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LOCATING AND ESTIMATING AIR TOXIC EMISSIONS FROM SOURCES OF MEDICAL WASTE INCINERATORS

Office Of Air Quality Planning And Standards
Office Of Air And Radiation
U. S. Environmental Protection Agency
Research Triangle Park, NC 27711

October 1993

This report has been reviewed by the Office Of Air Quality Planning And Standards, U. S. Environmental Protection Agency, and has been approved for publication. Any mention of trade names or commercial products is not intended to constitute endorsement or recommendation for use.

EPA-454/R-93-053

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SECTION 1
PURPOSE OF DOCUMENT

The Environmental Protection Agency (EPA) and State and local air pollution control agencies are becoming increasingly aware of the presence of substances in the ambient air that may be toxic at certain concentrations. This awareness, in turn, has led to attempts to identify source/receptor relationships for these substances and to develop control programs to regulate emissions. Unfortunately, very little information is available on the ambient air concentrations of these substances or on the sources that may be discharging them to the atmosphere.

To assist groups interested in inventorying air emissions of various potentially toxic substances, EPA is preparing a series of documents such as this that compiles available information on sources and emissions of these substances. This document deals specifically with medical waste incinerators (MWI). Its intended audience includes Federal, State and local air pollution personnel and others who are interested in locating medical waste incinerators and making gross estimates of air emissions therefrom.

Because of the limited amounts of data available on medical waste incinerator emissions, and since the configurations of an incinerator may not be the same as those described here, this document is best used as a primer to inform air pollution personnel about (1) the types of medical waste incinerators, (2) the types of emission control systems used with medical waste incinerators, and (3) available information indicating the potential for emissions to be released into the air from medical waste incinerators.

The reader is strongly cautioned against using the emissions information contained in this document to try to develop an exact assessment of emissions from any particular facility.

Because insufficient data are available to develop statistical estimates of the accuracy of these emission factors, no estimate can be made of the error that could result when these factors are used to calculate emissions from any given facility. It is possible, in some extreme cases, that order-of-magnitude differences could result between actual and calculated emissions, depending on differences in incinerator design, waste composition, control equipment, and operating practices. Thus, in situations where an accurate assessment of medical waste incinerator emissions is necessary, source-specific information should be obtained to confirm the existence of incinerator operations, the types and effectiveness of control measures, and the impact of operating practices. A source test should be considered as the best means to determine air emissions directly from an operation.

SECTION 2.0
OVERVIEW OF DOCUMENT CONTENTS

This section briefly outlines the contents of this report.

Section 3.0 is an overview of the medical waste incinerator (MWI) industry, describing the major types of MWIs in the existing population: excess air, controlled air and rotary kiln incinerators. Included is a process description for each type of incinerator. In addition, this section describes the air emission control technologies currently in use at MWI facilities, including fabric filters, electrostatic precipitators, wet scrubbers and dry sorbent injection.

Section 4.0 focuses on the emissions from MWIs. Emission factors are given in tabular format for acid gases, organics, and metals.

Section 5.0 discusses the EPA reference methods and generally accepted methods of sampling and analysis for each pollutant.

Appendix A contains a partial list of the existing facilities in the MWI population.

This document does not discuss health or other environmental effects of emissions from MWIs, nor does it discuss ambient air levels or ambient air monitoring techniques for emissions associated with MWIs.

Comments on this document are welcome, including information on process descriptions, operating practices, control measures, and emissions information that would enable EPA to improve the contents. All comments should be sent to:

Chief Emission Factor Methodologies Section (MD-14)
Emission Inventory Branch
U.S. Environmental Protection Agency
Research Triangle Park, North Carolina 27711

SECTION 3.0
BACKGROUND INFORMATION

The primary purposes for medical waste incinerators are to (1) render the waste innocuous, (2) reduce the volume and mass of the waste, and (3) provide waste-to-energy conversion. These objectives are accomplished by exposing the waste to high temperatures over a sufficiently long period of time to destroy threatening organisms and burn the combustible portion of the waste. The disadvantages of incineration include the necessity of ash disposal and the potential for air emissions of toxic pollutants.

The design of a medical waste incinerator, like that of any combustor, must account for a number of interrelated factors, including residence time, temperature, and air/gas mixing. Other factors which can influence combustion performance are fuel feeding patterns, air supply and distribution, heat transfer, and ash withdrawal. Like municipal solid waste (MSW), medical waste is more difficult to burn than conventional fuel such as oil, gas, or coal because its composition is highly variable.

Medical waste also has a variable ash content. Due to the high moisture content, the waste can have a relatively low heating value, although higher than municipal solid waste. Corrosion can also be a problem with medical waste flue gases, due to the presence of fluorine and chlorine, principally from plastic materials in the waste. The composition of medical wastes is typically 65% paper, 30% plastic, 10% moisture, and 5% other components, though this composition can be highly variable[1].

Section 3 provides background information on the current status of medical waste incineration. In subsection 3.1, the medical waste incineration industry is briefly

overviewed. Incinerator and emission controls are described in detail in subsections 3.2 and 3.3, respectively.

3.1 CHARACTERIZATION OF THE INDUSTRY

There are three basic types of medical waste incinerators: (1) controlled air, (2) excess air, and (3) rotary kiln. Types of facilities where medical waste incinerators are used include hospitals, veterinary facilities, crematories, and research facilities.

The total number and capacity of medical waste incinerators in the United States is uncertain. A major segment of the population consists of incinerators operating in hospitals. As of 1985 there were a reported 6,872 hospitals in the nation with 1,318,000 beds.[2] Representatives of incinerator manufacturers estimate that over 90 percent of operating hospitals have some type of incinerator on-site, if only a small retort-type for special or pathological wastes.[3] The number of larger, controlled-air hospital waste incinerators is not known. Based on discussions with two of the leading controlled-air incinerator manufacturers, it is estimated that at least 1,200 of these systems have been installed at U.S. hospitals over the past 20 years.[4,5]

Estimates of waste generation rates at hospitals range from about 8 to 45 lb/bed/day.[6,7,8] Using an average generation rate of 23 lb/bed/day and an average occupancy rate of 69 percent, the total hospital waste generation rate is estimated to be about 10,500 tons/day. To estimate actual incinerator tonnage, this rate would need to be reduced by the amount of infectious waste handled by other treatment processes and the amount of general waste that is segregated and sent via trash disposal to landfills. Unfortunately, it is not possible to estimate these quantities based on the information gathered to date.

A partial list of approximately 2,500 medical waste incinerators is presented in Appendix A. Beyond the population of hospital waste incinerators discussed above, this list contains many non-hospital incinerators which burn medical or pathological waste (e.g., veterinarians, crematories, research facilities, etc.) This list was generated using a previous

partial list, and through contacting State agencies. This table is sorted by state and city, and includes the facility name, city, state, size, manufacturer, and type of air pollution control device.

Of the incinerators identified in this study, the majority (>95 percent) are controlled air units. A small percentage (<2 percent) were identified as excess air. Less than 1 percent were identified as rotary kiln. The rotary kiln units tended to be larger, and typically were equipped with an air pollution control device. Approximately 2 percent of the total population identified in this study were found to be equipped with air pollution control devices.

3.2 OVERVIEW OF INCINERATOR TYPES

The following is a brief overview of the major incinerator types including: controlled air, excess air, and rotary kiln.

3.2.1 Controlled Air Incinerators

Controlled-air incineration has become the most widely used medical waste incinerator technology in recent years, and now dominates the market for new systems at hospitals and similar medical facilities. This technology is also known as starved-air incineration, two-stage incineration, and modular combustion. Figure 3-1 presents a schematic diagram of a controlled air unit. While there are some similarities in operating principles between excess air and controlled air incinerators, overall equipment design and appearance are quite different.

Like excess air incinerators, combustion of waste in controlled air incinerators occurs in two stages. Waste is fed into the primary, or lower, combustion chamber, which is operated, as the name implies, with less than the stoichiometric amount of air required for combustion. Depending on the heating value and moisture content of the waste, additional heat may be provided by auxiliary burners located at the entrance to the secondary (upper)

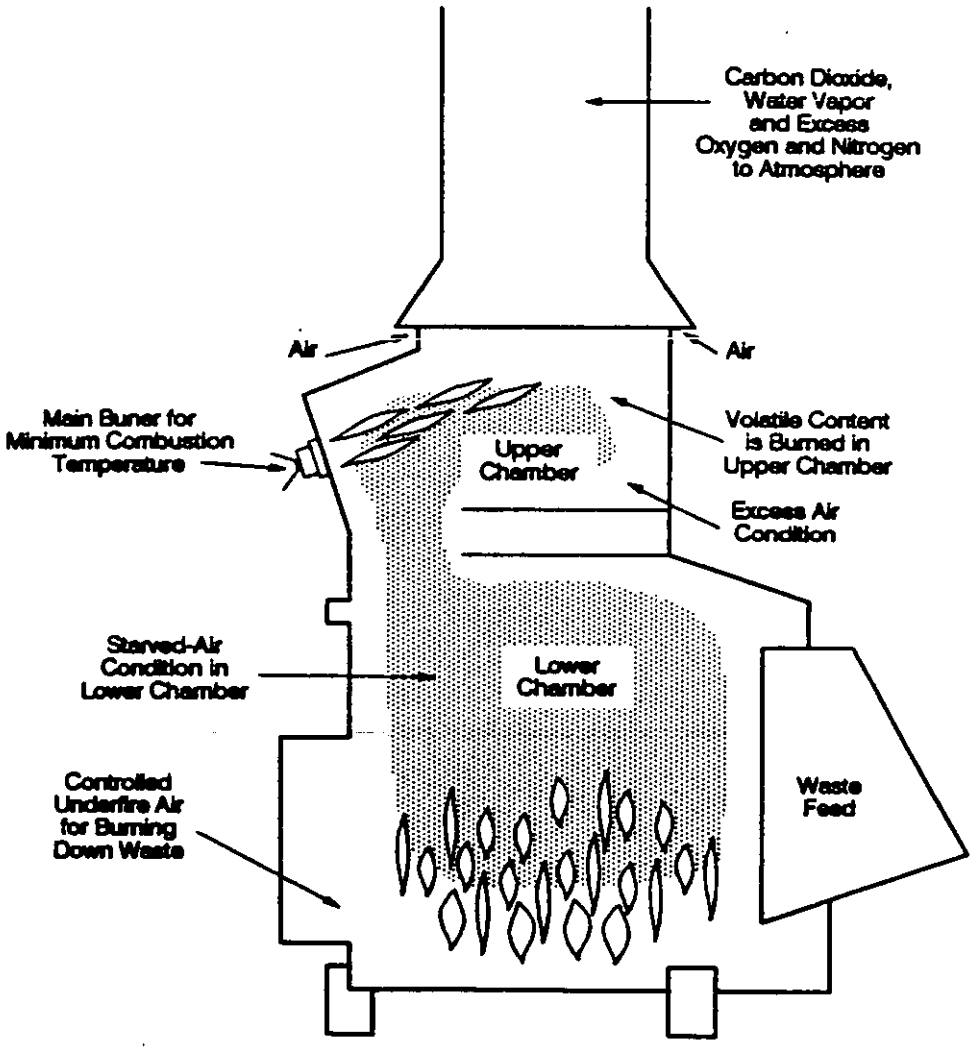


Figure 3-1. Schematic for Controlled Air Incinerator

chamber to maintain desired temperatures. Combustion air enters the first chamber from beneath the incinerator hearth (below the burning bed of waste). This air is called primary or underfire air.

In the primary (air-starved) chamber, the air-to-fuel ratio is low (sub-stoichiometric) so that the waste dries and volatizes, and fixed carbon burns. As a result, temperatures are relatively low (1,400 to 1,800° F). In the second chamber, excess air is added to burn the volatiles. Also, a secondary burner may be operated. As a result, temperatures are higher than in the first chamber - typically 1,800 to 2,000° F.

Because of the low air addition rates in the primary chamber and corresponding low flue gas velocities and turbulence levels, the amount of solids entrained in the gases leaving the primary chamber is minimized. As a result, controlled air incinerators can meet many current state and local particulate matter emission limits without add-on gas cleaning devices.

Waste feed capacities for controlled air incinerators range from about 75 to 6500 lb/hr (at 8500 Btu/lb). Waste feed and ash removal can be manual or automatic, depending on the unit size and options purchased. Capacities for lower heating value wastes may be higher, since feed capacities are limited by primary chamber heat release rates. Heat release rates for controlled air incinerators typically range from about 15,000 to 25,000 Btu/hr-ft^3.

Optimization of controlled air incinerators includes thorough mixing in the secondary chamber and prolonging residence time for complete combustion of the wastes.

3.2.2 Excess Air Incinerators

Excess air incinerators are typically small modular units. They are also referred to as batch incinerators, multiple chamber incinerators, or "retort" incinerators in the

literature. The excess air incinerator typically appears as a compact cube from the outside with a series of chambers and baffles on the inside. Although they can be operated continuously, they are usually operated in a batch mode (hence one common name for this type).

Figure 3-2 presents a schematic for an excess air unit. Waste is manually fed into the combustion chamber. The charging door is then closed, and an afterburner is ignited to bring the secondary chamber to a target temperature (typically 1600 to 1800° F). When the target temperature is reached, the primary chamber burner ignites. Combustion of the waste begins in the primary, or combustion chamber. The waste is dried, ignited, and combusted by heat provided by the primary chamber burner, as well as by radiant heat from the chamber walls. Moisture and volatile components in the waste are vaporized, and pass (along with combustion gases) out of the primary chamber and through a flame port which connects the primary chamber to the secondary, or mixing chamber. Secondary air is added through the flame port and is mixed with the volatile components in the secondary chamber. Burners are also fitted to the secondary chamber to maintain adequate temperatures for combustion of volatile gases. Gases exiting the secondary chamber are directed to the incinerator stack or to an air pollution-control device. When the waste is consumed, the primary burner shuts off. Typically, the afterburner shuts off after a set time. Once the chamber cools, ash is manually removed from the primary chamber floor and a new charge of waste can be added.

Incinerators designed to burn general hospital waste operate at total excess air levels of up to 300 percent. If only pathological wastes (i.e., animal and human remains) are combusted, excess air levels near 100 percent are more common. The lower excess air helps maintain chamber temperature when burning high moisture waste. Optimization of excess air incinerators involves maintaining high temperatures with afterburners and prolonging residence times.

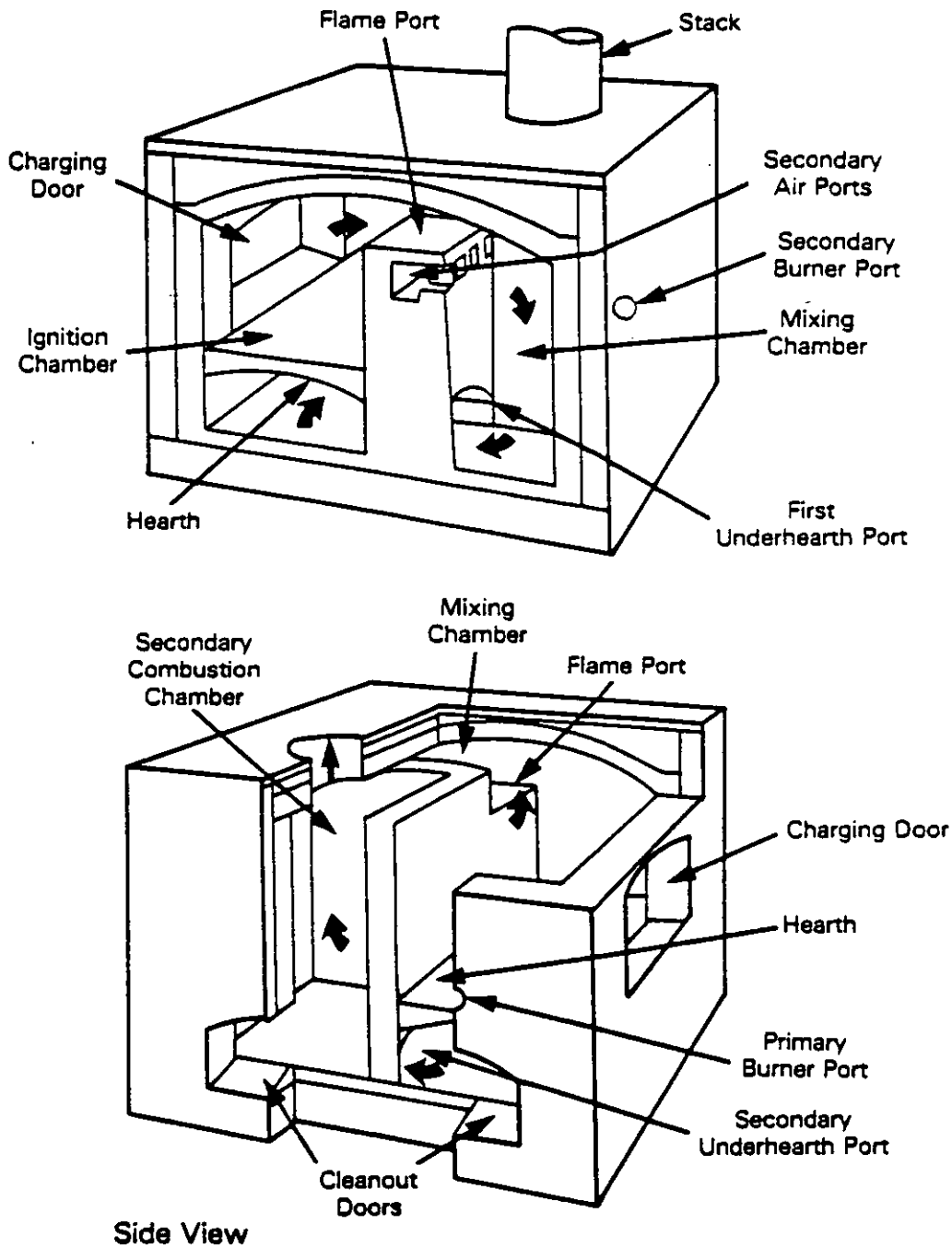


Figure 3-2. Schematic for Excess Air Incinerator[9]

3.2.3 Rotary Kiln Incinerators

Rotary kiln incinerators (shown in Figure 3-3) are similar in some respects to controlled-air incinerators. They are designed with a primary chamber, where the waste is heated and volatized, and a secondary chamber, where combustion of the volatile fraction is completed. The primary chamber consists of a horizontal, rotating kiln. The kiln is slightly inclined so that the waste material migrates from the feed end to the ash discharge end as the kiln rotates. The waste-migration, or throughput, rate is controlled by the rate of rotation and the angle of inclination of the kiln. Combustion air enters the primary chamber through a port. An auxiliary burner is generally used to start combustion and maintain desired combustion temperatures. Both the primary and secondary chambers are usually lined with acid-resistant refractory brick.

Volatiles and combustion gases pass from the primary chamber to the secondary chamber. The secondary chamber is operated under excess-air conditions, and high temperatures (up to 2400° F) are maintained by a secondary burner. Combustion of the volatiles is completed in the secondary chamber. Due to the turbulent motion of the waste in the primary chamber, solids burnout rates and particulate entrainment in the flue gas is higher for kiln incinerators than for controlled-air or excess-air incinerators.

3.3 EMISSION CONTROL SYSTEMS

The pollutants emitted from medical waste incineration that are of concern are:

- particulate matter
- acid gases (HCl, HF, SO_2, and NO_x)
- trace chlorinated organics (dioxins and furans), other low molecular weight organics, and carbon monoxide
- heavy metals such as antimony, arsenic, barium, cadmium, chromium, iron, lead, manganese, mercury, nickel, and silver
- other wastes (cytotoxic agents, radioactive species, pathogens, and bacteria)

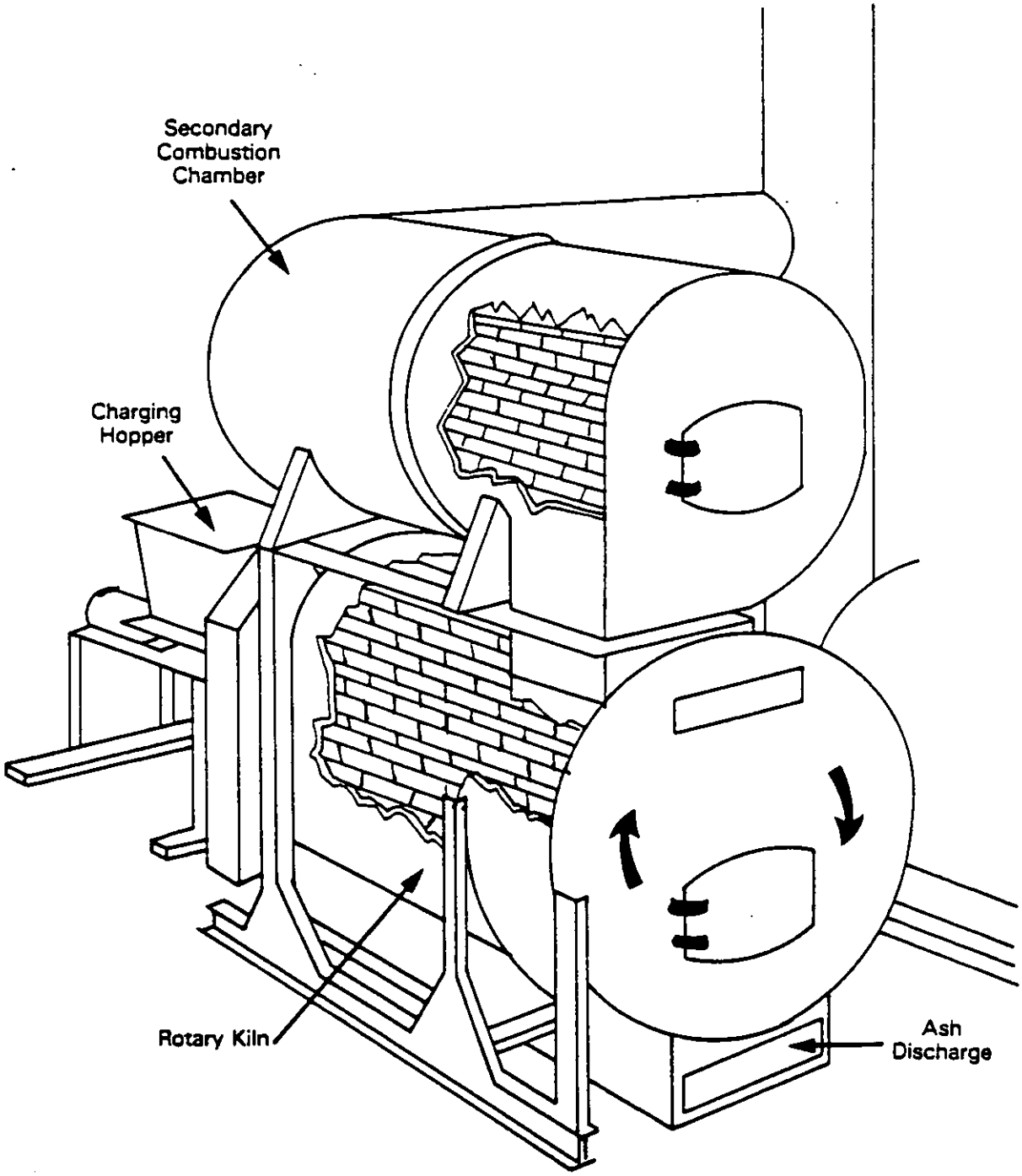


Figure 3-3. Schematic for Rotary Kiln Incinerator[20]

The following section discusses the factors affecting the emission of these pollutants and methods used to control air emission from medical waste incinerators.

3.3.1 Particulate Matter Control Technologies

Particulate matter (PM) is emitted as a result of incomplete combustion and by the entrainment of noncombustible ash in the flue gas stream. PM may exit as a solid or an aerosol, and may contain heavy metals, acids, or trace organics. Depending on the method used to measure the PM in the flue gas, lower boiling point volatile compounds (i.e., boiling point below 212° F) may or may not be included in the measurement. Inorganic matter is not destroyed during combustion; most of this material leaves the incinerator a bottom ash. Some, however, becomes entrained in the stack gas as PM.

In general, good combustion conditions, which depend on residence time, temperature, and turbulence (good air/fuel mixing), minimize PM emissions. As the residence time increases, particle size and the mass of the PM tend to decrease.[9] Smaller particle sizes and lower PM emissions are also associated with higher temperatures. Oxidation rates increase at higher temperatures, so more of the combustible PM is oxidized to gaseous products.

Entrainment of PM into the incinerator exhaust is often a reflection of the relative gas velocity within the combustion chambers. Controlled air incinerators have the lowest turbulence and, consequently, lowest PM emissions; rotary kilns have high turbulence combustion, and, therefore, the highest PM emissions. Although total particulate emission levels from medical waste incinerators are lower than in municipal waste combustion, the particle size range is lower and in the inhalable (< 10 micrometer) range so that up to 80 percent of total particulate is fine particles.[9]

The most frequently used PM control devices are fabric filters and electrostatic precipitators. Therefore, the following discussion focuses on fabric filters and ESP's.

A fabric filtration system (baghouse) consists of a number of filtering elements (bags) along with a bag cleaning system contained in a main shell structure with dust hoppers. Particulate-laden gases are passed through the bags so that the particles are retained on the upstream side of the fabric, thus cleaning the gas. A baghouse is typically divided into several compartments or sections. Figure 3-4 illustrates a typical pulse jet fabric filter system. In fabric filtration, both the collection efficiency and the pressure drop across the bag surface increases as the dust layer on the bag builds up. Since the system cannot continue to operate with an increasing pressure drop, the bags are cleaned periodically. The cleaning processes used ordinarily consist of reverse flow with bag collapse, pulse jet cleaning, or mechanical shaking. When reverse flow and mechanical shaking are used, the PM is collected on the inside of the bag; PM is collected on the outside of the bag in pulse jet systems. Generally, reverse flow fabric filters operate with lower gas flow per unit area of bag surface than pulse jet systems and, thus, are larger and more costly for a given gas flow-rate or application.

Fabric filters can achieve very high (>99.9 percent) PM removal efficiencies. These systems are also very effective in controlling fine (<2 micrometers) PM, which implies good control of condensed metals and organics.

A disadvantage in using fabric filters with medical waste incinerators is the operating temperature limitation. The upper limit of most widely used filter media is about 500° F. Flue gases leave the incinerator at about 1,500-2,000° F. Thus, the gases must be cooled below 500° F before contact with the filter bags. However, the dew point of the flue gas must also be considered. Temperature excursions below the acid dew point (around 230° F) can ruin the bags and require premature replacement.

Particulate collection in an ESP occurs in three steps: (1) suspended particles are given an electrical charge; (2) the charged particles migrate to a collecting electrode of opposite polarity while subjected to a diverging electric field; and (3) the collected PM is dislodged from the collecting electrodes and collected in hoppers for disposal. Figure 3-5 illustrates a typical precipitator cross-section.

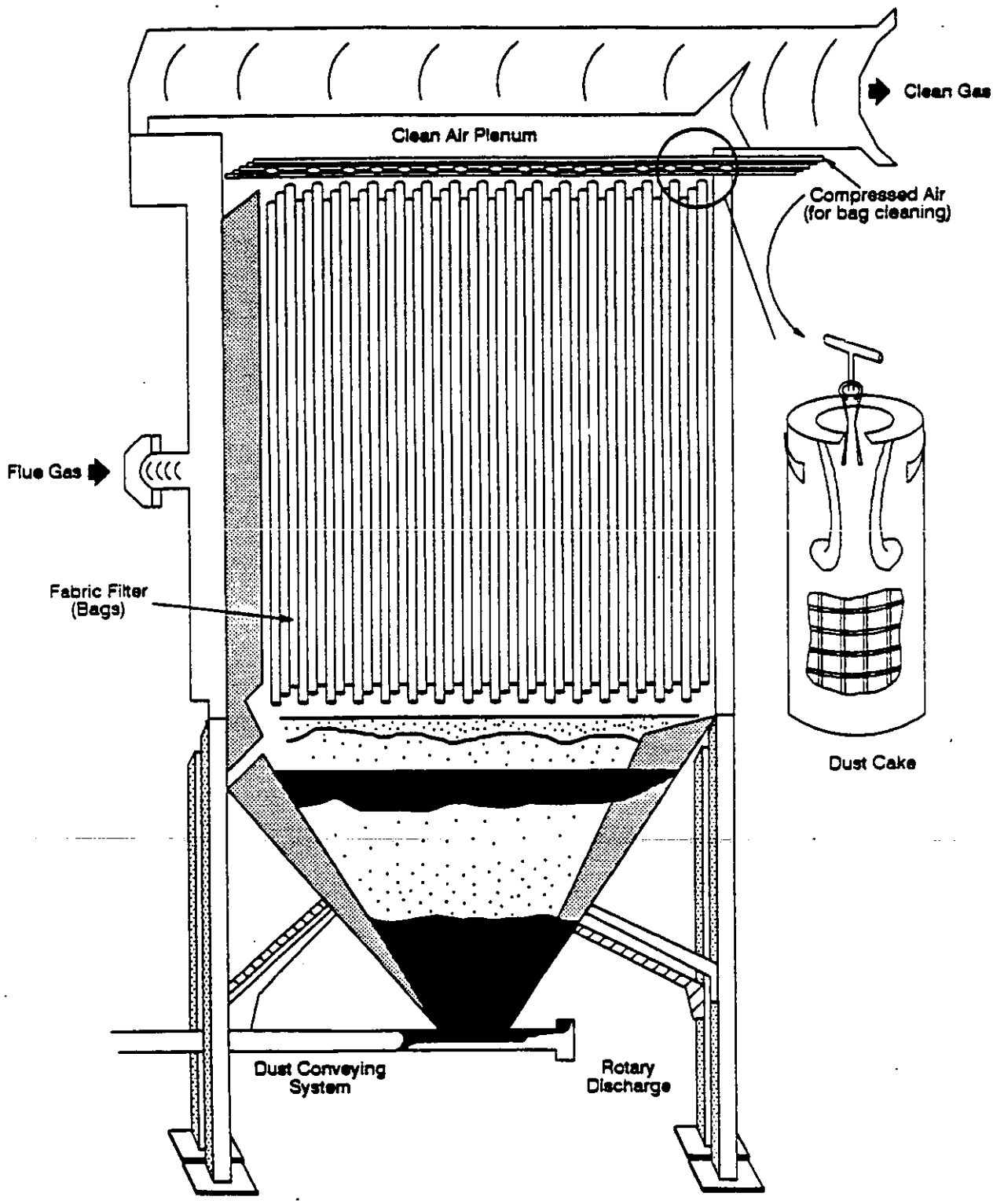


Figure 3-4. A pulse jet cleaned fabric filter system.[9]

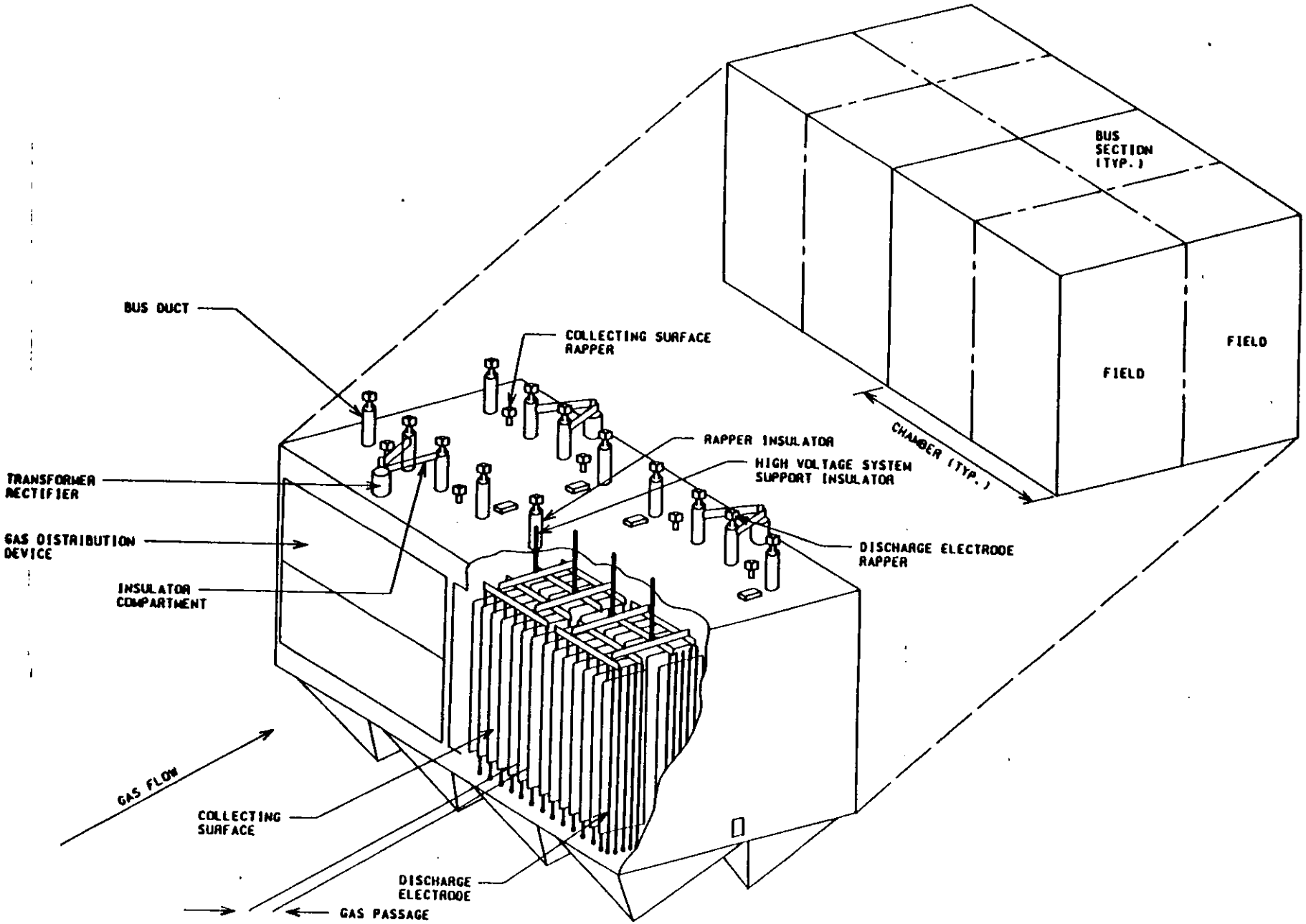


Figure 3-5. Typical precipitator cross section.[10]

Charging of the particles to be collected is usually caused by ions produced in high voltage d-c corona. The electric fields and the corona necessary for particle charging are provided by A-C sources using high voltage transformers and rectifiers. Removal of the collected particulate matter is accomplished mechanically by rapping or vibrating the collecting electrode plates.

