generate electricity for the facility.

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified, or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §§22-5-14.

As a result of this permit, the gasifier unit is subject to 45CSR30. The Title V (45CSR30) application will be due within twelve (12) months after the commencement date of any operation authorized by this permit.

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1.0. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
1-S-1		Feedstock Feeding System	2023	40 TPD	C1-2, C1-3 and C1-4
1S-1	EP-001	Feedstock Shredder	2023	40 TPD	
		24-hr Fuel Hopper			
1-S		Waste Treating Unit- Thermal Gasifier	2023	20 TPD	
		Fire Tube	2023		
S-2		Boiler (Steam Generator)	2023		
		Steam Turbine/Generator	2023	1.2 MW	None
		Ash and Floor Wash Storage Tank	2023		AC
DSS	EP-002	Dry Sorbent Silo (Sodium Bicarbonate)	2023		C2
S-EGS	EP-005	Emergency Generator w/spark initiation engine	2023	240 bhp	None

1.1. Control Devices

Control Device ID	Control Device Description	Controlling Pollutant(s)	Control Efficiency
C1-2	Cyclone	PM (filterable fraction)	80%
C1-3	Dry Sorbent Scrubber*	SO_2 HCl	80%
	Activate Carbon Injection*	Dioxins and Furans (D/F) Mercury (Hg)	90% for D/F 70% for Hg
C1-4	Fabric Filter Baghouse with	PM (filterable fraction) PM_{10} (filterable fraction) $PM_{2.5}$ (filterable fraction)	99.9%
C2	Bin Vent (Fabric Filter)	PM (filterable fraction) PM_{10} (filterable fraction) $PM_{2.5}$ (filterable fraction)	99.9%
AC	Activate Carbon Filter	Organic	100%

* These control devices are coupled with the Fabric Filter Baghouse for the removal of these pollutants.

2.0. General Conditions

2.1. Definitions

2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.

2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.

2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45 CSR §30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.2. Acronyms

CAAA	Clean Air Act Amendments		**NO_X**	Nitrogen Oxides
CBI	Confidential Business Information		**NSPS**	New Source Performance Standards
CEM	Continuous Emission Monitor		**PM**	Particulate Matter
CES	Certified Emission Statement		**$PM_{2.5}$**	Particulate Matter less than 2.5 µm in diameter
C.F.R. *or* CFR	Code of Federal Regulations		**PM_{10}**	Particulate Matter less than 10µm in diameter
CO	Carbon Monoxide		**Ppb**	Pounds per Batch
C.S.R. *or* CSR	Codes of State Rules		**Pph**	Pounds per Hour
DAQ	Division of Air Quality		**Ppm**	Parts per Million
DEP	Department of Environmental Protection		**Ppm_V or ppmw**	Parts per Million by Volume
dscm	Dry Standard Cubic Meter		**PSD**	Prevention of Significant Deterioration
FOIA	Freedom of Information Act		**Psi**	Pounds per Square Inch
HAP	Hazardous Air Pollutant		**SIC**	Standard Industrial Classification
HON	Hazardous Organic		**SIP**	State Implementation Plan
HP	NESHAP		**SO_2**	Sulfur Dioxide
lbs/hr	Horsepower		**TAP**	Toxic Air Pollutant
LDAR	Pounds per Hour		**TPY**	Tons per Year
M	Leak Detection and Repair		**TRS**	Total Reduced Sulfur
MACT	Thousand		**TSP**	Total Suspended Particulate
MDHI	Maximum Achievable		**USEPA**	United States Environmental Protection Agency
MM	Control Technology		**UTM**	Universal Transverse Mercator
MMBtu/hr *or* mmbtu/hr	Maximum Design Heat Input		**VEE**	Visual Emissions Evaluation
MMCF/hr *or* mmcf/hr	Million		**VOC**	Volatile Organic Compounds
NA	British Thermal Units per Hour		**VOL**	Volatile Organic Liquids
NAAQS	Million Cubic Feet per Hour			
	Not Applicable			
NESHAPS	National Ambient Air Quality Standards			
	National Emissions Standards for Hazardous Air Pollutants			

2.3. Authority

This permit is issued in accordance with West Virginia Air Pollution Control Act W.Va. Code §§ 22-5-1. et seq. and the following Legislative Rules promulgated thereunder:

2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation*.

2.4. Term and Renewal

2.4.1. This Permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked, or otherwise changed under an applicable provision of 45CSR13 or any other applicable legislative rule.

2.5. Duty to Comply

2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-3555, and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to.
[45CSR§§13-5.10 and 10.3.]

2.5.2. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA.

2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7.

2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies, i.e., local, state, and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

2.6. Duty to Provide Information

The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for administratively updating, modifying, revoking, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

2.7. Duty to Supplement and Correct Information

Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-4.]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-5.4.]

2.10 Major Permit Modification

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.
[45CSR§13-5.1]

2.11. Inspection and Entry

The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit.

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit.

c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

2.12. Emergency

2.12.1. An "emergency" means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused

by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

2.12.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of Section 2.12.3 are met.

2.12.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency.

b. The permitted facility was at the time being properly operated.

c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

d. The permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

2.12.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

2.12.5 The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

2.14. Suspension of Activities

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

2.15. Property Rights

This permit does not convey any property rights of any sort or any exclusive privilege.

2.16. Severability

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. **[45CSR§13-10.1.]**

2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Credible Evidence

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

3.0. Facility-Wide Requirements

3.1. Limitations and Standards

3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association, or public agency is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]

3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow, or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]

3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management, and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40 CFR §61.145(b) and 45CSR§34]

3.1.4. **Odor.** No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1] ***[State Enforceable Only]***

3.1.5. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.
[45CSR§13-10.5.]

3.1.6. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2.]

3.2. Monitoring Requirements

[Reserved]

3.3. Testing Requirements

3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling

connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.

b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.

c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

d. The permittee shall submit a report of the results of the stack test within sixty (60) days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1.; a statement of compliance status, also signed by a responsible official; and a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:

1. The permit or rule evaluated, with the citation number and language.
2. The result of the test for each permit or rule condition; and,
3. A statement of compliance or noncompliance with each permit or rule condition.

[WV Code § 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports, and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings

for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.

3.4.2. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§4. *State Enforceable Only.*]

3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.

3.5.3. **Correspondence.** All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class or by private carrier with postage prepaid to the address(es), or submitted in electronic format by email as set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

DAQ: Director WVDEP Division of Air Quality 601 57th Street Charleston, WV 25304-2345 **DAQ Compliance and Enforcement[1]:** DEPAirQualityReports@wv.gov	**US EPA:** Section Chief U.S. Environmental Protection Agency, Region III Enforcement and Compliance Assurance Division Air Section (3ED21) Four Penn Center 1600 John F. Kennedy Boulevard Philadelphia, PA 19103-2852

[1]For all self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols, Notice of Compliance Status Reports, Initial Notifications, etc.

