west virginia department of environmental protection

Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: (304) 926-0475 • FAX: (304) 926-0479

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

January 5, 2016

CERTIFIED MAIL
91 7199 9991 7034 1378 6263

Dr. Glenn Crotty
Executive VP & COO
Charleston Area Medical Center, Inc.
3200 MacCorkle Avenue, SE
Charleston, WV 25304

Re: Charleston Area Medical Center, Inc.
General Division
Permit No. R13-1772J
Plant ID No. 039-00057

Dear Dr. Crotty:

Your application for a permit as required by Section 5 of 45CSR13 - "Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permit, General Permit, and Procedures for Evaluation" has been approved. The enclosed permit R13-1772J is hereby issued pursuant to Subsection 5.7 of 45CSR13. Please be aware of the notification requirements in the permit which pertain to commencement of construction, modification, or relocation activities; startup of operations; and suspension of operations.

The source is subject to 45CSR30. Changes authorized by this permit do not have to be incorporated into the facility's Title V operating permit. These changes affect a deferred source(s) of a non-major source under 45 CSR §30-3.2a.

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.

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.

Should you have any questions or comments, please contact me at (304) 926-0499, extension 1214.

Sincerely,

Edward S. Andrews, P.E.
Engineer

Enclosures

c: Nanci Keenan, Safety Manager
Shannon Cox, Triad Engineering, Inc.

West Virginia Department of Environmental Protection

Earl Ray Tomblin
Governor

Division of Air Quality

Randy C. Huffman
Cabinet Secretary

Class I Administrative Update Permit

R13-1772J

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 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:
Charleston Area Medical Center, Inc.
General Division
039-00057

William F. Durham
Director

Issued: January 5, 2016

This permit will supercede and replace Permit R13-1772I.

Facility Location:	501 Morris Street Charleston, WV
Mailing Address:	3200 MacCorkle Avenue, SE Charleston, WV 25304
Facility Description:	Medical Treatment Facility
NAICS Codes:	622110
UTM Coordinates:	445.2 km Easting • 4,244.6 km Northing • Zone 17
Permit Type:	Class I Administrative Update
Description of Change:	This action is for the replacement of the two existing emergency generators (100kW & 500 kW) with one 250 kW generator set.

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.

The source is subject to 45CSR30. Changes authorized by this permit do not have to be incorporated into the facility's Title V operating permit. These changes affect a deferred source(s) of a non-major source under 45 CSR §30-3.2a.

Table of Contents

1.0. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
1S	IMWI	Medical Waste Incinerator (HMIWI)	1995	1,000 lb/hr	1C & 2C
Boiler 2	BS-2	Boiler #2 Hurst 500 Series Duel Fuel Boiler Riello RLS 650/EV FGR Burner	2015	16.3 MMBtu/hr	FGR w/Low NO_x Burner
Boiler 3	BS-3	Boiler #3 Hurst 500 Series Duel Fuel Boiler Riello RLS 650/EV FGR Burner	2015	16.3 MMBtu/hr	FGR w/Low NO_x Burner
Boiler 4	BS-4	Boiler #4 Hurst 500 Series Duel Fuel Boiler Riello RLS 650/EV FGR Burner	2015	16.3 MMBtu/hr	FGR w/Low NO_x Burner
EG-1	S-EG-1	Emergency Generator Set #1 Located Next to Parking Garage besides Brooks St.	2011	750 kW	None
EG-2	S-EG-2	Emergency Generator Set #2 Located in the South Basement Generator Room	1992	750 kW	None
EG-5	S-EG-5	Emergency Generator Set #5 Located in the Special Care Basement Generator Room	1986	750 kW	None
EG-7	S-EG-7	Emergency Generator Set #7 Generator Model 250DQDAA Cummins Engine QSL9-G7 Engine Family No: FCWXL050AAB Certificate No: FCEXL0540AAB-030 Located Next to HMIWI Bldg.	2015	464 bhp	None

Control Devices

Control Device ID	Control Device Information
1C	Dry-injection fabric filter (DIFF) with sodium bicarbonate and PAC injection, & packed tower with sodium hydroxide injection for HCl removal
2C	Monroe Environmental Corp. Model No VPB-070 Packed Bed Scrubber using caustic soda solution