3.3.2 Acid Gas Control Technologies

Combustion of medical wastes can produce acid gas emissions in the form of HCl, SO_2, and NO_x. The following discusses the issues related to the formation of these chemicals. Acid gas control is achieved by neutralization of the acid and/or collection of the acid constituents in dry sorbents or aqueous solutions.

Chlorine, which is chemically bound within the medical waste in the form of polyvinyl chloride (PVC) or other compounds, will be predominately converted to hydrogen chloride (HCl). This results from the high hydrogen content of hospital waste due to its high paper, plastics, and moisture content. Swedish studies have found that 60 to 65 percent of the fuel-bound chlorine in municipal solid waste (MSW) is converted to HCl for an HCl range of 0.6-16 mg/kg waste.[9] There appears to be no known thermodynamic reason for the less than 100 percent conversion of chlorine to HCl. Some chlorine will be neutralized by alkaline species in the ash and some may react with precursors to form chlorinated dioxins and furans. Uncontrolled HCl emissions are estimate to be on the order of 1000 ppm or less.[11] HCl control is achieved with aqueous and solid sorbent systems. Wet scrubbers usually operate with an HCl control efficiency greater than 99 percent.[11]

Sulfur, which is chemically bound within the materials making up the medical waste, is oxidized during the combustion process to form SO_2. Medical waste, like municipal waste, typically contains about 0.2 percent sulfur.[11] The rate of SO_2 emissions is directly proportional to the sulfur content of the waste. Some SO_2 removal may take place through reaction of the SO_2 with alkaline materials also present within the waste;

however, this amount of removal is expected to be negligible. Uncontrolled SO_2 emissions are estimated to be on the order of 100 ppm or less.[11] Sulfur dioxide control is achieved with wet (aqueous) or dry sorbent systems.

Nitrogen oxides, or NO_x, represent a mixture mainly of NO and NO_2. However, in combustion systems, NO is predominantly produced due to kinetic limitations in the oxidation of NO to NO_2. NO_x is formed by one of two general mechanisms. "Thermal NO_x" is the result of the high-temperature reaction between molecular nitrogen and molecular oxygen, both of which enter the combustion zone in the combustion air. "Fuel NO_x" results from the oxidation of monatomic nitrogen which enters the combustion zone chemically bound within the fuel structure.

Maximum NO_x generation occurs at slightly fuel-lean air/fuel mixture ratios because of the excess oxygen available for reaction within the hot flame zone. A rapid decrease in NO_x formation is seen for ratios which are slightly higher or lower than this. The rate of thermal NO_x formation is extremely sensitive to the flame temperature.

Fuel-bound nitrogen compounds react to form NO_x in two separate mechanisms: a solid-phase char nitrogen reaction (in solid fuels) and a homogeneous gas-phase reaction resulting from evolution and cracking of volatile compounds (in solid and liquid fuels). Data collected from incinerators indicate that char nitrogen conversion to NO_x is dependent on flame temperature, air/fuel ratio, and char characteristics.[9]

Thermal NO_x formation is extremely sensitive to temperature whereas fuel NO_x formation is not. The data also suggest that: (1) fuel nitrogen could be a significant source of NO_x and (2) the local conditions under which NO_x is formed are not characterized by uniform adiabatic temperatures. At the lower adiabatic temperatures which characterize medical waste incinerators, fuel nitrogen accounts for about 100 ppm NO_x for fuels containing 0.5 percent nitrogen, while thermal NO_x contributes about 10 ppm or less. Therefore, higher NO_x concentrations would be indicative of higher fuel

nitrogen contents and/or high adiabatic mixing temperatures. Incinerator data indicate that NO_x levels are on the order of 200 ppm.[11]

The two most frequently used acid gas control technologies are wet scrubbers and dry sorbent injection. A description of each of the technologies is provided in this section.

Wet scrubbers use gas-liquid absorption to effect transfer of pollutants from a gas to a liquid stream. Scrubber design and the type of liquid solution used largely determine contaminant removal efficiencies. With plain water, removal efficiencies for acid gases could be as high as 70 percent for HCl and 30 percent for SO_2. Addition of an alkaline reagent to the scrubber liquor for acid neutralization has been shown to result in removal efficiencies of 93-96 percent.[9] In general, high gas-side pressure drops accompany high removal efficiencies for PM control with venturi wet scrubbers.

There are three basic types of wet scrubbers:

1. low energy (spray tower) primarily for acid gas control,

2. medium energy (impingement scrubbers such as packed column, baffle plate, and liquid impingement) for PM and/or acid gas control, and

3. high energy (venturi) primarily for PM control.

Low energy scrubbers (spray towers) are usually circular in cross-section. The liquid is sprayed down the tower as the gases rise. Acid gases are absorbed/neutralized by the scrubbing liquid. Large particles are removed by impingement on the liquor pool, and finer particles are removed as the flue gas rises through the tower. Low energy scrubbers mainly remove particles larger than 5-10 micrometers.[9]

Medium energy devices mostly rely on impingement to facilitate removal of PM. This can be accomplished through a variety of configurations, such as packed columns,

baffle plates, and liquid impingement scrubbers. Characteristics of some common low/medium energy scrubbers are listed in Table 3-1.

High energy scrubbers utilize venturis for PM removal. The flue gases impinge on the liquid stream in the converging section. As the gases pass through the throat, the shearing action atomizes the liquid into fine droplets. When the gases pass through the diverging section, they decelerate, resulting in further contact between particles and liquid droplets. The droplets are then removed from the device by centrifugal action in the de-entrainment section.[9]

When simultaneous acid gas and PM removal are necessary, a combination of scrubber types is often used. Venturi scrubbers followed by low or medium energy acid gas scrubbers are commonly applied. The venturi accomplishes primarily PM control, while the low/medium energy scrubber uses an alkaline liquor and functions mainly to absorb acid gases. Figure 3-6 illustrates a wet scrubber system supplied by AirPol, Inc., and Andersen 2000.[11]

Dry sorbent injection (DSI) is another method for controlling acid gases. Fabric filters and ESPs are applied downstream of DSI to (1) control the particulate matter (PM) generated by the incinerator, (2) capture the DSI reaction products and unreacted sorbent, and (3) increase sorbent/acid gas contact time, thus enhancing acid gas removal efficiency and sorbent utilization. Fabric filters are more commonly used with DSI than ESPs because they provide for greater sorbent/acid gas contact. Fabric filters are also less sensitive to PM loading changes or combustion upsets than ESP's, since the former operate with essentially constant efficiency.

In the DSI process, a dry alkaline material is injected into the flue gas into a dry venturi within the ducting or into the duct ahead of a particulate control device. The alkaline material reacts with the HCl and SO_2 in the flue gas, and the solids and fly ash are collected for disposal. The neutralization reactions for the commonly used calcium hydroxide and sodium hydroxide compounds are:

TABLE 3-1. LOW/MEDIUM ENERGY WET SCRUBBERS

Type	Velocity, ft/sec	Pressure Drop, inches water	Liquid Rate, gallons/1000 ft^3
Spray Towers	6-8	<2	30-100
Tray Tower	8-10	2 per tray (2-3 trays are common)	5-20
Horizontal Packed Towers	4-8	2-3	5-40
Vertical Packed Towers (Dumped)	2-8	2-4	5-40
Vertical Packed Towers	4-10	2-3	5-50

Source: Reference 12.

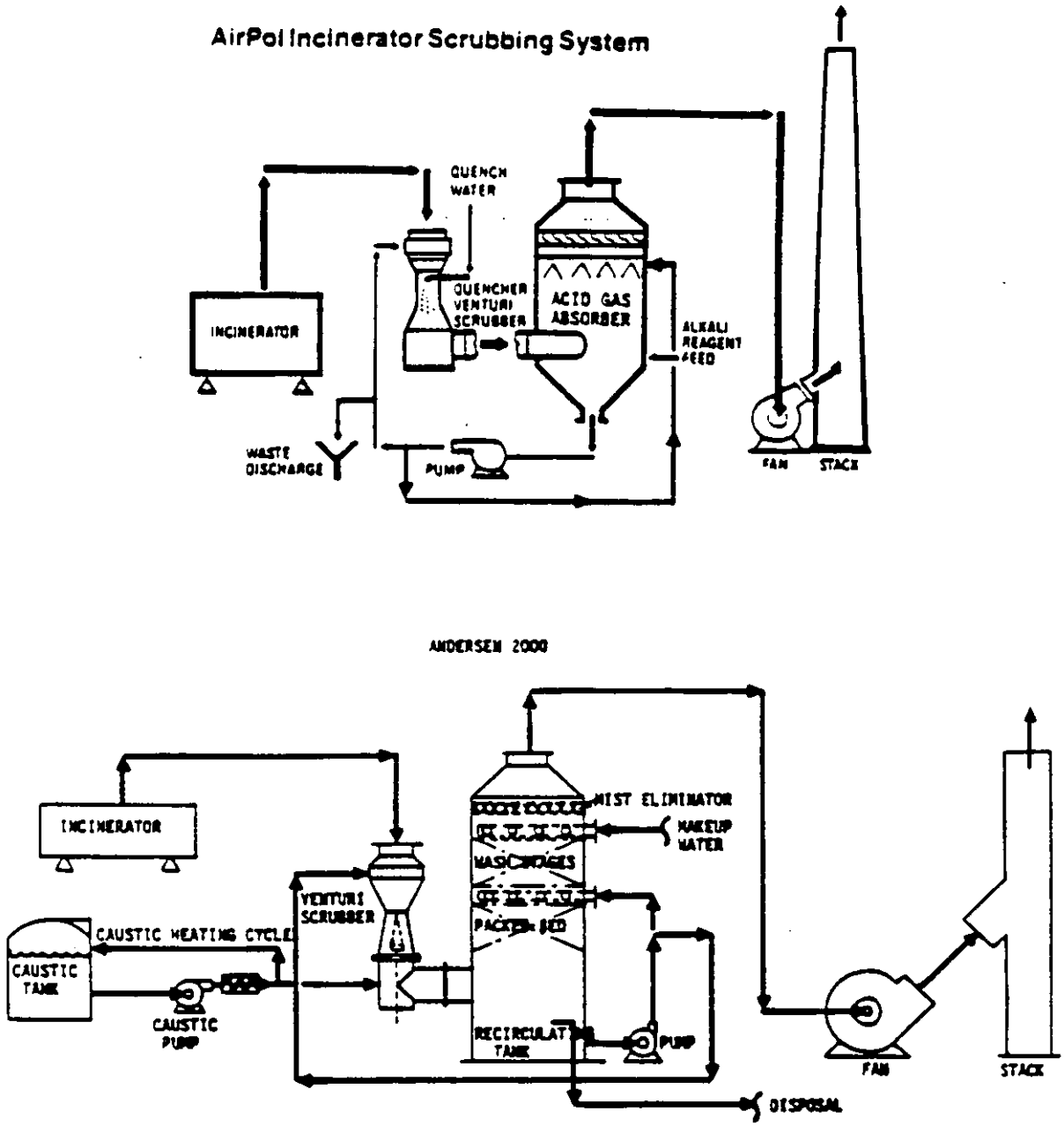


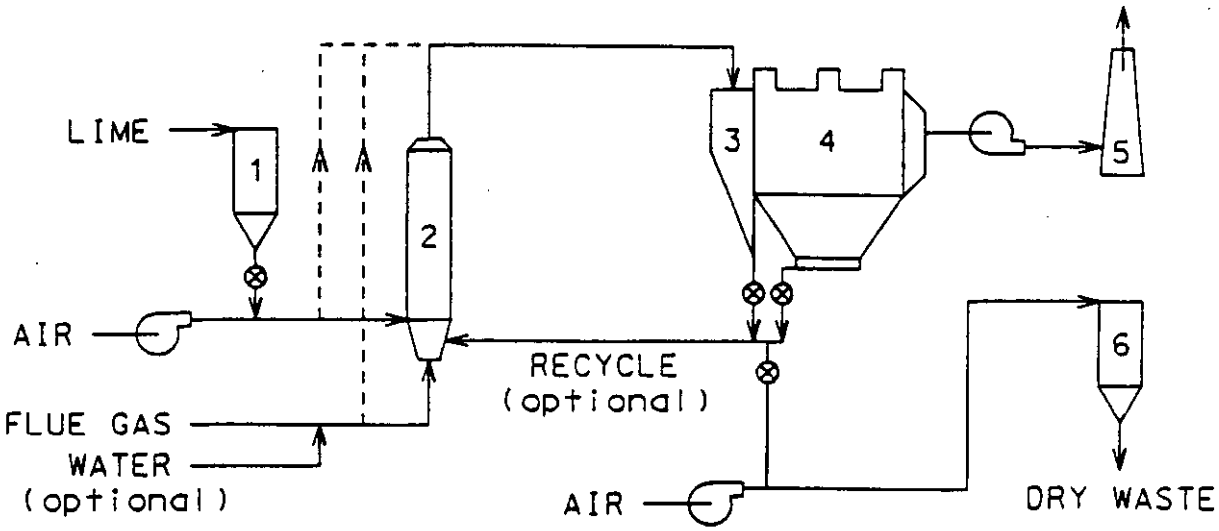
Figure 3-6. System configurations for venturi scrubbers/acid gas absorbers supplied by AirPol, Inc. and Andersen 2000.[11]

$$2HCl + Ca(OH)_2 \rightarrow CaCl_2 + 2H_2O \text{ or } HCl + NaOH \rightarrow NaCl + H_2O$$
$$SO_2 + Ca(OH)_2 \rightarrow CaSO_3 + H_2O \text{ or } SO_2 + 2NaOH \rightarrow Na_2SO_3 + H_2O$$
$$CaSO_3 + \tfrac{1}{2} O_2 \rightarrow CaSO_4 \text{ or } Na_2SO_3 + \tfrac{1}{2} O_2 \rightarrow Na_2SO_4$$

DSI technologies have been developed primarily to control acid gas (SO_2 and HCl) emissions. However, when combined with flue gas cooling to increase condensation of pollutants followed by either a fabric filter or ESP, sorbent injection processes also control PCDD/PCDF and heavy metals.

Figure 3-7 illustrates a DSI system. The dashed line in Figure 3-7 represents the DSI process now used in some medical waste incinerators. Water or other means is used to reduce the flue gas temperature to the 300-400° F range. Typically, calcium hydroxide [hydrated lime, $Ca(OH)_2$] is injected into the gas and the sorbent/acid gas reaction occurs in the duct as the gas travels to the particulate collector. However, most of the acid neutralization reactions probably occur in the PM control device, which is frequently a fabric filter. Because calcium chloride ($CaCl_2$) has a high affinity for water (deliquescent), the approach-to-saturation temperature in waste incinerator applications is much greater than in fossil-fuel furnace/boiler practice. Thus, higher sorbent-to-acid gas ratios are needed for high acid gas control efficiencies. With calcium/flyash mixture, wetting of the filter cake may cause hard, cementitious deposits on the bags resulting in impairment of filtration and gas flow.

The solid lines in Figure 3-7 represent a fluid bed reactor, which provides greater sorbent/acid gas contact time. This system may also use a quench reactor to reduce flue gas temperatures (and achieve approach-to-saturation temperatures near those characteristic of spray dryer absorbers). Solids could also be recycled from the PM collector to increase sorbent utilization. When lime (CaO) is used as the sorbent, the increased residence time afforded by the fluid bed reactor compensates for the lower reactivity of the lime relative to calcium hydroxide, sodium bicarbonate ($NaHCO_3$), or other more reactive sorbents. Therefore, in comparing the more simple DSI system versus the fluid bed system, tradeoffs involving capital and operating costs and removal



LEGEND

1. LIME SILO
2. REACTOR
3. CYCLONE
4. DUST COLLECTOR
5. STACK
6. WASTE SILO

Figure 3-7. Dry sorbent injection into flue gas duct (dashed line) or fluid bed reactor.[13]

efficiencies (for acid gas and other pollutants) should be considered.

The major factors affecting DSI performance are flue gas temperature, acid gas dew point, and sorbent-to-acid gas ratio. DSI performance improves as the difference between flue gas and acid dew point temperatures decreases and the sorbent-to-acid gas ratio increases. Flue gas temperatures at the point of sorbent injection range from 280° F to 610° F, depending on the sorbent used and the design of the process. Acid gas removal efficiency with DSI also depends on sorbent type, sorbent feed rate, and the extent of sorbent mixing with the flue gas. Sorbents that have been successfully tested include hydrated lime ($Ca(OH)_2$), sodium hydroxide (NaOH), and sodium bicarbonate ($NaHCO_3$). Based on published data for hydrated lime, DSI can achieve relatively high removals of HCl (80 to 90 percent) and SO_2 (40 to 70 percent) under proper operating conditions. Limestone ($CaCO_3$) and lime (CaO) have also been tested but are relatively unreactive at the above temperatures.[14]

The primary advantage of DSI compared to wet scrubbers is the relative simplicity of the sorbent preparation, handling, and injection systems as well as the easier handling and disposal of dry solid process wastes. The primary disadvantage is its lower sorbent utilization rate and correspondingly higher sorbent and waste disposal rate.

A potential disadvantage of ESPs used in conjunction with DSI is that the sorbent increases the electrical resistivity of the PM being collected. This phenomenon makes the PM more difficult to charge and, therefore, to collect. High resistivity can be compensated for by flue gas conditioning or by increasing the plate area and size of the ESP.

3.3.3 Products of Incomplete Combustion (PIC)

Failure to achieve the conditions which lead to complete combustion can result in emission of combustion products in an unreacted or partially reacted state. These PICs can include classes of compounds ranging from low molecular weight hydrocarbons and

chlorinated hydrocarbons to high molecular weight chlorinated dibenzo-dioxins, furans, and polycyclic organic material.

Many factors are believed to be involved in the formation of polychlorinated dibenzo-p-dioxin (PCDD) and polychlorinated dibenzofuran (PCDF) compounds, and many various theories exist concerning the formation of these compounds.[15,16,17] Measurements of municipal waste feed streams have indicated the presence of trace quantities of PCDD/PCDF in the refuse feed. No such measurements have been made for hospital waste streams, but some potential for PCDD/PCDF in the feed may exist due to similarities in the wastes. PCDD/PCDF have been found in paper, for example. PCDD/PCDF compounds have been found in the uncontrolled emissions from MWIs.

One theory for dioxin and furan formation in incinerators postulates that precursors of PCDD and PCDF can be produced by pyrolysis of PVC in the waste in oxygen-starved zones, such as those which exist in multichamber incinerators. Although multichamber units are of the excess air type, starved air zones in these units can occur if mixing and air supply are improper. The potential for PVC-bearing wastes to form precursors during combustion has been studied by several researchers.[9]

Another theory proposes that PCDD/PCDF is synthesized from a variety of organics and a chlorine donor. Analysis of intermediates formed during the combustion of complex fuels, such as coal or wood, yields unchlorinated dioxin and furan species. These compounds could become chlorinated in systems such as medical waste incinerators where high concentrations of molecular chlorine exist in the combustion zone.

A third possible mechanism involves catalytic reactions on fly ash particles at temperatures in the range of 250°-350° C.[9,17] In research sponsored by the Ontario Ministry of Environment, formation of PCDDs/PCDFs was observed when the thermolytic products of PVC combusted in air were heated to 300° C in the presence of clean fly ash.[9]

There is a growing consensus of opinion that the formation of dioxins and furans in combustion furnaces requires excess air.[9] Excess air combustion leads to lower combustion temperatures which favor in-situ chlorine formation over HCl. The additional presence of chlorine is then believed to promote the formation of dioxins and furans. Lower temperatures that lead to PCDD/PCDF formation can also occur when thick stacks or layers of paper (sometimes wet) are not completely burned, and the exterior ash or char insulates the interior from temperatures needed for burning.

PCDDs and PCDFs may exist in both the vapor phase and as fine particulate in medical waste incinerator emissions. PCDDs and PCDFs may be present in the vapor phase at levels up to 80 percent of the total emitted.[9] At temperatures below 300° F, some vapors will condense onto fine particulates.[9] The presence of tetra- through octa-dibenzo-dioxin and -furan can be a surrogate for total organic control.

The techniques used to maximize destruction and prevent formation of PCDD/PCDF involve prolonging ash residence time at combustion temperatures in the primary chambers, and promoting mixing of solids to distribute heat evenly over all particles. Large primary chambers with auxiliary mixing devices and carefully controlled feed rates accomplish these goals. High levels of PCDD/PCDF have been found in some studies of batch incinerators.[11] This may be due to the low ash mixing behavior in this type of incinerator.

The goal in PCDD/PCDF control is minimization of PCDD/PCDF formation rather than capture, using good combustion practice (GCP) in the incinerator. The conditions of GCP are summarized as follows:[18]

1) uniform wastefeed;

2) adequate supply and good air distribution in the incinerator;

3) sufficiently high incinerator gas temperatures (> 1500° F);

4) good mixing of combustion gas and air in all zones;

5) minimization of PM entrainment into flue gas leaving the incinerator; and

6) temperature control of the gas entering the air pollution control device to 450° F or less.

Low molecular weight organic compounds (LMWC) are products of incomplete combustion of the volatiles which are evolved from the waste. They may be present due to some of the same mechanisms previously discussed above for dioxins and furans. LMWCs are produced when the combustion conditions are not optimized with respect to residence time, temperature, and air/gas mixing in the incinerator. The longer the residence time, the higher the temperature, and the greater the degree of turbulence in the zone where the organics are combusted, the better the combustion and the lower the LMWC emissions will be.

Carbon monoxide (CO) is also a product of incomplete combustion in the final combustion zone. Carbon monoxide production is related to shorter residence times, lower temperatures, and poorer mixing conditions than would be optimal for incinerator combustion. Carbon monoxide (in lieu of carbon dioxide) formation occurs due to incomplete combustion.

3.3.4 Factors Affecting Heavy Metal Concentrations in Incinerator Flue Gas

Organo-metallic compounds and inorganic wastes present in the waste stream can be volatilized and oxidized under the high temperatures and oxidizing conditions in an incinerator. As a result, inorganic oxides or salts of metals can be formed. Elemental analysis of fly ash from municipal incinerators has shown that the particulate emissions are largely inorganic in nature and contain high levels of oxides, silica, and phosphate salts of Al, Si, Ca, Pb, Zn, and Fe along with some insoluble carbon compounds. Although total metal concentration is lower in medical waste than in municipal waste incinerators, the concentration of mercury in medical waste incinerator flue gas is 5-50 times higher than in municipal waste incinerators.[9] Mercury in the ash is usually in the form mercuric chloride ($HgCl_2$).

The type and amount of trace (heavy) metals in the flue gas are directly related to the metals contained in the incinerator waste. Some trace metal sources in the waste include surgical blades, batteries, measuring devices, foil wrappers, and plastics. Plastic objects made of PVC contain cadmium heat-stabilizing compounds. Additionally, cadmium may be found in paints. Mercury and mercuric chloride, present in hospital waste, are a significant concern in medical waste incineration.

The volatilized organo-metallic compounds condense uniformly on all available particulate surface area. Since submicrometer particles contribute most of the available surface area, these particles have a very high concentration of volatile metals.[11] This is known as fine-particle enrichment. Metals generally thought to exhibit fine-particle enrichment are As, Cd, Cr, Mn, Ni, Mo, Pb, Sb, Se, V, and Zn. Results of one study performed at a MSW facility indicate that trace metals are found predominantly in the respirable particulate fraction, even when the bulk of the emissions are in the nonrespirable fraction.[9]

There are three general factors favoring enrichment of trace metals on fine particulate:

- small particle size,
- large number of particles, and
- low flue gas temperatures.

There is some evidence that less metal enrichment on PM occurs at higher flue gas temperatures. Higher incinerator temperatures are thought to lead to increased gas activity levels which in turn make the metals less likely to condense and bond with PM.

Control of metal emission to the atmosphere involves minimizing vaporization of metals in the waste feed and maximizing small particle collection in the air pollution control device. Mercury, for instance, due to its high vapor pressure, does not show significant particle enrichment and is thought to leave the incinerator largely in the vapor

form. Dry sorbent injection with activated carbon can achieve significant (>97%) mercury adsorption.[19] Fabric filters achieve low metal particulate emissions; this is believed to be because of their efficient control of small particles. Generally, particulate control is a surrogate for metal control in an incinerator/air pollution control system.

3.3.5 Other Pollutants Specific to Medical Waste

Cytotoxic chemicals used in chemotherapy are toxic to cell growth and are capable of impairing, injuring, or killing cells. Temperatures greater than 2000° F are thought to be necessary for >99 percent destruction of cytotoxic chemicals.[11] Examples of cytotoxins are nitrosourea, cyclophosphamid, and anthracycline antibiotics.

The source of radioactive species in medical wastes is in-vitro diagnostic studies. The levels of radioactivity are thought to be low (<100 Ci/g) but difficult to estimate.[11]

Incineration is considered by the Nuclear Regulatory Commission (NRC) to be an excellent means of low level radioactive waste disposal.[11] However, medical wastes are not average mixtures of the components due to the dependance of waste composition on hospital activities. And, since variations in incinerator temperatures by ± 300° F can occur, measures must be taken to control temperature if high overall destruction efficiency of radioactive waste is to be maintained. Radio nuclides generated from combustion of radioactive wastes will behave like heavy metals in subsequent emission control units.

Infectious material is contributed to medical waste from animal and human blood, other body fluids and body parts, and instruments or bedding materials which have come into contact with them.

Pathogens are generally thermally sensitive and easy to destroy when exposed to typical gas temperatures in a primary incinerator chamber for residence times of one to two seconds.[11] Emission of pathogens will occur when material is re-entrained from the

residual ash into the incinerator exhaust gas and does not experience the combustion temperatures necessary for destruction. Emissions of pathogens may occur when the incinerator is operated at residence times and temperatures which are different from the design values. Ram-fed waste delivery units especially can have difficulty in this area when the isolation door is open during the feed cycle and uncontrolled air bursts enter the lower chamber. In general, conditions that maximize the destruction of organics in terms of proper time, temperature, and mixing will promote proper destruction of pathogens and bacteria.[11]

If mainly pathological waste is charged, burners need to operate at all times in the primary chamber. Also, the unit needs to operate with excess air in the primary chamber even in a controlled air system.

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SECTION 4
EMISSION FACTORS

Emission factors have been developed for the various pollutants emitted from MWIs. These factors relate the amount of pollutant emitted in the flue gas to the amount of waste combusted and may be used to estimate emissions from a facility. Flue gas emissions are the only significant source of air toxics emissions from medical waste incinerators. The estimated emissions should be used with caution, however, because the emission factors are generally averages from several facilities and are not necessarily representative of the emissions from any particular facility. Additionally, because of limited data, a representative number of facilities could not always be used in evaluating an emission factor. Also, variations in waste composition affect the resulting emissions. If more accurate emission factors are needed, source testing should be done. Data collected should include medical waste input composition and rate, ash composition, and stack emissions. The actual air toxics emissions from any given facility are a function of variables such as capacity, throughput, operating characteristics, and air pollution control device operations. The effect of these factors need to be considered when testing.

In this document, emission factors are presented for acid gases including hydrogen chloride (HCl), hydrogen fluoride (HF), hydrogen bromide (HBr), chlorine, sulfur trioxide (SO_3); metals including aluminum (Al), antimony (Sb), arsenic (As), barium (Ba), beryllium (Be), cadmium (Cd), copper (Cu), chromium (Cr), iron (Fe), manganese (Mn), mercury (Hg), nickel (Ni), silver (Ag), thallium (Ti); and organics including chlorinated dibenzo-p-dioxins and dibenzofurans (CDD and CDF), polychlorinated biphenyls (PCB), chlorinated benzene (CB), and chlorinated phenol (CP). Emission factors for lead, criteria pollutants, and volatile organic compounds (VOC) are presented in the EPA document, "Compilation of Air Pollutant Emission Factors, AP-42." [1]

Average emission factors for each pollutant were evaluated per incinerator type (see Section 3.2) and emission control type (see Section 3.3). These overall averages were derived by combining the average emission factors for each facility of the same general combustor and emission control type. For facilities where multiple operating conditions were evaluated or multiple tests were performed over different years, the average emission factor from each test condition or test date was used in deriving the overall average per combustor and emission control type.

The individual emission factors at each facility were derived by dividing the mass emission rate of the pollutant by the measured or estimated waste feed rate. When a pollutant was not detected, the detection limit was used. Based on the theoretical nature of the F-factor (ratio of combustion gas volume to heat content of fuel) and the lack of heating value data, this method was not used to calculate emission factors.

During this study, emissions test data were located for controlled air and rotary kiln incinerators. No data were located for excess air incinerators. The data quality rating system, which is identical to that used for AP-42[1], is detailed in Section 4.1. Emission factors for controlled air incinerators are presented in Section 4.2. Emission factors for rotary kiln incinerators are presented in Section 4.3.

Testing continues to be performed on medical waste incinerators, and EPA welcomes submission of any additional data to supplement the information in this report. Comments and additional data should be directed to the address noted in Section 2.0 of this report.

4.1 DATA QUALITY RATING

Emission factors in this document are based on data obtained from several sources, such as published technical papers and reports and documented emission test results. Data provided by individual sources vary from single values, to ranges of minimum and maximum values, and finally to data from replicated source tests. Some

data sources provide complete details about their collecting and analyzing procedures, while others provide only sketchy information in this regard.

In developing the section on medical waste incineration for this document, the following procedures were used to select data for both its quality and quantity. The following data were always excluded from consideration:

1. Test series averages reported in units that could not be converted to the selected reporting units.

2. Test series representing incompatible test methods (i.e., comparison of EPA Method 5 front-half with EPA method 5 front- and back-half).

3. Test series of controlled emissions for which the control device was not fully specified.

4. Test series in which the source process was not clearly identified and described.

5. Test series in which it is not clear whether the emissions measured were controlled or uncontrolled.

If there was no reason to exclude particular data or data sets from consideration, each data set was assigned a quality rating from A (best) to D (worst). A rating system was needed to indicate data reliability since some data were used when little other information was available but were excluded when sufficient high-quality data existed. The data were rated as follows:

A - When tests are performed by a sound methodology and are reported in enough detail for adequate validation. These tests are not necessarily EPA reference method tests, although such reference methods are preferred and certainly should be used as a guide.

B - When tests are performed by a generally sound methodology, but they lack enough detail for adequate validation.

C - When tests are based on an untested or new methodology or are lacking a significant amount of background data.

D - When tests are based on a generally unacceptable method, but the method may provide an order-of-magnitude value for the source.

Following are the criteria used to evaluate source test reports for sound methodology and adequate detail:

1. Source operation. The manner in which the source was operated is well documented in the report. The source was operating within typical parameters during the test.

2. Sampling procedures. If actual procedures deviated from standard methods, the deviations are well documented. Procedural alterations are often made in testing an uncommon type of source. When this occurs, an evaluation is made of how such alternative procedures could influence the test results.

3. Sampling and process data. Many variations can occur without warning during testing, sometimes without being noticed. Such variations can induce wide deviation in sampling results. If a large spread between test results cannot be explained by information contained in the test report, the data are suspect and are given a lower rating.

