



**TITLE V PERMIT RENEWAL**  
**R30-03900057-2002**

Charleston Area Medical Center  
General Division  
Charleston, Kanawha County, West Virginia

Prepared for:  
Charleston Area Medical Center, Inc.  
3200 MacCorkle Avenue, SE  
Charleston, West Virginia 25304

Prepared by:  
Triad Engineering, Inc.  
4980 Teays Valley Road  
Scott Depot, West Virginia 25560

February 2012

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*(Not applicable, therefore not included)*

Attachment G – Air Pollution Control Device Forms

Attachment H – Compliance Assurance Monitoring (CAM) Plan Forms  
*(Not applicable, therefore not included)*

**TITLE V PERMIT APPLICATION CHECKLIST  
FOR ADMINISTRATIVE COMPLETENESS**

<p>A complete application is demonstrated when all of the information required below is properly prepared, completed and attached. The items listed below are required information which must be submitted with a Title V permit application. Any submittal will be considered incomplete if the required information is not included.*</p>	
<input checked="" type="checkbox"/>	Two signed copies of the application (at least one <u>must</u> contain the original “ <i>Certification</i> ” page signed and dated in blue ink)
<input checked="" type="checkbox"/>	Correct number of copies of the application on separate CDs or diskettes, (i.e. at least one disc per copy)
<input checked="" type="checkbox"/>	*Table of Contents (needs to be included but not for administrative completeness)
<input checked="" type="checkbox"/>	Facility information
<input checked="" type="checkbox"/>	Description of process and products, including NAICS and SIC codes, and including alternative operating scenarios
<input checked="" type="checkbox"/>	Area map showing plant location
<input checked="" type="checkbox"/>	Plot plan showing buildings and process areas
<input checked="" type="checkbox"/>	Process flow diagram(s), showing all emission units, control equipment, emission points, and their relationships
<input checked="" type="checkbox"/>	Identification of all applicable requirements with a description of the compliance status, the methods used for demonstrating compliance, and a Schedule of Compliance Form (ATTACHMENT F) for all requirements for which the source is not in compliance
<input checked="" type="checkbox"/>	Listing of all active permits and consent orders (if applicable)
<input checked="" type="checkbox"/>	Facility-wide emissions summary
<input checked="" type="checkbox"/>	Identification of Insignificant Activities
<input checked="" type="checkbox"/>	ATTACHMENT D - Title V Equipment Table completed for all emission units at the facility except those designated as insignificant activities
<input checked="" type="checkbox"/>	ATTACHMENT E - Emission Unit Form completed for each emission unit listed in the Title V Equipment Table (ATTACHMENT D) and a Schedule of Compliance Form (ATTACHMENT F) for all requirements for which the emission unit is not in compliance
<input checked="" type="checkbox"/>	ATTACHMENT G - Air Pollution Control Device Form completed for each control device listed in the Title V Equipment Table (ATTACHMENT D)
<input type="checkbox"/>	ATTACHMENT H – Compliance Assurance Monitoring (CAM) Plan Form completed for each control device for which the “Is the device subject to CAM?” question is answered “Yes” on the Air Pollution Control Device Form (ATTACHMENT G)
<input checked="" type="checkbox"/>	General Application Forms signed by a Responsible Official
<input type="checkbox"/>	Confidential Information submitted in accordance with 45CSR31



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

601 57th Street SE
Charleston, WV 25304
Phone: (304) 926-0475

www.dep.wv.gov/daq

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

Form with 10 numbered sections: 1. Name of Applicant, 2. Facility Name or Location, 3. DAQ Plant ID No., 4. Federal Employer ID No. (FEIN), 5. Permit Application Type, 6. Type of Business Entity, 7. Is the Applicant the: Owner, Operator, Both, 8. Number of onsite employees, 9. Governmental Code, 10. Business Confidentiality Claims.