3.5.4. Operating Fee

3.5.4.1. In accordance with 45CSR30 – Operating Permit Program, the permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

3.5.4.2. In accordance with 45CSR30 – Operating Permit Program, the permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

4.0. Source-Specific Requirements for Processing Medical Waste

4.1. Limitations and Standards

4.1.1. The facility shall only accept and/or process medical waste that is not classified as hazardous waste in 40 CFR §261.3.

a. The following specific waste shall not be accepted:

i. Bulk Chemotherapy Waste.

ii. Radioactive Waste.

iii. Pharmaceutical Hazardous Waste as defined in 40 CFR 266.500.

iv. Prions or OD infected waste or by-products.

b. The following specific waste may be accepted:

i. Animal waste.

ii. Cultures and stocks.

iii. Anthological/anatomical waste.

iv. Human waste.

v. Blood and blood products.

vi. Sharps.

vii. Animal waste.

viii. Spill/cleanup material mixtures.

ix. Legend drug waste/non-RCRA pharmaceutical waste

c. The permittee shall only store medical waste in either sealed containers or fully enclosed structures at the facility.

4.1.2. The following requirements apply to the gasifier unit and associated equipment, which includes the synthetic gas cleaning trains.

a. The permittee shall take all necessary precautions to restrict the spreading of biological and infectious diseases by ensuring the equipment used to process the medical waste prior to the gasifier units is a closed system maintained under negative pressure at all times.

b. The permittee shall not charge more than 1,666 lb/hr of waste into the gasifier on a 3-hour average basis.

c. All synthetic gas generated by the gasifier shall be captured, contained, and routed to the fire tube using a closed vent system to be combusted at all times.

d. The permittee shall develop and implement a leak detection and repair program to detect leaking components and/or equipment, and repair leaks or defects in a timely fashion in accordance with the following:

i. Equipment and components in liquid service: A leak is defined as any visual indication a leak is occurring or a defective piece of equipment.

ii. Equipment and components in gas service: The equipment and closed vent system, to include connectors, shall be free of defects including, but are not limited to, visible cracks, holes, or gaps in piping; loose connections; liquid leaks; or broken or missing caps or other closure devices. If using Method 21, an instrument reading of 500 ppm or greater is classified as a leak.

iii. The permittee shall develop a monitoring plan using appropriate process parameters to indicate whether a potential leak is occurring or there is a potential defect in the gasifier train. The permittee shall develop a written monitoring plan that outlines the locations of sensors; selection of the parameter(s) and value setpoints that would indicate a potential leak; procedures for how the system will work; to include sensors or instruments used; how the system will be maintained and calibrated; and an action plan for a potential leak which must describe how the system will notify the operators of a potential leak and how the event will be recorded. A copy of the monitoring plan shall be maintained on site at all times and made available upon request to the Director and his/her designee. The requirement for maintaining records of the monitoring plan shall apply to all revisions to the plan.

iv. When a defect or leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected unless the leak resulted in a train or process shutdown then the leak or defect shall be repaired prior to restarting the train and/or process.

e. The permittee shall at all times when the gasifier is in operation have a fully trained and qualified HMIWI operator either at the facility or available within 1 hour. The trained and qualified HMIWI operator may operate the HMIWI directly or be the direct supervisor of one or more HMIWI operators. This qualified HMIWI operator shall meet the requirements outlined in 40CFR§§60.53c(b) through (g).
[40CFR§60.53c(a)]

f. For start-up operations of the gasifier, the permittee shall use only natural gas for startup operations. The use of natural gas for startup operation shall be limited to 2 MMBtu of heat input per startup hour with annual usage of no greater than 24 MMBtu per year on a 12-month rolling basis.. The use of natural gas or any other fuel during normal operations is prohibited.

g. The permittee shall develop and implement a written startup operating procedure(s) which must identify which parameters with corresponding values must be satisfied before medical waste is introduced into the gasifier. The purpose of the startup procedure(s) is to limit the duration of startup and bring the operation conditions of the downstream control devices up to normal operating conditions prior to introducing any medical waste into the gasifier. A review of the procedure(s) shall be conducted by the permittee once every two years. The permittee may revise the procedure(s) at any time with just cause. A written copy of this start up procedure shall be maintained on site for the life of the gasifier.

h. The permittee shall make a non-waste/waste determination or submit a petition to the Administrator of all streams/residue exiting the gasifier process (e.g., ash, char,) Such determination or petition shall be conducted or submitted in accordance with 40 CFR 241.3

and Condition 3.5.1. A record of this determination or petition shall be maintained on site for the life of the gasifier trains.

i. The permittee could petition EPA for a non-categorical non-waste determination or categorical non-waste determination, as outlined in 40 CFR 241.3(c) and 40 CFR 241.4(b); or

ii. Should the permittee instead make a site specific "self-determination" as allowed under RCRA Part 241 that the NHSM (i.e., the synthetic gas, tars, and carbon residue) are not a solid waste when burned as a fuel under 40 CFR 241.3(b), The self-determination must document how the operations that produced the fuel satisfy the definition of processing in 40 CFR 241.2, and show how the secondary material, after processing, meets each of the legitimacy criteria under 40 CFR 241.3(d)(1).

i. The gasifier shall be operated using the minimum amount of air/oxygen introduced to completely gasify the medical waste while limiting the formation of dioxins/furans.

j. The use of the by-pass vent shall constitute a violation of the PM, dioxin/furan, HCl, Pb, Cd, and Hg emission limits in Condition 4.1.3.a. of this permit.
[40CFR60.56c(e)(5)]

4.1.3. The gasifier and associated controls shall be operated and maintained in accordance with the following requirements.

a. The emissions discharged from emission point EP-001 shall not exceed the following limits.

i. Oxides of nitrogen (NO_x) emissions no greater than 140 parts per million by volume corrected to 7% oxygen, dry basis on a 3- hour average nor 0.069 pounds per hour on a 3-hour average basis.
[40CFR60.52c(a)(2) Table 1B to Subpart Ec of Part 60]

ii. Carbon monoxide (CO) emissions no greater than 11 ppmdv corrected to 7% oxygen on a 24- hour average basis nor 0.29 pounds per hour on a 24-hour average basis.
[40CFR60.52c(a)(2) Table 1B to Subpart Ec of Part 60]

iii. Sulfur dioxide (SO_2) emissions no greater than 8.1 ppmdv corrected to 7% oxygen on a 3-hour average hour basis nor 0.006 pounds per hour on a 3-hour average basis.
[40CFR60.52c(a)(2) Table 1B to Subpart Ec of Part 60]

iv. Particulate matter emissions no greater than 18 milligrams per dry standard cubic meter corrected to 7% oxygen on a 3-hour average basis nor 0.19 pounds per hour on a 3-hour average basis.
[40CFR60.52c(a)(2) Table 1B to Subpart Ec of Part 60 and 45CSR§6-4.1.]

v. Particulate matter less than 10 micron emissions no greater than 0.16 pounds per hour on a 6-hour average basis.

vi. Particulate matter less than 2.5 micron emissions no greater than 0.16 pounds per hour on a 6-hour average basis.