4. Analysis and calculations. The test reports contain original raw data sheets. The nomenclature and equations used are compared with those specified by EPA to establish equivalency. The depth of review of the calculations is dictated by the reviewers' confidence in the ability and conscientiousness of the tester, which in turn is based on factors such as consistency of results and completeness of other areas of the test report.

As an example, an A-rated test may be a stack test, a material balance, or some other methodology, as long as it is generally accepted as a sound method of measuring emissions from that source. In some cases, a material balance calculation may be rated A, but a stack test may be rated only B or C.

Because only one combined value was used to calculate the emission factor for each facility, only the results of tests of equal quality ratings were retained when multiple-series tests were run at the same facility.

Although the rating system described above is subjective, it provides a basis for excluding poor data when sufficient good data are available. In preparing the emission factors presented in this document, the quality standards were applied to the data used to calculate emission factors. All data ratings are documented, and the basis for assigning the A through D ratings are stated in the background information for AP-42.[1]

The reliability of each emission factor presented in this document is indicated by an overall Emission Factor Rating from A (excellent) to E (poor). These ratings take into account the quality and quantity of data from which the factors were calculated. The following emission factor ratings are applied to the emission factor table.

A - Excellent. Developed only from A-rated source test data taken from many randomly chosen facilities in the industry population. The source category is specific enough to minimize variability within the source population.

B - Above average. Developed only from A-rated test data from a reasonable number of facilities. Although no specific bias is evident, it is not clear if the facilities tested represent a random sample of the industries. As with the A rating, the source is specific enough to minimize variability within the source population.

C - Average. Developed only from A- and B-rated test data from a reasonable number of facilities. Although no specific bias is evident, it is not clear if the facilities tested represent a random sample of the industry. As with the A rating, the source category is specific enough to minimize variability within the source population.

D - Below average. The emission factor was developed only from A- and B-rated test data from a small number of facilities, and there may be reason to suspect that these facilities do not represent a random sample of the industry. There also may be evidence of variability within the source population.

E - Poor. The emission factor was developed from C- and or D- rated test data, and there may be reason to suspect that the facilities tested do not represent a random sample of the industry. There also may be evidence of variability within the source category population. Any limitations on the use of these factors are always clearly noted.

Ideally, a large number of A-rated source test sets representing a cross-section of the medical waste industry would be reduced to a single emission factor value for each individual source by computing arithmetic means for each test set and then calculating an overall arithmetic mean for all the sources. However, because the information presented in this document represents less than 1 percent of the total MWI population, the emission factors presented in the following sections should be used cautiously.

4.2 EMISSION FACTORS FOR CONTROLLED AIR INCINERATORS

Emission factors for controlled air incinerators are presented in Tables 4-1 through 4-12. System International (SI) units and English units are presented in each table. The emission factors are for uncontrolled flue gas emissions as well as controlled flue gas emissions. Emission factors for controlled emissions are separated by the different types of emission controls used with controlled air incinerators which include: PM control only (fabric filter), acid gas control only (wet scrubber), PM and acid gas control (wet scrubber with fabric filter and dry sorbent injection with fabric filter), and PM, acid gas and mercury control (dry sorbent injection and fabric filter with activated carbon).

Table 4-1 ~~(Metric and English Units)~~ EMISSION FACTORS FOR HYDROGEN CHLORIDE (HCl) AND POLYCHLORINATED BIPHENYLS (PCBs) FOR CONTROLLED AIR MEDICAL WASTE INCINERATORS[a] (SCC 50100505, 50200505)

~~Rating (A-E) Follows Each Factor~~

Control Level[b]	HCl[c]			Total PCB[c]		
	lb/ton	kg/Mg	Rating	lb/ton	kg/Mg	Rating
Uncontrolled	3.35E+01	1.68E+01	C	4.65E-05	2.33E-05	E
Low Energy Scrubber/FF	1.90E+00	9.48E-01	E			
Medium Energy Scrubber/FF	2.82E+00	1.41E+00	E			
FF	5.65E+00	2.82E+00	E			
Low Energy Scrubber	1.00E+00	5.01E-01	E			
High Energy Scrubber	1.39E-01	6.97E-02	E			
DSI/FF	1.27E+01	6.37E+00	D			
DSI/Carbon Injection/FF	9.01E-01	4.50E-01	E			
DSI/FF/Scrubber	9.43E-02	4.71E-02	E			
DSI/ESP	4.98E-01	2.49E-01	E			

[a] References 2-38.
[b] FF = Fabric Filter
DSI = Dry Sorbent Injection
ESP = Electrostatic Precipitator
[c] Hazardous Air Pollutants listed in Title I of the 1990 Clean Air Act Amendments.

Table 4-2 (Metric and English Units). EMISSION FACTORS FOR ALUMINUM, ANTIMONY, AND ARSENIC CONTROLLED AIR MEDICAL WASTE INCINERATORS[a]
(SCC 50100505, 50200505)

Rating (A-E) Follows Each Factor

Control Level[b]	Aluminum			Antimony[c]			Arsenic[c]		
	lb/ton	kg/Mg	Rating	lb/ton	kg/Mg	Rating	lb/ton	kg/Mg	Rating
Uncontrolled	1.05E-02	5.24E-03	E	1.28E-02	6.39E-03	D	2.42E-04	1.21E-04	B
Low Energy Scrubber/FF									
Medium Energy Scrubber/FF				3.09E-04	1.55E-04	E	3.27E-05	1.53E-02	E
FF							3.95E-08	1.97E-08	E
Low Energy Scrubber							1.42E-04	7.12E-05	E
High Energy Scrubber				4.08E-04	2.04E-04	E	3.27E-05	1.64E-05	E
DSI/FF	3.03E-03	1.51E-03	E	2.10E-04	1.05E-04	E	1.19E-05	5.93E-06	E
DSI/Carbon Injection/FF	2.99E-03	1.50E-03	E	1.51E-04	7.53E-05	E	1.46E-05	7.32E-06	E
DSI/FF/Scrubber									
DSI/ESP							5.01E-05	2.51E-05	E

[a] References 2-38.
[b] FF = Fabric Filter
DSI = Dry Sorbent Injection
ESP = Electrostatic Precipitator
[c] Hazardous Air Pollutants listed in Title I of the 1990 Clean Air Act Amendments.

Table 4-3 (Metric and English Units). EMISSION FACTORS FOR BARIUM, BERYLLIUM, AND CADMIUM FOR CONTROLLED AIR MEDICAL WASTE INCINERATORS[a]
(SCC 50100505, 50200505)

Rating (A-E) Follows Each Factor

Control Level[b]	Barium			Beryllium[c]			Cadmium[c]		
	lb/ton	kg/Mg	Rating	lb/ton	kg/Mg	Rating	lb/ton	kg/Mg	Rating
Uncontrolled	3.24E-03	1.62E-03	D	6.25E-06	3.12E-06	D	5.48E-03	2.74E-03	B
Low Energy Scrubber/FF									
Medium Energy Scrubber/FF	2.07E-04	1.03E-04	E				1.78E-04	8.89E-05	E
FF									
Low Energy Scrubber									
High Energy Scrubber									
DSI/FF	7.39E-05	3.70E-05	E				2.46E-05	1.23E-05	E
DSI/Carbon Injection/FF	7.39E-05	3.69E-05	E	3.84E-06	1.92E-06	E	9.99E-05	4.99E-05	E
DSI/FF/Scrubber							1.30E-05	6.48E-06	E
DSI/ESP							5.93E-04	2.97E-04	E

[a] References 2-38.
[b] FF = Fabric Filter
DSI = Dry Sorbent Injection
ESP = Electrostatic Precipitator
[c] Hazardous Air Pollutants listed in Title I of the 1990 Clean Air Act Amendments.

Table 4-4 (Metric and English Units). EMISSION FACTORS FOR CHROMIUM, COPPER, AND IRON FOR CONTROLLED AIR MEDICAL WASTE INCINERATORS[a]
(SCC 50100505, 50200505)

Rating (A-E) Follows Each Factor

Control Level[b]	Chromium[c]			Copper			Iron		
	lb/ton	kg/Mg	Rating	lb/ton	kg/Mg	Rating	lb/ton	kg/Mg	Rating
Uncontrolled	7.75E-04	3.88E-04	B	1.25E-02	6.24E-03	E	1.44E-02	7.22E-03	C
Low Energy Scrubber/FF									
Medium Energy Scrubber/FF	2.58E-04	1.29E-04	E						
FF	2.15E-06	1.07E-06	E						
Low Energy Scrubber	4.13E-04	2.07E-04	E				9.47E-03	4.73E-03	E
High Energy Scrubber									
DSI/FF	3.06E-04	1.53E-04	E	1.25E-03	6.25E-04	E			
DSI/Carbon Injection/FF	1.92E-04	9.58E-05	E	2.75E-04	1.37E-04	E			
DSI/FF/Scrubber	3.96E-05	1.98E-05	E						
DSI/ESP	6.58E-04	3.29E-04	E						

[a] References 2-38.
[b] FF = Fabric Filter
DSI = Dry Sorbent Injection
ESP = Electrostatic Precipitator
[c] Hazardous Air Pollutants listed in Title I of the 1990 Clean Air Act Amendments.

Table 4-5 (Metric and English Units). EMISSION FACTORS FOR MANGANESE, MERCURY, AND NICKEL FOR CONTROLLED AIR MEDICAL WASTE INCINERATORS[a]
(SCC 50100505, 50200505)

~~Rating (A-E) Follows Each Factor~~

Control Level[b]	Manganese[c]			Mercury[c]			Nickel[c]		
	lb/ton	kg/Mg	Rating	lb/ton	kg/Mg	Rating	lb/ton	kg/Mg	Rating
Uncontrolled	5.67E-04	2.84E-04	C	1.07E-01	5.37E-02	C	5.90E-04	2.95E-04	B
Low Energy Scrubber/FF									
Medium Energy Scrubber/FF				3.07E-02	1.53E-02	E	5.30E-04	2.65E-04	E
FF									
Low Energy Scrubber	4.66E-04	2.33E-04	E	1.55E-02	7.75E-03	E	3.28E-04	1.64E-02	E
High Energy Scrubber				1.73E-02	8.65E-03	E			
DSI/FF							4.54E-04	2.27E-04	E
DSI/Carbon Injection/FF				9.74E-03	4.87E-03	E	2.84E-04	1.42E-04	E
DSI/FF/Scrubber				3.56E-04	1.78E-04	E			
DSI/ESP				1.81E-02	9.05E-03	E	4.84E-04	2.42E-04	E

[a] References 2-38.
[b] FF = Fabric Filter
DSI = Dry Sorbent Injection
ESP = Electrostatic Precipitator
[c] Hazardous Air Pollutants listed in Title I of the 1990 Clean Air Act Amendments.

Table 4-6 (Metric and English Units). EMISSION FACTORS FOR SILVER AND THALLIUM FOR CONTROLLED AIR MEDICAL WASTE INCINERATORS[a]
(SCC 50100505, 50200505)

Rating (A-E) Follows Each Factor

Control Level[b]	Silver			Thallium		
	lb/ton	kg/Mg	Rating	lb/ton	kg/Mg	Rating
Uncontrolled	2.26E-04	1.13E-04	D	1.10E-03	5.51E-04	D
Low Energy Scrubber/FF						
Medium Energy Scrubber/FF	1.71E-04	8.57E-05	E			
FF						
Low Energy Scrubber						
High Energy Scrubber	4.33E-04	2.17E-04	E			
DSI/FF	6.65E-05	3.32E-05	E			
DSI/Carbon Injection/FF	7.19E-05	3.59E-05	E			
DSI/FF/Scrubber						
DSI/ESP						

[a] References 2-38.
[b] FF = Fabric Filter
DSI = Dry Sorbent Injection
ESP = Electrostatic Precipitator

Table 4-7 (Metric and English Units). EMISSION FACTORS FOR SULFUR TRIOXIDE (SO_3) AND HYDROGEN BROMIDE (HBr) FOR CONTROLLED AIR MEDICAL WASTE INCINERATORS[a] (SCC 50100505, 50200505)

Rating (A-E) Follows Each Factor

Control Level[b]	SO_3			HBr		
	lb/ton	kg/Mg	Rating	lb/ton	kg/Mg	Rating
Uncontrolled				4.33E-02	2.16E-02	D
Low Energy Scrubber/FF						
Medium Energy Scrubber/FF				5.24E-02	2.62E-02	E
FF						
Low Energy Scrubber						
High Energy Scrubber						
DSI/FF						
DSI/Carbon Injection/FF				4.42E-03	2.21E-03	E
DSI/FF/Scrubber	9.07E-03	4.53E-03	E			
DSI/ESP						

[a] References 2-38.
[b] FF = Fabric Filter
DSI = Dry Sorbent Injection
ESP = Electrostatic Precipitator

Table 4-8 (*Metric and English Units*). EMISSION FACTORS FOR HYDROGEN FLUORIDE AND CHLORINE FOR CONTROLLED AIR MEDICAL WASTE INCINERATORS[a]
(SCC 50100505, 50200505)

Rating (A-E) Follows Each Factor

Control Level[b]	Hydrogen Fluoride[c]			Chlorine[c]		
	lb/ton	kg/Mg	Rating	lb/ton	kg/Mg	Rating
Uncontrolled	1.49E-01	7.43E-02	D	1.05E-01	5.23E-02	E
Low Energy Scrubber/FF						
Medium Energy Scrubber/FF						
FF						
Low Energy Scrubber						
High Energy Scrubber						
DSI/FF						
DSI/Carbon Injection/FF	1.33E-02	6.66E-03	E			
DSI/FF/Scrubber						
DSI/ESP						

[a] References 2-38.
[b] FF = Fabric Filter
DSI = Dry Sorbent Injection
ESP = Electrostatic Precipitator
[c] Hazardous Air Pollutants listed in Title I of the 1990 Clean Air Act Amendments.

Table 4-9 (Metric and English Units). CHLORINATED DIBENZO-P-DIOXIN EMISSION FACTORS FOR CONTROLLED AIR MEDICAL WASTE INCINERATORS[a]
(SCC 50100505, 50200505)

Rating (A-E) Follows Each Factor

Congener[b]	Uncontrolled			Fabric Filter			Wet Scrubber			DSI/FF[c]		
	lb/ton	kg/Mg	Rating	lb/ton	kg/Mg	Rating	lb/ton	kg/Mg	Rating	lb/ton	kg/Mg	Rating
TCDD												
2,3,7,8-	5.47E-08	2.73E-08	E	6.72E-09	3.36E-09	E	1.29E-10	6.45E-11	E	5.61E-10	2.81E-10	E
Total	1.00E-06	5.01E-07	B	1.23E-07	6.17E-08	E	2.67E-08	1.34E-08	E	6.50E-09	3.25E-09	E
PeCDD												
1,2,3,7,8-							6.08E-10	3.04E-10	E			
Total							5.53E-10	2.77E-10	E			
HxCDD												
1,2,3,6,7,8-	3.78E-10	1.89E-10	E				1.84E-09	9.05E-10	E			
1,2,3,7,8,9-	1.21E-09	6.07E-10	E				2.28E-09	1.14E-09	E			
1,2,3,4,7,8-							9.22E-10	4.61E-10	E			
Total							5.77E-10	2.89E-10	E			
HpCDD												
1,2,3,4,6,7,8-	5.23E-09	2.62E-09	E				6.94E-09	3.47E-09	E			
Total							1.98E-09	9.91E-10	E			
OCDD - total	2.21E-08	1.11E-08	E									
Total CDD	2.13E-05	1.07E-05	B	2.68E-06	1.34E-06	E	1.84E-06	9.18E-07	E	3.44E-07	1.72E-07	E

[a] References 2-38.
[b] Hazardous Air Pollutants listed in Title I of the 1990 Clean Air Act Amendments.
[c] FF = Fabric Filter
DSI = Dry Sorbent Injection

Table 4-10 (Metric and English Units). CHLORINATED DIBENZO-P-DIOXIN EMISSION FACTORS FOR CONTROLLED AIR MEDICAL WASTE INCINERATORS[a]
(SCC 50100505, 50200505)

Rating (A-E) Follows Each Factor

Congener[b]	DSI/Carbon Injection/FF[c]			DSI/ESP[d]		
	lb/ton	kg/Mg	Rating	lb/ton	kg/Mg	Rating
TCDD						
2,3,7,8-				1.73E-10	8.65E-11	E
Total	8.23E-10	4.11E-10	E			
PeCDD						
1,2,3,7,8-						
Total						
HxCDD						
1,2,3,6,7,8-						
1,2,3,7,8,9-						
1,2,3,4,7,8-						
Total						
HpCDD						
2,3,4,6,7,8-						
1,2,3,4,6,7,8-						
Total						
OCDD - total						
Total CDD	5.38E-08	2.69E-08	E			

[a] References 2-38.
[b] Hazardous Air Pollutants listed in Title I of the 1990 Clean Air Act Amendments.
[c] FF = Fabric Filter, DSI = Dry Sorbent Injection
[d] ESP = Electrostatic Precipitator

Table 4-11 (Metric and English Units). CHLORINATED DIBENZOFURAN EMISSION FACTORS FOR CONTROLLED AIR MEDICAL WASTE INCINERATORS[a]
(SCC 50100505, 50200505)

Rating (A-E) Follows Each Factor

Congener[b]	Uncontrolled			Fabric Filter			Wet Scrubber			DSI/FF[c]		
	lb/ton	kg/Mg	Rating	lb/ton	kg/Mg	Rating	lb/ton	kg/Mg	Rating	lb/ton	kg/Mg	Rating
TCDF												
2,3,7,8-	2.40E-07	1.20E-07	E	3.85E-08	1.97E-08	E	1.26E-08	6.30E-09	E	4.93E-09	2.47E-09	E
Total	7.21E-06	3.61E-06	B	1.28E-06	6.39E-07	E	4.45E-07	2.22E-07	E	1.39E-07	6.96E-08	E
PeCDF												
1,2,3,7,8-	7.56E-10	3.78E-10	E				1.04E-09	5.22E-10	E			
2,3,4,7,8-	2.07E-09	1.04E-09	E				3.07E-09	1.53E-09	E			
Total							6.18E-09	3.09E-09	E			
HxCDF												
1,2,3,4,7,8-	7.55E-09	3.77E-09	E				8.96E-09	4.48E-09	E			
1,2,3,6,7,8-	2.53E-09	1.26E-09	E				3.53E-09	1.76E-09	E			
2,3,4,6,7,8-	7.18E-09	3.59E-09	E				9.59E-09	4.80E-09	E			
1,2,3,7,8,9-							3.51E-10	1.76E-10	E			
Total							5.10E-09	2.55E-09	E			
HpCDF												
1,2,3,4,6,7,8-	1.76E-08	8.78E-09	E				1.79E-08	8.97E-09	E			
1,2,3,4,7,8,9-	2.72E-09	1.36E-09	E				3.50E-09	1.75E-09	E			
Total							1.91E-09	9.56E-10	E			
OCDF - total	7.42E-08	3.71E-08	E				4.91E-10	2.45E-10	E			
Total CDF	7.15E-05	3.58E-05	B	8.50E-06	4.25E-06	E	4.92E-06	2.46E-06	E	1.47E-06	7.37E-07	E

[a] References 2-38.
[b] Hazardous Air Pollutants listed in Title I of the 1990 Clean Air Act Amendments.
[c] FF = Fabric Filter
DSI = Dry Sorbent Injection

typo!! E

Table 4-12 (Metric and English Units). CHLORINATED DIBENZOFURANS EMISSION FACTORS FOR CONTROLLED AIR MEDICAL WASTE INCINERATORS[a]
(SCC 50100505, 50200505)

Rating (A-E) Follows Each Factor

Congener[b]	DSI/Carbon Injection/FF[c]			DSI/ESP[d]		
	lb/ton	kg/Mg	Rating	lb/ton	kg/Mg	Rating
TCDF						
2,3,7,8-	7.31E-10	3.65E-10	E	1.73E-09	8.66E-10	E
Total	1.01E-08	5.07E-09	E			
PeCDF						
1,2,3,7,8-						
2,3,4,7,8-						
Total						
HxCDF						
1,2,3,4,7,8-						
1,2,3,6,7,8-						
2,3,4,6,7,8-						
1,2,3,7,8,9-						
Total						
HpCDF						
1,2,3,4,6,7,8-						
1,2,3,4,7,8,9-						
Total						
OCDF - total						
Total CDF	9.47E-08	4.74E-08	E			

[a] References 2-38.
[b] Hazardous Air Pollutants listed in Title I of the 1990 Clean Air Act Amendments.
[c] FF = Fabric Filter, DSI = Dry Sorbent Injection
[d] ESP = Electrostatic Precipitator

4.3 EMISSION FACTORS FOR ROTARY KILN INCINERATORS

Emission factors for rotary kiln incinerators are presented in Tables 4-13 through 4-15. System International (SI) units and English units are used in each table. The emission factors are for uncontrolled flue gas emission as well as controlled flue gas emissions. Emission factors for controlled emissions are separated by the different types of emission controls used, which include: PM and acid gas control (wet scrubber with fabric filter) and PM, acid gas and mercury control (wet scrubber and fabric filter with activated carbon).

Table 4-13 (Metric and English Units). ROTARY KILN MEDICAL WASTE INCINERATOR EMISSION FACTORS FOR CRITERIA POLLUTANTS AND ACID GASES[a]
(SCC 50100505, 50200505)

EMISSION FACTOR RATING = E

Pollutant	Uncontrolled		SD/Fabric Filter[b]		SD/Carbon Injection/FF[c]		High Energy Scrubber	
	lb/ton	kg/Mg	lb/ton	kg/Mg	lb/ton	kg/Mg	lb/ton	kg/Mg
HCl	4.42E+01	2.21E+01	2.68E-01	1.34E-01	3.57E-01	1.79E-01	2.94E+01	1.47E+01
HF	9.31E-02	4.65E-02	2.99E-02	1.50E-02				
HBr	1.05E+00	5.25E-01	6.01E-02	3.00E-02	1.90E-02	9.48E-03		
H_2SO_4							2.98E+00	1.49E+00

[a] References 2-38.
[b] SD = Spray Dryer
[c] FF = Fabric Filter

Table 4-14 (Metric and English Units). ROTARY KILN MEDICAL WASTE INCINERATOR EMISSION FACTORS FOR METALS[a]
(SCC 50100505, 50200505)

EMISSION FACTOR RATING = E

Pollutant	Uncontrolled		SD/Fabric Filter[b]		SD/Carbon Injection/FF[c]	
	lb/ton	kg/Mg	lb/ton	kg/Mg	lb/ton	kg/Mg
Aluminum	6.13E-01	3.06E-01	4.18E-03	2.09E-03	2.62E-03	1.31E-03
Antimony	1.99E-02	9.96E-03	2.13E-04	1.15E-04	1.41E-04	7.04E-05
Arsenic	3.32E-04	1.66E-04				
Barium	8.93E-02	4.46E-02	2.71E-04	1.35E-04	1.25E-04	6.25E-05
Beryllium	4.81E-05	2.41E-05	5.81E-06	2.91E-06		
Cadmium	1.51E-02	7.53E-03	5.36E-05	2.68E-05	2.42E-05	1.21E-05
Chromium	4.43E-03	2.21E-03	9.85E-05	4.92E-05	7.73E-05	3.86E-05
Copper	1.95E-01	9.77E-02	6.23E-04	3.12E-04	4.11E-04	2.06E-04
Mercury	8.68E-02	4.34E-02	6.65E-02	3.33E-02	7.86E-03	3.93E-03
Nickel	3.53E-03	1.77E-03	8.69E-05	4.34E-05	3.58E-05	1.79E-05
Silver	1.30E-04	6.51E-05	9.23E-05	4.61E-05	8.05E-05	4.03E-05
Thallium	7.58E-04	3.79E-04				

[a] References 2-38.
[b] SD = Spray Dryer
[c] FF = Fabric Filter

Table 4-15 (Metric and English Units). ROTARY KILN MEDICAL WASTE INCINERATOR EMISSION FACTORS FOR DIOXINS AND FURANS[a]
(SCC 50100505, 50200505)

EMISSION FACTOR RATING = E

Congener	Uncontrolled		SD/Fabric Filter[b]		SD/Carbon Injection/FF[c]	
	lb/ton	kg/Mg	lb/ton	kg/Mg	lb/ton	kg/Mg
2,3,7,8-TCDD	6.61E-10	3.30E-10	4.52E-10	2.26E-10	6.42E-11	3.21E-11
Total TCDD.	7.23E-09	3.61E-09	4.16E-09	2.08E-09	1.55E-10	7.77E-11
Total CDD	7.49E-07	3.75E-07	5.79E-08	2.90E-08	2.01E-08	1.01E-08
2,3,7,8-TCDF	1.67E-08	8.37E-09	1.68E-08	8.42E-09	4.96E-10	2.48E-10
Total TCDF	2.55E-07	1.27E-07	1.92E-07	9.58E-08	1.15E-08	5.74E-09
Total CDF	5.20E-06	2.60E-06	7.91E-07	3.96E-07	7.57E-08	3.78E-08

[a] References 2-38.
[b] SD = Spray Dryer
[c] FF = Fabric Filter

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SECTION 5
SAMPLING AND ANALYSIS PROCEDURES

The purpose of this section is to provide a brief discussion of the EPA reference methods and/or generally accepted methods of sampling and analysis used to gather emissions data on air toxics emitted from medical waste incinerators. Different sampling and analytical methods than the ones listed have been used previously. Slight modifications of the methods listed may be specified by some state agencies to make results consistent with their regulatory compliance results. However, the sampling methods described in this section are widely used and accepted and should yield results comparable with data from other facilities.

Acid gases (HCl, HF and HBr) can be tested by a variety of sampling and analytical methods. Sampling for HCl can be performed with an EPA Reference Method 5 sampling train with either water, NaOH, or sodium carbonate and sodium bicarbonate in the impingers. The emission tests performed by the California Air Resources Board use a Method 5 sampling train, but reference the method as CARB method 421. An example Method 5 train is shown in Figure 5-1. Manual methods and continuous emission monitors (CEM) for HCl were used during one test. Sampling for HF can be performed in accordance with EPA Reference Method 13A procedures, again using a Method 5 train[1]. However, standard Method 5 trains may reduce the HF measured through reactions with glass components in the trains. The most recent test used a single sampling train for hydrogen chloride, hydrogen bromide and hydrogen fluoride sampling. The procedure follows the EPA Method 26 draft protocol entitled, "The Determination of HCl Emissions from Municipal and Hazardous Waste Incinerators." Analytical techniques for these three acid gases include ion chromatography (for HCl, HF and HBr), the mercuric nitrate method

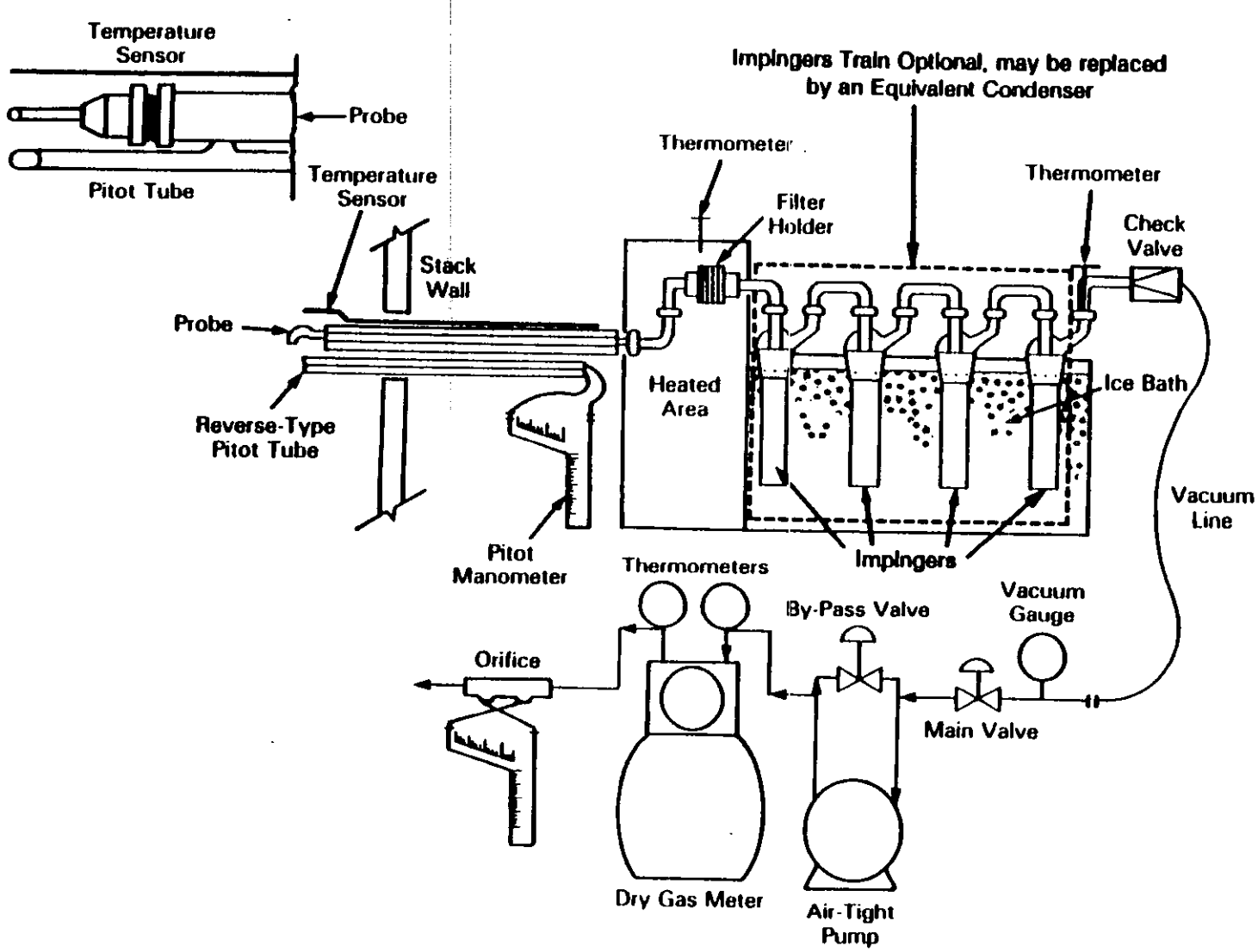

Figure 5-1. Example EPA Reference Method 5 Sampling Train

(for HCl), and ion selective electrode (for HCl and HF).

Sampling for metals (Sb, As, Ba, Be, Cd, Cr, Fe, Mn, Hg, Ni, Ag and Tl) is done by a variety of methods. Arsenic can be sampled using EPA Reference Method 108[2]. Beryllium can be sampled using EPA Reference Method 104[2]. Sampling for Hg can be performed using EPA Reference Method 101A[2]. The sampling trains used for these metals are similar to the EPA Reference Method 5 trains. Cadmium, total chromium, and nickel can be sampled according to EPA Reference Method 12[1]. The most recent test used a single sampling train and performed the sampling according to an EPA Emission Measurement Branch (EMB) draft protocol entitled "Methodology for the Determination of Metals Emissions in Exhaust Gases from Incineration Processes." This method is applicable for the determination of particulates and Sb, As, Ba, Be, Cd, Cr, Ca, Mn, Hg, Ni, P, Pb, Se, Ag, Tl and Zn emissions from various types of incinerators. Analyses for antimony arsenic, barium, beryllium, cadmium, chromium, nickel, silver and thallium are performed using atomic absorption spectroscopy or inductively coupled plasma spectroscopy. Mercury is analyzed using manual cold vapor atomic absorption spectrophotometry.

Polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans can be sampled by using a modified EPA Reference Method 5 train. A water-cooled condenser and XAD-II® resin cartridge are placed immediately before the impinger section. The CDD/CDF is extracted off the resin by using toluene. The aqueous components and rinses are extracted using acetone and methylene chloride. Analysis of the organics is accomplished by using gas chromotography and mass spectrometry. The most recent test performed the sampling according to EPA Proposed Method 23, which is similar to the above procedure.

Requests for additional information on reference and experimental methods should be sent to:

Chief, Emissions Measurement Branch (MD-14)
U.S. Environmental Protection Agency
Research Triangle Park, North Carolina 27711

REFERENCES

1. 40 CFR, Part 60, Appendix A.

2. 40 CFR, Part 61, Appendix B.