<b>11. Mailing Address</b>		
<b>Street or P.O. Box:</b> 3200 MacCorkle Avenue, SE		
<b>City:</b> Charleston	<b>State:</b> West Virginia	<b>Zip:</b> 25304
<b>Telephone Number:</b> (304) 388-8208	<b>Fax Number:</b> (304) 388-8891	

<b>12. Facility Location</b>			
<b>Street:</b> 501 Morris Street	<b>City:</b> Charleston	<b>County:</b> Kanawha	
<b>UTM Easting:</b> 445.19 km	<b>UTM Northing:</b> 4,244.56 km	<b>Zone:</b> <input checked="" type="checkbox"/> 17 or <input type="checkbox"/> 18	
<b>Directions:</b> From Interstate 64, exit at Leon Sullivan Way (Exit 100) toward Capitol Street. From Leon Sullivan Way, turn left onto Washington Street (U.S. Route 60, East). Turn left onto Morris Street and end at 501 Morris Street.			
<b>Portable Source?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>Is facility located within a nonattainment area?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<b>If yes, for what air pollutants?</b> PM <sub>2.5</sub>	
<b>Is facility located within 50 miles of another state?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>If yes, name the affected state(s).</b>	
<b>Is facility located within 100 km of a Class I Area<sup>1</sup>?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>If yes, name the area(s).</b>	
<b>If no, do emissions impact a Class I Area<sup>1</sup>?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<sup>1</sup> Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.			

<b>13. Contact Information</b>		
<b>Responsible Official:</b> Dr. Glenn Crotty, Jr., M.D.		<b>Title:</b> Executive VP & COO
<b>Street or P.O. Box:</b> 501 Morris Street		
<b>City:</b> Charleston	<b>State:</b> West Virginia	<b>Zip:</b> 25301
<b>Telephone Number:</b> (304) 388-7647	<b>Fax Number:</b> (304) 388-7696	
<b>E-mail address:</b> <a href="mailto:Glenn.Crotty@camc.org">Glenn.Crotty@camc.org</a>		
<b>Environmental Contact:</b> Nanci Keenan		<b>Title:</b> Safety Manager
<b>Street or P.O. Box:</b> 3200 MacCorkle Avenue, SE		
<b>City:</b> Charleston	<b>State:</b> West Virginia	<b>Zip:</b> 25304
<b>Telephone Number:</b> (304) 388-8890	<b>Fax Number:</b> (304) 388-8891	
<b>E-mail address:</b> <a href="mailto:Nanci.Keenan@camc.org">Nanci.Keenan@camc.org</a>		
<b>Application Preparer:</b> Shannon L. Cox		<b>Title:</b> Project Environmental Scientist
<b>Company:</b> Triad Engineering, Inc.		
<b>Street or P.O. Box:</b> 4980 Teays Valley Road		
<b>City:</b> Scott Depot	<b>State:</b> West Virginia	<b>Zip:</b> 25560
<b>Telephone Number:</b> (304) 755-0721	<b>Fax Number:</b> (304) 755-1880	
<b>E-mail address:</b> <a href="mailto:scox@triadeng.com">scox@triadeng.com</a>		

**14. Facility Description**

List all processes, products, NAICS and SIC codes for normal operation, in order of priority. Also list any process, products, NAICS and SIC codes associated with any alternative operating scenarios if different from those listed for normal operation.

Process	Products	NAICS	SIC
Hospital	Medical Care	62211	8062
NA	NA	NA	NA
NA	NA	NA	NA
NA	NA	NA	NA
NA	NA	NA	NA
NA	NA	NA	NA
NA	NA	NA	NA
NA	NA	NA	NA
NA	NA	NA	NA

**Provide a general description of operations.**

Located on the eastern edge of downtown Charleston, Charleston Area Medical Center General Hospital is home to the company’s Neurosciences Center, Level I Trauma Center, nationally-accredited Medical Rehabilitation Center, Center for Joint Replacement, two Facial Surgery Centers, Stroke Center, and Charleston’s only accredited Sleep Center. Each year, CAMC’s experienced Trauma Center staff treats 3,100 patients. An average of 1,500 patients also receives neurosurgery and medical rehabilitation services at this location.

Other services offered at CAMC General Hospital include urology, behavioral medicine and psychiatry, physical and occupational therapies, and orthopedics.

This permit addresses the solid waste incinerator owned and operated by CAMC and used to treat infectious medical waste generated by General Division and CAMC’s other hospital and medical facilities. CAMC also accepts infectious medical waste from other facilities; however, this amount of waste does not exceed 10% of the incinerator annual throughput.

15. Provide an **Area Map** showing plant location as **ATTACHMENT A**.

16. Provide a **Plot Plan(s)**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as **ATTACHMENT B**. For instructions, refer to “Plot Plan - Guidelines.”