PAC – powder activate carbon
FGR - Flue Gas Recirculation

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 (45CSR§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	**Ppmv or ppmv**	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 NESHAP	**SIP**	State Implementation Plan
HP	Horsepower	**SO_2**	Sulfur Dioxide
lbs/hr	Pounds per Hour	**TAP**	Toxic Air Pollutant
LDAR	Leak Detection and Repair	**TPY**	Tons per Year
M	Thousand	**TRS**	Total Reduced Sulfur
MACT	Maximum Achievable Control Technology	**TSP**	Total Suspended Particulate
MDHI	Maximum Design Heat Input	**USEPA**	United States Environmental Protection Agency
MM	Million	**UTM**	Universal Transverse Mercator
MMBtu/hr *or* mmbtu/hr	Million British Thermal Units per Hour	**VEE**	Visual Emissions Evaluation
MMCF/hr *or* mmcf/hr	Million Cubic Feet per Hour	**VOC**	Volatile Organic Compounds
NA	Not Applicable	**VOL**	Volatile Organic Liquids
NAAQS	National Ambient Air Quality Standards		
NESHAPS	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 supersedes and replaces previously issued Permit R13-1772I. 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 Applications R13-1772, R13-1772A,R13-1772B, R13-1772C, R13-1772D, R13-1772E, R13-1772F, R13-1772G, R13-1772H, R13-1772I, R13-1772J, R13-2045, 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§§13-5.11 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.
[40CFR§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 with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:
Director
WVDEP
Division of Air Quality
601 57th Street
Charleston, WV 25304-2345

If to the US EPA:
Associate Director
Office of Air Enforcement and Compliance Assistance
(3AP20)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

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.

3.5.5. **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 the Medical Waste Incinerator

4.1. Limitations and Standards

4.1.1. Emissions of regulated air pollutants to the atmosphere from the medical waste incinerator shall not exceed the hourly and annual emission limitations as set forth in the following table.

Table 4.1.1. Emission Limitation for the Incinerator			
Pollutant	Concentration Limit	Units[1]	Averaging Time
Particulate Matter (PM)	0.011	grains per dscf	3-run average (1-hour minimum sample time per run)
Carbon Monoxide (CO)	11	ppmv	24 hour block average[2]
Dioxins/furans	4.1	grains per 10^9 dscf	3-run average (4-hour minimum sample time per run)
Hydrogen Chloride (HCl)	6.6	ppmv	3-run average (1-hour minimum sample time per run)
Sulfur dioxide (SO_2)	9.0	ppmv	3-run average (1-hour minimum sample time per run)
Nitrogen oxides	140	ppmv	3-run average (1-hour minimum sample time per run)
Lead (Pd)	0.016	grains per 10^3 dscf	3-run average (1-hour minimum sample time per run)
Cadmium	0.004	grains per 10^3 dscf	3-run average (1-hour minimum sample time per run)
Mercury (Hg)	0.0079	grains per 10^3 dscf	3-run average (1-hour minimum sample time per run)

1 – Measured pollutant shall be corrected to 7 percent oxygen on a dry basis.
2 - HMWI units with CEMS allowed to use averaging time stated in 40 CFR.56c(c)
[45 CSR §18-7.3.a.3., Table 1B of Subpart Ce of Part 60, 40 CFR §60.56c(c), 45 CSR §18-1.7.]

4.1.2. Visible emissions from Emission Point IMWI shall not be greater than six (6) percent opacity on a 6-minute block average basis.
[45 CSR §18-7.3.c.2., 40 CFR §60.52c(b)(2)]

4.1.3. The permittee shall operate and maintain the medical waste incinerator and associated control devices in accordance with the following operating parameter, which have been establish based on demonstrated compliance with the emission limits in Condition 4.1.1. except for CO.