APPENDIX A

PARTIAL LISTING OF U.S. MEDICAL WASTE INCINERATORS

Table A-1. Partial Listing of U.S. Medical Waste Incinerators

Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Baptist Medical Center	Birmingham	AL	1620 lb/batch	Simonds 3600BL	None	2
Carraway Methodist Medical Center	Birmingham	AL	1620 lb/batch	Simonds 3600BL	None	2
South Highlands Hospital	Birmingham	AL	160 lb/batch	Simonds Pyromizer	None	2
Rush Hospital	Butler	AL	50	Joy 50E	None	2
Citronelle Convalescent Center	Citronelle	AL	50	Joy 50E	None	2
Flowers Hospital	Dothan	AL	340 lb/batch	Simonds 750B	None	2
L. V. Stabler Hospital	Greenville	AL	340 lb/batch	Simonds 750B	None	2
Crestwood Hospital	Huntsville	AL	340 lb/batch	Simonds 750B	None	2
Huntsville Hospital	Huntsville	AL	300	Joy 300E	None	2
Jacksonville Hospital	Jacksonville	AL	50	Joy 50E	None	2
NA	Jefferson County	AL	500	NA	None	1
NA	Jefferson County	AL	500	NA	None	1
Knollwood Park Hospital	Mobile	AL	340 lb/batch	Simonds 750B	None	2
Mobile Infirmary	Mobile	AL	1500	Joy 1500T	None	2
South Alabama Cancer Center	Mobile	AL	970 lb/batch	Simonds 2150B	None	2
Baptist Hospital	Montgomery	AL	780	Joy 780ES	None	2
John Knox Manor	Montgomery	AL	175	Consumat C75	None	2
Dale County Hospital	Ozark	AL	160 lb/batch	Simonds Pyromizer	None	2
Selma Medical Center Hospital	Selma	AL	340 lb/batch	Simonds 750B	None	2
Helen Keller Hospital	Sheffield	AL	150	Joy 150E	None	2
New Vaughn Hospital	Slema	AL	970 lb/batch	Simonds 2150B	None	2
Baptist Memorial Hospital	Forrest City	AR	500 lb/batch	Simonds 1121B	None	2
Baptist Memorial Hospital	Hardy	AR	340 lb/batch	Simonds 751B	None	2
Helena Hospital	Helena	AR	340 lb/batch	Simonds 750B	None	2
National Center for Toxicological Research	Jefferson	AR	1350 lb/batch	Simonds AF5B	None	2
Toxicology Lab	Jefferson	AR	1350	Simonds AF-5B	None	2
White Mountain Community Hospital	Apache County	AZ	NA	NA	None	1
Benson Hospital	Cochise County	AZ	NA	NA	None	1
Copper Queen Community Hospital	Cochise County	AZ	NA	NA	None	1
Flagstaff Medical Center	Cochise County	AZ	NA	NA	None	1
Fort Huachuca Army Base	Cochise County	AZ	NA	NA	None	1
Sierra Vista Community Hospital	Cochise County	AZ	NA	NA	None	1
Lewis R. Pyle Memorial Hospital	Gila County	AZ	NA	NA	None	1
Parker Community Hospital	Lapaz County	AZ	NA	NA	None	1
Parker Indian Hospital	Lapaz County	AZ	NA	NA	None	1
W.M.I. (Formerly Southwest S.T.A.T)	Maricopa County	AZ	NA	NA	None	1

Note: NA = Not Available APCD Key: AB = Afterburner, PB = Packed Bed, WS = Wet Scrubber, VS = Venturi Scrubber, FF = Fabric Filter, DSI = Dry Sorbent Injection

References:
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Table A-1. Partial Listing of U.S. Medical Waste Incinerators

Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Bullhead Community Hospital	Mohave County	AZ	NA	NA	None	1
Tucker Funeral Home	Mohave County	AZ	NA	NA	None	1
Keams Canyon Indian Hospital	Navajo County	AZ	NA	NA	None	1
Keams Canyon PHS Hospital	Navajo County	AZ	NA	NA	None	1
Winslow Memorial Hospital	Navajo County	AZ	NA	NA	None	1
V.A. Hospital	Phoenix	AZ	750	Joy 750T	None	2
Eldorado Medical Center	Tuscon	AZ	340 lb/batch	Simonds 750B	None	2
Northwest Community Hospital	Tuscon	AZ	340 lb/batch	Simonds 751B	None	2
University of Arizona	Tuscon	AZ	NA	NA	Quench/PB	2
M.J. Lawrence Hospital	Yavapai County	AZ	NA	NA	None	1
Navapache Health Care	Yavapai County	AZ	NA	NA	None	1
Veterans Administration Medical Center	Yavapai County	AZ	NA	NA	None	1
Yuma Regional Medical Center	Yuma County	AZ	NA	NA	None	1
St. Joseph Hospital	Burbank	CA	150	Joy 150E	None	2
St. Agnes Hospital	Fresno	CA	1000	Joy 1000T	None	2
St. Rose Hospital	Hayward	CA	750	Joy 750TL	None	2
Loma Linda University	Loma Linda	CA	480	Joy 480E	None	2
Cedars-Sinai Medical Center	Los Angeles	CA	1500	Joy 1500T	FF	2
USC Medical Center	Los Angeles	CA	100	NA	None	3
Mercy Medical Center	Redding	CA	650	Joy 650E	None	2
Sutter General Hospital	Sacramento	CA	590	Thermtec 67-5A	None	3
Saint Bernadines Hospital	San Bernadino	CA	40	MCI Energy	None	3
Kaiser Permanente Hospital	San Diego	CA	600	Thermtec	Scrubber	3
French Hospital Medical Center	San Francisco	CA	480	Joy 480E	None	2
Alexian Brothers Hospital	San Jose	CA	750	Joy 750TE	None	2
Santa Rosa Memorial Hospital	Santa Rosa	CA	650	Joy 650E	None	2
V.A. Medical Center	Denver	CO	490	Kelly 380/31	None	1
St. Joseph Hospital	Florence	CO	100	Sargent Western	None	1
V.A. Medical Center	Ft. Lyon	CO	100	Shenandoah P-25	None	1
Valley View Hospital	Glenwood Springs	CO	100	Incinerator Intl. Inc.	None	1
St. Mary's	Grand Junction	CO	360	Kelly	None	1
Colorado Dept. Corrections Centennial	NA	CO	100	Sponz	None	1
Colorado Springs Memorial	NA	CO	50	Sargent Western	None	1
Colorado State Hospital	NA	CO	60	Shenandoah P16-2	None	1
East Morgan County Hospital	NA	CO	30	Shenandoah	None	1
Fort Carson	NA	CO	100	Incinerator Intl. Inc.	None	1
Fort Logan Mental Health	NA	CO	75	Sargent Western	None	1

Note: NA = Not Available APCD Key: AB = *Afterburner*, PB = *Packed Bed*, WS = *Wet Scrubber*, VS = *Venturi Scrubber*, FF = *Fabric Filter*, DSI = Dry Sorbent Injection

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Table A-1. Partial Listing of U.S. Medical Waste Incinerators

Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Fort Morgan Hospital	NA	CO	50	McNaulin-Goder	None	1
General Rose Medical Center	NA	CO	1000	Schmidt	None	1
Gunnison Hospital	NA	CO	35	McNaulin-Goder	None	1
Haurton Hospital District	NA	CO	30	Shenandoah	None	1
Huerfano Hospital	NA	CO	200	McNaulin-Goder	None	1
Humana Hospital-Aurora	NA	CO	325	Atlas CF-60	None	1
Humana Hospital-Mountain View	NA	CO	360	Kelley 380/31	None	1
Kit Carson Hospital	NA	CO	50	McNaulin-Goder	None	1
Kremling Hospital	NA	CO	125	Hesston	None	1
La Plata County Hospital	NA	CO	150	Ptibrico	None	1
LaJunta Memorial	NA	CO	15	Inseco	None	1
Longmont United	NA	CO	75	Therm-Tech	None	1
Lutheran Hospital	NA	CO	50	Schmidt	None	1
McKee Medical Center	NA	CO	50	Schmidt	None	1
Melissa Memorial Hospital	NA	CO	40	Kilam	None	1
North Colorado Medical	NA	CO	50	Ptibrico	None	1
Park Hospital District	NA	CO	100	Schmidt	None	1
Parkview Episcopal Hospital	NA	CO	135	Atlas Inc. VM 3250	None	1
Penrose Hospital	NA	CO	100	Sargent Western	None	1
Pioneer Hospital of Rio Blanco	NA	CO	24	Shenandoah	None	1
Poudre Valley Memorial	NA	CO	100	Schmidt	None	1
Prowers Medical Center	NA	CO	50	Hesston P2DP	None	1
Rangely Hospital	NA	CO	24	Shenandoah	None	1
Sedgwick County Memorial	NA	CO	25	In-House Design	None	1
Sister of St. Joseph Hospital	NA	CO	100	Richter, Inc.	None	1
Southeast Colorado	NA	CO	25	Shenandoah	None	1
Southwest Memorial	NA	CO	200	Schmidt	None	1
St. Vincent	NA	CO	50	Incinerator Prod. Co.	None	1
The Memorial Hospital	NA	CO	50	Hesston	None	1
University Medical Center	NA	CO	250	Environ. Control Product	None	1
Valley Medical Center	NA	CO	60	Shenandoah	None	1
Weisbrod Memorial County	NA	CO	25	Shenandoah	None	1
Weld County Memorial	NA	CO	100	Schmidt	None	1
Wray Hospital	NA	CO	13	Bruhle	None	1
Yuma Hospital	NA	CO	13	Bruhle	None	1
MacDonald Veterinary	Bloomfield	CT	100	Silent Glow NA	None	2
Bolton Veterinary	Bolton	CT	250	Consumat C75	None	2

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Mountain Grove Cemetary	Bridgeport	CT	200	Jarvis #1	None	2
Mountain Grove Cemetary	Bridgeport	CT	200	Jarvis #2	None	2
Mountain Grove Cemetary	Bridgeport	CT	200	Jarvis #3	None	2
Danbury Hospital	Danbury	CT	400	NA	None	2
Griffin Hospital	Derby	CT	200	Philbrico #31	None	2
University of Connecticut	Farmington	CT	150	Sargeant NA	None	2
University of Connecticut	Farmington	CT	150	Sargeant NA	None	2
Pfizer Inc.	Groton	CT	290	Comtro A22	None	2
Pfizer Inc.	Groton	CT	500	ERS 118	None	2
Pfizer Inc.	Groton	CT	7550	ERS 118	Scrubber	2
Hartford Hospital	Hartford	CT	200	Kellogg DF100-150	None	2
Mt. Sinai Hospital	Hartford	CT	340 lb/batch	Simonds 751B	None	2
Inserve Corp	Manchester	CT	500	M & S MKP-05	VS	2
Manchester Memorial	Manchester	CT	100	Comtro A20	None	2
Middlesex Memorial	Middletwon	CT	100	Sargeant NA	None	2
Milford	Milford	CT	60	Shenandoah G71	None	2
Milford Hospital	Milford	CT	600	M - B 836SIB-G	None	2
Evergreen Cemetary	New Haven	CT	620	Jarvis NA	None	2
New Haven Health Dept.	New Haven	CT	290	Comtro A22	None	2
St. Raphael Hospital	New Haven	CT	100	Consumat C32	None	2
Yale University	New Haven	CT	1000	M - B NA	None	2
Lawrence Memorial	New London	CT	500	M - B 10R	None	2
Connecticut Humane Society	Newington	CT	250	Silent Glow CT1809	None	2
V.A. Hospital	Newington	CT	500	Joy 500T	None	2
Veterans Administration Hospital	Newington	CT	500	ECP 500T	Cyclone	2
Fairfield Hills Hospital	Newtown	CT	NA	M - B NA	None	2
North Haven Animal Hospital	North Haven	CT	100	Silent Glow NA	Cyclone	2
Norwalk Hospital	Norwalk	CT	76	Eco-Therm NA	None	2
Kay Kimball Hospital	Putnam	CT	146	Dean 145	None	2
Sharon Hospital	Sharon	CT	260	Consumat C75P	None	2
Southington Dog Pound	Southington	CT	100	Comtro A20	None	2
Gaylord Hospital	Wallingford	CT	300	Silent Glow CD300	Cyclone	2
Waterbury Hospital	Waterbury	CT	100	Goder 1510	None	2
Waterbury Police Dept.	Waterbury	CT	400	Sprotz RL60	None	2
Wolfman, Mark A., VMD	Waterford	CT	36	Silent Glow CT-1	None	2
Laitinen Animal Hospital	West Hartford	CT	80	Silent Glow NA	None	2
Miles Pharmaceutical	West Haven	CT	20	M - B NA	None	2

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Table A-1. Partial Listing of U.S. Medical Waste Incinerators

Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Veterans Administration Hospital	West Haven	CT	3000	Besser Wasteco NA	None	2
Georgetown University	Washington	DC	300	Joy 300E	WS	2
Walter Reed Hospital	Washington	DC	300	Joy 300E	None	2
Washington Hospital Center	Washington	DC	300	Joy 300E	None	2
Dover Air Force Base	Dover	DE	3x250	NA	NA	1
Kent General Hospital	Dover	DE	400	NA	NA	1
Dupont	Newark	DE	800	NA	NA	1
Dupont	Wilmington	DE	800	NA	NA	1
V.A. Hospital	Wilmington	DE	480	Joy 480E	None	2
WMI Medical Waste Services-Florida	Apapka	FL	2500	Joy 2500	None	2
WMI Medical Waste Services-Florida	Apapka	FL	2500	Joy 2500TESI	None	2
G. Pierce Wood Hospital	Arcadian	FL	3780 lb/batch	Simonds 8400B	None	2
Walker Memorial Hospital	Avon Park	FL	1620 lb/batch	Simonds 3600B	None	2
BFI Medical Waste Systems	Bartow	FL	2350	Simonds AF-7C	None	2
Polk General Hospital	Bartow	FL	340 lb/batch	Simonds 750B	None	2
Boca Raton Community Hospital	Boca Raton	FL	1350	Simonds #5 AF	None	2
Bishop Animal Shelter	Bradenton	FL	200	Simonds 204	None	2
Lykes Memorial Hospital	Brooksville	FL	340 lb/batch	Simonds 751B	None	2
Humane Society of Broward County	Broward County	FL	150	Simonds 154	None	2
Coastal Communities Hospital	Bunnell	FL	340 lb/batch	Simonds 750B	None	2
Florida State Hsopital	Chattahoochee	FL	970 lb/batch	Simonds 2151B	None	2
Green Mounds Pet Cemetery	Clearwater	FL	100	Simonds 104	None	2
S P C A of Clearwater	Clearwater	FL	200	Simonds 204	None	2
S P C A of Clearwater	Clearwater	FL	400	Simonds 404	None	2
Hendry General Hospital	Clewiston	FL	160 lb/batch	Simonds Pyromizer	None	2
Humane Society of Central Brevard	Cocoa	FL	200	Simonds 204	None	2
Department of Agriculture	Cottondale	FL	400	Simonds 404	None	2
Crestview Community Hospital	Crestview	FL	340 lb/batch	Simonds 750B	None	2
Department of Agriculture	Dade City	FL	75	Simonds 74	None	2
Halifax Medical Center	Daytona Beach	FL	1350	Simonds #5 AF	None	2
Sherwood Medical Industries	Deland	FL	50	Simonds 54	None	2
West Volusia Humane Society	Deland	FL	300	Simonds 304	None	2
Delray Community Hospital	Delray Beach	FL	450	Simonds #2 AF	None	2
Englewood Community Hospital	Englewood	FL	340 lb/batch	Simonds 751B	None	2
Waterman Medical Center	Eustis	FL	160 lb/batch	Simonds Pyromizer	None	2
Lawnwood Medical Center	Fort Pierce	FL	2340 lb/batch	Simonds 5200BL	None	2
Fort Walton Humane Socity	Fort Walton Beach	FL	200	Simonds 204	None	2

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Holy Cross Hospital	Ft. Lauderdale	FL	1350	Simonds #5 AF	None	2
Sani-Med	Ft. Lauderdale	FL	1620 lb/batch	Simonds (2) 3600B	None	2
Lee County Humane Society	Ft. Myers	FL	200	Simonds 204	None	2
Humane Society of St. Lucie County	Ft. Pierce	FL	200	Simonds 204	None	2
Humana Hospital	Ft. Walton Beach	FL	970 lb/batch	Simonds 2151B	None	2
Shands Teaching Hospital	Gainesville	FL	880	Simonds #4 AF	None	2
University of Florida Animal Farm	Gainesville	FL	400	Simonds 404	None	2
University of Florida School of Veterinary	Gainesville	FL	900	Simonds 904-S	None	2
University of Florida, J. Hillis Miller	Gainesville	FL	100	Simonds 104	None	2
V.A. Medical Center	Gainesville	FL	1000	Joy 1000T	None	2
Homestead AFB	Homestead	FL	340 lb/batch	Simonds 750B	None	2
Bayonet Point Hospital	Hudson	FL	340 lb/batch	Simonds 750B	None	2
Beaches Hospital	Jacksonville	FL	150	Joy 150E	None	2
Beaches Hospital	Jacksonville	FL	650	Joy 650E	None	2
Memorial Hospital/Jacksonville	Jacksonville	FL	800	Joy 800E	None	2
St. Lukes Hospital	Jacksonville	FL	970 lb/batch	Simonds 2150B	None	2
Palm Beach-Martin County Hospital	Jupiter	FL	970 lb/batch	Simonds 2151B	None	2
DePoo Memorial Hospital	Key West	FL	160 lb/batch	Simonds Pyromizer	None	2
Florida Keys Memorial Hospital	Key West	FL	1620 lb/batch	Simonds 3600B	None	2
Diagnostic Disease Laboratory	Kissimmee	FL	500	Simonds 504	None	2
Kissimmee Memorial Hospital	Kissimmee	FL	500 lb/batch	Simonds 1121B	None	2
Reception & Medical center	Lake Butler	FL	500 lb/batch	Simonds 1121B	None	2
Lakeshore Hospital	Lake City	FL	1620 lb/batch	Simonds 3600B	None	2
V.A. Medical Center	Lake City	FL	650	Joy 650E	None	2
Doctors Memorial Hospital	Lake Worth	FL	1620 lb/batch	Simonds 3600BL	None	2
John F. Kennedy Memorial Hospital	Lake Worth	FL	970 lb/batch	Simonds 2151B	None	2
A. G. Holley State Hospital	Lantana	FL	4800 lb/batch	Simonds 10750B	None	2
East Pointe Hospital (HCA)	Lehigh Acres	FL	340 lb/batch	Simonds 750B	None	2
South Seminole Medical Center	Longwood	FL	340 lb/batch	Simonds 751B	None	2
Palms West Hospital	Loxahatchee	FL	340 lb/batch	Simonds 751B	None	2
N. E. Florida State Hospital	MacClenny	FL	340 lb/batch	Simonds 751B	None	2
Northwest Broward Regional Medical Center	Margate	FL	970 lb/batch	Simonds 2151B	None	2
Jackson County Hospital	Marianna	FL	340 lb/batch	Simonds 750B	None	2
Holmes Reg. Medical Center	Melbourne	FL	970 lb/batch	Simonds 2150B	None	2
Baptist Hospital of Miami	Miami	FL	1675	Simonds #6 AF	None	2
Cedars of Lebanon Hospital	Miami	FL	50	Simonds 54	None	2

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Dade County Animal Control	Miami	FL	400	Simonds 404	None	2
Dade County Zoo	Miami	FL	200	Simonds 204	None	2
Humane Society of Miami	Miami	FL	400	Simonds 404	None	2
Jackson Memorial Hospital	Miami	FL	2500	Joy 2500T	None	2
Jackson Memorial Hospital	Miami	FL	50	Simonds 54	None	2
Jackson Memorial Hospital	Miami	FL	500	Joy 500TE	None	2
Med X	Miami	FL	1350	Simonds AF-5B	None	2
Med X	Miami	FL	2350	Simonds AF-7C	None	2
Mercy Hospital	Miami	FL	880	Simonds #4 AF	None	2
North Shore Medical Center	Miami	FL	880	Simonds #4 AF	None	2
Pet Heaven Memorial Park	Miami	FL	400	Simonds 404	None	2
Resource Recovery	Miami	FL	500	Simonds 500	None	2
Resource Recovery	Miami	FL	NA	Simonds AFP-L	None	2
University of Miami, School of Medicine	Miami	FL	800	Simonds 804	None	2
Mt. Sinai Medical Center	Miami Beach	FL	3780 lb/batch	Simonds (2) 8400BL	None	2
St. Francis Hospital	Miami Beach	FL	880	Simonds #4 AF	None	2
Santa Rosa Hospital	Milton	FL	340 lb/batch	Simonds 750B	None	2
Naples Community Hospital	Naples	FL	340 lb/batch	Simonds 750B	None	2
Naples Community Hospital	Naples	FL	970 lb/batch	Simonds 2151B	None	2
Community Hospital	New Port Richey	FL	970 lb/batch	Simonds 2151B	None	2
Riverside Hospital	New Port Richey	FL	340 lb/batch	Simonds 751B	None	2
S P C A of West Pasco	New Port Richey	FL	50	Simonds 54	None	2
New Smyrna Beach Humane Society	New Smyrna Beach	FL	200	Simonds 204	None	2
Niceville-Valparaiso Hospital	Niceville	FL	340 lb/batch	Simonds 750B	None	2
Marion Community Hospital	Ocala	FL	970 lb/batch	Simonds 2150B	None	2
Marion County Humane Society	Ocala	FL	100	Simonds 104	None	2
H. H. Raulerson Hospital	Okeechobee	FL	340 lb/batch	Simonds 750B	None	2
Orlando General Hospital	Orlando	FL	480	Joy 480E	None	2
Orlando Humane Society	Orlando	FL	200	Simonds 204	None	2
U. S. Naval Training Center	Orlando	FL	100	Simonds 104	None	2
Everglades Memorail Hospital	Pahokee	FL	160 lb/batch	Simonds Pyromizer	None	2
Putnam Community Hospital	Palatka	FL	970 lb/batch	Simonds 2151B	None	2
Manatee County Animal Control	Palmetto	FL	400	Simonds 404	None	2
Gulf Coast Community Hospital	Panama City	FL	500 lb/batch	Simonds 1121B	None	2
Escambia County Animal Shelter	Pensacola	FL	500	Simonds 404	None	2
Naval Regional Medical Center	Pensacola	FL	500 lb/batch	Simonds 1121B	None	2
Pensacola Humane Society	Pensacola	FL	200	Simonds 204	None	2

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Table A-1. Partial Listing of U.S. Medical Waste Incinerators

Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
West Florida Hospital	Pensacola	FL	2340 lb/batch	Simonds 5200B	None	2
Doctors Memorial Hospital	Perry	FL	340 lb/batch	Simonds 750B	None	2
Doctors Hospital	Plantation	FL	450	Simonds #2 AF	None	2
Plantation General Hospital	Plantation	FL	3780 lb/batch	Simonds 8400B	None	2
Brevard County Animal Control	Pompano Beach	FL	400	Simonds 404	None	2
Humana Hospital	Pompano Beach	FL	300	Joy 300E	None	2
St. Josephs Hospital	Port Charlotte	FL	1620 lb/batch	Simonds 3600B	None	2
Fawcett Memorail Hospital	Pt. Charlotte	FL	500 lb/batch	Simonds 1121B	None	2
Wuestoff Memorial Hospital	Rockledge	FL	730	Simonds #3 AF	None	2
Larkin General Hospital	S. Miama	FL	480	Joy 480E	None	2
Central Fl. Reg. Hospital	Sanford	FL	340 lb/batch	Simonds 750B	None	2
Doctors Hospital of Sarasota	Sarasota	FL	3780 lb/batch	Simonds 8400B	None	2
Humane Society of Sarasota County	Sarasota	FL	75	Simonds 74	None	2
Sarasota Memorial Hospital	Sarasota	FL	1000	Joy 1000T	None	2
Oak Hill Hospital	Spring Hill	FL	50 lb/batch	Simonds 1121B	None	2
Flagler Hospital	St. Augustine	FL	340 lb/batch	Simonds 751B	None	2
St. Augustine General Hospital	St. Augustine	FL	300	Joy 300E	None	2
St. Augustine General Hospital	St. Augustine	FL	340 lb/batch	Simonds 750B	None	2
St. Augustine Humane Society	St. Augustine	FL	200	Simonds 204	None	2
Port St. Lucie Hospital	St. Lucie	FL	340 lb/batch	Simonds 751B	None	2
Humana Hospital Northside	St. Petersburg	FL	3780 lb/batch	Simonds 8400B	None	2
Palms of Pasadena Hospital	St. Petersburg	FL	3780 lb/batch	Simonds 8400B	None	2
S P C A of St. Petersburg	St. Petersburg	FL	150	Simonds 154	None	2
Sun City Medical Center	Sun City	FL	340 lb/batch	Simonds 751B	None	2
Florida State University	Tallahassee	FL	160 lb/batch	Simonds Pyromizer-Spec.	None	2
Tallahassee Community Hospital	Tallahassee	FL	340 lb/batch	Simonds 751B	None	2
Tallahassee Leon Animal Shelter	Tallahassee	FL	100	Simonds 104	None	2
City of Tampa	Tampa	FL	800	Simonds 804	None	2
Hillsborough County Animal Control	Tampa	FL	400	Simonds 400	None	2
Hillsborough County Animal Control	Tampa	FL	500	Simonds 500	None	2
Hillsborough County Animal Control	Tampa	FL	NA	Simonds AFP-L	None	2
Sani-Med	Tampa	FL	2340 lb/batch	Simonds (2) 5200B	None	2
Smith Kline Clinical Lab	Tampa	FL	800	Joy 800E	None	2
Smith Kline Clinical Lab	Tampa	FL	800	Joy 800E	None	2
Tampa General Hospital	Tampa	FL	1100	Joy 1100E	None	2
Town & Country Medical Center	Tampa	FL	970 lb/batch	Simonds 2151B	None	2
University Community Hospital	Tampa	FL	340 lb/batch	Simonds (2) 750B	None	2

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
University of South Florida	Tampa	FL	100	Simonds 104	None	2
Helen Ellis Hospital	Tarpon Springs	FL	2340 lb/batch	Simonds 5200BL	None	2
Jess Parrish Hospital	Titusville	FL	340 lb/batch	Simonds 751B	None	2
Venice Hospital	Venice	FL	450	Simonds #2 AF	None	2
Humane Society of Vero Beach	Vero Beach	FL	100	Simonds 104	None	2
Humana Hospital, Bayside	Virginia Beach	FL	480	Joy 480E	None	2
Animal Rescue League	W. Palm Beach	FL	400	Simonds 404	None	2
Animal Rescue League	W. Palm Beach	FL	600	Simonds 604-L	None	2
Humana Hospital of Palm Beaches	W. Palm Beach	FL	1620 lb/batch	Simonds 3600B	None	2
Medical Examiners Office	West Palm Beach	FL	50	Simonds 54	None	2
Palm Beach County Animal control	West Palm Beach	FL	200	Simonds 204	None	2
Wellington Hospital	West Palm Beach	FL	970 lb/batch	Simonds 2151B	None	2
Winter Haven Hospital	Winter Haven	FL	880	Simonds AF-4B	None	2
West Orange Memorial	Winter Park	FL	970 lb/batch	Simonds 2150B	None	2
HCA Palmyra Hospital	Albany	GA	95	NA	NA	1
Palmyra Park hospital	Albany	GA	500 lb/batch	Simonds 1121B	None	2
Phoebe Putney Hospital	Albany	GA	1385	NA	NA	1
St. Mary's Hospital	Athens	GA	3780 lb/batch	Simonds 8400B	None	2
USDA ARS SE Poultry	Athens	GA	250	Consumat C75P	None	2
CDC Virology Lab	Atlanta	GA	75	Simonds 74	None	2
Centers for Disease Control	Atlanta	GA	375	NA	NA	1
Georgia Baptist Hospital	Atlanta	GA	1250	NA	NA	1
Georgia Baptist Hospital	Atlanta	GA	150	NA	NA	1
Grady Memorial Hospital	Atlanta	GA	800	NA	NA	1
Northside Hospital	Atlanta	GA	250	NA	NA	1
Piedmont Hospital	Atlanta	GA	NA	NA	NA	1
West Paces Ferry Hospital	Atlanta	GA	500 lb/batch	Simonds 1121B	None	2
Georgia Regional Hospital	Augusta	GA	200	NA	NA	1
Georgia Regional Hospital	Augusta	GA	200	NA	NA	1
Humana Hospital	Augusta	GA	350	NA	NA	1
Medical College of Georgia	Augusta	GA	621	Simonds 154	None	1,2
St. Joseph Hospital	Augusta	GA	NA	NA	NA	1
University Hospital	Augusta	GA	1675	Simonds AF-6B	None	2
VA Medical Center	Augusta	GA	600	NA	NA	1
Cobb General Hospital	Austell	GA	500 (970 lb/batch)	Simonds 2151B	None	1,2
Early Memorial Hospital	Blakely	GA	NA	NA	NA	1
Glynn-Brunswick Memorial Hospital	Brunswick	GA	970 lb/batch	Simonds 2151B	None	2

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Worth Community Hospital	Camilla	GA	NA	NA	NA	1
Humana Hospital	Cartersville	GA	250 (340 lb/batch)	Simonds 751B	None	1,2
C.D.C. Animal Research Building	Chamblee	GA	100 (500 lb/batch)	Simonds 1121B	None	1,2
Doctors Hospital	Columbus	GA	150	NA	NA	1
Houston Sports Medicine Hospital	Columbus	GA	340 lb/batch	Simonds 751B	None	2
Muscogee Manor Nursing Home	Columbus	GA	60	NA	NA	1
St. Francis Hospital	Columbus	GA	680	NA	NA	1
The Medical Center	Columbus	GA	600	NA	NA	1
West Central Georgia Hospital	Columbus	GA	NA	NA	NA	1
Newton General Hospital	Covington	GA	150	NA	NA	1
Patterson Hospital	Cuthbert	GA	100	NA	NA	1
Hamilton Medical Center	Dalton	GA	500	NA	NA	1
BioLab	Decatur	GA	NA	NA	VS/PB	2
Dekalb Medical Center	Decatur	GA	1200	NA	NA	1
VA Hospital	Decatur	GA	450	NA	NA	1
Habersham Medical Center	Demorest	GA	340 lb/batch	Simonds 750B	None	2
Fairview Park Hospital	Dublin	GA	340 lb/batch	Simonds 750B	None	1,2
V.A. Hospital	Dublin	GA	650	Joy 650E	None	1,2
Dodge County Hospital	Eastman	GA	100	NA	NA	1
Dorminy Memorial Hospital	Fitzgerald	GA	970 lb/batch	Simonds 2150B	None	2
Monroe County Hospital	Forsyth	GA	160 lb/batch	Simonds Pyromizer	None	2
Peach County Hospital	Fort Valley	GA	160 lb/batch	Simonds Pyromizer	None	2
U.S. Army Hospital	Ft. Gordon	GA	450	Simonds #2 AF	None	2
U.S. Army Hospital	Ft. Gordon	GA	970 lb/batch	Simonds 2150B	None	2
Hutchinson Medical Center	Ft. Oglethorpe	GA	180	NA	NA	1
Corp of Engineers	Ft. Stewart	GA	150	Simonds 154	None	2
U.S. Army Hospital	Ft. Stewart	GA	1620 lb/batch	Simonds 3600B	None	2
Lanier Park Hospital	Gainesville	GA	150 (340 lb/batch)	Simonds 750B	None	1,2
Northeast Georgia Medical Center	Gainesville	GA	NA	NA	NA	1
Spalding Regional Hospital	Griffin	GA	250	NA	NA	1
Clinch Memorial Hospital	Homerville	GA	50	NA	NA	1
West Georgia Medical Center	La Grange	GA	650	Joy 650E	None	1,2
Bio Medical Service Corp(BFI)	Lake City	GA	1200	NA	NA	1
Gwinnett Medical Hospital	Lawrenceville	GA	200	NA	NA	1
Parkway General Hospital	Lithia Springs	GA	340 lb/batch	Simonds 750B	None	1,2
HCA Coliseum Hospital	Macon	GA	150	NA	NA	1
Medical Center of Central Georgia	Macon	GA	1250	NA	NA	1