17. Provide a detailed **Process Flow Diagram(s)** showing each process or emissions unit as **ATTACHMENT C**. Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

**Section 2: Applicable Requirements**

<b>18. Applicable Requirements Summary</b>	
Instructions: Mark all applicable requirements.	
<input checked="" type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input type="checkbox"/> NESHAP (45CSR15)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input type="checkbox"/> Section 111 NSPS	<input type="checkbox"/> Section 112(d) MACT standards
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input checked="" type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqs.	<input type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input type="checkbox"/> 45CSR27 State enforceable only rule
<input type="checkbox"/> 45CSR4 State enforceable only rule	<input type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input type="checkbox"/> Compliance Assurance Monitoring (40CFR64)
<input type="checkbox"/> CAIR NO <sub>x</sub> Annual Trading Program (45CSR39)	<input type="checkbox"/> CAIR NO <sub>x</sub> Ozone Season Trading Program (45CSR40)
<input type="checkbox"/> CAIR SO <sub>2</sub> Trading Program (45CSR41)	

<b>19. Non Applicability Determinations</b>
<p><b>List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.</b></p> <p>40CFR64 – A CAM Plan is not required because the facility is subject to 40CFR60, Subpart Ec.</p>
<input checked="" type="checkbox"/> Permit Shield



**19. Non Applicability Determinations (Continued)** - Attach additional pages as necessary.

List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.

See previous.

Permit Shield

**20. Facility-Wide Applicable Requirements**

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements).

All applicable requirements are outlined in the facility's existing construction and operating permits (R13-1772E and R30-03900057-2002).

Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

All monitoring and record keeping is performed (and will be performed) according to the existing construction and operating permits (R13-1772E and R30-03900057-2002).

Are you in compliance with all facility-wide applicable requirements?  Yes  No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

**20. Facility-Wide Applicable Requirements (Continued) - Attach additional pages as necessary.**

**List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.**

All applicable requirements are outlined in the facility's existing construction and operating permits (R13-1772E and R30-03900057-2002).

Permit Shield

**For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)**

All monitoring and record keeping is performed (and will be performed) according to the existing construction and operating limits (R13-1772E and R30-03900057-2002).

**Are you in compliance with all facility-wide applicable requirements?**  Yes  No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.





**Section 3: Facility-Wide Emissions**

<b>23. Facility-Wide Emissions Summary [Tons per Year]</b>	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	1.31
Nitrogen Oxides (NO <sub>x</sub> )	7.8
Lead (Pb)	0.85
Particulate Matter (PM <sub>2.5</sub> ) <sup>1</sup>	NA
Particulate Matter (PM <sub>10</sub> ) <sup>1</sup>	NA
Total Particulate Matter (TSP)	0.9
Sulfur Dioxide (SO <sub>2</sub> )	3.6
Volatile Organic Compounds (VOC)	0.16
Hazardous Air Pollutants <sup>2</sup>	Potential Emissions
Hydrogen Chloride (HCl)	1,181
Mercury (Hg)	0.39
Cadmium	0.02
Regulated Pollutants other than Criteria and HAP	Potential Emissions
Dioxin	2.5 x 10 <sup>-7</sup>
<sup>1</sup> PM <sub>2.5</sub> and PM <sub>10</sub> are components of TSP. <sup>2</sup> For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.	

**Section 4: Insignificant Activities**

<b>24. Insignificant Activities (Check all that apply)</b>	
<input checked="" type="checkbox"/>	1. Air compressors and pneumatically operated equipment, including hand tools.
<input checked="" type="checkbox"/>	2. Air contaminant detectors or recorders, combustion controllers or shutoffs.
<input checked="" type="checkbox"/>	3. Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
<input checked="" type="checkbox"/>	4. Bathroom/toilet vent emissions.
<input checked="" type="checkbox"/>	5. Batteries and battery charging stations, except at battery manufacturing plants.
<input checked="" type="checkbox"/>	6. Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
<input type="checkbox"/>	7. Blacksmith forges.
<input type="checkbox"/>	8. Boiler water treatment operations, not including cooling towers.
<input type="checkbox"/>	9. Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
<input type="checkbox"/>	10. CO <sub>2</sub> lasers, used only on metals and other materials which do not emit HAP in the process.
<input checked="" type="checkbox"/>	11. Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
<input checked="" type="checkbox"/>	12. Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
<input checked="" type="checkbox"/>	13. Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
<input type="checkbox"/>	14. Demineralized water tanks and demineralizer vents.
<input type="checkbox"/>	15. Drop hammers or hydraulic presses for forging or metalworking.
<input type="checkbox"/>	16. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
<input type="checkbox"/>	17. Emergency (backup) electrical generators at residential locations.
<input type="checkbox"/>	18. Emergency road flares.
<input type="checkbox"/>	19. Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO <sub>x</sub> , SO <sub>2</sub> , VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units.  Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis:  _____  _____  _____  _____  _____  _____  _____  _____