a. The waste feed rate to the medical waste incinerator shall not exceed maximum charge rate of 1,000 pounds per hour on a three-hour rolling average and 1,700,000 pounds per year. A maximum of ten (10%) percent of the total annual limit may come from non-CAMC related facilities. CAMC facilities include the General Hospital, Memorial Hospital, Women's and Children's Hospital, Teays Valley Hospital, the Cancer Center and other medical offices owned and operated by the applicant. The maximum charge rate for the purposes of demonstrating compliance with the all of the emission limits in Table 4.1.1. is met if the actual charge rate does not exceed 1,029 pounds per hour on a rolling three hour rolling average. This parameter, maximum temperature , shall be determined at 110 percent of the lowest 3-hour average (taken at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the all of the emission limits in Table 4.1.1. **[45 CSR §18-3.1 and 40 CFR §60.51c]**

b. The minimum sorbent injection rate shall not be less than 39.1 pounds per hour on a 3 hour rolling average basis. This parameter, minimum sorbent injection rate, shall be determined at 90 percent of the highest 3-hour average (taken at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the Hg and HCl emission limit. **[45 CSR §18-3.1 and 40 CFR §60.51c]**

c. The maximum temperature of the exhaust gases entering the fabric filter control device shall not exceed 436.5^0 F on a three hour rolling average basis. This parameter, maximum fabric filter temperature , shall be determined at 110 percent of the lowest 3-hour average (taken at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the dioxin/furan emission limit. **[45 CSR §18-3.1 and 40 CFR §60.51c]**

d. The minimum temperature of the secondary chamber shall not fall below 1800F on a three hour rolling average basis. Compliance with this limit shall be satisfied by configuring the operational controls that lockout the waste charging operating unless this parameter is satisfied. The minimum secondary chamber temperature for the purposes of demonstrating compliance with the PM, dioxin/furan, and NO_x limits in Condition 4.1.1. is met if the temperature does not fall below $1,705.1^0$F on a rolling three hour rolling average. This parameter, maximum temperature , shall be determined at 110 percent of the lowest 3-hour average (taken at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the PM, dioxin/furan, and NO_x emission limit. **[45 CSR §18-3.1 and 40 CFR §60.51c]**

e. The minimum ph of the scrubbing liquid shall not be less than 6.71 on a three hour average basis. This parameter, minimum scrubber liquor ph, shall be determined at 90 percent of the highest 3-hour rolling average (taken at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the HCl emission limit. **[45 CSR §18-3.1 and 40 CFR §60.51c]**

f. The minimum flow rate of scrubbing liquid to the packed bed scrubber shall not fall below 78.8 gallons per minute determined on a three hour rolling average basis. This parameter, minimum scrubber liquor flow rate, shall be determined at 90 percent of the highest 3-hour average (taken at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the HCl emission limit. **[45 CSR §18-3.1 and 40 CFR §60.51c]**

g. The minimum pressure drop across the packed bed scrubber shall not fall below 1.51 inches of water column basis on a three hour rolling average basis. This parameter, minimum pressure drop across the packed bed scrubber, shall be determined at 90 percent of the highest 3-hour average (taken at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the PM emission limit. **[45 CSR §18-3.1 and 40 CFR §60.51c]**

h. The supplemental fuel for the primary and secondary chambers shall be limited to natural gas.

i. The above operating parameter limits do not apply during performance testing. **[45 CSR §18-7.7c.2.]**

4.1.4. The permittee shall prepare a waste management plan and implement the plan at the facility. 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 §60.17) shall be considered in the development of the waste management plan. The owner or operator of each commercial HMIWI company 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.
[45 CSR §18-7.5. and 40 CFR §60.55c]

4.1.5. The medical waste incinerator shall not be charged with any hazardous waste as defined in 45CSR25.

4.1.6. The permittee shall not operate the medical waste incinerator at any time unless a fully trained and qualified Hospital Medical Infectious Waste Incinerator (HMIWI) operator is accessible, either at the facility or available within 1 hour. The trained and qualified HMIWI operator may operate the medical waste incinerator directly or be the direct supervisor of one or more of HMIWI operators.

A HMIWI operator training and qualification shall be obtained through a program approved by the Director or by completing the requirements included in 40 CFR 60 Subpart Ec . The permittee shall comply with the operator training and qualifications requirements of 40 CFR §§60.53c(c) though (g).
[45 CSR §18-7.4. and 40 CFR §60.53c]