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Mercer University	Macon	GA	50	Simonds 54	None	2
Kennoystone Hospital	*Marietta*	*GA*	*970 lb/batch*	*Simonds 2150B*	*None*	2
Windy Hill Hospital	Marietta	GA	160 lb/batch	Simonds Pyromizer	None	2
Henry County Hospital	McDonough	GA	150	Simonds 154	None	2
Baldwin Co. Hospital	Milledgeville	GA	100	Joy 100E	None	2
Central State Hospital	Milledgeville	GA	600	NA	NA	1
Walton County Hospital	Monroe	GA	130	NA	NA	1
Colquitt Regional Hospital	Moultrie	GA	160 lb/batch	Simonds Pyromizer	None	2
Medical Center of Central Georgia	NA	GA	480	Joy 480E	None	2
Berrien County Hospital	Nashville	GA	NA	NA	NA	1
Humana Hospital	Newnan	GA	250	NA	NA	1
Clayton General Hospital	Riverdale	GA	100	NA	NA	1
Clayton General Hospital	Riverdale	GA	NA	NA	NA	1
FLoyd Medical Center	Rome	GA	650	NA	NA	1
Redmond Park Hospital	Rome	GA	340 lb/batch	Simonds 750B	None	2
Candler General Hospital	Savannah	GA	340 lb/batch	Simonds 750B	None	2
Chatham County Health Dept.	Savannah	GA	100	Joy 100E	None	1,2
Memorial Medical Center	Savannah	GA	360	NA	NA	1
St. Joseph Hospital	Savannah	GA	300	Joy 300E	None	1,2
Humana Hospital	Snellville	GA	600	NA	NA	1
Effingham County Hospital	Springfield	GA	50	NA	NA	1
Bulloch Memorial Hospital	Statesboro	GA	65 (340 lb/batch)	Simonds 751B	None	1,2
Henry General Hospital	Stockbridge	GA	480	Joy 480E	None	1,2
Emmanuel County Hospital	Swainsboro	GA	160 lb/batch	Simonds Pyromizer	None	2
Worth County Hospital	Sylvester	GA	NA	Simonds 2150B	None	1,2
Upson County Hospital	Thomaston	GA	NA	NA	NA	1
J.D. Archbold Memorial Hospital	Thomasville	GA	250	NA	NA	1
Southwest State Hospital	Thomasville	GA	NA	NA	NA	1
Tift General Hosptial	Tifton	GA	500 lb/batch	Simonds 1121B	None	2
NorthLake Medical Center	Tucker	GA	180 (970 lb/batch)	Simonds 2151B	None	1,2
Smith Kline Laboratories	Tucker	GA	500	NA	NA	1
South Georgia Medical Center	Valdosta	GA	880	NA	NA	1
Meadows Memorial Hospital	Vidalia	GA	100	NA	NA	1
Medical Center Hospital	Warner Robbins	GA	970 lb/batch	Simonds 2151B	None	2
Robbins Air Force Base	Warner Robbins	GA	160 lb/batch	Simonds Pyromizer	None	2
Wills Memorial Hospital	Washington	GA	100	Joy 100E	None	2
Monroe County Hospital Incinerator	Albia	IA	75	*Econo-Therm CA100*	None	1

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Mary Greeley Medical Center	Ames	IA	110-120	John Zink & Co.	None	1
Hancock Cty Mem Hosp Incin	Britt	IA	25	Atlas ph25	None	1
Sartori Memorial Hosital Incinerator	Ceder Falls	IA	120	Shenandoah P25	None	1
Howard County Hospital Incinerator	Cresco	IA	50	Atlas	None	1
BFI Medical Waste Systems of Iowa, Inc.	Des Moines	IA	NA	NA	NA	1
Broadlawns Medical Center	Des Moines	IA	NA	NA	NA	1
Mercy Hospital Medical Center	Des Moines	IA	880	Simonds AF-4C	None	1,2
V.A. Hospital	Des Moines	IA	780	Joy 780E	None	2
Mercy Health Ctr Hosp Incin	Dubuque	IA	210	Atlas	None	1
Eldora Regional Medical Center	Eldora	IA	NA	NA	NA	1
Jefferson County Hospital Incinerator	Fairfield	IA	340 lb/batch	Simonds 2151B	None	1,2
Ft. Madikson Community Hospital	Ft. Madison	IA	340 lb/batch	Simonds 751B	None	2
Oakdale Campus Infectious Wste Incin	Iowa City	IA	800	*International Waste Industries*	None	1
Marshalltown Medical and Surgical Center	Marshalltown	IA	250	Econo-Therm	None	1
Ringgold County Hospital Incinerator	Mount Ayr	IA	150	Shenandoah	None	1
Muscatine General Hospital Incinerator	Muscatine	IA	NA	NA	NA	1
Ottumwa Reg Health Ctr Incin	Ottumwa	IA	300	Therm-Tech	None	1
St. Luke's Hospital Incinerator	Sioux City	IA	NA	NA	NA	1
Spencer Municipal Hospital Incinerator	Spencer	IA	300	Kelly 380 Batch	NA	1
Commercial Medical Waste Autoclave	Waterloo	IA	NA	NA	NA	1
Madison Cty Memorial Hosp Incin	Winterset	IA	50	Heston	None	1
Enviro Health	American Falls	ID	NA	2 Rotary Kiln Cleaver Brooks	AB/VS/FF	1
Larson Miller	Boise	ID	330	EPI 330lb/hr Path. Waste Mutiple Cham. Incin.	NA	1
St. Alphonsus Hospital	Boise	ID	NA	Therm-Tec HR-1000	AB	1
St. Luke's Hospital	Boise	ID	NA	*Therm-Tec HU-750,SN#1033*	AB	1
Veteran's Admin. Med.	Boise	ID	NA	Advanced Combustion Systems, Model #CA500-P, Ser.#5895	NA	1
Caldwell Memorial Hospital	Caldwell	ID	340 lb/batch	Simonds 750B	None	2
Kootenai Medical Center	Coeur d'Alene	ID	NA	Thermal Reduction Co.-Model TR-12P	NA	1
Eastern Reg. Med. Ctr.	Idaho Falls	ID	180 (970 lb/batch)	Simonds 2151B	None	1,2
St. Joseph Regional Medical Center	Lewiston	ID	500	Model MCI A100	NA	1
Gritman Memorial Hospital	*Moscow*	*ID*	200	Sargent 150 *Cf*	AB	1
Pocatello Regional Medical center	Pocatello	ID	330	EPI 330lb/hr Path. Waste Mutiple Cham. Incin.	NA	1
Sureway Incineration	Post Falls	ID	NA	EPA 470lb/hr w/afterburner	NA	1
Alton Memorial Hospital	Alton	IL	480	Joy 480E	None	1,2
Copley Memoorial Hospital	Aurora	IL	480	Joy 480E	None	1,2

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
St Luke Health Care	Beardstown	IL	NA	Haz Hospital Waste Inc	NA	1
Franklin Hospital & S.N.C.U.	Benton	IL	NA	Haz Hospital Waste Inc	NA	1
Mac Neal Memorial Hospital	Berwyn	IL	NA	Heaston P4-DP	NA	1
Mac Neal Memorial Hospital	Berwyn	IL	NA	Hospital Waste Incin	NA	1
Roselawn Memorial Gardens Inc	Bethalto	IL	NA	Haz Waste Incinerator	NA	1
McLean County Animal Shelter	Bloomington	IL	NA	Haz Incinerator	NA	1
Mennonite Hospital	Bloomington	IL	NA	CA-100 Pathological	NA	1
St Joseph Hospital & Medical Center	Bloomington	IL	NA	Haz Waste Incinerator	NA	1
Bevlab Veterinary Hospital	Blue Island	IL	NA	Goder 1510	NA	1
St Joseph's Hospital	Breese	IL	NA	Haz Waste Incinerator	NA	1
Rowens Kennels	Brighton	IL	NA	Crawford C500P	NA	1
Southern Medical Center	Cairo	IL	NA	Hospital Waste Incin	NA	1
Southern Illinois University	Carbondale	IL	NA	Haz Waste Incinerator	NA	1
Carmi Township Hospital	Carmi	IL	300	Joy 300E	None	1,2
St Marys Hospital	Centrelia	IL	NA	Plibrico Inc MOD BB-160	NA	1
Centraville Township Hospital	Centreville	IL	NA	Smokatrol 350H	NA	1
Carle Pavilion	Champaign	IL	NA	Haz Hospital Waste Inc	NA	1
City of Chicago/Goose Island Facility	Chicago	IL	NA	Waste Incinerator	NA	1
Franklin Blvd Hospital	Chicago	IL	NA	Econotherm I-180	NA	1
Franklin Blvd Hospital	Chicago	IL	NA	Econotherm PZD	NA	1
Holy Cross Hospital	Chicago	IL	NA	Hospital Incinerator	NA	1
Hyde Park Community Hospital	Chicago	IL	NA	Kelley 380/31 ER	NA	1
Loretto Hospital	Chicago	IL	NA	Hospital Incinerator	NA	1
Lutheran Gen Hosp - Lincoln Park	Chicago	IL	NA	Haz Hospital Waste Inc	NA	1
Mercy Hospital & Medical Center	Chicago	IL	NA	Hospital Waste Incin	NA	1
Ravenswood Hospital	Chicago	IL	NA	Haz Hospital Waste Inc	NA	1
Resurrection Hospital	Chicago	IL	NA	Goder	NA	1
Resurrection Hospital	Chicago	IL	NA	Haz Hospital Waste Inc	NA	1
Shriners Hosp for Crippled Children	Chicago	IL	NA	Pathological Incin	NA	1
University of Chicago Medical Center	Chicago	IL	2500	Joy 2500T	None	1,2
V.A. Hospital	Chicago	IL	300	Joy 300T	None	1,2
St Elizabeth Hospital	Danville	IL	NA	Econotherm CA200	NA	1
Veterans Administration Hospital	Danville	IL	NA	Haz Waste Incinerator	NA	1
Decatur Memorial Hospital	Decatur	IL	NA	Haz Hospital Waste	NA	1
Decatur Township Animal Shelter	Decatur	IL	NA	Haz Waste Incinerator	NA	1
St Marys Hospital	Decatur	IL	NA	Haz Hospital Waste Inc	NA	1
Chappel Hill Memorial Park	Dixon	IL	NA	IE43 Indust Equip & Engr Co	NA	1

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Good Samaritan Hospital	Downers Grove	IL	NA	Econotherm CA1500	NA	1
East Dundee Animal Hospital	East Dundee	IL	NA	NA	NA	1
Ferrell Hospital, Inc.	Eldorado	IL	150	Joy 150E	None	1,2
Sherman Hospital	Elgin	IL	NA	Simonds #1 AF	None	2
St Joseph Hospital	Elgin	IL	NA	Haz Hospital Waste Inc	NA	1
Evanston Hospital	Evanston	IL	NA	Haz Hospital Waste Inc	NA	1
Little County/Mary Hospital	Evergreen Park	IL	150	Joy 150E	None	1,2
Fairbury Hospital	Fairbury	IL	NA	NA	NA	1
Fairfield Memorial Hospital	Fairfield	IL	150	Joy 150E	None	2
Woodlawn Cemetery	Forest Park	IL	NA	Ind Eqyip & Eng IE43	NA	1
Freeport Memorial Hospital	Freeport	IL	NA	Haz Hospital Waste Inc	NA	1
Hammond-Henry District Hospital	Geneseo	IL	NA	NA	NA	1
Glendale Hghts. Hospital	Glendale Hgts.	IL	150	Joy 150E	None	2
Great Lakes Naval Station	Great Lakes	IL	NA	Kelley 780/31	NA	1
Harrisburg Medical Center	Harrisburg	IL	NA	Haz Waste Incinerator	NA	1
Kelley & Spalding Funeral Home	Highland Park	IL	NA	Waste Crematorium	NA	1
Hinsdale Sanitarium & Hospital	Hinsdale	IL	NA	Haz Hospital Waste Inc	NA	1
Hopedale Medical Complex	Hopedale	IL	NA	Goder Incinerator	NA	1
Passavant Memorial Area Hospital Assos	Jacksonville	IL	NA	Haz Hospital Waste Inc	NA	1
St Joseph Hospital	Joliet	IL	NA	Econotherm CA-1000	NA	1
Riverside Hospital	Kankakee	IL	NA	Shenandoah	NA	1
Lake Forest Hospital	Lake Forest	IL	480	Joy 480E	None	1,2
Lawrence County Memorial Hospital	Lawrenceville	IL	150	Joy 150E	None	1,2
Abraham Lincoln Memorial Hospital	Lincoln	IL	NA	Haz Waste Incinerator	NA	1
McDonough District Memorial Hospital	Macomb	IL	NA	Shenandoah P25-2GN	NA	1
Marion Memorial Hospital	Marion	IL	NA	Hazardous Waste	NA	1
V.A. Medical Center	Marion	IL	160 lb/batch	Simonds Pyromizer	None	1,2
Cole County Animal Shelter	Mattoon	IL	NA	NA	NA	1
Mattoon Water Treatment Plant	Mattoon	IL	NA	Pathological Waste Inc	NA	1
Twin City Animal Hospital	Mattoon	IL	NA	Haz Waste Incinerator	NA	1
George R Justen & Son Funeral Home PC	McHenry	IL	NA	Crematory IE43	NA	1
Hamilton Memorial Hospital	McLeansboro	IL	300	Joy 300E	None	2
Westlake Community Hospital	Melrose Park	IL	NA	Econotherm CA-700-SP	NA	1
Mendota Community Hospital	Mendota	IL	NA	NA	NA	1
Moline Public Hospital	Moline	IL	NA	Haz Waste Incinerator	NA	1
Good Samaritan Hospital	Mount Vernon	IL	NA	Haz Hospital Waste Inc	NA	1
Mount Vernon Hospital	Mount Vernon	IL	150	Joy 150E	None	2

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Wabash General Hospital District	Mt Carmel	IL	NA	Haz Waste Incinerator	NA	1
St Joseph Memorial Hospital	Murphyboro	IL	NA	Atlas 48CFA	NA	1
Edward Hospital	Naperville	IL	NA	Atlas 3275-PH	NA	1
Edward Hospital	Naperville	IL	NA	Haz Hospital Waste Inc	NA	1
Brokaw Hospital	Normal	IL	NA	Hospital Waste Incin	NA	1
Oak Forest Hospital	Oak Forest	IL	NA	Kelley 1280/72	NA	1
Christ Hospital	Oak Lawn	IL	NA	Econotherm CA1500	NA	1
Community Hospital of Ottawa	Ottawa	IL	NA	Shenandoah	NA	1
Ottawa Barge Terminal, Inc	Ottawa	IL	NA	Haz Hospital Waste Inc	NA	1
Palos Community Hospital	Palos Heights	IL	NA	Shenandoah P25-2GN	NA	1
Paris Community Hoappital Association	Paris	IL	NA	Shenandoah G-71/ITCA	NA	1
Park Crematory, Inc	Park	IL	NA	Waste Inc Crematorium	NA	1
Park Forest Animal Clinic	Park Forest	IL	NA	Shenandoah 9-2G	NA	1
Forest South Animal Hospital	Park Forest South	IL	NA	Pathological Waste Inc	NA	1
Methodist Hospital	Peoria	IL	NA	Haz Hospital Waste Inc	NA	1
Proctor Community Hospital	Peoria	IL	NA	NA	NA	1
St. Francis Medical Center	Peoria	IL	1350	Simonds AF-5B	None	1,2
Illinois Valley Community Hospital	Peru	IL	NA	Hospital Waste Incin	NA	1
Pinckneyville Community Hospital	Pinckneyville	IL	150	Joy 150E	None	1,2
Perry Memorial Hospital	Princeton	IL	NA	Shenandoah	NA	1
Blessing Hospital	Quincy	IL	480	Joy 480D	None	1,2
St Mary Hospital	Quincy	IL	NA	NA	NA	1
US Air Force-Chanute Air Base	Rantoul	IL	NA	Econotherm MOD CA-100	NA	1
New St Clements Hospital	Red Bud	IL	NA	Haz Hospital Waste Inc	NA	1
Rochelle Community Hospital	Rochelle	IL	NA	Haz Hospital Waste Inc	NA	1
Rockford Memorial Hospital	Rockford	IL	NA	Consumat	NA	1
Swedish American Hospital	Rockford	IL	NA	Consumat C75P	NA	1
Sandwich Community Hospital	Sandwich	IL	NA	Atlas VMCFA48	NA	1
Southside Veterinary Clinic	Savoy	IL	NA	Easy Burn	NA	1
Scott Air Force Base	Scott AF Base	IL	NA	Haz Hospital Waste Inc	NA	1
Shelby Memorial Hospital	Shelbyville	IL	NA	Haz Hospital Waste Inc	NA	1
Illini Hospital	Silvis	IL	NA	Haz Waste Incinerator	NA	1
Anderson Animal Shelter	South Elgin	IL	NA	Shenandoah P25-2GN	NA	1
Sparta Community Hospital	Sparta	IL	150	Joy 150E	None	2
St Margarets Hospital	Spring Valley	IL	NA	Hospital Waste Incin	NA	1
Bisch & Son Memorial Home	Springfield	IL	NA	NA	NA	1
Doctors Hospital	Springfield	IL	NA	Simonds 1121B	NA	1

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Humana Hospital	Springfield	IL	500 lb/batch	Simonds 1121B	None	2
Memorial Medical Center	Springfield	IL	NA	Haz Hospital Waste Inc	NA	1
Memorial Medical Center	Springfield	IL	1350	Simonds AF5C	None	1,2
St Johns Hospital	Springfield	IL	NA	Haz Waste Incinerator	NA	1
Staunton Memorial Hospital	Staunton	IL	NA	Haz Hospital Waste Inc	NA	1
CGH Medical Center	Sterling	IL	NA	THerm-Tec A-2-1	NA	1
Sterling Wilbert Vault Company	Sterling	IL	NA	Waste Crematorium	NA	1
St Marys Hospital	Streator	IL	NA	Haz Waste Incinerator	NA	1
Sycamore Hospital	Sycamore	IL	160 lb/batch	Simonds Pyromizer	None	2
St Vincent Memorial Hospital	Taylorville	IL	NA	Ventomatic CAP50 I	NA	1
Douglas County Animal Shelter	Tuscola	IL	NA	Haz Waste Incin	NA	1
Carle Foundation Hospital	Urbana	IL	NA	Haz Waste Incin	NA	1
Carle Foundation Hospital	Urbana	IL	NA	Hospital Waste Incin	NA	1
Crossroads Veter Clinic & Hosp	Urbana	IL	NA	Waste Incinerator	NA	1
Kelly Vault Company Inc	Urbana	IL	NA	Waste Crematorium	NA	1
Univ of Ill - Vet Med Hosp	Urbana	IL	NA	Plibrico	NA	1
Fayette County Hospital District	Vandalia	IL	NA	Haz Hospital Waste Inc	NA	1
Iriquois Memorial Hospital	Watseka	IL	NA	Haz Waste Incinerator	NA	1
Victory Memorial Hospital	Waukegan	IL	NA	Haz Hospital Waste Inc	NA	1
Sanglow Veterinary Clinic	Williamsville	IL	NA	Haz Waste Incinerator	NA	1
Sacred Heart Convent	Wilmette	IL	NA	Goder	NA	1
Central Dupage Hospital	Winfield	IL	NA	Goder P4DP	NA	1
Wood River Hospital	Wood River	IL	480	Joy 480E	None	1,2
McHenry County Hospital	Woodstock	IL	NA	Haz Hospital Waste Inc	NA	1
American International Hospital	Zion	IL	NA	Atlas Incinerator	NA	1
Community Hospital of Anderson	Anderson	IN	500 lb/batch	Simonds 1121B	None	1,2
Cameron Memorial Community Hospital	Angola	IN	NA	NA	NA	1
Dekalb Memorial Hospital	Auburn	IN	NA	NA	NA	1
Margaret Mary Community Hopsital	Batesville	IN	160 lb/batch	Simonds Pyromizer	None	1,2
St Francis Hospital Center	Beech Grove	IN	NA	NA	NA	1
Bloomington Hospital	Bloomington	IN	600	Cleaver Brooks	VS/PB	1,2
Bloomington Humane Shelter	Bloomington	IN	500 lb/batch	Simonds 1121-BP	None	1,2
The Wells Community Hospital	Bluffton	IN	NA	NA	NA	1
Henry County Hospital	Boontown	IN	200	Simonds 215-SL	None	2
Warrick Hospital	Boonville	IN	340 lb/batch	Simonds 751B	None	1,2
Clay County Hospital	Brazil	IN	NA	NA	NA	1
George Ade Memorial Hospital	Brook	IN	NA	NA	NA	1

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
St. Vincents Hospital No.	Carmel	IN	50	Simonds 54	None	2
North Clark Community Hospital	Charleston	IN	NA	NA	NA	1
Vermillion County Hospital	Clinton	IN	NA	NA	NA	1
Bartholomew County Hospital	Columbus	IN	NA	NA	NA	1
Fayette Memorial Hospital Assn	Connersville	IN	NA	NA	NA	1
Harrison County Hospital	Corydon	IN	NA	NA	NA	1
Culver Union Hospital	Crawfordsville	IN	NA	NA	NA	1
St. Anthony's Hospital	Crown Point	IN	NA	Joy	None	1,2
Hendricks Community Hospital	Danville	IN	NA	NA	NA	1
Adams County Hospital	Decatur	IN	NA	NA	NA	1
St Catherine Hospital	East Chicago	IN	NA	NA	NA	1
Mercy Hospital	Elwood	IN	NA	NA	NA	1
St Mary's Medical Center	Evansville	IN	NA	NA	NA	1
Welborn Baptist Hospital	Evansville	IN	NA	NA	NA	1
Parkview Memorial Hospital	Fort Wayne	IN	NA	NA	NA	1
Clinton County Hospital	Frankfort	IN	NA	NA	NA	1
Johnson County Memorial Hospital	Franklin	IN	NA	NA	NA	1
St Mary Medical Center, Inc	Gary	IN	NA	NA	NA	1
Goshen General Hospital	Goshen	IN	NA	NA	NA	1
Putnam County Hospital	Greencastle	IN	NA	NA	NA	1
Hancock Memorial Hospital	Greenfield	IN	500 lb/batch	Simonds 1121B	None	2
St Margaret Hospital & Health Center	Hammond	IN	NA	NA	NA	1
St Joseph's Hospital	Huntinburg	IN	NA	NA	NA	1
St Joseph's Hospital	Huntinburg	IN	NA	NA	NA	1
Community Hospitals of Indianapolis	Indianapolis	IN	NA	NA	NA	1
Dow Chemical (Type IV Waste)	Indianapolis	IN	970 lb/batch	Simonds 2151-BP	None	2
M & D Waste Systems	Indianapolis	IN	2000	Cleaver Brooks	VS/PB	2
Medical & Dental Waste	Indianapolis	IN	1800	Cleaver Brooks NA	WS	2
Medical Materials Management	Indianapolis	IN	970 lb/batch	Simonds 2151SB	None	2
Methodist Hospital	Indianapolis	IN	1400	ECI NA	None	1,2
Methodist Hospital	Indianapolis	IN	2000	Joy 2000T	None	1,2
St. Francis Hospital	Indianapolis	IN	650	Industrionics NA	WS	2
St. Vincent Hospital	Indianapolis	IN	2000	Joy 2000	None	1,2
University Heights Hospital	Indianapolis	IN	NA	NA	NA	1
V.A. Hospital	Indianapolis	IN	1500	Joy 1500T	None	1,2
Wishard Memorial Hospital	Indianapolis	IN	NA	NA	NA	1
Clark County Hospital	Jeffersonville	IN	NA	NA	NA	1

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
McCray Memorial Hospital	Kendallville	IN	NA	NA	NA	1
Starke Memorial Hospital	Knox	IN	NA	NA	NA	1
Howard Community Hospital	Kokomo	IN	NA	NA	NA	1
St. Josepha Hospital	Kokomo	IN	160 lb/batch	Simonds Pyromizer	None	2
Lafayette Home Hospital	Lafayette	IN	300	Joy 300E	None	1,2
St. Elizabeth Hospital	Lafayette	IN	730	Simonds #3 AF	None	1,2
Lagrange Hospital	Lagrange	IN	NA	NA	NA	1
Laporte Hospital	Laporte	IN	NA	NA	NA	1
Dearborn Conty Hospital	Lawrenceburg	IN	NA	NA	NA	1
Withham Memorial Hospital	Lebanon	IN	NA	NA	NA	1
Greene County General Hospital	Linton	IN	NA	NA	NA	1
Logansport Memorial Hospital	Logansport	IN	NA	NA	NA	1
The King's Daughters' Hospital	Madison	IN	NA	NA	NA	1
Marion General Hospital	Marion	IN	NA	NA	NA	1
Community Hospital	Marion County	IN	1200	Kelly	None	2
University Heights Hospital	Marion County	IN	100	International NA	None	2
Veterans Hospital	Marion County	IN	1500	ECI NA	None	2
Winona Memorial Hospital	Marion County	IN	860	Kelly NA	None	2
St Anthony Hospital	Michigan	IN	NA	NA	NA	1
White County Memorial Hospital	Monticello	IN	NA	NA	NA	1
Ball Memorial Hospital	Muncie	IN	NA	NA	NA	1
Muncie Animal Shelter	Muncie	IN	NA	NA	NA	1
Floyd Memorial Hospital	New Albany	IN	NA	NA	NA	1
Henry County Memorial Hospital	New Castle	IN	NA	NA	NA	1
Incinsech Mgmt Services Inc	New Haven	IN	NA	NA	NA	1
Riverview Hospital	Noblesville	IN	100	Joy 100E	None	1,2
Jennings Community Hospital, Inc	North Vernon	IN	NA	NA	NA	1
Orange Copunty Hospital	Paoli	IN	160 lb/batch	Simonds Pyromizer	None	1,2
Dukes Memorial Hospital	Peru	IN	NA	NA	NA	1
Jay County Hospital	Portland	IN	NA	NA	NA	1
Gibson General Hospital	Princeton	IN	300	Joy 300E	None	1,2
Jasper County Hospital	Rensselaer	IN	NA	NA	NA	1
Reid Memorial Hospital	Richmond	IN	NA	NA	NA	1
Woodlawn Hospital	Rochester	IN	NA	NA	NA	1
Washington County Memorial Hospital	Salem	IN	NA	NA	NA	1
Scott County Memorial Hospital	Scottsburg	IN	NA	NA	NA	1
Bedford Medical Center	Sedford	IN	NA	NA	NA	1

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Dunn Memorial Hospital	Sedford	IN	NA	NA	NA	1
Major Hospital	Shelbyville	IN	NA	NA	NA	1
Healthwin Hospital	South Bend	IN	NA	NA	NA	1
Michiana Community Hospital	South Bend	IN	NA	NA	NA	1
South Bend Medical Foundation, Inc	South Bend	IN	NA	NA	NA	1
IN State Univ. - Animal Fac Bldg	Terre Haute	IN	NA	NA	NA	1
Pitman-Moore Inc, Animal Sci Res Con	Terre Haute	IN	NA	NA	NA	1
Terre Haute Regional Hospital	Terre Haute	IN	340 lb/batch	Simonds 750B	None	2
Union Hospital	Terre Haute	IN	NA	NA	NA	1
Porter Memorial Hospital	Valparaiso	IN	NA	NA	NA	1
Good Samaritan Hospital	Vincennes	IN	480	Joy 480E	None	1,2
Wabash County Hospital	Wabash	IN	NA	NA	NA	1
Wabash County Hospital	Wabash	IN	NA	NA	NA	1
Kosciusko Community Hospital, Inc	Warsaw	IN	NA	NA	NA	1
Community Hospital	Williamsport	IN	NA	NA	NA	1
Community Hospital Association	Williamsport	IN	NA	NA	NA	1
Pulaski Memorial Hospital	Winamac	IN	NA	NA	NA	1
Memorial Hospital	Abilene	KS	50	Plibrico LN-300	None	1
Anthony Hospital & Clinic	Anthony	KS	85	Hesston F5E	None	1
Ark City Memorial Hospital	Arkansas City	KS	50	McNaulin P2	None	1
Attica Dist. Hospital & Clinic	Attica	KS	30	Shenandoah G-64/ITC	None	1
Augusta Medical Complex	Augusta	KS	110	McNaulin IF11	None	1
Republic County Hospital	Belleville	KS	100	Joseph Goder 7-P	None	1
Mitchell County Community Hospital	Beloit	KS	275	Econo-Therm CA200	None	1
Coffey County Hospital	Burlington	KS	<200	Joseph Goder 11349D	None	1
Caldwell District Hospital #1	Caldwell	KS	4	McNaulin T9075	None	1
Caney Municipal Hospital	Caney	KS	30	Shenandoah G66/ITC-N	None	1
Cedar Vale Regional Hospital	Cedar Vale	KS	25	Woverine IPC AW 41SF	None	1
Neosho Memorial Hospital	Chanute	KS	60	Shenandoah G-71/ITC	None	1
Coffeyville Memorial Hospital	Coffeyville	KS	100	Spronz RL-10-P	None	1
Maude Norton Memorial City Hospital	Columbus	KS	25	Woverine IPC AW 41SF	None	1
Morris County Hospital	Council Grove	KS	50	Goder 16 Modified	None	1
Lane County Hospital	Dighton	KS	30	Shenandoah G66/ITC-N	None	1
Dodge City Regional Hospital	Dodge City	KS	50	Incin. Int'l. Inc 50-P	None	1
Susan Allen Memorial Hospital	El Dorado	KS	60	Shenandoah, G-71/ITC-N	None	1
Morton County Hospital	Elkhart	KS	245	Hesston F10E	None	1
Newman Memorial Hospital	Emporia	KS	60	Shenandoah G-71/ITC	None	1

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
St. Mary's Hospital	Emporia	KS	30	Sherandoah G66/ITC-N	None	1
Greenwood County Hospital	Eureka	KS	90	Heaston F10E	None	1
St. Margaret's Mercy Hospital	Fredonia	KS	60	Sherandoah G-71/ITC	None	1
Mercy Hospital	Ft. Scott	KS	520	Contro, Inc. A-22	None	1
St. Catherine Hospital	Garden City	KS	25	Wolverine IPC AW41SF	None	1
Central Kansas Medical Center	Great Bend	KS	65	Pilbrico Co. LN-500-SF-HH	None	1
Kiowa County Memorial Hospital	Greensburg	KS	30	Sherandoah G-64/ITC-N	None	1
Hanover Hospital	Hanover	KS	86	Heaston F-5E	None	1
Harper Dist. #5 Hospital	Harper	KS	140	Godcr 901-IN	None	1
Herrington Municipal Hospital	Herrington	KS	190	Bryant B-5004	None	1
Hiawatha Community Hospital	Hiawatha	KS	99	Heaston JFSM-15	None	1
Graham County Hospital	Hill City	KS	290	Federal FPC-FMP-2BF	None	1
Salem Hospital, Inc.	Hillsboro	KS	435	Hillsboro IF-15E	None	1
Hoisington Lutheran Hospital	Hoisington	KS	95	Heaston F5E	None	1
Stevens County Hospital	Hugoton	KS	245	Heaston F10E	None	1
Mercy Hospital	Independence	KS	210	Sargent Bldg. Co. L-200	None	1
Allen County Hospital	Iola	KS	109	Wolverine IPC CH110FG	None	1
Hodgeman County Health Center	Jetmore	KS	25	Wolverine IPC AW41SF	None	1
Stanton County Hospital	Johnson	KS	255	Heaston F10E	None	1
Geary Community Hospital	Junction City	KS	120	Brule FG4T-2	None	1
Bethany Hospital	Kansas City	KS	750	Federal Inc. FE10-5	None	1
Providence-St. Margarets Health Ctr.	Kansas City	KS	56	Wolverine IPC AW110SF	None	1
Univ. of Ks. Medical Center	Kansas City	KS	60	Federal FPCLP3BE	None	1
Kingman Community Hospital	Kingman	KS	130	Bryant B130-DH	None	1
Edwards County Hospital	Kinsley	KS	150	Heaston IF15E	None	1
Kiowa District Hospital	Kiowa	KS	85	Heaston F5E	None	1
Rush County Memorial Hospital	Lacrosse	KS	255	Heaston F10E	None	1
Lawrence Memorial Hospital	Lawrence	KS	475	Kelley 380	None	1
St. John Hospital	Leavenworth	KS	65	Shenandoah GHW/ITC	None	1
Southwest Medical Center	Liberal	KS	300	Plibrico LM300SF	None	1
Lincoln County Hospital	Lincoln	KS	100	Plibrico 4AGF-150	None	1
Lafene Stud. Health Ctr Kansas State U.	Manhattan	KS	61	Wolverine RB51P	None	1
Memorial Hospital	Manhattan	KS	240	Federal FPC-FMP-2BF	None	1
St. Mary's Hospital	Manhattan	KS	100	Shenandoah MFG G-HW/ITC-N	None	1
Memorial Hospital	McPherson	KS	200	McNaulin U20-1F	None	1
Meade District Hospital	Meade	KS	245	Heaston F10E	None	1
Medicine Lodge Memorial Hospital	Medicine Lodge	KS	85	Heaston F5E	None	1