vii. Hydrogen chloride (HCl) no greater than 5.1 ppmdv corrected to 7% oxygen on a 3-hour average basis nor 0.74 pounds per hour on a 3-hour average basis.
[40CFR60.52c(a)(2) Table 1B to Subpart Ec of Part 60]

viii. Dioxins/furans no greater than 9.3 nanograms per dry standard cubic meter corrected to 7% oxygen on a 12-hour average basis. Compliance shall be demonstrated either on a total mass basis or a toxic equivalency basis.
[40CFR60.52c(a)(2) Table 1B to Subpart Ec of Part 60]

ix. Lead (Pd) no greater than 0.00069 milligrams per dry standard cubic meter corrected to 7% oxygen on a 3-hour average basis.
[40CFR60.52c(a)(2) Table 1B to Subpart Ec of Part 60]

x. Cadmium (Cd) no greater than 0.00013 milligrams per dry standard cubic meter corrected to 7% oxygen on a 3-hour average basis.
[40CFR60.52c(a)(2) Table 1B to Subpart Ec of Part 60]

xi. Mercury (Hg) no greater than 0.0013 milligrams per dry standard cubic meter corrected to 7% oxygen on a 3-hour average basis.
[40CFR60.52c(a)(2) Table 1B to Subpart Ec of Part 60]

xii. Volatile organic compounds emissions no greater than 0.88 pounds per hour on a 3-hour average basis.

xiii. Total HAP emissions shall not exceed 0.74 pounds per hour on a 3-hour average.

xiv. Visible Emissions (opacity) from emission point EP-001 shall not exceed 6% opacity on a six (6) minute block average basis.
[45CSR§§6-4.3. and 40CFR60.52c(b)(2)]

b. The permittee shall cause to be discharged into the atmosphere visible emissions of combustion ash or char from an ash conveying system (including conveyor transfer points) in excess of 5 percent of the observation period (*i.e.,* 9 minutes per 3-hour period), as determined by EPA Reference Method 22 of appendix A-1 of this part, except as provided in following paragraphs.
[40CFR60.52c(c)]

The emission limit specified in the above paragraph of this condition does not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; however, the emission limit does cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems.
[40CFR60.52c(d)]

The provisions specified in this requirement (Condition 4.1.3.b.) do not apply during maintenance and repair of ash conveying systems. Maintenance and/or repair shall not exceed 10 operating days per calendar quarter unless the permittee obtains written approval from the Director establishing a date whereby all necessary maintenance and repairs of ash conveying systems shall be completed.
[40CFR60.52c(e)]

c. When the Continuous Emission Monitoring systems (CEMs) are employed per Condition 4.2.5., the permittee shall determine compliance with the applicable limits in item a. of this condition based on a 24-hour block average calculated, as specified in Section 12.4.1 of EPA Reference Method 19 of appendix A-7 of 40 CFR 60. Startup emissions shall be included in the 24-hour block average.
[40CFR§§60.56c(c)(4)(i) and (c)(5)(ii)]

d. Following the date on which the initial performance test is completed or is required to be completed under Condition 4.3.1. (40 CFR§ 60.8), whichever date comes first, ensures that the gasifier does not operate above any of the applicable maximum operating parameters or

below any of the applicable minimum operating parameters listed in Condition 4.1.4. (Table 3 of Subpart Ec of 40CFR60) and measured as 3-hour rolling averages (calculated each hour as the average of the previous 3 operating hours) at all times. Operating parameter limits do not apply during performance tests. Operation above the established maximum or below the established minimum operating parameter(s) shall constitute a violation of established operating parameter(s).
[40CFR§60.56c(d)(2)]

e. The HCl sorbent shall be sodium bicarbonate with an initial feed rate of no less than 45 pounds per hour on a three hour average basis until either compliance with the SO_2 and HCl limits in Condition 4.1.3.a. through certified CEMs as required in Condition 4.2.5. or until this operation parameter limit (OPL) is established in accordance with Conditions 4.1.4. and 4.1.5. through performance testing as required in Condition 4.3.1.

f. The dioxin/furan and mercury sorbent shall be powdered activated carbon with a feed rate of no less than 4 pounds per hour on a three hour average basis until the operation parameter limit (OPL) is established in accordance with Conditions 4.1.4. and 4.1.5. through performance testing as required in Condition 4.3.1.

g. In initial operation of the fire tube, the temperature of the exhaust exiting fire tube shall not fall below 1,800 F on a 3-hour average basis until either compliance with the CO limit Condition 4.1.3.a. through certified CEMs as required in Condition 4.2.5.

4.1.4. The permittee shall establish the appropriate maximum and minimum operation parameter limits (OPLs) as indicated in the following table:

Table 4.1.4. Operating Parameter Limits

Operating Parameter	Data Measurement	Date Recording
Maximum Operating Parameter		
Maximum Charge Rate	Continuous	1 x hour
Maximum Fabric Filter Inlet Temperature	Continuous	1 x minute
Maximum Flue Gas Temperature	Continuous	1 x minute
Minimum Operating Parameter		
Minimum dioxin/furan sorbent flow rate	Hourly	1 x hour
Minimum HCl sorbent flow rate	Hourly	1 x hour
Minimum mercury (Hg) sorbent flow rate	Hourly	1 x hour

These operation parameter limits shall be established in accordance with the following:

Maximum charge rate means: 110 percent of the lowest 3-hour average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits.

Maximum fabric filter inlet temperature means 110 percent of the lowest 3-hour average temperature at the inlet to the fabric filter (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the dioxin/furan emission limit.

Maximum flue gas temperature means 110 percent of the lowest 3-hour average temperature at the outlet from the scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the mercury (Hg) emission limit.

Minimum dioxin/furan sorbent flow rate means 90 percent of the highest 3-hour average dioxin/furan sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the dioxin/furan emission limit.

Minimum Hg sorbent flow rate means 90 percent of the highest 3-hour average Hg sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the Hg emission limit.

Minimum hydrogen chloride (HCl) sorbent flow rate means 90 percent of the highest 3-hour average HCl sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the HCl emission limit.
[40CFR§§60.56c(d), (d)(1) and Table 3 to Subpart Ec of 40CFR60]

4.1.5. Following the date on which the initial performance test is completed or is required to be completed under Condition 4.3.1. (40 CFR§ 60.8), whichever date comes first, the permittee shall ensure that the gasifier does not operate above any of the applicable maximum operating parameters or below any of the applicable minimum operating parameters listed in Condition 4.1.4. (Table 3 of Subpart Ec of 40CFR60) and measured as 3-hour rolling averages (calculated each hour as the average of the previous 3 operating hours) at all times. Operating parameter limits (OPLs) do not apply during performance tests. Operation above the established maximum or below the established minimum operating parameter(s) shall constitute a violation of established operating parameter(s).
[40CFR§§60.56c(e)]

4.1.6. The annual combined emissions from the emission point EP-001 shall not exceed the following limits on a 12-month rolling basis.

a. NO_x emission rate shall not exceed 1.26 tons per year.

b. CO emissions rate shall not exceed 1.07 tons per year.

c. SO_2 emission rate shall not exceed 0.05 tons per year.

d. VOC emission rate shall not exceed 3.85 tons per year.

e. PM emission rate shall not exceed 0.38 tons per year.

f. PM_{10} emission rate shall not exceed 0.38 tons per year.

g. $PM_{2.5}$ emission rate shall not exceed 0.38 tons per year.

h. Total HAP emission rate shall not exceed 0.74 tons per year.