4.1.7. The permittee shall conduct annual inspections of medical waste incinerator and associated control devices with subsequent inspections no more than 12 month following the previous inspection. Such inspections shall include the following:

a. Inspection of all burners, pilot assemblies, and pilot sensing devices for proper operation: cleaning of pilot flame sensor, as necessary;

b. Ensuring proper adjustment of primary and secondary chamber combustion air, and adjust as necessary;

c. Inspection of hinges and door latches and lubrication as necessary;

d. Inspection of dampers, fans, and blowers for proper operation;

e. Inspection of HMIWI unit door and door gaskets for proper sealing;

f. Inspection of motors for proper operation;

g. Inspection of primary chamber refractory lining; cleaning and repairing or replacing lining as necessary;

h. Inspection of incinerator shell for corrosion and hot spots;

i. Inspection of secondary and tertiary chamber and stack, cleaning as necessary;

j. Inspection of mechanical loader, including limit switches, for proper operation, if applicable;

k. Visual inspection of waste bed (grates), and repairing or sealing, as appropriate;

l. For the burn cycle that follows the inspection, documentation that the incinerator is operating properly and making any necessary adjustments;

m. Inspection of air pollution control device(s) for proper operation;

n. Inspection of waste heat boiler systems to ensure proper operation;

o. Inspection of bypass stack components;

p. Ensuring proper calibration of thermocouples, sorbent feed systems and any other monitoring equipment; and

q. Generally observing that the equipment is maintained in good operating condition.

The permittee shall complete all necessary repairs within 10 days following the inspection unless the Director issues written approval granting the permittee to delay making such repairs until such specific date.
[45 CSR §§18-7.6.a, b, c, d, e, & f.]

4.1.8. **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§13-5.11.]

4.2. Monitoring Requirements

4.2.1. The permittee shall install, calibrate, maintain, and continuously operate a monitoring device for opacity (COMS) for emissions to the atmosphere from the medical waste incinerator, in accordance with Performance Specification PS-1 of Appendix B to Part 60 of Chapter 40. Such records of maintenance, calibrations, and events are to be maintained in accordance with Conditions 3.4.1. and 4.4.5.
[45 CSR §18-7.7.a.]

4.2.2. The permittee shall conduct a performance evaluation of the continuous opacity monitoring system (COMS) as specified in Performance Specification 1, Appendix B of 40CFR60 and furnish the Director a written report of the results of such performance evaluation. Such records of maintenance, calibrations, and events are to be maintained in accordance with Conditions 3.4.1. and 4.4.5.

4.2.3. If COMS data results are submitted for compliance with the opacity standard for a period of time during which Method 9 data indicates noncompliance, the Method 9 data will be used to determine opacity compliance.

4.2.4. The permittee shall continuously monitoring CO emissions using a CO CEMS. Such CO CEMS shall be operated in accordance with the applicable procedures under Appendices B and F to Part 60 of Chapter 40. Using the measured CO reading, the permittee shall determine compliance with the CO limit in Condition 4.1.1. using a 24-hour block average, calculated as specified in Section 12.4.1. of EPA Reference Method 19 of Appendix A-7 of Part 60. The use of CO CEM may be substituted for CO performance Test and minimum secondary chamber temperature to

demonstrate compliance. Such records of monitoring data, calibrations, checks, and maintenance of the CEMs shall be maintained in accordance with Condition 3.4.1.
[45 CSR §18-7.7a2. and 40 CFR §60.56c(c)(4)]

4.2.5. The permittee shall install, calibrate (to manufacturers' specifications), maintain, and operate a device to method for measuring the use of the bypass stack including date, time, and duration of each bypass event. Such records of maintenance, calibrations, and events are to be maintained in accordance with Conditions 3.4.1. and 4.4.5.
[45 CSR §18-7.7d, 40 CFR §60.57c(c)]

4.2.6. The permittee shall install, calibrate (to manufacturers' specifications), maintain, and operate a device(s) to continuously measure and record the parameters for the limits specified in Condition 4.1.3. Such devices shall be capable of taking measurement and recording data one per minute on a continuous basis for secondary chamber temperature, pressured drop across the packed bed scrubber, liquor flow rate, and ph of the liquor. The device measuring the charge rate of waste and sorbent flow rate shall be capable of taking and recording reading hourly. Records of such monitoring, which includes records of maintain and calibrations of monitors, shall be maintained in accordance with Condition 3.4.1.
[45 CSR §18-7.7d, 40 CFR §60.57c(a), Table 3 to Subpart Ec of Part 60]

4.2.7. The permittee shall obtain monitoring data at all times during HMIWI operation, expect during periods of monitoring equipment malfunctions, 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 that the HMIWI is combusting hospital waste and/or medical/infectious waste.
[45 CSR §§18-7.7.d & e.3.; 40 CFR §60.57c(e)]