<b>24. Insignificant Activities (Check all that apply)</b>	
<input type="checkbox"/>	<p>20. Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27.</p> <p>Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis:</p> <p>_____</p> <p>_____</p> <p>_____</p>
<input type="checkbox"/>	21. Environmental chambers not using hazardous air pollutant (HAP) gases.
<input checked="" type="checkbox"/>	22. Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
<input type="checkbox"/>	23. Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
<input type="checkbox"/>	24. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
<input type="checkbox"/>	25. Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
<input type="checkbox"/>	26. Fire suppression systems.
<input type="checkbox"/>	27. Firefighting equipment and the equipment used to train firefighters.
<input type="checkbox"/>	28. Flares used solely to indicate danger to the public.
<input type="checkbox"/>	29. Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
<input type="checkbox"/>	30. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
<input type="checkbox"/>	31. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
<input type="checkbox"/>	32. Humidity chambers.
<input type="checkbox"/>	33. Hydraulic and hydrostatic testing equipment.
<input type="checkbox"/>	34. Indoor or outdoor kerosene heaters.
<input checked="" type="checkbox"/>	35. Internal combustion engines used for landscaping purposes.
<input type="checkbox"/>	36. Laser trimmers using dust collection to prevent fugitive emissions.
<input checked="" type="checkbox"/>	37. Laundry activities, except for dry-cleaning and steam boilers.
<input checked="" type="checkbox"/>	38. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
<input type="checkbox"/>	39. Oxygen scavenging (de-aeration) of water.
<input type="checkbox"/>	40. Ozone generators.
<input checked="" type="checkbox"/>	41. Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant



<b>24. Insignificant Activities (Check all that apply)</b>	
	owners/operators must still get a permit if otherwise requested.)
<input type="checkbox"/>	42. Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
<input type="checkbox"/>	43. Process water filtration systems and demineralizers.
<input checked="" type="checkbox"/>	44. Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
<input type="checkbox"/>	45. Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
<input checked="" type="checkbox"/>	46. Routing calibration and maintenance of laboratory equipment or other analytical instruments.
<input type="checkbox"/>	47. Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
<input type="checkbox"/>	48. Shock chambers.
<input type="checkbox"/>	49. Solar simulators.
<input type="checkbox"/>	50. Space heaters operating by direct heat transfer.
<input type="checkbox"/>	51. Steam cleaning operations.
<input checked="" type="checkbox"/>	52. Steam leaks.
<input type="checkbox"/>	53. Steam sterilizers.
<input checked="" type="checkbox"/>	54. Steam vents and safety relief valves.
<input type="checkbox"/>	55. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
<input type="checkbox"/>	56. Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
<input type="checkbox"/>	57. Such other sources or activities as the Director may determine.
<input type="checkbox"/>	58. Tobacco smoking rooms and areas.
<input checked="" type="checkbox"/>	59. Vents from continuous emissions monitors and other analyzers.

*Section 5: Emission Units, Control Devices, and Emission Points*

<b>25. Equipment Table</b>
Fill out the <b>Title V Equipment Table</b> and provide it as <b>ATTACHMENT D</b> .
<b>26. Emission Units</b>
For each emission unit listed in the <b>Title V Equipment Table</b> , fill out and provide an <b>Emission Unit Form</b> as <b>ATTACHMENT E</b> .
For each emission unit not in compliance with an applicable requirement, fill out a <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .
<b>27. Control Devices</b>
For each control device listed in the <b>Title V Equipment Table</b> , fill out and provide an <b>Air Pollution Control Device Form</b> as <b>ATTACHMENT G</b> .
For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the <b>Compliance Assurance Monitoring (CAM) Form(s)</b> for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as <b>ATTACHMENT H</b> .

**Section 6: Certification of Information**

**28. Certification of Truth, Accuracy and Completeness and Certification of Compliance**

*Note: This Certification must be signed by a responsible official. The **original**, signed in **blue ink**, must be submitted with the application. Applications without an **original** signed certification will be considered as incomplete.*

**a. Certification of Truth, Accuracy and Completeness**

I certify that I am a responsible official (as defined at 45CSR§30-2.38) and am accordingly authorized to make this submission on behalf of the owners or operators of the source described in this document and its attachments. I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine and/or imprisonment.