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Ottawa County Hospital	Minneapolis	KS	60	Plibrico 4AC-60	None	1
Minneola District Hospital	Minneola	KS	25	Shenandoah P4-26	None	1
Mercy Hospital	Moundridge	KS	245	Hesston F10E	None	1
Jewell County Hospital	Nankato	KS	60	Goder 68IN	None	1
Wilson County Hospital	Neodesha	KS	200	Plibrico F-LN-200	None	1
Ness County Hospital	Ness City	KS	72	Joseph Goder H-250-32	None	1
Axtell Christian Hospital	Newton	KS	85	Goder 901-IN	None	1
Bethel Deaconess Hospital	Newton	KS	1300	Therm Tec G12P	None	1
Norton County Hospital	Norton	KS	290	Federal FPC-FMP-2BF	None	1
Norton State Hospital	Norton	KS	NA	NA	None	1
Logan County Hospital	Oakley	KS	109	Wolverine IC CH110 FG	None	1
Decatur County Hospital	Oberlin	KS	435	Hesston IF15E	None	1
Olathe Community Hospital	Olathe	KS	50	Vent-O-Matic CA-36	None	1
Community Hospital	Onaga	KS	30	Shenandoah MNG 66/ITC-N	None	1
Osawatomie State Hospital	Osawatomie	KS	25	Shenandoah P4-2GN	None	1
Osborne County Hosital	Osborne	KS	4	Brule MG 7 1/2	None	1
Oswego Hospital	Oswego	KS	30	Shenandoah G65/ITC-N	None	1
Ransom Memorial Hospital	Ottawa	KS	150	Federal FPC-FMP-2BF	None	1
Miami County Hospital	Paola	KS	250	Federal FPC-FMP-2BF	None	1
Katy Memorial	Parsons	KS	50	Federal FPC-FMP-2BF	None	1
Mount Carmel Medical Center	Pittsburg	KS	380	Kelly-Hoskins 380/31	None	1
Plainville Rural Hospital	Plainville	KS	95	Hesston F5E	None	1
Pratt County Hospital	Pratt	KS	635	Wolverine IPC CH350FG	None	1
Gove County Hospital	Quinter	KS	89	Hesston F10E	None	1
Rawlins County Hospital	Rawlins	KS	30	Shenandoah MFG G66/ITC-N	None	1
Sabetha Community Hospital	Sabetha	KS	150	Econo-Therm CA200	None	1
Asbury Hospital	Salina	KS	50	Plibrico 4AGF50	None	1
St. Johns Hospital	Salina	KS	NA	NA	None	1
Satanta District Hospital	Satanta	KS	85	Hesston F5E	None	1
Scott County Hospital	Scott City	KS	35	Shenandoah G-71/ITC	None	1
Sedan City Hospital	Sedan	KS	50	Federal FC-FMP-2BF	None	1
Nemaha Valley Community	Seneca	KS	50	Morse Boulger	None	1
Shawnee Mission Medical Center	Shawnee Mission	KS	60	Shenandoah G-71/ITC	None	1
Smith County Memorial Hospital	Smith Center	KS	255	Hesston F10E	None	1
Stafford District Hospital	Stafford	KS	30	Shenandoah Mfg G66/ITC-N	None	1
Memorial Hospital	Topeka	KS	80	Shenandoah G-71/ITC	None	1
St. Francis Hospital	Topeka	KS	120	Shenandoah MFG I-HW/ITC	None	1

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Stormont Vail Hospital	Topeka	KS	5	Bryant 3100	None	1
Veterans Administration Hospital	Topeka	KS	75	Besser-Wastco CA150	None	1
Bob Wilson Memorial Hospital	Ulysses	KS	125	Econo-Therm CA-200	None	1
Wamego City Hospital	Wamego	KS	50	Plibrico C-10	None	1
St. Lukes Hospital	Wellington	KS	30	Goder 1340-9	None	1
Wellington Hospital & Clinic	Wellington	KS	25	Wolverine AW41SF	None	1
Riverside Hospital	Wichita	KS	200	Morse, Boulger, Inc.	None	1
St. Joseph's Med. Ctr.	Wichita	KS	4	Consumat C-75P	None	1
Veterans Administration Ctr.	Wichita	KS	4	Thermal Reduction TR20	None	1
Wesley Medical Center	Wichita	KS	4	Consumat C-75P	None	1
William Newton Memorail Hospital	Winfield	KS	50	Plibrico C-10	None	1
Knox County Hospital	Barbourville	KY	150	NA	NA	1
Marshall County Hospital	Benton	KY	200	NA	NA	1
The Medical Center at Bowling Green	Bowling Green	KY	287	NA	NA	1
Cumberland County Hospital	Burkesville	KY	50	NA	NA	1
Taylor County Hospital	Campbellsville	KY	150	Joy 150E	None	1,2
Westlake Cumberland Hospital	Columbia	KY	25	NA	NA	1
Fleming County Hospital	Flemingsburg	KY	75	NA	NA	1
Kings Daughter's Memorial Hospital	Frankfort	KY	500	NA	NA	1
Blanchfield Hospital	Ft. Campbell	KY	480	Joy 480ES	None	2
Scott General Hospital	Georgetown	KY	340 lb/batch	Simonds 750B	None	2
T.J. Samson Community Hospital	Glasgow	KY	200	NA	NA	1
Jane Todd Crawford Memorial Hospital	Greensburg	KY	25	NA	NA	1
Muhlenberg Community Hospital	Greenville	KY	120	NA	NA	1
Ohio County Hospital	Hartford	KY	120	NA	NA	1
ARH Regional Medical Center	Hazard	KY	175	NA	NA	1
Community Methodist Hospital	Henderson	KY	65 (340 lb/batch)	Simonds 750B	None	1,2
Jenkins Community Hospital	Jenkins	KY	50	NA	NA	1
Tri-County Community Hospital	LaGrange	KY	95 (500 lb/batch)	Simonds 1121B	None	1,2
Good Samaritan Hospital	Lexington	KY	NA	NA	NA	1
University of Kentucky Hospital	Lexington	KY	400	NA	NA	1
SS.Mary & Elizabeth Hospital	Louisville	KY	150	NA	NA	1
Jefferson County Animal Control	Louisville	KY	500	Simonds 500	None	2
Jefferson County Animal Control	Louisville	KY	NA	Simonds AFP-L	None	2
Medical Energy Generation Assoc.	Louisville	KY	1350	Simonds	NS/PB	2
Memorial Hospital	Manchester	KY	84	NA	NA	1
Meadowview Regional Medical Center	Maysville	KY	340 lb/batch	Simonds 750B	None	2

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Wayne County Hospital	Monticello	KY	70	NA	NA	1
Mercy Hospital	Owensboro	KY	300	Joy 300E	None	1,2
Lourdes Hospital	Paducah	KY	95 (500 lb/batch)	Simonds 1121B	None	1,2
Western Baptist Hospital	Paducah	KY	380	NA	NA	1
Bourbon General Hospital	Paris	KY	65 (340 lb/batch)	Simonds 750B	None	1,2
Pattie Clay Hospital	Richmond	KY	150	Joy 150E	None	2
Logan Memorial Hospital	Russellville	KY	400	NA	NA	1
Allen County War Memorial Hospital	Scottsville	KY	85	NA	NA	1
Morgan County ARH	West Liberty	KY	50	NA	NA	1
Clark Regional Medical Center	Winchester	KY	300	NA	NA	1
Rapides Regional Medical Center	Alexandria	LA	NA	NA	NA	1
St Frances Cabrini Hospital	Alexandria	LA	NA	NA	NA	1
Hood Memorial Hospital	Amite	LA	NA	NA	NA	1
Morehouse General Hospital	Bastrop	LA	NA	NA	NA	1
Earl K. Long Memorial Hospital	Baton Rouge	LA	NA	NA	NA	1
Medical Center of Baton Rouge	Baton Rouge	LA	NA	NA	NA	1
Woman's Hospital	Baton Rouge	LA	NA	NA	NA	1
Tri-Ward General Hospital	Bernice	LA	NA	NA	NA	1
Bogalusa Community Medical Center	Bogalusa	LA	NA	NA	NA	1
Washington-St Tammany Regional Med Cnt	Bogalusa	LA	NA	NA	NA	1
Bossier Medical Center	Bossier City	LA	NA	NA	NA	1
Riverside Community Hospital, Inc	Bossier City	LA	NA	NA	NA	1
South Cameron Memorial Hospital	Cameron	LA	NA	NA	NA	1
Chalmette Medical Centers	Chalmette	LA	NA	NA	NA	1
Acadia St Landry Hospital	Church Point	LA	NA	NA	NA	1
Highland Park Medical Center	Covington	LA	NA	NA	NA	1
American Legion Hospital	Crowley	LA	NA	NA	NA	1
De Quincey Memorial Hospital	De Quincy	LA	NA	NA	NA	1
Beauregard Memorial Hospital	DeRidder	LA	500 lb/batch	Simonds 1121B	None	1,2
Prevost Memorial Hospital	Donaldsonville	LA	NA	NA	NA	1
Moosa Memorial Hospital	Eunice	LA	NA	NA	NA	1
Riverland Medical Center	Ferriday	LA	NA	NA	NA	1
Franklin Foundation Hospital	Franklin	LA	NA	NA	NA	1
Riverside Medical Center	Franklinton	LA	NA	NA	NA	1
Baptist Hospital	Gadsden	LA	780	Joy 780ES	None	2
Lady of the Sea General Hospital	Galliano	LA	NA	NA	NA	1
Ascension Hospital	Gonzales	LA	NA	NA	NA	1

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Meadowcrest Hospital	Gretna	LA	NA	NA	NA	1
Seventh Ward General Hospital	Hammond	LA	NA	NA	NA	1
Westpark Community Hospital	Hammond	LA	NA	NA	NA	1
Terrebonne General Medical Center	Houma	LA	NA	NA	NA	1
Lallie Kemp Regional Medical Center	Independence	LA	NA	NA	NA	1
East Louisiana State Hospital	Jackson	LA	NA	NA	NA	1
Louisiana War Veterans Home	Jackson	LA	NA	NA	NA	1
Villa Feliciana Chronic Dis Hosp/Rehab	Jackson	LA	NA	NA	NA	1
La Salle General Hospital	Jena	LA	NA	NA	NA	1
Jackson Parish Hospital	Jonesboro	LA	NA	NA	NA	1
BFI Medical Waste Systems	LaPlace	LA	1350	Simonds AF-5B	None	2
Incendere of Louisiana, Inc.	Lafayette	LA	NA	NA	NA	1
Lafayette General Hospital	Lafayette	LA	1500	Joy 1500T	None	1,2
Our Lady Of Lourdes Reg Med Ctr	Lafayette	LA	NA	NA	NA	1
Women's & Children's Hospital	Lafayette	LA	NA	NA	NA	1
Womens Hospital of Acadiana	Lafayette	LA	340 lb/batch	Simonds 750B	None	2
Humana Hospital - Lake Charles	Lake Charles	LA	NA	NA	NA	1
River Parishes Hospital	Laplace	LA	NA	NA	NA	1
St Charles Parish Hospital	Luling	LA	NA	NA	NA	1
St James Parish Hospital	Lutcher	LA	NA	NA	NA	1
Southeast Louisiana Hospital	Mandeville	LA	NA	NA	NA	1
Sabine Medical Center	Many	LA	NA	NA	NA	1
Humana Hospital - Marksville	Marksville	LA	NA	NA	NA	1
West Jefferson Medical Center	Marrero	LA	NA	NA	NA	1
Browne-McHardy Clinic	Metairie	LA	NA	NA	NA	1
East Jefferson General Hospital	Metairie	LA	NA	NA	NA	1
Lakeside Hospital	Metairie	LA	340 lb/batch	Simonds 751B	None	1,2
Minden Medical Center	Minden	LA	NA	NA	NA	1
E.A. Conway Memorial Hospital	Monroe	LA	NA	NA	NA	1
North Monroe Community Hospital	Monroe	LA	340 lb/batch	Simonds 751B	None	1,2
St. Francis Medical Center	Monroe	LA	750	Joy 750	None	1,2
St. Francis Medical Center	Monroe	LA	750	Joy 750TES	None	1,2
Lakewood Hospital	Morgan City	LA	NA	NA	NA	1
Dauterive Hospital, Inc.	New Iberia	LA	2340 lb/batch	Simonds 5200B	None	1,2
Iberia Gen Hosp. & Med Center	New Iberia	LA	NA	NA	NA	1
Charity Hospital Of LA at New Orleans	New Orleans	LA	NA	NA	NA	1
Jo Ellen Smith Medical Hospital	New Orleans	LA	NA	NA	NA	1

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LA State Univ. Med Ctr, New Orleans	New Orleans	LA	NA	NA	NA	1
Martin Marietta Manned Space Systems	New Orleans	LA	NA	NA	NA	1
Ochsner Foundation Hospital	New Orleans	LA	NA	NA	NA	1
Southern Baptist Hospital	New Orleans	LA	NA	NA	NA	1
Touro Infirmary	New Orleans	LA	880	Simonds AF4C	None	1,2
Tulane University Medical Center	New Orleans	LA	NA	NA	NA	1
Humana Hospital - Oakdale	Oakdale	LA	NA	NA	NA	1
Hadrtner Medical Center	Olla	LA	NA	NA	NA	1
Opelousas General Hospital	Opelousas	LA	NA	NA	NA	1
Central Louisiana State Hospital	Pineville	LA	NA	NA	NA	1
Huey P. Long Regional Medical Center	Pineville	LA	NA	NA	NA	1
Rivernorth Treatment Center	Pineville	LA	NA	NA	NA	1
St Anne General Hospital	Raceland	LA	NA	NA	NA	1
Medx, Inc.	Reserve	LA	NA	NA	NA	1
Lincoln General Hospital	Ruston	LA	300	Joy 300E	None	1,2
CPC Brentwood Hospital	Shreveport	LA	NA	NA	NA	1
Highlands Hospital	Shreveport	LA	340 lb/batch	Simonds 751B	None	1,2
LA State University Medical Center	Shreveport	LA	NA	NA	NA	1
Overton Brooks VA Medical Center	Shreveport	LA	NA	NA	NA	1
Physicians and Surgeons Hospital	Shreveport	LA	NA	NA	NA	1
Shriners Hospital for Crippled Children	Shreveport	LA	NA	NA	NA	1
Willis-Knighton Medical Center	Shreveport	LA	NA	NA	NA	1
Willis-Knighton South Hosp/CFWH	Shreveport	LA	NA	NA	NA	1
Northshore Regional Medical Center	Slidell	LA	NA	NA	NA	1
Slidell Memorial Hospital	Slidell	LA	NA	NA	NA	1
Humana Hospital - Springhill	Springhill	LA	NA	NA	NA	1
Incendere of Louisiana	Springhill	LA	NA	NA	NA	1
West Feliciana Parish Hospital	St. Francisville	LA	NA	NA	NA	1
West Calcasieu-Cameron Hospital	Sulphur	LA	NA	NA	NA	1
Madison Parish Hospital	Tallulah	LA	NA	NA	NA	1
Thibodaux Hospital & Health Centers	Thibodaux	LA	NA	NA	NA	1
Humana Hospital - Ville Platte	Ville Platte	LA	NA	NA	NA	1
North Caddo Memorial Hospital	Vivian	LA	NA	NA	NA	1
Welsh General Hospital	Welsh	LA	NA	NA	NA	1
Glenwood Regional Medical Center	West Monroe	LA	NA	NA	NA	1
Humana Hospital Winn Parish	Winnfield	LA	NA	NA	NA	1
Acton Animal Hospital	Acton	MA	85	Consumat C-32	None	2

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Amesbury Hospital	Amesbury	MA	6.46	Vent O'Matic CAP-25	None	2
U. of Mass/Morrill Sci. Ctr.	Amherst	MA	85	Washburn-Granger N-100	None	2
Andover Animal Hospital	Andover	MA	90	McNaulin P4DP	None	2
Athol Memorial Hospital	Athol	MA	340 lb/batch	Simonds 750B	None	2
Athol Memorial Hospital	Athol	MA	450	Simonds 750B	None	2
Athol Memorial Hospital	Athol	MA	NA	Simonds	None	2
Athol Memorial Hospital	Athol	MA	NA	Simonds	None	2
Study Memorial Hospital	Attleboro	MA	475	Kelley 380 Spec. -14	None	2
Study Memorial Hospital	Attleboro	MA	82.29	Kelley	None	2
Woodlawn-No Purchase	Attleboro	MA	NA	End. Equip. Engr. Co	None	2
Nashoba Community Hospital	Ayer	MA	360	Kelley 380-31	None	2
Nashoba Community Hospital	Ayer	MA	NA	Kelley	None	2
Nashoba Community Hospital	Ayer	MA	NA	Kelley	None	2
Vet Clinic	Ayer	MA	100	Env. Control Products	None	2
Vet Clinic	Ayer	MA	110	Env. Control Products 15E	None	2
Vet Clinic	Ayer	MA	150	Env. Control Products	None	2
Vet Clinic	Ayer	MA	170	Env. Control Products	None	2
McLean Hospital	Belmont	MA	160	Kelley 380	None	2
McLean Hospital	Belmont	MA	175	Kelley	None	2
McLean Hospital	Belmont	MA	25	Kelley	None	2
McLean Hospital	Belmont	MA	50	Comtro A-20	None	2
Webber Hospital	Biddeford	MA	100	Simonds 104	None	2
New England Path. Waste Disposal	Billerica	MA	NA		None	2
Boston Univ Med Ctr	Boston	MA	20	Midland Ross Radicator NA	None	2
Boston Univ Med Ctr	Boston	MA	530	Midland Ross Radicator Mark VI	None	2
Boston Univ. Sci. & Eng.	Boston	MA	25	Vent O'Matic NA	None	2
Brigham & Women's Hospital	Boston	MA	155	Consumat C-75P	None	2
Carney Hospital	Boston	MA	100	Vent O'Matic CAP-50	None	2
Carney Hospital	Boston	MA	20	Vent O'Matic	None	2
E. Boston Health Ctr.	Boston	MA	145	Spronz RL-20-HDP	None	2
Forest Hills Crematory	Boston	MA	100	Ener-Tek II-M	None	2
Forest Hills Crematory	Boston	MA	NA	Ener-Tek	None	2
Kennedy Memorial Hospital	Boston	MA	385	American Energy Corp. AEC-500	None	2
Kennedy Memorial Hospital	Boston	MA	500	American Energy Corp.	None	2
Kennedy Memorial Hospital	Boston	MA	NA	American Energy Corp.	None	2
Mass. Gen. Warren Bldg.	Boston	MA	45	Morse Boulger Retort	None	2
Massachusetts General Hospital	Boston	MA	750	Joy 750TE	VS/PB	2

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St. Elizabeth Hospital	Boston	MA	75	Goder 9-135	Scrubber	2
VA Hospital	Boston	MA	50	Clean-Air-Ator	Scrubber	2
VA Hospital	Boston	MA	6.25	Clean-Air-Ator	None	2
VA Medical	Boston	MA	300	J.K.E.C. PTT-24-300	Scrubber	2
VA Medical	Boston	MA	NA	J.K.E.C.	None	2
VA Medical	Boston	MA	NA	J.K.E.C.	None	2
VA Medical	Boston	MA	NA	J.K.E.C.	None	2
Braintree Hospital	Braintree	MA	230	Lambert Sawyer NA	None	2
Braintree Hospital	Braintree	MA	325	Lambert Sawyer SF12	None	2
Recycling Ind.	Braintree	MA	500	Vent O'Matic	None	2
Town of Braintree Animal Crematory	Braintree	MA	40	Vent O'Matic CA-18	None	2
Animal Rescue	Brewster	MA	200	Jarvis P-200	None	2
Brockton Hospital	Brockton	MA	25	Kelley	None	2
Brockton Hospital	Brockton	MA	360	Kelley 780-31	None	2
Lahey Clinic Med. Ctr.	Burlington	MA	100	Washburn Granger Dean N-100	None	2
A.D. Little	Cambridge	MA	75	Kirchner KC-100	None	2
Animal Care Facility	Cambridge	MA	0.4	Washburn Granger "Dean"	None	2
Animal Care Facility	Cambridge	MA	0.6	Washburn Granger "Dean"	None	2
Animal Care Facility	Cambridge	MA	100	Washburn Granger "Dean" N-100-S	None	2
Bioran Med. Lab.	Cambridge	MA	250	Vent O'Matic NA	None	2
Bioran Med. Lab.	Cambridge	MA	500	Vent O'Matic CAE-500	None	2
Harvard Comm. Health Plan	Cambridge	MA	125	Vent O'Matic	None	2
Harvard Comm. Health Plan	Cambridge	MA	75	Vent O'Matic	None	2
Harvard Comm. Health Plan	Cambridge	MA	80	Vent O'Matic CAP-75	None	2
MIT College of Health Science	Cambridge	MA	250	Int'l Waste Ind. XL	None	2
Santa Maria Hospital	Cambridge	MA	155	Consumat C-75P	None	2
Santa Maria Hospital	Cambridge	MA	85	Consumat C-32-P	None	2
Soldier's Home	Chelsea	MA	1300	Kelley 1280/72	None	2
Soldier's Home	Chelsea	MA	400	McNaulin F405G	None	2
Hampden City Regional Animal Facility	Chicopee	MA	100	Spronz RL-40-P	None	2
Hampden City Regional Animal Facility	Chicopee	MA	200	Spronz	None	2
Clinton Hospital	Clinton	MA	50	Consumat 32P	None	2
Cemetery	Duxbury	MA	100	All Crematory Corp. L1707	None	2
Vineyard	Edgartown	MA	NA	Kelley 200BP	None	2
Whidden-Memorial Hospital	Everett	MA	100	Contro-Sunbeam A-20	None	2
Animal Rescue	Fall River	MA	75	Energy Recovery Systems ERS7-M	None	2
St. Anne's Hospital	Fall River	MA	14	Vent O'Matic CA-60	None	2

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St. St. Anne's Hospital	Fall River	MA	4.17	Vent O'Matic	None	2
Falmouth Animal Hospital	Falmouth	MA	85	Consumat C-32-P	None	2
Burbank Hospital	Fitchburg	MA	50	Simonds	None	2
Burbank Hospital	Fitchburg	MA	500 lb/batch	Simonds 1121B	None	2
Burbank Hospital	Fitchburg	MA	760	Simonds 1121B	None	2
Pet Memorial Park	Foxboro	MA	400	Simonds 404	None	2
Pet Memorial Park	Foxboro	MA	500 lb/batch	Simonds 1120 P	None	2
Henry Haywood Hospital	Gardner	MA	500	NA	WS	2
Addison Gilbert Hospital	Gloucester	MA	60.42	Kelley 380/14	None	2
Addison Gilbert Hospital	Gloucester	MA	NA	Kelley	None	2
Addison Gilbert Hospital	Gloucester	MA	NA	Kelley	None	2
Franklin Co. Hospital	Greenfield	MA	70	Kelly Hoskinson 380	None	2
Plymouth Co. Hospital	Hanson	MA	60	Joseph Goder	None	2
Plymouth Co. Hospital	Hanson	MA	7.5	Joseph Goder 57P	None	2
Plymouth Co. Hospital	Hanson	MA	NA	Joseph Goder	None	2
Linwood Cemetery	Haverhill	MA	300	Ind. Equip. & Engr. IE43	None	2
Linwood Cemetery	Haverhill	MA	NA	Ind. Equip. & Engr.	None	2
New Haverhill Munic. Hosp.	Haverhill	MA	100	Econo-Therm P-4	None	2
New England Medical Labs	Holliston	MA	970 lb/batch	Simonds 2150B	None	2
Holyoke Animal Hospital	Holyoke	MA	75	Crawford Eq. & Engr. C-500P	None	2
Providence Hospital	Holyoke	MA	146	Env. Control 480E	None	2
Providence Hospital	Holyoke	MA	480	Joy 480E	None	2
Providence Hospital	Holyoke	MA	NA	Env. Control	None	2
Cape Cod Hospital	Hyannis	MA	4.17	Kelley 380	None	2
Merrimac Valley Med.	Lawrence	MA	490	*Energy Resource ERS-42-2SC*	WS	2
Merrimac Valley Medical	Lawrence	MA	490	Synergy-Clear Air, Inc. CAW-650	None	2
Leominster Hospital	Leominster	MA	450	Simonds #2AF	None	2
Lowell Gen. Hospital	Lowell	MA	300	Kelley 200 BP	None	2
Lowell Humane Society	Lowell	MA	300	Simonds 304	None	2
St. John's Hospital	Lowell	MA	75	Kelley 200 BH	None	2
Ludlow Hospital	Ludlow	MA	120	Env. Cont. Products 150E	None	2
Ludlow Hospital Society	Ludlow	MA	150	Joy 150E	None	2
Lynn Hospital	Lynn	MA	350	Envir. Control Prod. 750T	None	2
Lynn Hospital	Lynn	MA	40	Envir. Control Prod.	None	2
Holy Family Hospital (Bon Secours Hosp.)	Methuen	MA	880	Simonds AF-4B	None	2
Angel View Pet Cemetery	Middleborough	MA	150	Crawford Eq. & Engr. C-1000P	None	2
Milford-Whitinsville	Milford	MA	336	Vent O'Matic CA-60	None	2

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Milford-Whitinsville	Milford	MA	NA	Vent O'Matic	None	2
Milford-Whitinsville	Milford	MA	NA	Vent O'Matic	None	2
Milton Hospital	Milton	MA	25	Goder 100 IRN	None	2
Pet Memorial Park	NA	MA	450	Simonds AF-2C	None	2
Phillips Academy	NA	MA	15	Vent O'Matic CAP-15	None	2
U. of Mass/Paige Lab.	NA	MA	85	N-100	None	2
U. of Mass/Tillson Farm	NA	MA	290	N-300	None	2
Nantucket Animal Hospital	Nantucket	MA	25	Vent O'Matic	None	2
Nantucket Animal Hospital	Nantucket	MA	75	Vent O'Matic CAP-25	None	2
Nantucket Cottage Hosp.	Nantucket	MA	33.33	Kelley 380B	None	2
Red Cross Blood Service	Needham	MA	400	Vent O'Matic CA60	None	2
Red Cross Blood Service	Needham	MA	NA	Vent O'Matic	None	2
Union Hospital	New Bedford	MA	40	Washburn Granger/Dean N-50-S	None	2
Ann Jacques Hospital	Newburyport	MA	175	Kelley	None	2
Ann Jacques Hospital	Newburyport	MA	175	Kelley 380/31	None	2
Ann Jacques Hospital	Newburyport	MA	25	Kelley	None	2
Anne Jacques Hospital	Newburyport	MA	0.83	Vent O'Matic	None	2
Anne Jacques Hospital	Newburyport	MA	83.33	Vent O'Matic CAP 50	None	2
Pondville Hospital	Norfolk	MA	975	Trane Tota 450	None	2
N. Adams Reg. Hospital	North Adams	MA	NA	Vent O'Matic CAP 25/G	None	2
Berkshire Medical Ctr.	Pittsfield	MA	100	Silent Glow N-100	None	2
Hillcrest Hospital	Pittsfield	MA	340 lb/batch	Simonds 751B	None	2
Mass SPCA	Pittsfield	MA	104	Dean Washburn Granger CAP-75	None	2
Jordon Hospital	Plymouth	MA	970 lb/batch	Simonds 2151B	None	2
Quincy City Hospital	Quincy	MA	90	Jarvis P-90-Spec.	None	2
Southshore Hospital	S. Weymouth	MA	880	Simonds AF-4C	None	2
Clapp Hall	So. Hadley	MA	3	Silent Glow DF-458	None	2
New England Regional Primate Ctr.	Southboro	MA	800	Env. Con. Prod. 1000T	None	2
Baystate Medical	Springfield	MA	600	Env. Control Products 1100E	None	2
Baystate Medical	Springfield	MA	NA	Env. Control Products	None	2
Baystate Medical Center	Springfield	MA	1100	Joy 1100E	None	2
Bio-Medical Ctr.	Springfield	MA	1.04	Econo-Therm NA	None	2
Bio-Medical Ctr.	Springfield	MA	2.08	Econo-Therm NA	None	2
Bio-Medical Ctr.	Springfield	MA	4.17	Econo-Therm CA-200	None	2
New England Memorial Hospital	Stoneham	MA	175	Consumat C-75P	None	2
Goddard Memorial Hosp.	Stoughton	MA	50	Goder	None	2
Goddard Memorial Hosp.	Stoughton	MA	710	Goder 100SSN	Scrubber	2

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New England Sinai Hosp.	Stoughton	MA	175	Kelley 380/31	None	2
New England Sinai Hosp.	Stoughton	MA	25	Kelley	None	2
Buddy Dog Humane Soc.	Sudbury	MA	50	Kerschner Sci. KC-50	None	2
Morton Hospital	Taunton	MA	475	Kelley 380/14	None	2
Tewksbury State Hosp.	Tewksbury	MA	1875	Jarvis Jarvis	Scrubber	2
Middlesex VCounty Hospital	Waltham	MA	160 lb/batch	Simonds Pyromizer	None	2
Waltham-Weston Hospital	Waltham	MA	100	Washburn Granger Jarvis-Dean N-100	None	2
Wareham Dog Pound	Wareham	MA	200	Simonds	None	2
Wareham Dog Pound	Wareham	MA	340 lb/batch	Simonds 750 P	None	2
New England Inst. Comparative Med.	West Boylston	MA	100	Kewanee PA-100	None	2
Nobel Hospital	Westfield	MA	175	Kelley	None	2
Nobel Hospital	Westfield	MA	175	Kelley 380/31	None	2
Nobel Hospital	Westfield	MA	25	Kelley	None	2
Animal Shelter	Weymouth	MA	290	Comtro A-22	None	2
So. Shore Hospital	Weymouth	MA	3.75	Morse Boulger 7HE	Scrubber	2
Charles River Breeding Lab	Wilmington	MA	400	Comtro A-24	None	2
Winthrop Comm. Hosp.	Winthrop	MA	75	Washburn Granger Dean N-75	None	2
Choate Symmes Health Services	Woburn	MA	175	Kelley	None	2
Choate Symmes Health Services	Woburn	MA	175	Kelley 380/14	None	2
Choate Symmes Health Services	Woburn	MA	25	Kelley	None	2
Dr. John Seminatore	Woburn	MA	100	Smokstrol 200	None	2
E.G. & Research Inst.	Worcester	MA	100	Energy Recovery Systems ERS-7	None	2
E.G. & Research Inst.	Worcester	MA	93	Energy Recovery Systems	None	2
Memorial Hospital	Worcester	MA	50	Goder 1500	None	2
Rural Cemetery	Worcester	MA	300	Ind. Eq. Power Pak 1E43	None	2
Rural Cemetery	Worcester	MA	NA	Ind. Eq. Power Pak	None	2
St. Vincent Hospital	Worcester	MA	30	Kelley 380B	None	2
St. Vincent Hospital	Worcester	MA	NA	Kelley	None	2
St. Vincent Hospital	Worcester	MA	NA	Kelley	None	2
Swedish Cemetery	Worcester	MA	300	Ind. Equip. & Eng. IE44	None	2
Swedish Cemetery	Worcester	MA	NA	Ind. Equip. & Eng.	None	2
Worcester Hahenmann Hospital	Worcester	MA	340 lb/batch	Simonds 751B	None	2
Worcester Hahnemann Hospital	Worcester	MA	450	Simonds 751B	None	2
Worcester Hahnemann Hospital	Worcester	MA	NA	Simonds	None	2
Med Net, Inc.	Annapolis	MD	1350	Simonds AF-5B	None	2
Church Home Hospital	Baltimore	MD	NA	Joy NA	None	2
Franklin Square Hospital	Baltimore	MD	1000	Joy 1000E	None	2

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Table A-1. Partial Listing of U.S. Medical Waste Incinerators

Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Good Samaritan	Baltimore	MD	300	Joy 300E	None	2
Johns Hopkins Medical Center	Baltimore	MD	300	Joy 300E	None	2
Johns Hopkins Medical Center	Baltimore	MD	480	Joy 480E	None	2
Maryland General Hospital	Baltimore	MD	1500	Joy 1500T	None	2
Mercy Hospital, Inc.	Baltimore	MD	NA	Joy NA	None	2
Montebello Hospital	Baltimore	MD	150	Joy 150E	None	2
North Charles Hospital	Baltimore	MD	300	Joy 300E	None	2
Provident Hospital	Baltimore	MD	300	Joy 300E	None	2
University of Maryland	Baltimore	MD	NA	Consumat	VS/PB	2
University of Maryland Hospital	Baltimore	MD	300	Joy 300T	None	2
National Institute of Health	Bethesda	MD	2000	Joy 2000T	None	2
National Institute of Health	Bethesda	MD	2000	Joy 2000T	None	2
National Naval Medical Center	Bethesda	MD	480	Joy 480E	None	2
Suburban Hospital	Bethesda	MD	300	Joy 300E	None	2
Kent/Queen Anne's Hospital	Chestertown	MD	100	Joy 100E	None	2
Prince George's General Hospital	Cheverlyl	MD	480	Joy 480E	None	2
Veterinary Science Research Center	College Park	MD	1000	Joy 1000T	None	2
McCready Hospital	Crisfield	MD	150	Joy 150E	None	2
Sacred Heart Hospital	Cumberland	MD	300	Joy 300E	None	2
Union Hospital, Cecil County	*Elkton*	*MD*	300	Joy 300E	None	2
Fredrick Memorial Hospital	Fredrick	MD	480	Joy 480E	None	2
Ft. Meade-Kimborough Army Hospital	Ft. Meade	MD	300	Joy 300E	None	2
North Arundel Hospital	Glen Burnie	MD	300	Joy 300E	None	2
Harford Memorial Hospital	Havre de Grace	MD	480	Joy 480E	None	2
Mount Wilson Medical Center	Mt. Wilson	MD	300	Joy 300E	None	2
Montgomery Genreal Hospital	Olney	MD	480	Joy 480E	None	2
Baltimore County General Hospital	Randallstown	MD	300	Joy 300E	None	2
Rockville Pet Hotel	Rockville	MD	150	Joy 150E	None	2
Holy Cross Hospital	Silver Springs	MD	300	Joy 300E	None	2
St. Joseph Hospital	Townson	MD	750	Joy 750E	None	2
Carroll Co. General Hospital	Westminister	MD	300	Joy 300E	None	2
Kennebec Valley Medical Center	Augusta	ME	NA	NA	NA	1
Eastern Maine Medical Center	*Bangor*	*ME*	NA	NA	NA	1
St Joseph Hospital	Bangor	ME	150	Jarvis Upgrade	NA	1
Jackson Laboratory	Bar Harbor	ME	175-250	Consumat C75P-2H	None	1,2
Mount Desert Island Hospital	Bar Harbor	ME	NA	Cleaver Brooks CBU-150	NA	1
Bath Memorial Hospital	Bath	ME	NA	NA	NA	1