4.3. Testing Requirements

4.3.1. For the HMIWI, the permittee shall demonstrate compliance with the PM, CO and HCl emission limits in Condition 4.1.1.by conducting an annual performance test (no more than 12 months from the previous test) using the applicable test procedures and test methods in 40 CFR §60.56c(b). If all three performance test over a 3-year period indicate compliance, then the permittee may forgo a performance test for that pollutant (PM, CO, or HCl) for the subsequent 2 years. At the minimum, a performance test for PM, CO, and HCl shall be conducted every third year (no more than 36 months following the previous performance test). If a performance test is conducted every third year indicates compliance with the emission limits for a pollutant (PM, CO, or HCl), 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.) Such testing shall be conducted in accordance with Condition 3.3.1. and 40 CFR §60.56c(b). Annual CO performance testing is not required as stipulated in this condition, if the permittee is complying with Conditions 4.2.2 & 4.2.7. (40 CFR §60.56c(c)(4)). Records of such testing shall be maintained in accordance with Condition 3.4.1.
[45 CSR §18-7.7a. & 40 CFR §§60.56c(c)(2) & (c)(4)]

4.3.2. At time when the permittee elects to establish new values for the operating parameters other than the ones stated in Condition 4.1.3., the permittee must conduct a repeat performance test demonstrating compliance with the emission limits in Condition 4.1.1. using the appropriate methods and procedures outlined in 40 CFR §60.56c. The permittee may elect not to conduct CO performance testing if the permittee is complying with Conditions 4.2.2 & 4.2.7. (40 CFR §60.56c(c)(4)). The new values for the operating parameters shall be developed as defined in

Condition 4.1.3. for the corresponding operating parameter. Such testing shall be conducted in accordance with Condition 3.3.1. Records of such testing shall be maintained in accordance with Condition 3.4.1.
[45 CSR §18-7.7.a. and 40 CFR §60.56c(k)]

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.

4.4.4. The permittee shall maintain records of the annual equipment inspection as required in Condition 4.1.7., which shall include the date of each inspection and description of any repairs made as result of the inspection. Such records shall be maintained in accordance with Condition 3.4.1.

[45 CSR §18-7.8.b.1. and 40 CFR §60.58c(b)(2)(xvi)]

4.4.5. The permittee shall maintain records of the following information:

a. Calendar date of each record;

b. Records of the following data:

c. Concentrations of CO and measurements of opacity as determined by the continuous emission monitoring system;

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

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

f. Fabric filter inlet temperatures during each minute of operation,;

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

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

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

j. Secondary chamber temperatures recorded during each minute of operation;

k. Liquor flow rate to the wet scrubber inlet during each minute of operation;

l. Pressure drop across the wet scrubber system during each minute of operation, as applicable,

m. pH at the inlet to the wet scrubber during each minute of operation, as applicable,

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

o. Identification of calendar days for which data on emission rates or operating parameters specified under Condition 4.1.3. 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.

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

q. Identification of calendar days for which data on emission rates or operating parameters specified under paragraph (b)(2) of this section exceeded the applicable limits, with a description of the exceedances, reasons for such exceedances, and a description of corrective actions taken.

r. Records showing the names of HMIWI operators who have completed review of the information in 40 CFR §60.53c(h) as required by §60.53c(i), including the date of the initial review and all subsequent annual reviews;

s. 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;

t. Records showing the names of the HMIWI operators who have met the criteria for qualification under Condition 4.1.6. and the dates of their qualification; and

u. Records of calibration of any monitoring devices as required under §60.57c(a) through (d).