4.1.7. The permittee shall maintain all paved and unpaved roadways at the facility in a fashion that minimizes fugitive PM from such sources. Specifically, the permittee shall apply control measures to all active unpaved roadways that prevent fugitive PM from being discharged beyond the boundary lines of the facility. Such control measures can be the application of water or chemical treatments, or other measures that reduce the silt concentration of the roadway. Records of such efforts shall be maintained in accordance with Condition 3.4.1. of this permit.
[45 CSR §17-3.1]

4.1.8. The permittee shall conduct an initial inspection prior to conduct the initial testing as required in Condition 4.3.1. and annual inspections of each control device used to control emissions from the gasifier in accordance with the following requirements:
[40CFR60.57c(f)]

a. At a minimum, an inspection shall include the following:
[40CFR60.57c(f)(1)]

i. Inspect air pollution control device(s) for proper operation, if applicable
[40CFR60.57c(f)(1)(i)]

ii. Ensure proper calibration of thermocouples, sorbent feed systems, and any other monitoring equipment; and
[40CFR60.57c(f)(1)(ii)]

iii. Generally observe that the equipment is maintained in good operating condition.
[40CFR60.57c(f)(1)(iii)]

Within 10 operating days following an air pollution control device inspection, all necessary repairs shall be completed unless the permittee obtains written approval from the Administrator establishing a date whereby all necessary repairs of the designated facility shall be completed.
[40CFR§§60.57c(f)(2)]

Annual inspection shall be conducted no later than 12 months after the previous inspection.
[40CFR§60.57c(g)]

4.1.9. The permittee shall prepare a waste management plan. The waste management plan shall identify both the feasibility and the approach to separate certain components of solid waste from the health care waste stream in order to reduce the amount of toxic emissions from incinerated waste. A waste management plan may include, but is not limited to, elements such as segregation and recycling of paper, cardboard, plastics, glass, batteries, food waste, and metals (*e.g.,* aluminum cans, metals-containing devices); segregation of non-recyclable wastes (*e.g.,* polychlorinated biphenyl-containing waste, pharmaceutical waste, and mercury-containing waste, such as dental waste); and purchasing recycled or recyclable products. A waste management plan may include different goals or approaches for different areas or departments of the facility and need not include new waste management goals for every waste stream. It should identify, where possible, reasonably available additional waste management measures, taking into account the effectiveness of waste management measures already in place, the costs of additional measures, the emissions reductions expected to be achieved, and any other environmental or energy impacts they might have. The American Hospital Association publication entitled "An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities" (incorporated by reference, *see* 40CFR§60.17) shall be considered in the development of the waste management plan. The permittee shall conduct training and education programs in waste segregation for each of the company's waste generator clients and ensure that each client prepares its own waste management plan that includes, but is not limited to, the provisions listed previously in this section.
[40CFR§60.55c and 45CSR18-6.1.]

4.1.10. The permittee shall control the Dry Sorbent Silo (DSS) with a fabric filter bin vent during the pneumatic loading of sodium bicarbonate from tanker trucks to exhibit visible emissions of no greater than 10% opacity on a six minute average basis.

4.1.11. The permittee shall control the organics from the ash and floor wash storage tank with an activated carbon filter.

4.1.12. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.10.]

4.2. Monitoring Requirements

4.2.1. The permittee shall monitor the following parameters of the process and associated control devices.

Gasifier Unit:

Charge Rate into the shredder in terms of lb/hr for each operating hour. The permittee shall determine a 3-hour rolling average from these hour values measured.
[40CFR60.57c(a) and Table 3 to Subpart Ec of 40CFR60]

Pressure within the gasifier on a continuous basis.

Operating Temperature of the oxidation zone of the gasifier on a continuous basis

Oxygen Content of the oxidation zone of the gasifier on a continuous basis.

Temperature of the exhaust exiting the boiler on a continuous basis.

Cyclone (Control Device 1C):

The pressure drop across the cyclone in terms of inches of water column on a daily basis.

Dry Sorbent Scrubber (Control Device 1C):

Scrubber temperature in degrees Fahrenheit on an hourly basis.

The rate of sodium bicarbonate sorbent is injected into the scrubber once per hour. The permittee shall determine a 3-hour rolling average from these hour values measured.
[40CFR60.57c(a) and Table 3 to Subpart Ec of 40CFR60]

Activate Carbon Injection (Control Device 2C):

The rate of activated carbon sorbent is injected once per hour. The permittee shall determine a 3-hour rolling average from these hour values measured.
[40CFR60.57c(a) and Table 3 to Subpart Ec of 40CFR60]

The rate of recycled baghouse residue re-injected into the scrubber once per hour.
[40CFR60.57c(a) and Table 3 to Subpart Ec of 40CFR60]

Fabric Filter (Control Device C

Exhaust Inlet Temperature once per minute. The permittee shall determine a 3-hour rolling average from these one minute values measured.
[40CFR60.57c(a) and Table 3 to Subpart Ec of 40CFR60]

The permittee shall install, calibrate (to manufacturers' specifications), maintain, and operate devices (or establish methods) for monitoring the applicable maximum and minimum operating parameters limits identified in Condition 4.1.4. of this permit such that these devices measure and record values.

The permittee shall obtain monitoring data at all times during operation of the gasifier except during periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data shall be obtained for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter.
[40CFR60.57c(e)]

Such records shall be maintained in accordance with the Condition 3.4.1. of this permit.

4.2.2. The permittee shall install, maintain, and operate a bag leak detection system (BLDS) for the purpose of determining compliance with the PM limit of Condition 4.1.3.a.iv. This BLDS shall be operated in accordance with the following requirements no later than 180 days after initial startup of the gasifier:
[40CFR60.57c(h)]

a. Each triboelectric bag leak detection system may be installed, calibrated, operated, and maintained according to the "Fabric Filter Bag Leak Detection Guidance," (EPA-454/R-98-015, September 1997). This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality Planning and Standards; Sector Policies and Programs Division; Measurement Policy Group (D-243-02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emissions Measurement Center Continuous Emissions Monitoring. Other types of bag leak detection systems shall be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.
[40CFR§60.56c(h)(1)]

b. The bag leak detection system shall be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.
[40CFR§60.56c(h)(2)]

c. The bag leak detection system sensor shall provide an output of relative PM loadings.
[40CFR§60.56c(h)(3)]

d. The bag leak detection system shall be equipped with a device to continuously record the output signal from the sensor.
[40CFR§60.56c(h)(4)]

e. The bag leak detection system shall be equipped with an audible alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm shall be located where it is easily heard by plant operating personnel.
[40CFR§60.56c(h)(5)]

f. For negative pressure or induced air fabric filters, the bag leak detector shall be installed downstream of the fabric filter.
[40CFR§60.56c(h)(7)]

g. Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.
[40CFR§60.56c(h)(8)]

h. The baseline output shall be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time according to section 5.0 of the "Fabric Filter Bag Leak Detection Guidance."
[40CFR§60.56c(h)(9)]

i. Following initial adjustment of the system, the sensitivity or range, averaging period, alarm set points, or alarm delay time may not be adjusted. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless such adjustment follows a complete fabric filter inspection that demonstrates that the fabric filter is in good operating condition. Each adjustment shall be recorded.
[40CFR§60.56c(h)(10)]

j. Record the results of each inspection, calibration, and validation check.
[40CFR§60.56c(h)11)]

k. Initiate corrective action within 1 hour of a bag leak detection system alarm; operate and maintain the fabric filter such that the alarm is not engaged for more than 5 percent of the total operating time in a 6-month block reporting period. If inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm is counted as a minimum of 1 hour. If it takes longer than 1 hour to initiate corrective action, the alarm time is counted as the actual amount of time taken to initiate corrective action.
[40CFR§60.56c(h)(12)]

Records of alarms, actions taken, inspections, calibrations, validation checks, certifications, and adjustments shall be maintained in accordance with Condition 3.4.1. of this permit.