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Table A-1. Partial Listing of U.S. Medical Waste Incinerators

Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Waldo County General Hospital	Belfast	ME	NA	NA	NA	1
Southern Maine Medical Center	Biddeford	ME	NA	NA	NA	1
Webber Hospital	Biddeford	ME	100	Simonds 104	None	2
Blue Hill Memorial Hospital	Blue Hill	ME	NA	NA	NA	1
St Andrews Hospital	Boothbay Harbor	ME	NA	NA	NA	1
Northern Cumberland Memorial Hospital	Bridgton	ME	NA	NA	NA	1
Parkview Memorial Hospital	Brunswick	ME	NA	NA	NA	1
Regional Memorial Hospital	Brunswick	ME	NA	NA	NA	1
Calais Memorial Hospital	Calais	ME	NA	NA	NA	1
Cary Medical Center	Caribou	ME	50	Vent-O-Matic CAP36	NA	1
Miles Health Care Center	Damariscotta	ME	NA	NA	NA	1
Mayo Regional Hospital	Dover/Foxcroft	ME	NA	NA	NA	1
Maine Coast Memorial Hospital	Ellsworth	ME	NA	NA	NA	1
Franklin Memorial Hospital	Farmington	ME	NA	NA	NA	1
Northern Maine Medical Center	Fort Kent	ME	NA	NA	NA	1
Charles A Dean Hospital	Greenville	ME	NA	NA	NA	1
Houlton Regional Hospital	Houlton	ME	NA	NA	NA	1
Central Maine Medical Center	Lewiston	ME	NA	NA	NA	1
St Mary's Hospital	Lewiston	ME	NA	NA	NA	1
Loring Air Force Base	Limestone	ME	NA	Atlas Inc CFA-60	NA	1
Penobscot Valley Hospital	Lincoln	ME	NA	NA	NA	1
Down East Community Hospital	Machias	ME	NA	NA	NA	1
Millinocket Regional Hospital	Millinocket	ME	160 lb/batch	Simonds Pyromizer	None	1,2
Stephens Memorial Hospital	Norway	ME	NA	NA	NA	1
Sebasticook Valley Hospital	Pittsfield	ME	NA	NA	NA	1
Brighton Medical Center	Portland	ME	NA	NA	NA	1
Maine Medical Center	Portland	ME	1000	Joy 1000T	None	1,2
Mercy Hospital	Portland	ME	NA	NA	NA	1
Aroostook Medical Center	Presque Isle	ME	340 lb/batch	Simonds 751B	None	1,2
Penobscot Bay Medical Center	Rockland	ME	340 lb/batch	Simonds 751B	None	1,2
Rumford Community Hospital	Rumford	ME	NA	NA	NA	1
Henrietta D Goodall Hospital	Sanford	ME	NA	NA	NA	1
Maine Biomedical Service Co.	Sanford	ME	NA	Crawford C1000S	NA	1
Redington-Fairview General Hospital	Skowhegan	ME	NA	NA	NA	1
Veterans Administration	Togus	ME	85	Consumat Systems Model C-32P	NA	1
Mid Maine Medical Center	Waterville	ME	1620 lb/batch	Simonds 3600B	None	2
Mid-Maine Medical Center (Seton Unit)	Waterville	ME	200	Federal Model FE-8	NA	1

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Table A-1. Partial Listing of U.S. Medical Waste Incinerators

Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Mid-Maine Medical Center (Thayer Unit)	Waterville	ME	1300 lb/batch	Batch Unit	NA	1
Waterville Osteopathic Hospital	Waterville	ME	NA	Vent-O-Matic CA-36	NA	1
Westbrook Community Hospital	Westbrook	ME	NA	NA	NA	1
York Hospital	York	ME	NA	NA	NA	1
Munsing Memorial Hospital	Alger	MI	90	NA	NA	1
Allegan General Hospital	Allegan	MI	50	NA	NA	1
Belvedere Christian Nursing	Allegan	MI	45	NA	NA	1
Bridgewood Manor	Allegan	MI	110	NA	NA	1
Community Hospital	Allegan	MI	170	NA	NA	1
Douglas Community Hospital	Allegan	MI	170	NA	NA	1
Pipp Community Hospital Inc	Allegan	MI	140	NA	NA	1
University of Michigan Hospital	Ann Arbor	MI	1500	NA	VA/PB	2
Barage County Memorial Hospital	Barage	MI	95	NA	NA	1
Barry County Medical Care Facility	Barry	MI	150	NA	NA	1
Pennock Hospital	Barry	MI	200	NA	NA	1
V.A. Hospital	Battle Creek	MI	300	Joy 300T	None	2
Bay Medical Center	Bay	MI	588	Consumat Incinerator	NA	1
Paul Oliver Memorial Hospital	Benzie	MI	2250	NA	NA	1
Berrien General Hospital	Berrien	MI	600	NA	NA	1
Claremont Nursing Home	Berrien	MI	75	NA	NA	1
Memorial Hospital	Berrien	MI	100	NA	NA	1
Paul Stephen Nursing Home	Berrien	MI	75	NA	NA	1
Pawating Hospital	Berrien	MI	475	NA	NA	1
Coldwater Medical Arts Center	Branch	MI	75	NA	NA	1
Albion Dept of Hospitals	Calhoun	MI	500	NA	NA	1
Battle Creek Adventist Hospital	Calhoun	MI	60	NA	NA	1
Battle Creek Ch Gui & Adu Cl	Calhoun	MI	30	NA	NA	1
Community Hospital	Calhoun	MI	145	Consumat C 125 P	NA	1
Norpurdy Corporation	Calhoun	MI	25	NA	NA	1
North Avenue Podiatry Service	Calhoun	MI	10	NA	NA	1
Oaklawn Hospital	Calhoun	MI	175	NA	NA	1
Provincial House N H Inc	Calhoun	MI	100	NA	NA	1
VA Medical Center	Calhoun	MI	240	Permit 6-791 Type 4	NA	1
Lee Memorial Hospital	Cass	MI	300	Consumat Inc	NA	1
McLauchlin Funeral Home	Cass	MI	10	NA	NA	1
Charlevoix Area Hospital	Charlevoix	MI	150	NA	NA	1
Chippewa County War Memorial Hospital	Chippewa	MI	300	NA	NA	1

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Clare Community Hospital	Clare	MI	38	NA	NA	1
Clinton Memorial Hospital	Clinton	MI	225	NA	NA	1
Ovid Convalescent Manor Inc.	Clinton	MI	100	NA	NA	1
Golden Triangle Medical Center	Columbus	MI	300	Joy 300E	None	2
Mercy Hospital	Crawford	MI	150	NA	NA	1
St Francis Hospital	Delta	MI	.01	NA	NA	1
Anderson Memorial Hospital	Dickinson	MI	10	NA	NA	1
Memorial Hospital	Dickinson	MI	300	NA	NA	1
Eaton County Medical Care Facility	Eaton	MI	300	NA	NA	1
Eaton Rapids Community Hospital	Eaton	MI	50	NA	NA	1
St Lawrence Dimondale Center	Eaton	MI	300	NA	NA	1
Little Traverse Division	Emmet	MI	700	NA	NA	1
Bernard J Steinman	Genesee	MI	20	NA	NA	1
Beverly Manor Convalescent Center	Genesee	MI	200	Plibrico	NA	1
Briarwood Manor	Genesee	MI	110	NA	NA	1
Flint Osteopathic Hospital	Genesee	MI	500	American Incinerator	NA	1
Hurley Medical Center	Genesee	MI	70	NA	NA	1
St Joseph Hospital Corp	Genesee	MI	720	Consumat CS-225-P	NA	1
Veterinary Medical Hospital	Genesee	MI	100	NA	NA	1
Wheelock Memorial Hospital	Genesee	MI	50	Affco Class 4 PAHSO	NA	1
Gladwin Area Hospital	Gladwin	MI	66	NA	NA	1
Grand View Hospital	Gogebic	MI	370	NA	NA	1
NA	Grand Rapids	MI	1650	Consumat	NA	1
NA	Grand Rapids	MI	720	Consumat	NA	1
Munson Medical Center	Grand Trav.	MI	175	NA	NA	1
Provincial House Inc	Grand Traverse	MI	100	NA	NA	1
Traverse City Osteopathic Hospital	Grand Traverse	MI	50	NA	NA	1
Schnepp Nursing Home Inc	Gratiot	MI	100	NA	NA	1
NA	Hamtramck(proposed)	MI	1500	Envir. Engineering	NA	1
NA	Hamtramck(proposed)	MI	1500	Envir. Engineering	NA	1
Hillsdale Comm Health Center	Hillsdale	MI	60	Controlled Air Inc	NA	1
Calumet Public Hospital	Houghton	MI	200	NA	NA	1
Cypress Manor	Houghton	MI	100	NA	NA	1
Houghton County Medical Care Facility	Houghton	MI	465	NA	NA	1
Portage View Hospital	Houghton	MI	220	Boulger I Dest	NA	1
Harbor Beach Community Hospital	Huron	MI	200	NA	NA	1
Huron Memorial Hospital	Huron	MI	300	NA	NA	1

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Scheuer Hospital	Huron	MI	160	NA	NA	1
Ingham Medical Center	Ingham	MI	300	NA	NA	1
Ingham Medical Center	Ingham	MI	85	NA	NA	1
Provincial House Inc	Ingham	MI	215	Gas	NA	1
Sparrow Hospital	Ingham	MI	313	NA	NA	1
Tawas St Joseph Hospital Inc	Iosco	MI	450	NA	NA	1
Crystal Falls Community Hospital	Iron	MI	180	NA	NA	1
Iron County General Hospital	Iron	MI	125	NA	NA	1
Iron County General Hospital	Iron	MI	25	NA	NA	1
V.A. Hospital	Iron Mountain	MI	500	Joy 500T	None	2
Central Michigan Community Hospital	Isabella	MI	290	NA	NA	1
Jackson County Medical Care Facility	Jackson	MI	230	NA	NA	1
Jackson Friendly Home	Jackson	MI	25	NA	NA	1
W A Foote Memorial Hospital	Jackson	MI	850	Controlled Air Inc	NA	1
Borgess Medical Center	Kalamazoo	MI	400	NA	NA	1
Borgess Medical Center	Kalamazoo	MI	680	Thermea	NA	1
Borgess Nursing Home, Inc	Kalamazoo	MI	150	NA	NA	1
Bronson Methodist Hospital	Kalamazoo	MI	800	NA	NA	1
Franklin Community Hospital	Kalamazoo	MI	200	NA	NA	1
Total Living Center	Kalamazoo	MI	199	NA	NA	1
Booth Memorial Hospital	Kent	MI	85	NA	NA	1
Butterworth Hospital	Kent	MI	150	NA	NA	1
Butterworth Hospital	Kent	MI	50	NA	NA	1
Grand Rapids Osteo Hospital	Kent	MI	1000	Controlled Air Inc	NA	1
Kent Community Hospital Comp	Kent	MI	150	Trash Inc	NA	1
Kent Community Hospital Comp	Kent	MI	1500	Trash Inc	NA	1
Lutheran Nursing Home	Kent	MI	115	NA	NA	1
Ramona Medical Center	Kent	MI	50	NA	NA	1
St. Ann's Home Inc	Kent	MI	180	NA	NA	1
Lapeer County Medical Care Facility	Lapeer	MI	100	NA	NA	1
Leelanau Memorial Hospital	Leelanua	MI	300	NA	NA	1
Addison Community Hospital	Lenawee	MI	100	NA	NA	1
Emma L Bixby Hospital	Lenawee	MI	350	NA	NA	1
Morenci Area Hospital	Lenawee	MI	75	NA	NA	1
Thorn Hospital	Lenawee	MI	65	NA	NA	1
Helen Newberry Joy Hospital	Luce	MI	175	NA	NA	1
Michigan Dept of Mental Health	Luce	MI	175	NA	NA	1

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Mackinac Straits Hospital	Mackinac	MI	125	NA	NA	1
Almont Community Hospital	Macomb	MI	200	NA	NA	1
Georgian East	Macomb	MI	183	NA	NA	1
Harrison Community Hospital	Macomb	MI	300	NA	NA	1
Kern Hospital	Macomb	MI	50	NA	NA	1
Memorial Medical Center PC	Macomb	MI	150	NA	NA	1
Nightingale Nursing Home Inc	Macomb	MI	300	NA	NA	1
St Anthony Nursing Home	Macomb	MI	125	NA	NA	1
St Joseph Hospital	Macomb	MI	600	NA	NA	1
Warren Medical Village	Macomb	MI	100	NA	NA	1
Manistee West Shore Hospital	Manistee	MI	200	NA	NA	1
Francis Bell Memorial Hospital	Marquette	MI	100	NA	NA	1
Marquette General Hospital	Marquette	MI	100	Controlled Air Inc	NA	1
Haywood Nursing Home Inc	Mason	MI	75	NA	NA	1
Memorial Hospital of Mason County	Mason	MI	215	NA	NA	1
Mecosta Memorial Hospital	Mecosta	MI	130	V-18	NA	1
Pinecrest Medical Care Facility	Menominee	MI	100	Goder	NA	1
Larson P C	Midland	MI	25	NA	NA	1
Sheridan Community Hospital	Monicalm	MI	200	NA	NA	1
Tri-County Community Hospital	Monicalm	MI	180	NA	NA	1
Beach Nursing Home	Monroe	MI	45	NA	NA	1
United Memorial Hospital	Monroe	MI	180	NA	NA	1
Mercy Hospital	Montcalm	MI	65	NA	NA	1
Hackley Hospital	Muskegon	MI	85	NA	NA	1
Knollview Manor	Muskegon	MI	110	NA	NA	1
Madison Community Hospital	Muskegon	MI	125	NA	NA	1
Mercy Hospital	Muskegon	MI	340 lb/batch	Simonds 751B	None	2
Muskegon Co Medical Care Facility	Muskegon	MI	250	Vulcanor	NA	1
Muskegon General Hospital	Muskegon	MI	250	NA	NA	1
Wesley School	Muskegon	MI	45	NA	NA	1
Belding Community Hospital	NA	MI	150	NA	NA	1
Ionia County Memorial Hospital	NA	MI	350	NA	NA	1
Lansing General Hospital	NA	MI	85	Pathology Incinerator	NA	1
Gerber Memorial Hospital	Newaygo	MI	260	NA	NA	1
Botsford General Hospital	Oakland	MI	500	NA	NA	1
Cambridge East Inc	Oakland	MI	125	NA	NA	1
Cambridge Nursing Center North	Oakland	MI	125	NA	NA	1

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Farmington Nursing Home Inc	Oakland	MI	225	NA	NA	1
Franklin Manor Convales Center	Oakland	MI	125	NA	NA	1
Grovecrest Conval Center Inc	Oakland	MI	125	NA	NA	1
Hilldale Veterinary Hospital PC	Oakland	MI	30	NA	NA	1
Martin Luther Nursing Home	Oakland	MI	50	NA	NA	1
Ortonville Nursing Home Inc	Oakland	MI	15	NA	NA	1
Troy School District	Oakland	MI	200	NA	NA	1
Troy School District	Oakland	MI	200	NA	NA	1
Troy School District	Oakland	MI	360	Incinerator 57-73 1	NA	1
WM Beaumont Hospital	Oakland	MI	500	Incinerator#26-861	NA	1
West Hickory Haven	Oakland	MI	100	NA	NA	1
Williamsburg Convalescent Center Inc	Oakland	MI	125	NA	NA	1
Lakeshore Community Hospital	Oceana	MI	75	NA	NA	1
Oceana Hospital Association	Oceana	MI	32	NA	NA	1
Ogemaw Valley Medical Facility	Ogemaw	MI	200	NA	NA	1
Tolfree Memorial Hospital	Ogemaw	MI	25	NA	NA	1
Ontonagan Memorial Hospital	Ontonagon	MI	3	NA	NA	1
Reed City Hospital	Osceola	MI	342	NA	NA	1
Otsego County Memorial Hospital	Otsego	MI	100	NA	NA	1
Otsego County Memorial Hospital	Otsego	MI	75	NA	NA	1
Provincial House Nursing Home Inc	Otsego	MI	110	NA	NA	1
Haven Park Nursing Center	Ottawa	MI	18	NA	NA	1
North Ottawa Community Hospital Auth	Ottawa	MI	50	NA	NA	1
Shore Haven Nursing Home	Ottawa	MI	75	NA	NA	1
Zeeland Community Hospital	Ottawa	MI	150	NA	NA	1
Rogers City Hospital	Presque Isle	MI	110	NA	NA	1
Russell Memorial Hospital Assn Inc	Presque Isle	MI	40	NA	NA	1
Luther Manor	Saginaw	MI	180	NA	NA	1
Lutheran Home for the Aged	Saginaw	MI	95	NA	NA	1
Norman Westland Ch Guild Clc	Saginaw	MI	25	NA	NA	1
Saginaw Osteopathic Hospital Inc	Saginaw	MI	175	Con Waste Disposal	NA	1
St Francis Home for the Aged	Saginaw	MI	155	NA	NA	1
Veterans Administration Hospital	Saginaw	MI	300	Controlled Air Inc	NA	1
Deckerville Community Hospital	Sanilac	MI	160	NA	NA	1
McKenzie Memorial Hospital	Sanilac	MI	100	NA	NA	1
Sanilac Medical Care Facility	Sanilac	MI	125	NA	NA	1
Schoolcraft Memorial Hospital	Schoolcraft	MI	100	NA	NA	1

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Memorial Hospital	Shiawassee	MI	146	NA	NA	1
Blue Water Clinic	St Clair	MI	100	NA	NA	1
Faith Medical Care Center Inc	St Clair	MI	300	NA	NA	1
Medilodge of Yale	St Clair	MI	100	NA	NA	1
River District Comm Hosp Author	St Clair	MI	100	NA	NA	1
Fairview Medical Care Facility	St Joseph	MI	500	NA	NA	1
Froh Community Home	St Joseph	MI	125	NA	NA	1
Sturgis Hospital	St Joseph	MI	240	NA	NA	1
Three Rivers Area Hospital	St Joseph	MI	175	NA	NA	1
Department of Mental Health	Tuscola	MI	170	CK 54	NA	1
Hills & Dales General Hospital	Tuscola	MI	450	NA	NA	1
International Research Dev Corp	Van Buren	MI	200	McNaulin P6DP	NA	1
Lake View Community Hospital	Van Buren	MI	215	NA	NA	1
South Haven Community Hospital	Van Buren	MI	625	NA	NA	1
Beyer Memorial Hospital	Washtenaw	MI	50	NA	NA	1
Mercywood Hospital	Washtenaw	MI	225	NA	NA	1
St Joseph Mercy Hospital	Washtenaw	MI	2200	Controlled Air Inc	NA	1
VA Medical Center	Washtenaw	MI	125	NA	NA	1
A Brinion Schilller D O	Wayne	MI	25	Calcinator	NA	1
Advance Nursing Center	Wayne	MI	275	Wolverine IPC H200 F	NA	1
Albert A Kuhn	Wayne	MI	100	NA	NA	1
Allen Park Convalescent Home	Wayne	MI	125	NA	NA	1
Alpha Annex Nursing Center	Wayne	MI	140	NA	NA	1
American Serbian Memorial Hospital	Wayne	MI	150	American Incin E-2	NA	1
Andan Clinic	Wayne	MI	25	NA	NA	1
Ardmore Acres	Wayne	MI	75	Martin Model I 4490	NA	1
Arlington-Hardwick Nursing	Wayne	MI	50	A I C	NA	1
Arnold Home for the Aged	Wayne	MI	250	NA	NA	1
Beechwood [illegible]	Wayne	MI	25	Calcinator	NA	1
Brent General Hospital	Wayne	MI	160	NA	NA	1
Cadillac Nursing Home Inc	Wayne	MI	75	NA	NA	1
Cottage Hospital	Wayne	MI	100	Goder Incinerator	NA	1
Cottage Hospital	Wayne	MI	360	Goder Incinerator	NA	1
Dearborn Dermatology Clinic	Wayne	MI	100	IPC Single Chamber	NA	1
Detroit Institute for Children	Wayne	MI	175	NA	NA	1
Detroit Memorial Hospital	Wayne	MI	600	Universal URD-600	NA	1
Detroit Osteopathic Hospital	Wayne	MI	90	Joseph Goder Pathologic	NA	1

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Doctors Hospital	Wayne	MI	200	Wolverine IPC H-200	NA	1
Donovan Veterinary Hosital	Wayne	MI	25	NA	NA	1
Downriver Guidance Clinic	Wayne	MI	100	NA	NA	1
Dr Alma George	Wayne	MI	25	NA	NA	1
Dr Alvin Majewski DDS	Wayne	MI	25	NA	NA	1
Dr Charles T Armstrong	Wayne	MI	25	NA	NA	1
Dr Demetrio R Timban M D P C	Wayne	MI	25	NA	NA	1
Dr George W Blackwell	Wayne	MI	25	NA	NA	1
Dr Jefferson	Wayne	MI	45	American	NA	1
Dr Leon A Dickson MD	Wayne	MI	20	NA	NA	1
Dr Richard W Snowden	Wayne	MI	25	NA	NA	1
Dr Samuel S O Nwosu MD	Wayne	MI	25	Calcinator	NA	1
Dr Thomas Hotler	Wayne	MI	25	Calinator 10GSX	NA	1
Drs Smathers Whitten & Velez	Wayne	MI	25	Calcinator 10 GSX	NA	1
East Grand Nursing Home	Wayne	MI	175	NA	NA	1
Edward C Lockhart	Wayne	MI	25	NA	NA	1
Garden City Hospital	Wayne	MI	500	NA	NA	1
Gerald R Aptekar MD	Wayne	MI	25	Calcinator	NA	1
Grace Convalescent Home	Wayne	MI	280	NA	NA	1
Grace Hospital Division	Wayne	MI	600	NA	NA	1
Harper Ave Animal Hospital	Wayne	MI	25	American 300-1F	NA	1
Hendry Convalescent Center	Wayne	MI	200	NA	NA	1
Holy Cross Hospital	Wayne	MI	350	NA	NA	1
Hutzel Hospital	Wayne	MI	400	Econo-Therm P-10-DP	NA	1
J Butler	Wayne	MI	25	Kenmore	NA	1
Kirkwood General Hospital	Wayne	MI	150	AFF Path PAH-50 INC	NA	1
Kirkwood General Hospital	Wayne	MI	280	AFF D-300 Built Inc	NA	1
Lafayette Clinic	Wayne	MI	75	Goder Pathological	NA	1
Lakeland Convalescent Center	Wayne	MI	125	NA	NA	1
Lakeshore Hospital	Wayne	MI	625	Radicator	NA	1
Lynn Hospital	Wayne	MI	150	Universal Inc UC300	NA	1
Madonna Nursing Home	Wayne	MI	225	NA	NA	1
Mary Crest Manor	Wayne	MI	75	American 400-1	NA	1
Metropolitan Hosital & Health Center	Wayne	MI	50	Path Incinerator	NA	1
Michigan Cancer Foundation	Wayne	MI	25	NA	NA	1
Milton Community Hospital	Wayne	MI	200	NA	NA	1
Mitchell Medical Clinic	Wayne	MI	15	1 Calcinator	NA	1

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Mount Carmel Mercy Hospital	Wayne	MI	75	NA	NA	1
New Center Hospital	Wayne	MI	275	NA	NA	1
New Det Nursing Home	Wayne	MI	75	NA	NA	1
New Light Nursing Home	Wayne	MI	275	Goder Model 23	NA	1
North Detroit General Hospital	Wayne	MI	25	Universal Pathologic	NA	1
Northwest Care Center	Wayne	MI	175	Wolverine 720	NA	1
Oakwood Hospital Corp	Wayne	MI	400	NA	NA	1
P Berdayes MD	Wayne	MI	30	NA	NA	1
Peoples Community Hospital	Wayne	MI	575	Trane Inc TC1A-330	NA	1
Pine Knoll Convalescent Home	Wayne	MI	200	NA	NA	1
Redford Community Hospital	Wayne	MI	290	NA	NA	1
Riverside Osteo Hospital	Wayne	MI	140	Pathological Incin	NA	1
Robert A Westphal DPM	Wayne	MI	25	NA	NA	1
Saratoga Community Hospital	Wayne	MI	625	Midland Ross Mark VI	NA	1
Sharpe WD MD	Wayne	MI	25	NA	NA	1
Sinai Hospital	Wayne	MI	750	Pathological Incinerator	NA	1
South West Detroit Hospital	Wayne	MI	150	Universal Pathologic	NA	1
St Anne Convalescent Home	Wayne	MI	150	American	NA	1
St Benedict Care Center Inc	Wayne	MI	155	NA	NA	1
St John Hospital	Wayne	MI	100	Pathological Incin	NA	1
St Mary Hospital	Wayne	MI	75	NA	NA	1
St Mary Hospital	Wayne	MI	75	Universal Pathologic	NA	1
United Care Inc	Wayne	MI	600	Radicator PX 1193-1	NA	1
University Convalescent Home	Wayne	MI	150	NA	NA	1
Van Buren Convalescent Center	Wayne	MI	225	NA	NA	1
Veterans Administration	Wayne	MI	2000	Controlled Air Inc	NA	1
WM Booth Memorial Hospital	Wayne	MI	150	NA	NA	1
Wayne Clinic	Wayne	MI	25	NA	NA	1
Wayne County General Hospital	Wayne	MI	200	Pathologic Inc	NA	1
William R Bazan & Daughter	Wayne	MI	25	Calcinator 10-GSX	NA	1
Wyandotte General Hospital	Wayne	MI	2000	NA	NA	1
Lakeview Manor Nursing Home	Wexford	MI	260	NA	NA	1
Mercy Hospital of Cadillac	Wexford	MI	250	Pathological Inc	NA	1
Arnold Mem Hosp & Nursing Home	Adrian	MN	50	Goder 2-P	NA	1
Aitkin Community Hospital	Aitkin	MN	50	Goder 90IN	NA	1
Albany Community Hospital	Albany	MN	50	Plibrico C-15 PKG	NA	1
Douglas County Hospital	Alexandria	MN	250	Comtro A-22	NA	1

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Appleton Mncpl Hospital	Appleton	MN	50	Joseph Goder	NA	1
St Olaf Hospital	Austin	MN	180	Goder	NA	1
Clearwater County Memorial Hospital	Bagley	MN	50	NA	NA	1
Trinity Hospital	Baudette	MN	192	Atlas VM-3250	NA	1
North County Hospital	Bemidji	MN	50	Atlas SP-50	NA	1
Swift County-Benson Hospital	Benson	MN	50	Sunbeam Comtro A-20	NA	1
Northern Itasca Hospital	Big Fork	MN	115	Plibrico C-15 PKG	NA	1
United Hospital District	Blue Earth	MN	50	Goder	NA	1
Brainerd Reg Hum Svs	Brainerd	MN	50	NA	NA	1
St Josephs Medical Center	Brainerd	MN	50	Goder 1500	NA	1
St Francis Medical Center	Breckenridge	MN	200	NA	NA	1
Health Central Buff	Buffalo	MN	150	Consumat C-32	NA	1
Caledonia Health Care Center	Caledonia	MN	100	Plibrico	NA	1
Cambridge Memorial Hospital	Cambridge	MN	50	Kelley	NA	1
Canby Community Hospital	Canby	MN	50	Atlas VM-48-IF	NA	1
Community Hospital	Cannon Falls	MN	95	VM-3250	NA	1
US Public Health Indian	Cass Lake	MN	125	Heston I 125	NA	1
Chisago Health Services	Chisago City	MN	50	Atlas PH-50	NA	1
Community Memorial Hospital	Cloquet	MN	200	Goder 100 S.S.N	NA	1
Riverview Hospital	Crookston	MN	50	Goder	NA	1
Cuyuna Range District Hospital	Crosby	MN	50	PH-25	NA	1
Johnson Memorial Hospital	Dawson	MN	60	Goder H193	NA	1
St Mary's Hospital	Detroit Lakes	MN	200	VM-3250-CA-PH	NA	1
Miller-Dwan Hospital	Duluth	MN	50	Goder 1500	NA	1
Fairview Southdale	Edina	MN	625	Econotherm CA-1000	NA	1
Grant County Hospital	Elbow Lake	MN	50	NA	NA	1
Fairmont Community Hospital	Fairmont	MN	50	FEI BPR-500-2SLF	NA	1
Rice County District 1 Hospital.	Faribault	MN	50	Shenandoah 171-ITC	NA	1
Sanford Hospital	Farmington	MN	50	Fire Engin. Inc RR-3	NA	1
LK Regional Home & Hospital	Fergus Falls	MN	100	Atlas PH - 3275	NA	1
Glencoe Municipal Hospital	Glencoe	MN	50	Plybrico (old)	NA	1
Glacial Ridge Hospital	Glenwood	MN	155	Comtro A-20	NA	1
Holy Trinity Hospital	Graceville	MN	50	NA	NA	1
Cook County North Shore Hospital	Grand Marais	MN	50	Atlas CFA-48	NA	1
Itasca Memorial Hospital	Grand Rapids	MN	250	Consumat C-75	NA	1
Granite Falls Hospital & Nursing Home	Granite Falls	MN	100	NA	NA	1
Greenbush Community Hospital	Greenbush	MN	50	NA	NA	1

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Kittson Memorial Hospital	Hallock	MN	50	Atlas EM 3250-IF	NA	1
Regina Memorial Hospital	Hastings	MN	180	I-180-ISN Econotherm	NA	1
Hendricks Community Hospital	Hendricks	MN	80	Atlas	NA	1
Central Mesabi Medical	Hibbing	MN	60	Consumat C-18-P	NA	1
Mesabi Regional	Hibbing	MN	200	NA	NA	1
Hutchinson Community Hospital	Hutchinson	MN	85	VM-48	NA	1
Intl Falls Memorial Hospital	Intl Falls	MN	192	Atlas 3250-PH	NA	1
Div Prov Hospital & Home	Ivanhoe	MN	50	Goder	NA	1
Lake City Hospital	Lake City	MN	50	Goder	NA	1
Oakwood Hospital (Veterinarian)	Lake Elmo	MN	150	O'Mac 150-P	NA	1
Oakwood Hospital (Veterinarian)	Lake Elmo	MN	50	Morse-Boulger	NA	1
Lakefield Municipal Hospital	Lakefield	MN	50	Goder	NA	1
Minn Valley Memorial Hospital & NH	Lesueur	MN	200	Burnzol MH-10	NA	1
Meeker County Hospital	Litchfield	MN	50	Goder H-500-32	NA	1
St Gabriels Hospital	Little Falls	MN	350	Atlas	NA	1
Littlefork Community Hospital	Littlefork	MN	50	3250	NA	1
Luverne Community Hospital	Luverne	MN	50	Goder	NA	1
Veterans Administration Hospital	MPLS	MN	100	Atlas CFA-60	NA	1
Madelia Community Hospital	Madelia	MN	100	Majestic CSO (GAS)	NA	1
Madison Hospital	Madison	MN	75	Menaulin 75lbs	NA	1
Mahnomen County & Villa	Mahnomen	MN	50	Goder	NA	1
Immanuel Hospital	Mankato	MN	75	Atlas PH-50	NA	1
Weiner Memorial Hospital	Marshall	MN	75	Consumat C-75-ML-120	NA	1
Melrose Hospital & Pine Villa	Melrose	MN	100	Comptro A-20	NA	1
Fairview Milaca Hospital	Milaca	MN	NA	NA	NA	1
Metropolitan Medical Center	Minneapolis	MN	1000	Kelley 1280-72	NA	1
Metropolitan Medical Center	Minneapolis	MN	438	Econotherm CA-500	NA	1
Chippewa Mont Hospital	Montevideo	MN	50	Atlas 480	NA	1
Mont-Big Lake Hospital	Monticello	MN	50	Atlas PH - 25	NA	1
Mercy Hospital & Nursing Home	Moose Lake	MN	200	Econotherm CA-200	NA	1
Kanabec Hospital	Mora	MN	50	Atlas 3250-PH	NA	1
Stevens Community Memorial Hospital	Morris	MN	50	Goder 901-N	NA	1
Shriners Hospital	Mpls	MN	400	Atlas CFA-48	NA	1
Queen of Peace Hospital	New Prague	MN	50	Plibrico 36	NA	1
Sioux Valley Hospital	New Ulm	MN	100	Plibrico	NA	1
Northfield City Hospital	Northfield	MN	50	Goder	NA	1
Community Mercy Hospital	Onamia	MN	50	Atlas PH-3250	NA	1