**b. Compliance Certification**

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

**Responsible official (type or print)**

Name: Dr. Glenn Crotty, Jr., M.D.

Title: Executive VP & COO

**Responsible official's signature:**

Signature: \_\_\_\_\_

Signature Date: \_\_\_\_\_

2/15/12

(Must be signed and dated in blue ink)

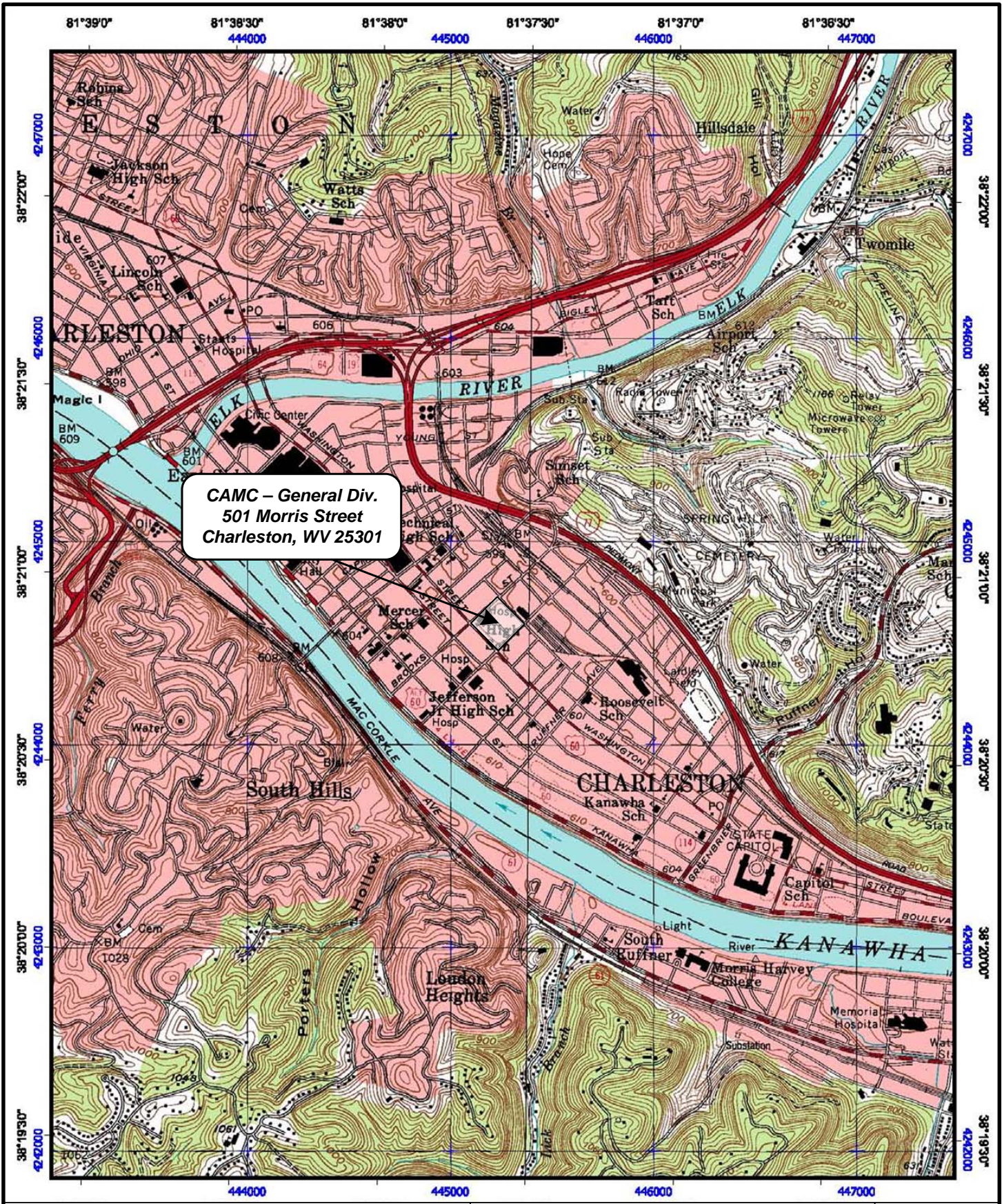
**Note: Please check all applicable attachments included with this permit application:**