4.2.3. The permittee shall install, calibrate (to manufacturers' specifications), maintain, and operate a device or method for measuring the use of the bypass stack including date, time, and duration.
[40CFR60.57c(c)]

4.2.4. The permittee shall sample and analyze the baghouse residue once per every two weeks to determine the amount of sodium bicarbonate and free carbon is the sample. Records of such monitoring shall be maintained in accordance with Condition 3.4.1. of this permit.

4.2.5. Continuous Emission Monitors (CEMS): The permittee shall install, calibrate, operate, and maintain CEMS to measure and record the emissions from the Emission Point EP-001 in terms of the applicable limitations in Condtion 4.1.3.a. this permit. The monitoring system shall be installed, certified and functioning within the required performance specifications no later than 180 days after initial start of the gasifier.

a. This system shall utilize Fourier Transform Infrared (FTIR) technology in measuring the pollutants concurrently, which shall include the following list (Table 4.2.5.). Table 4.2.5. List of Pollutants to be Monitored

Table 4.2.5. Pollutants to be Monitored Continuously

Criteria Pollutants	Hazardous Air Pollutants[2]	Other Pollutants
Nitrogen Monoxide (NO)[1]	Acetaldehyde – VOC	Carbon Dioxide (CO_2)
Nitrogen Dioxide (NO_2)[1]	Acrolein – VOC	Methane (CH_4)
Carbon Monoxide (CO)	Benzene – VOC	Ethane (C_2H_6)
Sulfur Dioxide (SO_2)	1,3-butadiene – VOC	Oxygen (O_2)
	Chlorine	Sulfuric Acid
	Ethylbenzene – VOC	Hydrogen sulfide
	Formaldehyde – VOC	Hydrogen
	Hydrogen Fluoride	Propane (C_3H_8) – VOC
	Hydrogen Cyanide	Ethylene – VOC
	Hydrogen Chloride	n-Butane – VOC
	n-Hexane – VOC	Iso Butane – VOC
	Methylcyclohexane – VOC	n-Pentane – VOC
	Methyl Chloride – VOC	
	Naphthalene – VOC	
	Toluene – VOC	
	n-Xylene – VOC	
	p-Xylene – VOC	
	o-Xylene – VOC	
	Acrolein – VOC	

1 - NO and NO_2 shall be summed together as NO_x.
2 - HAPs shall be reported individually and summed together as total HAPs.
3 – VOCs shall be reported as the sum of identified VOCs.

a. The use of any instrument measuring technology other than Fourier Transform Infrared (FTIR) must be approved by the Director prior to the installation of such a system except for oxygen. The oxygen content of the exhaust may be measured with a different instrument that meets the Performance Specification 3 of Appendix B to 40 CFR 60. The samples used for the FTIR CEM and oxygen analyzer must take place at the same stack location.

b. The permittee shall install a flow measuring instrument to continuously measure exhaust flow or alternative flow measuring procedures approved by the Director. The readings from this flow measurement instrument shall be integrated in the data acquisition and handling system of the CEMs.

c. The permittee shall develop a written monitoring plan. This plan shall describe how the facility monitors its emissions. Monitoring plan data define relationships between stacks, pipes, and units; specify locations at a facility from which emissions are monitored; and identify monitoring equipment including the individual system components.

d. All CEMs, except for the HCl CEMs, shall meet performance specifications in accordance with PS 16 of Appendix B to 40CFR60. The HCl CEM shall meet the performance specifications in accordance with Performance Specification 18 and PS-18 Appendix A Standard Addition Procedures of Appendix B to 40CFR60.

e. The permittee shall use all valid readings to determine emissions.

f. The permittee shall operate the CEMs in accordance with the applicable procedures under appendices B and F of 40CFR60.

g. The permittee shall maintain all CEMs and all other supporting systems with a system availability of no less than 75% of the operating hours per day for 90 percent of the operating days per calendar quarter that the gasifier trains are in operation.

h. The permittee shall determine the emissions of each criteria and hazardous air pollutant in terms of hourly rate for each hour in terms of lb/hr; and 24-hour block average, calculated as specified in Section 12.4.1 of EPA Reference Method 19 of appendix A-7 of 40CFR60 in terms of lb/hr and ppmdv.

All records shall be maintained in accordance with Condition 3.4.1., which shall include emission data, calibration, relative accuracy testing audit (RATAs), and maintenance performed on the instrument.

4.2.6. The permittee shall monitor the gasifier and associated equipment, which include ductwork to and from each control devices, for equipment leaks in accordance with the following requirements:

a. Conduct an initial visual, olfactory, and auditory inspection for defects that could result in air emissions within 180 days of issuance of this permit.

b. After the completion of the initial inspection, subsequent inspections shall be conducted in accordance with the following:

i. Conduct visual inspection of all pumps for visual indicators of leaking seals no less than once per month.

ii. Conduct a visual, olfactory, and auditory inspection of each gasifier train for defects that could result in air being entrained into the gasifier process within 15 days of planned shutdown event.

iii. Conduct a visual, olfactory, and auditory inspection of the ductwork for the associated control devices no less than once per month.

c. Detected leaks shall be repaired in accordance with the timing stated in Condition 4.1.2.d.iv.

d. Records of such inspections and any repairs made shall be maintained in accordance with 3.4.1.

e. To verify repairs, the permittee shall use either the method that detected the leak or the procedures listed as Alternative Methods to Method 21 (i.e., soapy water).

4.2.7. The permittee shall conduct a hazardous determination per 40 CFR 262.11 of the streams leaving the gasifier process (e.g., ash, char, wastewater), to include re-injected adsorbent, at least once every 12 months. Should a determination yield that any stream is hazardous, the permittee shall notify the Director within 10 days of the determination in accordance with Condition 3.5.3. of this permit. Records of each determination shall be maintained in accordance with Condition 3.4.1. of this permit.

4.2.8. The permittee shall conduct a visible emission check during one loading event per calendar year to verify compliance with the emission limitation in Condition 4.1.10. using U.S. EPA Method 22. The duration of this observation shall be no less than six. If during this observation that visible emissions are detected for more than 30 seconds on a cumulative basis, the permittee shall conduct an inspection of the bin vent and if necessary make all repairs to restore the control device prior to the next loading event and repeat the U.S. EPA Method 22 observation. Records of all observations, inspections, and repairs shall be maintained in accordance with Condition 3.4.1. of this permit.

4.2.9. The permittee shall monitor the activated carbon filter for the ash and floor wash tank in accordance with manufacturer's guidance or frequency of filter replacement. Records of such monitoring and filter replacement shall be maintained in accordance with Condition 3.4.1. of this permit.