Records of such information shall be maintained in accordance with Condition 3.4.1.
[45 CSR §18-7.8.a. & 40 CFR §60.58c(b)]

4.5. Reporting Requirements

4.5.1. The permittee shall submit semiannual and annual reports to the Director no later than September 15 for semiannual reports and March 15 for annual reports following the previous 6 months (January through June for the semiannual and July thought December for the annual reporting periods) in which data were collected. Such reports shall be submitted in accordance with Condition 3.5.1 and a record of each submission shall be maintained in accordance with Condition 3.4.1. The reports shall include the following information:

a. The highest maximum operating parameter and the lowest minimum operating parameter, as applicable, for each operating parameter recorded for the reporting period being reported, pursuant to Condition 4.1.3.

b. The highest maximum operating parameter and the lowest minimum operating parameter, as applicable, for each operating parameter recorded pursuant to Condition 4.1.3. for the calendar year preceding the year being reported, in order to provide the Director with a summary of the performance of the affected facility over a 2-year period. This information is only required for annual compliance reports.

c. Any information recorded under items o though q of Condition 4.4.5. during the reporting period.

d. Any information recorded under items o though q of Condition 4.4.5. for the calendar year preceding the year being reported, in order to provide the Director with a summary of the performance of the affected facility over a 2-year period. This information is only required for annual reports.

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

f. If no exceedances or malfunctions were reported under items o though q of Condition 4.4.5. for the reporting period being reported, a statement that no exceedances occurred during the reporting period.

g. Any use of the bypass stack, the duration, reason for malfunction, and corrective action taken that occurred during the reporting period.

h. For affected facilities as defined in §60.50c(a)(3) and (4), 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 Director.

i. Concentrations of CO as determined by the continuous emissions monitoring system during the reporting period.

j. Any exceed of Condition 4.1.2. determined using the COMS that occurred during the reporting period.

[45 CSR §§18-7.8.a., 7.8.b2., 7.8.c. and 40 CFR §§60.58c(d) & (e)]

4.5.2. Within 60 days of after completing the performance testing in accordance with Condition 4.3.2. to establish new values for the operating parameters in Condition 4.1.3., the permittee shall submit a

request to update the stated operating limits other than the charge rate of waste or supplemental fuel in Condition 4.1.3. in accordance with 45 CSR 13-4.
[45 CSR §18-7.8.a and 40 CFR §60.58c(c)(2)]

5.0. Source-Specific Requirements for the Boilers & Sterilizer

5.1. Limitations and Standards

5.1.1. The following conditions and requirements are specific to Boilers 2, 3, and 4:

a. The boilers shall be fired with pipeline quality natural gas at all times except when conducting periodic testing, and readiness checks of the boiler's ability to fire on liquid fuel (diesel); during periods of natural gas curtailment; or gas supply emergencies. The duration of such periodic testing and/or readiness check shall not exceed more than 48 hours per year for each boiler.

b. When operating on diesel or any combination of diesel and natural gas, CO emissions from each boiler shall not exceed 0.64 pound per hour.

c. When operating on diesel or any combination of diesel and natural gas, NO_x emissions from each boiler shall not exceed 1.77 pound per hour.

d. When operating on diesel or any combination of diesel and natural gas, PM emissions from each boiler shall not exceed 0.50 pound per hour. Compliance with this emission limit is satisfied by burning Ultra Low Sulfur Diesel (ULSD) as the diesel fuel in the emission unit. **[45 CSR §2-4.1.b.]**

e. When operating on diesel or any combination of diesel and natural gas, SO_2 emissions from each boiler shall not exceed 0.03 pound per hour. Compliance with this emission limit is satisfied by using Ultra Low Sulfur Diesel (ULSD) fuel. **[45 CSR §10-3.3.f. and 40 CFR §60.42c(d)]**

f. At all times when the boilers are operated solely with pipeline quality natural gas, the use of natural gas in these emission units satisfies compliance with the limitations of 45CSR§2-3.1., 45CSR§2-4.1.b., 45CSR§10-3.1.e., and 40 CFR §60.42c(d)] **[45CSR§2A-3.1.a., 45CSR§10-10.3., 45CSR§10A-3.1.b., and 40 CFR §60.42c(h)(1)]**

g. At all times when any of the boilers are operated on diesel or any combination of diesel and natural gas the corresponding emission point(s) shall not exhibit visible emissions greater than 10% opacity on a six minute block average. Compliance shall be verified in accordance with Condition 4.2.2. of this permit. **[45CSR§2-3.1.]**

h. Each boiler shall be designed or constructed with a maximum design heat input not to exceed the design capacity listed in Table 1.0 of this permit. Compliance with this limit shall be satisfied by limiting annual total heat input from all boilers to 428,364 MMBtu per year, determined on a rolling 12 month total.