<input checked="" type="checkbox"/>	ATTACHMENT A: Area Map
<input checked="" type="checkbox"/>	ATTACHMENT B: Plot Plan(s)
<input checked="" type="checkbox"/>	ATTACHMENT C: Process Flow Diagram(s)
<input checked="" type="checkbox"/>	ATTACHMENT D: Equipment Table
<input checked="" type="checkbox"/>	ATTACHMENT E: Emission Unit Form(s)
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<input type="checkbox"/>	ATTACHMENT G: Air Pollution Control Device Form(s)
<input type="checkbox"/>	ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s)

**All of the required forms and additional information can be found and downloaded from, the DEP website at [www.dep.wv.gov/dag](http://www.dep.wv.gov/dag), requested by phone (304) 926-0475, and/or obtained through the mail.**

**Attachment A**

Area Map



**TRIAD**  
Triad Engineering, Inc.

P.O. Box 1435  
4980 Teays Valley Road  
St. Albans, WV 25177  
304.755.0721

**AREA MAP**  
**Charleston Area Medical Center**  
**General Division**  
Title V Permit Renewal Application  
Charleston, Kanawha County, West Virginia

**Attachment**  
**A**

**Attachment B**

Plot Plan



HMW  
Incinerator

Brooks Street

Lewis Street

CAMC  
General Division

Washington Street

Morris Street

**TRIAD**  
Triad Engineering, Inc.

P.O. Box 1435  
4980 Teays Valley Road  
St. Albans, WV 25177  
304.755.0721

**PLOT PLAN**  
Charleston Area Medical Center  
General Division  
Title V Permit Renewal Application  
Charleston, Kanawha County, West Virginia

Attachment

**B**

## Directions to CAMC General Hospital

501 Morris St.  
Charleston, WV 25301



**From Beckley area, from the south:** Take I-77 North to Charleston. Get off at Leon Sullivan Way exit. Stay in left lane through first traffic light. Turn left at the second traffic light onto Lee Street. Turn left at the next traffic light onto Brooks Street. Go through traffic light (past emergency room) turn right onto Lewis Street (at the base of the interstate ramp). CAMC General Hospital parking garage entrance is on the right.

**From Logan area, from south:** Take Route 119 North (Corridor G) to Charleston and turn right onto the I-64 Charleston/Huntington ramp. Stay in right lane towards Charleston. Follow I-64 East through Charleston. Merge with I-77 South/I-64 East and take the Leon Sullivan Way Exit. Stay in left lane through first traffic light. Turn left at the second traffic light onto Lee Street. Turn left at the next traffic light onto Brooks Street. Go through traffic light (past emergency room) turn right onto Lewis Street. CAMC General Hospital parking garage entrance is on the right.

**From the east:** Take Rt 60/Kanawha Boulevard west toward the state capitol. Turn left onto Brooks Street. Stay on Brooks Street and turn right (just past CAMC General Hospital emergency room) onto Lewis Street (at the base of the interstate ramp). CAMC General Hospital parking garage entrance is on the right.