4.3. Testing Requirements

4.3.1. The permittee shall conduct a performance determination to demonstrate compliance with the emission limits outlined in Condition 4.1.3.a. within 60 days after achieving the maximum charge rate at which the gasifier will be operated at, but no later than 180 days of initial startup of the gasifier. This demonstration shall be conducted for pollutants that are not being monitored continuously as outlined in Condition 4.2.5. of this permit. Such demonstration shall be in accordance with the methods and procedures as outlined in 40CFR§60.56c as applicable; PM_{10} and $PM_{2.5}$ emissions shall be measured using U.S. EPA Methods 201A and 202; and Condition 3.4.1. of this permit.

PM_{10} and $PM_{2.5}$ emissions shall be measured using U.S. EPA Methods 201A and 202 to determine the filterable and condensable fractions of the particulate matter. Such demonstrations shall be conducted in accordance with Condition 3.3.1. of this permit. Records of the demonstrations shall be maintained in accordance with Condition 3.4.1. of this permit.

For demonstrating compliance with the dioxin and furan limit in Condition 4.1.3.a.viii., this testing shall include polychlorinated dibenzo dioxins (PCDDs), polychlorinated dibenzofurans (PCDFs), polychlorinated biphenyls (PCBs), and polycyclic aromatic hydrocarbons (PAHs) being discharged to the atmosphere. Such testing for dioxins and furans shall be conducted with the gasifier operating at not less than 90% of the permitted hourly charge rate of medical waste and in accordance with EPA Method 23 taking the average of three runs, with each run consisting of a minimum of 4 hours. Such testing shall be conducted in accordance with Condition 3.3.1. of this permit. The results of the testing shall be reported in terms of nanograms per dry standard cubic meter, nanogram per dry standard cubic meter toxic equivalency (TEQ), and lb per hour. For determining toxic equivalency, the permittee shall utilize the procedure outlined in 40 CFR §60.56c(b)(11) and Table 2 to Subpart Ec of Part 60 – Toxic Equivalency Factors. Such demonstration shall be conducted in accordance with Condition 3.3.1. of this permit Records of the testing shall be maintained in accordance with Condition 3.4.1. of this permit.
[40CFR§60.8 and §§60.56c(b)]

4.3.2. The permittee shall conduct annual compliance demonstrations in accordance with the PM limit of Condition 4.1.3.a.iv. (no more than 12 months following the previous performance test) using the applicable procedures and test methods Condition 4.3.1.. If all three performance tests over a 3-year period indicate compliance with the emissions limit for PM, the permittee may forego a performance test for that pollutant for the subsequent 2 years. At a minimum, a performance test for PM shall be conducted every third year (no more than 36 months following the previous performance test). If a performance test conducted every third year indicates compliance with the emissions limit for a PM, the permittee may forego a performance test for that pollutant for an additional 2 years. If any performance test indicates noncompliance with the respective emissions limit, a performance test for that pollutant shall be conducted annually until all annual performance tests over a 3-year period indicate compliance with the emissions limit. The use of the bypass stack during a performance test shall invalidate the performance test.
[40CFR§60.56c(c)(2)]

4.3.3. The permittee shall conduct a performance determination to demonstrate compliance with the emission limitation outlined in Condition 4.1.3.b. within 60 days after achieving the maximum charge rate at which the gasifier will be operated at, but no later than 180 days of initial startup of the gasifier and thereafter once every 12 months. This performance test shall be conducted using

EPA Reference Method 22 of appendix A-7 and in accordance with Condition 3.3.1 of this permit. The minimum observation time shall be a series of three 1-hour observations.
[40CFR§60.56c(b)(14) and (c)(3)]

4.3.4. During all demonstrations required in this section, the permittee shall include all measured parameters and process data as required to be monitored as stated in Condition 4.2.1. and results of at least one analysis before and after the testing as required in Condition 4.2.4. with the report of such a testing demonstration. If applicable, the permittee shall determine the OPLs in accordance with Condition 4.1.4. of this permit.

4.3.5. The permittee may conduct a repeat performance test within 30 days of violation of applicable operating parameter(s) to demonstrate that the gasifier is not in violation of the applicable emissions limit(s). Repeat performance tests conducted pursuant to this paragraph shall be conducted using the identical operating parameters that indicate a violation under 40CFR§§60.56c(e).
[40CFR§60.56c(i)]

4.3.6. The permittee may conduct a repeat performance test at any time to establish new values for the operating parameters (OPLs). The Director and/or Administrator may request a repeat performance test at any time.
[40CFR§60.56c(k)]

4.3.7. The use of the bypass vent during any performance test shall invalidate the performance test.
[40CFR§§60.56(b) and (c)]

4.4. Recordkeeping Requirements

4.4.1. **Record of Monitoring.** The permittee shall keep records of monitoring information that include the following:

a. The date, place as defined in this permit, and time of sampling or measurements.

b. The date(s) analyses were performed.

c. The company or entity that performed the analyses.

d. The analytical techniques or methods used.

e. The results of the analyses; and

f. The operating conditions existing at the time of sampling or measurement.

4.4.2. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

4.4.3. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.

b. Steps taken to minimize emissions during the event.

c. The duration of the event.

d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

e. The cause of the malfunction.

f. Steps taken to correct the malfunction.

g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

4.4.5. No later than 15 days after the end of each month, the permittee shall determine the actual emissions from emission point EP-001 that were emitted during the previous month and the 12-month rolling total to demonstrate compliance with the annual emission limits in Condition 4.1.5. The permittee shall utilize the most current operation and emission data available in determining actual emissions. Such records shall be maintained in accordance with Condition 3.4.1. of this permit.

4.4.6. The permittee shall determine whether each stream leaving the gasifier process (fly ash, char and water) is a waste or non-waste in accordance with 40 CFR Part 241.3.(d)(1)(iii) no less than once per calendar year. Records of each determination and any analysis performed shall be maintained in accordance with Condition 3.4.1. Upon any determination that the particular stream is a waste, the permittee shall submit a notification to the Director in accordance with Condition 3.5.3. within 15 days of such determination, which shall include a compliance plan.

4.4.7. The permittee shall maintain documentation at the facility that address the following:

a. Summary of the applicable standards under Subpart Ec of 40CFR60;

b. Description of basic combustion theory applicable to the gasifier;

c. Procedures for receiving, handling, and charging waste;

d. Gasifier startup, shutdown, and malfunction procedures;

e. Procedures for maintaining proper combustion air supply levels;

f. Procedures for operating the gasifier and associated air pollution control systems within the standards established under Subpart Ec of 40CFR60;

g. Procedures for responding to periodic malfunction or conditions that may lead to malfunction;

h. Procedures for monitoring gasifier emissions;

i. Reporting and recordkeeping procedures; and

j. Procedures for handling ash.