i. At all times when the boilers are operated solely with pipeline quality natural gas, the use of natural gas in these emission units satisfies compliance with the limitations of 45CSR§2-3.1., 45CSR§2-4.1.b., and 45CSR§10-3.1.e. **[45CSR§2A-3.1.a., 45CSR§10-10.3., and 45CSR§10A-3.1.b.]**

j. At all times when any of the boilers are operated on diesel or any combination of diesel and natural gas, Emission Point Boiler 2, Boiler 3, and Boiler 4 shall not exhibit visible emissions greater than 10% opacity on a six minute block average. Compliance shall be verified in accordance with Condition 4.2.2. of this permit. **[45CSR§2-3.1.]**

5.1.2. Emissions to the atmosphere from the ethylene oxide sterilizer stack shall not exceed 0.5 pounds per hour, 2.4 pounds per day, and 0.25 tons per year of ethylene oxide emissions.

5.1.3. No more than 3.6 ounces per bottle per 16 hours shall be processed in each of the two ethylene oxide sterilizers. One 3.52 Ounce cartridge contains 100 grams of ethylene oxide.

5.1.4. **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§13-5.11.]

5.2. Monitoring Requirements

5.2.1. For each month, the permittee shall record the amount of fuel by type (natural gas and fuel oil) consumed by the boilers and shall calculate the sum of the heat inputted in the boilers on a rolling 12 month total for each month. Such monitoring may include the natural gas usage from the medical waste incinerator. If so, compliance with Condition 4.1.1.h. shall be satisfied with a total heat input of less than 438,355 MMBtu per year. Such records shall be maintained in accordance with Condition 3.4.1. of this permit.
[40CFR§60.48c(g)(2), 45 CSR §2-8.3.c., and 45CSR§2A-7.1.a.1.]

5.2.2. For the purpose of demonstrating compliance with periodic testing, and readiness checks limit of Condition 5.1.1.a. The permittee shall record the length time and date that periodic testing, and readiness checks of the diesel fuel delivery system is conducted for each boiler (i.e. when the boiler is operating on diesel for readiness checks) as allowed in Condition 5.1.1.a. of this permit. Such records shall be maintained in accordance with Condition 3.4.1.

5.2.3. When any boiler covered by this permit is operated on any amount of fuel oil for more than 30 consecutive operating days, the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping of the corresponding emission point of the associated boiler that is subject to the visible emission standard of Condition 4.1.1.g. after the 30th consecutive operating day and no later than the 45 consecutive day. Once the boiler is switched back to 100% natural gas, the counting of 30 consecutive operating days shall be reset to zero and not begin counting again until the unit begins to consume fuel oil again.

The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40 CFR Part 60, Appendix A, Method 9 certification course.

Visible emission checks shall be conducted at least once every forty-five (45) days when the boiler is being fired with fuel oil. These checks shall be performed at each source (stack, transfer point, fugitive emission source, etc.) for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions.

If visible emissions are present at a source(s) for three (3) consecutive checks, the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of METHOD 9

as soon practicable, but within seventy-two (72) hours of the final visual emission check. A METHOD 9 observation at a source(s) restarts the count of the number of consecutive readings with the presence of visible emissions.

5.2.4. For each month, the permittee shall record the amount of ethylene oxide used at the facility. Such records shall be maintained in accordance with Condition 3.4.1. of this permit.

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 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.

5.4.4. The permittee shall maintain the following records in accordance with Condition 3.4.1. of this permit:

a. The name of the diesel supplier;

b. A statement from the diesel supplier that the fuel complies with the specification under the definition of distillate oil in 40CFR§60.41c; and

c. Sulfur content or maximum sulfur content of the diesel supplied.
[40CFR§60.4848c(f)(1) and 45CSR§10-8.3.a.]

5.4.5. The permittee shall maintain records of all monitoring data required by Condition 5.2.2. documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6 - 10 mph NE wind) during the visual emission check(s). An example form is supplied as Appendix A. Should a visible emission observation be required to be performed per the requirements specified in METHOD 9, the data records of each observation shall be maintained per the requirements of METHOD 9. For an emission unit out of service during the normal monthly evaluation, the record of observation may note "out of service" (O/S) or equivalent. Such records shall be maintained in accordance with Condition 3.4.1. of this permit.

5.5. Reporting Requirements

5.5.1. Any exceedance(s) of the allowable visible emission requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 must be reported in writing to the Director 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 exceedance(s), and any corrective measures taken or planned.