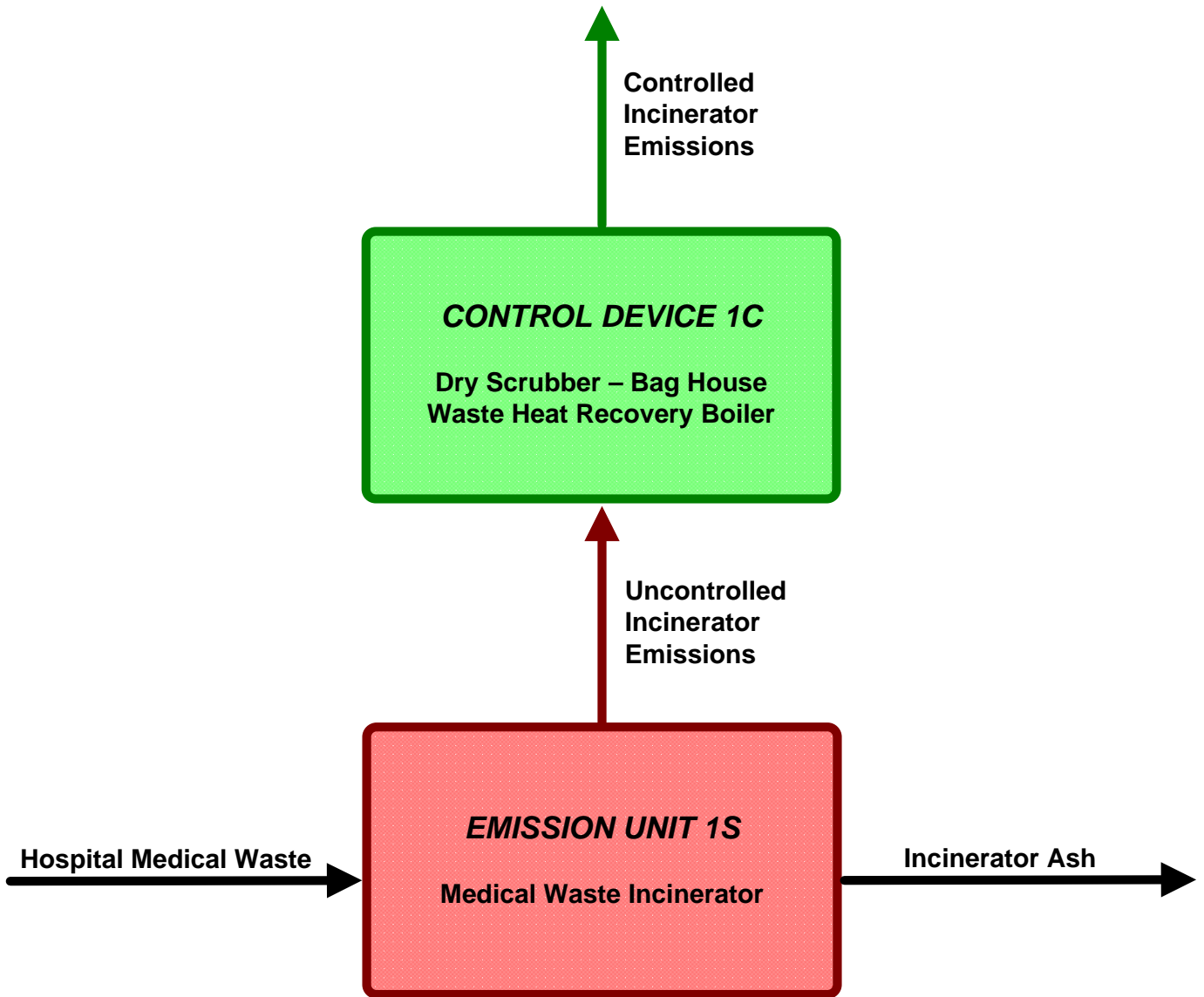
**From the west:** Follow I-64 East through Charleston. Merge with I-77 South/I-64 East South and take the Leon Sullivan Way Exit. Stay in left lane through first traffic light. Turn left at the second traffic light onto Lee Street. Turn left at the next traffic light onto Brooks Street. Go through traffic light (past emergency room) turn right onto Lewis Street (at the base of the interstate ramp). CAMC General Hospital parking garage entrance is on the right.

**From the north:** Take I-77 or I-79 South into Charleston, following signs toward Beckley. I-79 merges into I-77. I-77 South merges with I-64 East. Take the Leon Sullivan Way Exit. Stay in left lane through first traffic light. Turn left at the second traffic light onto Lee Street. Turn left at the next traffic light onto Brooks Street. Go through traffic light (past emergency room) turn right onto Lewis Street (at the base of the interstate ramp). CAMC General Hospital parking garage entrance is on the right.



**Attachment C**

Process Flow Diagram



**Attachment D**

Emission Units Table



**Attachment E**

Emissions Unit Forms

## ATTACHMENT E - Emission Unit Form

**Emission Unit Description**

<b>Emission unit ID number:</b> 1S	<b>Emission unit name:</b> 1S	<b>List any control devices associated with this emission unit:</b> 1C
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
Solid waste incinerator used to treat infectious medical waste from CAMC's hospital facilities. Max feed rate is 1,000 lb/hour or 1,700,000 lbs/yr. Minimum retention time in secondary combustion chamber ( $\geq 1,800^{\circ}\text{C}$ ) is 2 seconds.

<b>Manufacturer:</b> Consumat Technologies, Inc.	<b>Model number:</b> C5-550-2	<b>Serial number:</b> Unknown
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<b>Construction date:</b> 11/17/1995	<b>Installation date:</b> 11/17/1995	<b>Modification date(s):</b> NA
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
Maximum waste feed rate is 1,000 lb/hr and/or 1,700,000 lb/year.