[40CFR§§60.53c(h)]

The permittee shall establish a program for reviewing this documentation prior to startup of the gasifier with each HMIWI operator.
[40CFR§60.53c(i)(1)]

The permittee shall conduct an annual review of this documentation with each HMIWI operator.
[40CFR§60.53c(i)(2)]

The permittee shall maintain a copy of the documentation in a readily accessible location for all HMIWI operators at all times. Records of the operator's review shall be maintained in accordance with Condition 3.4.1.
[40CFR60.53c(j)]

4.4.8. The permittee shall maintain the following information (as applicable) in accordance with Condition 3.4.1. of this permit:

a. Calendar date of each record;

b. Records of the following data:

i. Concentrations of any pollutant listed in Condition 4.1.3.a that is subject to emission standard under 40CFR§60.52c(a)(2);

ii. Results of fugitive emissions (by EPA Reference Method 22) tests, if applicable;

iii. HMIWI charge dates, times, and weights and hourly charge rates;

iv. Fabric filter inlet temperatures during each minute of operation, as applicable;

v. Amount and type of dioxin/furan sorbent used during each hour of operation, as applicable;

vi. Amount and type of Hg sorbent used during each hour of operation, as applicable;

vii. Amount and type of HCl sorbent used during each hour of operation, as applicable;

viii. Records indicating use of the bypass stack, including dates, times, and durations,

ix. Records of the annual air pollution control device inspections, any required maintenance, and any repairs not completed within 10 days of an inspection or the timeframe established by the Administrator.

x. Records of each bag leak detection system alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken, as applicable.

xi. Concentrations of NO_x. CO, SO_2, and HCl as determined by the continuous emissions monitoring system.

c. Identification of calendar days for which data on emission rates or operating parameters specified under Condition 4.4.8.b. have not been obtained, with an identification of the emission rates or operating parameters not measured, reasons for not obtaining the data, and a description of corrective actions taken.

d. Identification of calendar days, times and durations of malfunctions, a description of the malfunction and the corrective action taken.

e. Identification of calendar days for which data on emission rates or operating parameters specified under Condition 4.4.8.b. exceeded the applicable limits, with a description of the exceedances, reasons for such exceedances, and a description of corrective actions taken.

f. The results of the initial, annual, and any subsequent performance tests conducted to determine compliance with the emissions limits and/or to establish or re-establish operating parameters, as applicable, and a description, including sample calculations, of how the operating parameters were established or re-established, if applicable.

g. All documentation produced as a result of the siting requirements of 40CFR§ 60.54c;

h. Records showing the names of HMIWI operators who have completed review of the information in Condition 4.4.7. as required by Condition 4.4.7., including the date of the initial review and all subsequent annual reviews;

i. Records showing the names of the HMIWI operators who have completed the operator training requirements, including documentation of training and the dates of the training;

j. Records showing the names of the HMIWI operators who have met the criteria for qualification under Condition 4.1.2.e. and the dates of their qualification; and

k. Records of calibration of any monitoring devices as required under Conditions 4.2.1. 4.2.2. 4.2.3. and 4.2.5.

[40CFR60.58c(b) and (b)(1) through (b)(11)]

4.4.9. The permittee shall maintain records of each start up event of the gasifier. Such records shall include the following information.

a. Date and time of the start up event.

b. Time of the initial charge of medical waste into the gasifier.

c. Reading(s) of the parameters identified in the startup operating procedure as required in Condition 4.1.2.g. of this permit at the time of the initial charge of medical waste into the gasifier..

d. Status of the by-pass valve at the initial initial charge of medical waste into the gasifier.

e. Amount of natural gas consumed during the startup event.

f. All deviations of the startup operating procedure and reason why of the deviation(s).

Such records shall be maintained in accordance with Condition 3.4.1. of this permit.

4.4.10. The permittee shall maintain a 12-month rolling total of natural gas used for startup events for the gasifier. Such total shall be determined in terms of the annual limit stated in Condition 4.1.2.g. of this permit and be determined or updated within 10 days after each startup event. These records shall be maintained in accordance with Condition 3.4.1. of this permit.

4.5. Reporting Requirements

4.5.1. Any deviations(s) of the allowable visible emission requirement for any emission source discovered during observations using 40 CFR Part 60, Appendix A, Method 9 must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned. Such notification shall be submitted in accordance with Section 3.5. of this permit. A record of such report shall be maintained in accordance with Condition 3.4.1.

4.5.2. No later than 60 days following the completion of the initial performance tests as required in Conditions 4.3.1. and 4.3.3, the permittee shall submit the following information to the Director and Administrator in accordance with Condition 3.5.3. of this permit. All reports shall be signed by the facilities manager.

a. The initial performance test data as recorded under Conditions 4.3.1. and 4.3.3.

b. The values for the site-specific operating parameters established pursuant to Condition 4.1.4. and a description, including sample calculations, of how the operating parameters were established during the initial performance test.

c. The waste management plan as specified in Condition 4.1.9.

d. The analysis and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems in Condition 4.2.2. of this permit.

Record of this submittal shall be maintained in accordance with Condition 4.4.1. of this permit. **[40CFR§§60.58c(c) and §60.58c(f)]**

4.5.3. After initial startup, the permittee shall submit monthly reports to the Director by the 15th of the following month. These reports shall contain the following for each reporting period:

a. Total and daily average of medical waste processed.

b. Hours of operation of the gasifier unit.

c. Date and times of all shut down and startup events.

d. Date and time when the use of the by-pass vent occurred and reason for the use.

e. Any exceedances of any of the permit conditions in Section 4. of this permit.

f. Explanation and/or actions taken of the exceedances.

g. Monthly and 12-month rolling total emissions from Emission Point EP-001.

Such submittals shall be in accordance with Condition 3.5.3. and maintained in accordance with Condition 3.4.1 of this permit.

4.5.4. An annual report shall be submitted 1 year following the submissions of the information required in Condition 4.5.2. and subsequent reports shall be submitted no more than 12 months following the previous report (once the unit is subject to permitting requirements under title V of the Clean Air Act, the permittee must submit these reports semiannually). The annual report shall include the information specified in the following. All reports shall be signed by the facilities manager.

a. The values for the site-specific operating parameters established pursuant to Condition 4.1.4., as applicable.

b. The highest maximum operating parameter and the lowest minimum operating parameter, as applicable, for each operating parameter recorded for the calendar year being reported, pursuant to Condition 4.1.4., as applicable.

c. The highest maximum operating parameter and the lowest minimum operating parameter, as applicable, for each operating parameter recorded pursuant to Condition 4.1.4. for the calendar year preceding the year being reported, in order to provide the Administrator with a summary of the performance of the affected facility over a 2-year period.

d. Any information recorded under Condition 4.4.8c. through 4.4.8.e. for the calendar year being reported.

e. Any information recorded under Condition 4.4.8c. through 4.4.8.e. for the calendar year preceding the year being reported, in order to provide the Administrator with a summary of the performance of the affected facility over a 2-year period.

f. If a performance test was conducted during the reporting period, the results of that test.

g. If no exceedances or malfunctions were reported under Condition 4.4.8c. through 4.4.8.e. for the calendar year being reported, a statement that no exceedances occurred during the reporting period.

h. Any use of the bypass stack, the duration, reason for malfunction, and corrective action taken.

i. Records of the annual air pollution control device inspection, any required maintenance, and any repairs not completed within 10 days of an inspection or the timeframe established by the Administrator.

j. Records of each bag leak detection system alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken, as applicable.

k. Concentrations of NO_x. CO, SO_2, and HCl as determined by the continuous emissions monitoring system.