5.5.2. The permittee shall submit reports to the Director no later than the 30th day following the end of the reporting period. Such reports shall cover the six month period of January to June and July to December for the diesel fuel consumed by the Boilers 1, 2, and 3 to the facility during the reporting period. These reports shall include the records required in Condition 4.4.4. and a certified statement signed by the permittee that the records of fuel supplier certifications submitted represent all of the diesel combusted during the reporting period.
[40CFR§§60.48c(d), (e)(11), (f)(1) and (j)]

6.0. Source-Specific Requirements for the Emergency Generators

6.1. Limitations and Standards

6.1.1. Emissions of regulated air pollutants to the atmosphere from the EG-1, EG-2, and EG-5 emergency generators shall not exceed the hourly and annual emission limitations as set forth in the following table:

Table 6.1.1. Emission Limits for EG-1, EG-2, and EG-5

ID #	Emergency Generator #1		Emergency Generator #2		Emergency Generator #5	
Description	750 KW generator		750 KW generator		750 KW generator	
Emission Limits	PPH	TPY	PPH	TPY	PPH	TPY
CO	0.53	0.13	5.54	1.39	5.54	1.39
NO_X	11.80	2.95	24.14	6.04	24.14	6.04
PM_{10}	0.05	0.01	0.71	0.18	0.71	0.18
SO_2	0.01	0.01	4.07	1.02	4.07	1.02
VOC	0.07	0.02	0.71	0.18	0.71	0.18

6.1.2. EG-1, EG-2, and EG-5 emergency generators shall not operate more than 500 hours per year each. Compliance with the operating hour limit shall be determined using a rolling twelve month total.

6.1.3. The following conditions and requirements are specific to generator sets EG-1 and EG-7:

a. Each generator set shall be used as an emergency stationary generator and be limited to non-emergency operation of no more than 100 hours per year. Non-emergency operation shall be for maintenance checks and readiness tests. Emergency operation is defined when electric power from the local utility is interrupted.
[40 CFR §60.4211(f)]

b. Each generator set shall be equipped with an engine or engine configuration that has been certified by the manufacturer to comply with either 40 CFR §60.4205(b)(2), which referred to 40 CFR §§89.111 and 112 or 40 CFR Part 60.
[40 CFR §§60.4211(a)(3) and (c)(1)]

c. The permittee shall maintain the engine of each generator set according to the manufacturer's emission-related written instructions.
[40 CFR §60.4211(a)(1)]

d. The permittee shall only change those emission-related settings of the generator sets that are permitted by the manufacturer.
[40 CFR §60.4211(a)(2)]

e. The maximum name plate 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.

6.1.4. Diesel fuel used by the engines for the generator sets shall have a maximum sulfur content no greater than 15 ppm (ultra-low sulfur diesel) and with either a minimum centane index of 40 or a maximum aromatic content of 35 volume percent. Diesel meeting the specifications of Nonroad diesel under 40 CFR §80.510(b) is equivalent.
[40 CFR §60.4207(b)]

6.1.5. The permittee shall make the engines for the 100 kW and 500 kW (EG-3 & 4) emergency generators permanently non-operational (i.e. fuel tanks drained, and fuel lines to the tank disconnected and caped) within 30 days after the initial start-up of EG-7.

6.1.6. **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§13-5.11.]

6.2. Monitoring Requirements

6.2.1. For the purpose of demonstrating compliance the annual operation limits in Condition 6.1.2, the permittee shall monitor and record the hours each generator set operates for the corresponding calendar month and maintain a 12-month rolling total for each generator set. Such records shall be maintained in accordance with Condition 3.4.1.

6.2.2. For the purpose of demonstrating compliance with the hours of operation limit for EG-1 and EG-7 in Condition 6.1.3.a., the permittee shall record the number of hours each generator set is operated during the calendar month and the reason for such operation. Such records shall be maintained in accordance with Condition 3.4.1.
[40 CFR §60.4211(f)]

6.3. Testing Requirements

[Reserved]

6.4. Recordkeeping Requirements

6.4.1. **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.

6.4.2. **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.

6.4.3. **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.

6.5. Reporting Requirements

[Reserved]

APPENDIX A

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

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. _____

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[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.