<b>Maximum Hourly Throughput:</b> 1,000 lb/hr	<b>Maximum Annual Throughput:</b> 850 tons/yr	<b>Maximum Operating Schedule:</b> 24 hrs/day, 365 days/yr
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**Fuel Usage Data (fill out all applicable fields)**

<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, is it?</b> <input checked="" type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b> 8,500 BTU/lb	<b>Type and Btu/hr rating of burners:</b> Primary: 1.5 MMBtu/hr Secondary: 5.0 MMBtu/hr
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**  
  
Natural Gas

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	NA	NA	Unknown

<b>Emissions Data</b>			
Criteria Pollutants	Potential Emissions		
	PPH	TPY	
Carbon Monoxide (CO)	0.44	1.31	
Nitrogen Oxides (NO <sub>x</sub> )	2.6	7.8	
Lead (Pb)	0.28	0.85	
Particulate Matter (PM <sub>2.5</sub> )	NA	NA	
Particulate Matter (PM <sub>10</sub> )	NA	NA	
Total Particulate Matter (TSP)	0.3	0.9	
Sulfur Dioxide (SO <sub>2</sub> )	1.2	3.6	
Volatile Organic Compounds (VOC)	0.15	0.16	
Hazardous Air Pollutants	Potential Emissions		
	PPH	TPY	
Hydrogen Chloride (HCl)	394	1,181	
Mercury (Hg)	0.13	0.39	
Cadmium (Cd)	0.01	0.02	
Regulated Pollutants other than Criteria and HAP	Potential Emissions		
	PPH	TPY	
Dioxin	8.3 x 10 <sup>-8</sup>	2.5 x 10 <sup>-7</sup>	
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>Potential emissions were determined via manufacturer information. However, they were later verified via stack test, the results of which are on file in the Director's office. Stack test was started on October 15, 2008 and was completed on October 16, 2008.</p>			

***Applicable Requirements***

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Per current permit R13-1772D and Title V permit.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Per current permit R13-1772D and Title V permit.

Are you in compliance with all applicable requirements for this emission unit?  Yes  No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.



**Attachment F**

Schedule of Compliance Form  
*(Not applicable, therefore not included)*

**Attachment G**

Air Pollution Control Device Forms

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> <p style="text-align: center;"><b>1C</b></p>	<b>List all emission units associated with this control device.</b> <p style="text-align: center;"><b>1S</b></p>
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<b>Manufacturer:</b> <p style="text-align: center;"><b>Consumat Systems, Inc. Donlee Technologies, Inc.</b></p>	<b>Model number:</b> <p style="text-align: center;"><b>DS-2180 HRH-1250 (2 pass)</b></p>	<b>Installation date:</b> <p style="text-align: center;"><b>11/17/1995</b></p>
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**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> <b>Baghouse/Fabric Filter</b>	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

**List the pollutants for which this device is intended to control and the capture and control efficiencies.**

Pollutant	Capture Efficiency	Control Efficiency
<b>Particulate Matter</b>	<b>≥ 90%</b>	<b>≥ 90%</b>

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**  
 The maximum gas flow rate to the collector is 6,300 ACFM at 400°F and 14.5 psia. Stabilized static pressure drop across the baghouse is a maximum of 6 inches water and a minimum of 4 inches water. Total clothe area of bag is 2,180 square feet. Operating air to clothe ratio is 2.9.

**Is this device subject to the CAM requirements of 40 C.F.R. 64?**  Yes  No  
 If Yes, **Complete ATTACHMENT H – Not Applicable**  
 If No, **Provide justification.**  
**A Compliance Assurance Monitoring (CAM) Plan (as required by 40CFR64) is not required for this facility. Although the NSPS for solid waste incinerators (40CFR60, Subpart Ec) was promulgated after construction of the incinerator, the facility is subject to 40CFR24, which references 40CFR60, Subpart Ec. Therefore, because compliance requirements are outlined in 40CFR24, the facility is not required to develop a CAM Plan as per 40CFR64.**

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**  
**The following parameters are continuously monitored and recorded during operation of the solid waste incinerator: percent opacity, incinerator waste charge rate, secondary chamber combustion temperature, bag house exit temperature, and scrubber sorbent feed rate. A stack test is also conducted once every three years to determine the effect that these parameters have on the emission of criteria pollutants.**

**Attachment H**

Compliance Assurance Monitoring Plan Forms (CAM)  
*(Not applicable, therefore not included)*