Such submittals shall be in accordance with Condition 3.5.3. and maintained in accordance with Condition 3.4.1 of this permit.
[40CFR§§60.58c(d) and (d)(1) through (d)(11); and §60.58c(f)]

4.5.5. The permittee shall submit semiannual reports containing any information recorded under Condition 4.4.8.c through 4.4.8.e. no later than 60 days following the reporting period. The first semiannual reporting period ends 6 months following the submission of information as required in Condition 4.5.2. Subsequent reports shall be submitted no later than 6 calendar months following the previous report. All reports shall be signed by the facilities manager. Such submittals shall be in accordance with Condition 3.5.3. and maintained in accordance with Condition 3.4.1 of this permit.
[40CFR60.58c(e) and §60.58c(f)]

4.5.6. After certifying the CEMs to the applicable performance specification(s) as required in Condition 4.2.5., the permittee shall submit quarterly reports to the Director by the 60th day after the end of each calendar quarter. These reports shall contain the following for each reporting period:

a. A summary of the recorded reading which includes highest and average recorded mass and concentration rates of each pollutant identified in Table 4.2.5. except for oxygen (O_2) during the reporting period. The time and date of the highest recorded rates by pollutant shall be identified.

b. Identify any exceedances of the permitted emission limits, which shall include time and date of the exceedance(s).

c. Identify any pollutant that was below the minimum detection threshold of the instrumentation during the entire reporting period.

d. The information identified in the example form of Attachment B of this permit that is applicable.

e. Copy of the hourly emission and flow data in a format that is acceptable to the Director.

4.5.7. Once the Title V Permit has been issued for the gasifier, all periodic reports that are required to be submitted as required in Conditions 4.5.4. and 4.5.5. shall be submitted in accordance with the timing requirements of submitting semi annual and annual reports stipulated in the Title V Operating Permit.
[40CFR§60.19(d)]

5.0. Specific Requirements for Emergency Generator (Emission Unit S-EGS)

5.1. Limitations and Standards

5.1.1. The following conditions and requirements are specific to generator set S-EGS:

a. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for more than 50 hours per calendar year as described in 40CFR §§60.4243(d)(1) through (3), for the engine is prohibited. Emergency operation/situations is defined when electric power from the local utility is interrupted from the facility.
[40CFR§60.4243(d)]

i. There is no time limit on the use of emergency stationary engine in emergency situations.
[40CFR§60.4243(d)(1)]

ii. The permittee may operate the emergency stationary engine for the purpose specified in 40 CFR §60.4243(f)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by the following paragraph counts as part of the 100 hours per calendar year allowed by this paragraph.
[40CFR§60.4243(d)(2)]

1. The emergency stationary engine may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine.
[40CFR§60.4243(d)(2)(i)]

iii. The emergency stationary engine may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in the above paragraph. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
[40CFR§60.4243(d)(3)]

b. The generator set shall be equipped with an engine or engine configuration that has been certified by the manufacturer to comply with either 40 CFR§60.4233(e) or 40 CFR Part 60 with a model year of no later than 2022.
[40CFR§§60.4243(a) and (b)(1)]

c. The permittee shall maintain the engine of the generator set according to the manufacturer's emission-related written instructions.
[40CFR§60.4243(a)(1)]

d. The permittee shall only change those emission-related settings of the generator set that are permitted by the manufacturer.
[40CFR§60.4243(a)(1)]

e. The maximum nameplate power output of the engine for each generator set shall not be greater than listed in Table 1.0 of this permit.

f. Each engine will be equipped with a non-resettable hour meter. **[40CFR§60.4237(b)]**

5.2. Monitoring Requirements

5.2.1. For the purpose of demonstrating compliance with the hours of operation limit for in Condition 5.1.1.a., the permittee shall record the number of hours the generator set (S-EGS) operated during the calendar month and the reason for such operation. The permittee shall maintain a calendar total of hours operated in non-emergency situations on a calendar year basis. Such records shall be maintained in accordance with Condition 3.4.1.

5.3. Testing Requirements

[Reserved]

5.4. Recordkeeping Requirements

5.4.1. Record of Monitoring. The permittee shall keep records of monitoring information that include the following:

a. The date, place as defined in this permit, and time of sampling or measurements.

b. The date(s) analyses were performed.

c. The company or entity that performed the analyses.

d. The analytical techniques or methods used.

e. The results of the analyses; and

f. The operating conditions, as specified in Condition 5.2.2., existing at the time of sampling or measurement.

5.4.2. Record of Maintenance of Air Pollution Control Equipment. For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

5.4.3. Record of Malfunctions of Air Pollution Control Equipment. For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.

b. Steps taken to minimize emissions during the event.

c. The duration of the event.

d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

e. The cause of the malfunction.

f. Steps taken to correct the malfunction.

g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

5.4.5. The permittee shall maintain records of maintenance conducted on the engine for EG-1 in accordance with Condition 3.4.1. of this permit.

5.4.6. The permittee shall maintain documentation from the manufacturer for EGS-1 that the engine is certified to meet the emission standards and information as required in 40 CFR§60.4322(e) . **[40CFR§60.4243(b)(1)]**

5.5. Reporting Requirements

[Reserved]

APPENDIX A Visible Emissions Observation (example form)

Date of Observation: _____

Data Entered by: _____

Reviewed by: _____

Date Reviewed: _____

Describe the General Weather Conditions:

Emission Point ID	Emission Point Description	Time of Observation	Visible Emissions? Yes/No	Consecutive Months of Visual Emissions	Comments

Appendix B – Summary Report - Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant (Circle One—SO2/NOX/TRS/H2S/CO/Opacity)

Reporting period dates: From _____ to _____

Company:

Emission Limitation
Address:

Monitor Manufacturer and Model No.
Date of Latest CMS Certification or Audit
Process Unit(s) Description:
Total source operating time in reporting period[1]

Emission data summary[1]		CMS performance summary[1]	
1. Duration of excess emissions in reporting period due to:		1. CMS downtime in reporting period due to:	
a. Startup/shutdown		a. Monitor equipment malfunctions	
b. Control equipment problems		b. Non-Monitor equipment malfunctions	
c. Process problems		c. Quality assurance calibration	
d. Other known causes		d. Other known causes	
e. Unknown causes		e. Unknown causes	
2. Total duration of excess emission		2. Total CMS Downtime	
3. Total duration of excess emissions × (100) [Total source operating time]	%[2]	3. [Total CMS Downtime] × (100) [Total source operating time]	%[2]

[1]For gases, record all times in hours.
[2]For the reporting period: If the total duration of excess emissions 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in 40 CFR 60.7(c) shall be submitted.
On a separate page, describe any changes since last quarter in CMS, process or controls. I certify that the information contained in this report is true, accurate, and complete.

Name

Signature

Title

Date

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature[1] _____ _____
(Please use blue ink) Responsible Official or Authorized Representative Date

Name & Title _____ _____
(Please print or type) Name Title

Telephone No. _____ Fax No. _____

[1] This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

(i) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), or

(ii) the delegation of authority to such representative is approved in advance by the Director.

b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively.

c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of U.S. EPA); or

d. The designated representative delegated with such authority and approved in advance by the Director.