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Ortonville Hospital	Ortonville	MN	50	Morse-Boulger	NA	1
Park Prairie District Hospital	Parkers Prairie	MN	50	Fire Engineer Inc	NA	1
Paynesville Hospital	Paynesville	MN	50	Goder P-9	NA	1
Perham Memorial Hospital	Perham	MN	50	NA	NA	1
Pipestone County Medical Center	Pipestone	MN	50	Goder	NA	1
US Public Health Indain Hospital	Red Lake	MN	50	NA	NA	1
St John's Hospital	Red Wing	MN	225	Atlas 3275-PH	NA	1
Redwood Falls Hospital	Redwood Falls	MN	50	Goder 901-I	NA	1
Mayo Clinic	Rochester	MN	1000	Mourse Boulger	NA	1
Mayo Clinic	Rochester	MN	600	Env. Controls	NA	1
Mayo Clinic	Rochester	MN	2000	NA	VS	2
Roseau Area Hospital District	Roseau	MN	50	Goder	NA	1
Rush City Hospital	Rush City	MN	50	Econotherm F5	NA	1
Sandstone Area Hosp & Nursing Home	Sandstone	MN	50	NA	NA	1
St Francis Regional Medical Center	Shakopee	MN	180	Goder Econotherm 1-80	NA	1
Murray County Memorial Hospital	Slayton	MN	50	Adams 5-P	NA	1
Sleepy Eye Mnpl Hospital	Sleepy Eye	MN	50	Goder Single Comp.	NA	1
Community Memorial Hospital	Spring Valley	MN	100	PH-3275-IF	NA	1
St Cloud Hospital	St Cloud	MN	400	Atlas	NA	1
Methodist Hospital	St Louis Park	MN	500	CA 2000	NA	1
St Peter Community Hospital	St Peter	MN	200	Sunbeam Comtro	NA	1
United Hospital & HO	Staples	MN	75	IF-15E	NA	1
Minnewaska District Hospital	Starbuck	MN	100	Sunbeam Comtro	NA	1
Northwest Medical Center	Thief River Fal	MN	175	Atlas VM-96 CFA	NA	1
Tracy Municipal Hospital	Tracy	MN	50	Plibrico 3250	NA	1
Trimont Community Hospital	Trimont	MN	50	NA	NA	1
Lake View Memorial Hospital	Two Harbors	MN	50	Goder 901-IN	NA	1
A.L. Vadheim Hospital	Tyler	MN	50	Goder	NA	1
St Elizabeth Hospital	Wabasha	MN	100	Atlas VM-3275-PH	NA	1
Tri County Hospital	Wadena	MN	85	Consumat C-32P	NA	1
Warren Community Hospital	Warren	MN	50	Goder 903	NA	1
Waconia Ridgeview Hospital	Wasconia	MN	50	Incinomite H-500-03	NA	1
Wheaton Hospital	Wheaton	MN	50	Atlas PH-25	NA	1
Rice Memorial Hospital	Willmar	MN	250	Atlas CFA 66	NA	1
Windom Area Hospital	Windom	MN	50	NA	NA	1
Winonia Community Memorial Hospital	Winonia	MN	50	Goder 400IN	NA	1
Worthington Regional Hospital	Worthington	MN	50	NA	NA	1

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Zumbrota Community Hospital	Zumbrota	MN	50	Heston	NA	1
Columbia Reg. Hospital	Columbia	MO	300	Joy 300E	None	2
Ellis Fischell Cancer	Columbia	MO	150	Joy 150E	None	2
Hannibal Reg. Healthcare System	Hannibal	MO	300	Joy 300E	None	2
St. Luke's Hospital	Kansas City	MO	1500	Joy 1500T	None	2
City of Liberty Animal Shelter	Liberty	MO	NA	NA	None	1
A.C. Industries	Apache Flats	MO	NA	NA	None	1
Animal Care Services	Imperial	MO	NA	NA	None	1
Animal Care Services	Imperial	MO	NA	NA	None	1
Audrain Medical Center	Mexico	MO	NA	NA	None	1
Boehringer Ingelheim Animal Health	St. Joseph	MO	NA	Therm-Tec Path. Incin Model A-4-P	None	1
Boone County Hospital	Columbia	MO	NA	NA	None	1
Bothwell Regional Health Center	Sedalia	MO	NA	NA	None	1
Breech Medical Center	Lebanon	MO	NA	NA	None	1
Bunker Resources	NA	MO	NA	Infectious Waste Incinerator	None	1
Chaffee General Hospital	Chaffee	MO	NA	NA	None	1
Clinton Animal Shelter	Clinton	MO	NA	NA	None	1
Columbia Regional Hospital	NA	MO	NA	NA	None	1
Crysler Animal Hospital	Independence	MO	NA	NA	None	1
Doctor's Regional Medical Center	Poplar Bluff	MO	NA	NA	None	1
Dogwood Animal Shelter	Camdenton	MO	NA	NA	None	1
Ellis Fischel State Hospital	Columbia	MO	NA	Ecolaire Incinerator 150E	None	1
Fairfax Community Hospital	NA	MO	NA	NA	None	1
Farmington Community Hospital	Farmington	MO	NA	NA	None	1
Fitzgibbon Memorial Hospital	Marshall	MO	NA	NA	None	1
Freeman Hospital	Joplin	MO	NA	NA	None	1
Freeman Hospital	Joplin	MO	NA	NA	None	1
Friends of the Family Pet Cemetary	Springfield	MO	NA	NA	None	1
Friends of the Family Pet Cemetary	Springfield	MO	NA	NA	None	1
Gentry County Memorial Hospital	Gentryville	MO	NA	NA	None	1
Gentry County Memorial Hospital	Gentryville	MO	NA	NA	None	1
Gladstone Animal Shelter	Gladstone	MO	NA	NA	None	1
Gray Summit Research Farm	Gray Summit	MO	NA	NA	None	1
Hannibal Regional Healthcare System	Hannibal	MO	NA	NA	None	1
Harrisonville Animal Control	Harrisonville	MO	NA	NA	None	1
Harry S Truman Memorial Vet Hosp	Columbia	MO	NA	NA	None	1
Hillcrest Animal Hospital	Poplar Bluff	MO	NA	NA	None	1

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Iberia Veterinary Clinic	Iberia	MO	NA	NA	None	1
Independence Regional Health Center	Independence	MO	NA	NA	None	1
Industrial Services Corp	Kansas City	MO	NA	NA	None	1
Kelling Hospital	NA	MO	NA	NA	None	1
Kirksville Osteopathic Hospital	Kirksville	MO	NA	NA	None	1
Lake of the Ozarks General Hospital	Pilot Grove	MO	NA	NA	None	1
Lincoln University	Apache Flats	MO	NA	NA	None	1
Little Creek Farm	NA	MO	NA	NA	None	1
Lucy Lee Hospital	Poplar Bluff	MO	NA	NA	None	1
McCune-Brooks Hospital	Carthage	MO	NA	NA	None	1
Medical Center of Independence	Independence	MO	NA	Therm-Tec G-12	None	1
Memorial Community Hospital	Apache Flats	MO	NA	NA	None	1
Memorial Services of Columbia Inc	Columbia	MO	NA	NA	None	1
Memory Park Pet Cemetary	High Ridge	MO	NA	NA	None	1
Merry Lea Animal Clinic	Randol	MO	NA	NA	None	1
Mid-Eastern Environmental Services, Inc	St. Louis	MO	NA	two 3500 #/hr Consumat	None	1
Mineral Area Osteopathic Hospital	Farmington	MO	NA	NA	None	1
Missouri Baptist Hospital	Wentzville	MO	NA	NA	None	1
Moberly Regional Medical Center	Moberly	MO	NA	NA	None	1
Noll Memorial Hospital	Jefferson	MO	NA	NA	None	1
Oak Hill Hospital	Joplin	MO	NA	NA	None	1
Ozark Memorial Park, Inc	NA	MO	NA	NA	None	1
Ozark's Medical Center	Hebron	MO	NA	NA	None	1
Parker Funeral Service	Columbia	MO	NA	NA	None	1
Phelps County Regional Hospital	Rolla	MO	NA	NA	None	1
Pike County Hospital	NA	MO	NA	NA	None	1
Poodles Beautiful	NA	MO	NA	NA	None	1
Professional Mortuary Services	Arnold	MO	NA	NA	None	1
Pulaski County Hospital	Waynesville	MO	NA	NA	None	1
Rolling Acres Memorial Gardens	Kansas City	MO	NA	NA	None	1
Rolling Acres Memorial Gardens	Kansas City	MO	NA	NA	None	1
Safe-Tech Management, Inc	Moberly	MO	NA	Hazardous Waste Incinerator	None	1
Salem Memorial Hospital	Salem	MO	NA	NA	None	1
Sho-Me Kennels	NA	MO	NA	NA	None	1
Skaggs Community Hospital	NA	MO	NA	NA	None	1
Skaggs Community Hospital	NA	MO	NA	NA	None	1
St Francis Hospital	Turnerville	MO	NA	CIL Atlas CFA-3250	None	1

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
St Francis Medical Center	Cape Girardeau	MO	NA	NA	None	1
St Genevieve Hospital	St. Genevieve	MO	NA	NA	None	1
St John's Health Center	Springfield	MO	NA	NA	None	1
St John's Mercy Hospital	Sullivan	MO	NA	NA	None	1
St John's Regional Medical Center	NA	MO	NA	NA	None	1
St Joseph Hospital West	Lake St. Louis	MO	NA	NA	None	1
St Joseph State Hospital	St. Joseph	MO	NA	NA	None	1
St Mary's Hospital	Kansas City	MO	NA	NA	None	1
St Mary's Hospital	Kansas City	MO	NA	NA	None	1
St Peters Community Hospital	St. Peters	MO	NA	NA	None	1
Sullivan Community Hospital	Sullivan	MO	NA	NA	None	1
Sweet Springs Hospital	Sweet Springs	MO	NA	NA	None	1
Texas County Hospital	Houston	MO	NA	NA	None	1
Twin Rivers Regional Hospital	NA	MO	NA	NA	None	1
Twin Rivers Regional Hospital	NA	MO	NA	dual chamber, controlled air incin	None	1
University of Missouri	Columbia	MO	NA	starved air 200PPH	None	1
Warsaw Veterinary Clinic	Warsaw	MO	NA	NA	None	1
Wayside Waifs, Inc	Washington	MO	NA	NA	None	1
Willow Care Nursing Home	Willow Springs	MO	NA	NA	None	1
Windsor Hospital	Windsor	MO	NA	NA	None	1
City of St. Joseph Animal Control	St Joseph	MO	NA	Shenandoah model P25-2GN	None	1
Incarnate Work Hospital	St. Louis	MO	1100	Joy 1100E	None	2
St. Louis Univ. Hospital	St. Louis	MO	2500	Joy 2500T	None	2
V.A. Hospital-Cochran	St. Louis	MO	480	Joy 480E	None	2
Deaconess Hospital	St.Louis	MO	800	Joy 800E	None	2
V.A. Medical Center	Biloxi	MS	480	Joy 480E	None	2
River Oak Hospital	Flowood	MS	150	Joy 150E	None	2
Forrest General Hosptial	Hattiesburg	MS	970 lb/batch	Simonds 2151B	None	2
V.A. Medical Center	Jackson	MS	300	Joy 300E	None	2
Gulf County Hospital	Lucedale	MS	50	Joy 50E	None	2
Lumberton Citizens Hospital	Lumberton	MS	160 lb/batch	Simonds Pyromizer	None	2
Union City Generla Hospital	New Albany	MS	160 lb/batch	Simonds Pyromizer	None	2
Baptist Hospital	South Haven	MS	340 lb/batch	Simonds 751B	None	2
Roche Biomedical	Burlington	NC	300	Joy 300E	None	2
American Red Cross	Charlotte	NC	300	Joy 300E	None	2
Bio Environmental Services	Charlotte	NC	2500	NA	VS/PB	2
Bio-Ecological Services	Charlotte	NC	1000	Joy 1000T	None	2

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Bio-Ecological Services	Charlotte	NC	2500	Joy 2500T	None	2
Bio-Ecological Services	Charlotte	NC	NA	Joy NA	None	2
Mercy Hospital	Charlotte	NC	150	Joy 150E	None	2
Mercy Hospital	Charlotte	NC	780	Joy 780E	None	2
Orthopaedic Hospital	Charlotte	NC	340 lb/batch	Simonds 751B	None	2
Presbyterian Hospital	Charlotte	NC	300	Joy 300E	None	2
WMI Medical Waste Services-North Carolina	Charlotte	NC	NA	Joy NA	None	2
Cherokee Indian Health Service	Cherokee	NC	150	Joy 150E	None	2
Cherokee Indian Health Service	Cherokee	NC	150	Joy 150E	None	2
Marine Corps. Air Station	Cherry Point	NC	100	Consumat C32P	None	2
Cabarrus Memorial Hospital	Concord	NC	480	Joy 480E	None	2
NW Animal Disease Diagnostic Lab	Elkin	NC	500	Joy 500TL	None	2
Cape Fear Valley Medical Center	Fayetteville	NC	300	Joy 300E	None	2
V.A. Medical Center	Fayetteville	NC	300	Joy 300E	None	2
Angel Community Hospital	Franklin	NC	100	Joy 100E	None	2
Thermal Reduction Systems Inc	Graham	NC	NA	NA	NA	1
Wesley Long Hospital	Greensboro	NC	480	Joy 480E	None	2
East Carolina University	Greenville	NC	480	Joy 480E	None	2
Pitt County Memorial Hospital	Greenville	NC	650	Joy 650E	None	2
WMI Medical Waste Services of NC Inc	Huntersville	NC	NA	NA	NA	1
Onslow Memorial Hospital	Jacksonville	NC	300	Joy 300E	None	2
Lenoir Memorial Hospital	Kinston	NC	480	Joy 480E	None	2
Northwest Dialysis	Lenoir	NC	150	Joy 150E	None	2
Lexington Memorial Hospital	Lexington	NC	500 lb/batch	Simonds 1121B	None	2
Lincoln County Hospital	Lincolnton	NC	100	Joy 100E	None	2
Franklin Memorial Hospital	Louisberg	NC	50	Joy 50E	None	2
McDowell County Hospital	Marion	NC	160 lb/batch	Simonds Pyromizer	None	2
Bio-Medical Services Inc	Matthews	NC	NA	NA	NA	1
Griffin Animal Dis. Diagnostic Lab	Monroe	NC	300	Joy 300E	None	2
Grace Hospital	Morganton	NC	340 lb/batch	Simonds 751B	None	2
Broughton Hospital	Morgantown	NC	100	Joy 100E	None	2
Craven County Hospital	New Bern	NC	340 lb/batch	Simonds 750B	None	2
Craven County Hospital	New Bern	NC	650	Joy 650ES	None	2
Moore Memorial	Pinehurst	NC	150	Joy 150E	None	2
Mercy Satellite Hospital	Pineville	NC	300	Joy 300E	None	2
Raleigh Community Hospital	Raleigh	NC	340 lb/batch	Simonds 750B	None	2

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Table A-1. Partial Listing of U.S. Medical Waste Incinerators

Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Rex Hospital	Raleigh	NC	500 lb/batch	Simonds 1121B	None	2
Rollins Animal Diagnostic Lab	Raleigh	NC	750	Joy 750T	None	2
Animal Disease Diag. Lab	Rose Hill	NC	300	Joy 300E	None	2
Rowan Memorial Hospital	Salisbury	NC	150	Joy 150E	None	2
David Hospital	Statesville	NC	340 lb/batch	Simonds 751B	None	2
Iredell Memorial Hospital	Statesville	NC	480	Joy 480E	None	2
Beaufort County Hospital	Washington	NC	500 lb/batch	Simonds 1121B	None	2
Cape Fear Memorial Hospital	Wilmington	NC	480	Joy 480E	None	2
Bowman Gray School of Medicine	Winston-Salem	NC	500	Joy 500T	None	2
Forsyth County Animal Control	Winston-Salem	NC	300	Joy 300E	None	2
Forsyth County Animal Control	Winston-Salem	NC	300	Joy 300E	None	2
Arthur Good Samaritan Center	Arthur	ND	NA	NA	NA	1
Ashley Medical Center	Ashley	ND	NA	NA	NA	1
McIntosh County Memorial Hospital	Ashley	ND	NA	NA	NA	1
Public Health Service - Indian Hospital	Belcourt	ND	12.5	NA	NA	1
Baptist Home	Bismarck	ND	NA	NA	NA	1
Medcenter One	Bismarck	ND	435	NA	NA	1
Medcenter One, Inc	Bismarck	ND	NA	NA	NA	1
Missouri Slope Lutheran Care Center	Bismarck	ND	NA	NA	NA	1
St Alexius Medical Center	Bismarck	ND	250	NA	NA	1
St Vincent's Nursing Home	Bismarck	ND	NA	NA	NA	1
St Andrew's Hospital	Bottineau	ND	NA	NA	NA	1
St Luke's Tri State Hospital	Bowman	ND	12.5	NA	NA	1
Rest Haven Manor	Cando	ND	NA	NA	NA	1
Towner County Memorial Hospital	Cando	ND	NA	NA	NA	1
Carrington Health Center	Carrington	ND	NA	NA	NA	1
Carrington Manor	Carrington	ND	6	NA	NA	1
Pembina County Memorial Hospital	Cavalier	ND	NA	NA	NA	1
Griggs Cty Hosp & Nursing Home Assn	Cooperstown	ND	20	NA	NA	1
Lake Region Lutheran Home, Inc	Devils Lake	ND	12	NA	NA	1
Mercy Hospital	Devils Lake	ND	200	NA	NA	1
Dickinson Nursing Home	Dickinson	ND	10	NA	NA	1
St Joseph's Hospital	Dickinson	ND	350	NA	NA	1
St Luke's Home	Dickinson	ND	NA	NA	NA	1
Dunseith Community Nursing Home	Dunseith	ND	NA	NA	NA	1
Jacobson Memorial Hospital Care Center	Elgin	ND	NA	NA	NA	1
Ellendale Hospital	Ellendale	ND	10	NA	NA	1

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Table A-1. Partial Listing of U.S. Medical Waste Incinerators

Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Dakota Hospital	Fargo	ND	NA	NA	NA	1
Elim Nursing Home	Fargo	ND	NA	NA	NA	1
Health Care Incinerators	Fargo	ND	1080	NA	DSI/FF	1
ND State University	Fargo	ND	800	NA	NA	1
Riverside Cemetary Association	Fargo	ND	NA	NA	NA	1
St John's Hospital	Fargo	ND	17	NA	NA	1
St Luke's Hospital	Fargo	ND	75	NA	NA	1
USDA Metabolism & Research Center	Fargo	ND	NA	NA	NA	1
US Public Health Service Hospital	Fort Yates	ND	12.5	NA	NA	1
Garrison Memorial Hospital	Garrison	ND	NA	NA	NA	1
Marion Manor Nursing Home	Glen Ullin	ND	10	NA	NA	1
Lutheran Sunset Home	Grafton	ND	15	NA	NA	1
Lutheran Sunset Home	Grafton	ND	NA	NA	NA	1
Unity Hospital	Grafton	ND	18	NA	NA	1
Unity Hospital	Grafton	ND	NA	NA	NA	1
Forks Veterinary Clinic	Grand Forks	ND	100	NA	NA	1
Human Nutrition Research Center, USDA	Grand Forks	ND	5	NA	NA	1
Humane Society	Grand Forks	ND	50	NA	NA	1
The United Hospital	Grand Forks	ND	170	NA	NA	1
University of North Dakota	Grand Forks	ND	125	NA	NA	1
University of North Dakota	Grand Forks	ND	96	NA	NA	1
St Gerard's Comm Hosp & Nursing Home	Hankinson	ND	NA	NA	NA	1
St Aloisius Hospital	Harvey	ND	30	NA	NA	1
Sakakawea Medical Center	Hazen	ND	NA	NA	NA	1
Community Memorial Hospital	Hettinger	ND	NA	NA	NA	1
Community Hospital/Home Association	Hillsboro	ND	NA	NA	NA	1
Central Dakota Nursing Home	Jamestown	ND	NA	NA	NA	1
Hi-Acres Manor Nursing Home	Jamestown	ND	195	NA	NA	1
Jamestown Hospital	Jamestown	ND	NA	NA	NA	1
N. Prairie Wildlife Res Ctr	Jamestown	ND	50	NA	NA	1
State Hospital	Jamestown	ND	50	NA	NA	1
LaMoure Healthcare Manor	LaMoure	ND	NA	NA	NA	1
Cavalier County Memorial Hospital	Langdon	ND	NA	NA	NA	1
Linton Hospital	Linton	ND	100	NA	NA	1
Lisbon Community Memorial Hospital	Lisbon	ND	30	NA	NA	1
Mandan Hospital	Mandan	ND	11.5	NA	NA	1
Union Hospital	Mayville	ND	NA	NA	NA	1

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Table A-1. Partial Listing of U.S. Medical Waste Incinerators

Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Community Hospital in Nelson County	McVille	ND	10	NA	NA	1
Friendship Healthcare Center	McVille	ND	NA	NA	NA	1
Souris Valley Humane Society, Inc	Minot	ND	NA	NA	NA	1
St Joseph's Hospital	Minot	ND	46	NA	NA	1
Trinity Medical Center	Minot	ND	60	NA	NA	1
Renville-Bottineau Memorial Hospital	Mohall	ND	NA	NA	NA	1
Lutheran Home of the Good Shepard, Inc	New Rockford	ND	100	NA	NA	1
Northwood Deaconess Hospital & Home	Northwood	ND	NA	NA	NA	1
Oakes Community Hospital	Oakes	ND	NA	NA	NA	1
Oanabrock Good Samaritan Center	Oanabrock	ND	NA	NA	NA	1
Rock View Good Samaritan Center	Parshall	ND	NA	NA	NA	1
Richardton Community Hospital	Richardton	ND	25	NA	NA	1
Richardton Health Center	Richardton	ND	NA	NA	NA	1
Rolette Community Hospital	Rolette	ND	NA	NA	NA	1
Presentation Medical Center	Rolla	ND	NA	NA	NA	1
Rolla Community Hospital	Rolla	ND	NA	NA	NA	1
Good Samaritan Hospital Assn.	Rugby	ND	50	NA	NA	1
Stanley Community Hospital	Stanley	ND	100	NA	NA	1
Strasburg Nursing Home	Strasburg	ND	NA	NA	NA	1
Tioga Medical Center	Tioga	ND	50	NA	NA	1
Community Memorial Hospital	Turtle Lake	ND	NA	NA	NA	1
City-County Health Department	Valley City	ND	NA	NA	NA	1
Mercy Hospital	Valley City	ND	100	NA	NA	1
Sheyenne Care Center	Valley City	ND	NA	NA	NA	1
Wahpeton Health Care Center	Wahpeton	ND	100	NA	NA	1
McKenzie County Memorial Hospital	Watford City	ND	150	NA	NA	1
Westhope Home	Westhope	ND	NA	NA	NA	1
Bethel Lutheran Home	Williston	ND	3	NA	NA	1
Mercy Hospital	Williston	ND	475	NA	NA	1
Wishek Community Hospital	Wishek	ND	10	NA	NA	1
Wishek Home for the Aged	Wishek	ND	10	NA	NA	1
Androscoggin Valley Hospital	Berlin	NH	NA	NA	NA	1
Coos County Nursing Home	Berlin	NH	NA	NA	NA	1
Merrimack County Nursing Home	Boscawen	NH	NA	NA	NA	1
Rockingham County Nursing Home	Brentwood	NH	NA	NA	NA	1
Sullivan County Nursing Home	Claremont	NH	NA	NA	NA	1
Valley Regional Hospital	Claremont	NH	NA	NA	NA	1

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Table A-1. Partial Listing of U.S. Medical Waste Incinerators

Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Upper Connecticut River Valley Hospital	Colebrook	NH	NA	NA	NA	1
Concord Hospital	Concord	NH	100	Simonds 104	None	1,2
New Hampshire	Concord	NH	NA	NA	NA	1
Public Health Facility	Concord	NH	NA	NA	NA	1
Parkland Medical Center	Derry	NH	340 lb/batch	Simonds 750B	None	1,2
Wentworth-Douglas Hospital	Dover	NH	NA	NA	NA	1
Exeter Hospital	Exeter	NH	NA	NA	NA	1
Franklin Regional Hospital	Franklin	NH	NA	NA	NA	1
Hillsboro County Nursing Home	Goffstown	NH	NA	NA	NA	1
Dartmouth Medical School	Hanover	NH	NA	NA	NA	1
Mary Hitchcock Memorial Hospital	Hanover	NH	500	Joy 500T	None	1,2
Waste Management Medical Services	Hudson	NH	NA	NA	NA	1
Cheshire Medical Center	Keene	NH	NA	NA	NA	1
Lakes Region Hospital	Laconia	NH	NA	NA	NA	1
Weeks Memorial Hospital	Lancaster	NH	NA	NA	NA	1
Alice Peck Day Hospital	Lebanon	NH	NA	NA	NA	1
Mary Hitchcock Memorial Hospital	Lebanon	NH	NA	NA	NA	1
Littleton Hospital	Littleton	NH	NA	NA	NA	1
Catholic Medical Center	Manchester	NH	NA	NA	NA	1
Elliot Hospital Medical Center	Manchester	NH	NA	NA	NA	1
Veteran Affairs Medical Center	Manchester	NH	NA	NA	NA	1
St Joseph's Hospital	Nashua	NH	NA	NA	NA	1
New London Hospital	New London	NH	NA	NA	NA	1
Memorial Hospital	North Conway	NH	NA	NA	NA	1
Monadnock Community Hospital	Peterborough	NH	NA	NA	NA	1
Speare Memorial Hospital	Plymouth	NH	NA	NA	NA	1
Portsmouth Regional Hospital	Portsmouth	NH	500 lb/batch	Simonds 1121B	None	1,2
US Air Force Hospital	Portsmouth	NH	NA	NA	NA	1
Frisbee Memorial Hospital	Rochester	NH	NA	NA	NA	1
Hubbard Farms	Walpole	NH	100	Consumat C32P-LH	None	1,2
Cottage Hospital	Woodsville	NH	NA	NA	NA	1
Clara Maass Hospital	Belleville	NJ	800-880	Simonds #4 AF	None	1,2
Schering Corporation	Bloomfield	NJ	290	NA	NA	1
St Clares-Riverside Medical Center	Boonton	NJ	100	NA	NA	1
Rollins Environmental Services	Bridgeport	NJ	7000	NA	NA	1
Our Lady of Lourdes Medical Center	Camden	NJ	800	NA	NA	1
West Jersey Hospital	Camden	NJ	650	NA	NA	1

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Table A-1. Partial Listing of U.S. Medical Waste Incinerators

Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Columbus Central Veterinary Hospital	Columbus	NJ	150	NA	NA	1
Dover General Hospital	Dover	NJ	1000	NA	NA	1
East Orange General Hospital	East Orange	NJ	270	NA	NA	1
Elizabeth General Med Center - West	Elizabeth	NJ	700	NA	NA	1
Englewood Hosital	Englewood	NJ	50	NA	NA	1
Hunterdon Medical Center	Flemington	NJ	300	NA	NA	1
US Army Training Center & Fort Dix	Fort Dix	NJ	1666	NA	NA	1
US Army, Patterson Army Comm. Hospital	Fort Monmouth	NJ	57	NA	NA	1
Hackensack Medical Center	Hackensack	NJ	295	NA	NA	1
Hamilton Hospital	Hamilton	NJ	500	NA	NA	1
William B. Kessler Memorial Hospital	Hammonton	NJ	225	NA	NA	1
Presbyterian Home at Meadow Lakes	Hightstown	NJ	300	NA	NA	1
St Mary's Hospital	Hoboken	NJ	85	NA	NA	1
Irvington General Hospital	Irvington	NJ	100	NA	NA	1
St. Francis Hospital	Jersey City	NJ	300	Simonds #1 AF	None	1,2
West Hudson Hospital	Kearny	NJ	25	NA	NA	1
Monmouth Medical Center	Long Branch	NJ	850	NA	NA	1
Middlesex General Hospital	Middlesex	NJ	1100	Joy 1100E	None	2
R.W. Johnson University Hospital	Middlesex	NJ	1100	Joy 1100E	None	2
Morris View Nursing Home	Morris Plains	NJ	200	NA	NA	1
Morristown Memorial Hospital	Morristown	NJ	500	NA	NA	1
Memorial Hospital of Burlington City	Mt Holly	NJ	700	NA	NA	1
Burlington County Animal	Mt. Holly	NJ	300	Joy 300E	None	2
Jersey Shore Medical Center	Neptune	NJ	100	NA	NA	1
St Peter's Medical Center	New Brunswick	NJ	500	NA	NA	1
Columbus Hospital	Newark	NJ	435	NA	NA	1
Newark Beth Isreal Hospital	Newark	NJ	1000	NA	NA	1
St Michael's Medical Center	Newark	NJ	250	NA	NA	1
Newton Memorial Hospital	Newton	NJ	43	NA	NA	1
Hoffman - La Roche Inc	Nutley	NJ	1500	NA	NA	1
The Hospital Center at Orange	Orange	NJ	560	NA	NA	1
Bergen County Medical Examiner	Paramus	NJ	20	NA	NA	1
Bergen Pines County Hospital	Paramus	NJ	1200	NA	NA	1
Beth Isreal Hospital	Passaic	NJ	100	NA	NA	1
St Mary's Hospital	Passaic	NJ	60	NA	NA	1
Raritan Bay Medical Center	Perth Amboy	NJ	1100	Joy 1100E	None	1,2
Muhlenberg Regional Medical Center	Plainfield	NJ	50	NA	NA	1

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Medical Center of Ocean County	Point Pleasant	NJ	85	NA	NA	1
Atlantic City Medical Center	Pomona	NJ	285-300	Joy 300E	None	1,2
Chilton Memorial Hospital	Pompton Plains	NJ	50	NA	NA	1
Chilton Memorial Hospital	Pompton Plains	NJ	600	NA	NA	1
American Cyanamid	Princeton	NJ	250	NA	NA	1
E. R. Squibb & Co. (Type IV Waste)	Princeton	NJ	50	Simonds 54	None	2
Medical Center at Princeton	Princeton	NJ	100	NA	NA	1
Squibb E R & Sons, Tech Operations	Princeton	NJ	NA	NA	NA	1
Wyeth-Ayerst Research	Princeton	NJ	200	NA	NA	1
Merck & Co, Inc	Rahway	NJ	2700	NA	NA	1
Rahway Hospital	Rahway	NJ	500	NA	NA	1
Ortho Diagnostic Systems, Inc	Raritan	NJ	800	NA	NA	1
Ortho Pharmaceutical Corporation	Raritan	NJ	600	NA	NA	1
Valley Hospital	Ridgewood	NJ	300	NA	NA	1
Riverview Hospital	River Bank	NJ	1000	Joy 1000TE	None	2
Zurbrugg Memorial Hospital	Riverside	NJ	150	NA	NA	1
Memorial Hospital of Salem County	Salem	NJ	300	NA	NA	1
Johnson & Johnson Consumer Res Center	Skillman	NJ	500	NA	NA	1
Shore Memorial Hospital	Somers Point	NJ	650	NA	NA	1
Branchburg Farm, Merk Co. Ind	Somerville	NJ	500	NA	NA	1
Overlook Hospital	Summit	NJ	880-1000	Simonds #4 AF	None	1,2
Holy Name Hospital	Teaneck	NJ	NA	NA	NA	1
Helene Fuld Medical Center	Trenton	NJ	800	Joy 800E	None	1,2
Mercer Medical Center	Trenton	NJ	NA	NA	NA	1
St. Francis Hospital	Trenton	NJ	730-750	Simonds #3 AF	None	1,2
Schering Corporation	Union	NJ	100	NA	NA	1
Pascack Valley Hospital	Westwood	NJ	500	NA	NA	1
Hoffman - La Roche Research Farm	Wrightstown	NJ	300	NA	NA	1
Gerald Champion Memorial Hospital	Alamogordo	NM	100	Sergeant SL 150 NA	NA	1
Valencia Pres. Health Clinic	Belen	NM	100	Simonds B-75	NA	1
Guadalupe Medical Center	Carlsbad	NM	340 lb/batch	Simonds 750B	None	1,2
Sunset Gardens	Carlsbad	NM	350	NA	None	1
Union County General Hospital	Clayton	NM	60 lb/batch	Consumat C18P Dual Chamber	NA	1
Presbyterian Cuba Health Center	Cuba	NM	60-95	Consumat C-18/Houston,TX	NA	1
Mimbres Memorial Hospital	Deming	NM	NA	Joseph Gooder	None	1
Espanola Hospital	Espanola	NM	NA	Incinerator Out Of Service	None	1
Fur, Fin and Feather	Farmington	NM	75	Path waste/shorline dual chamber	NA	1

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Lee Hall Mortuary	Farmington	NM	2100	All Crematory Corp.	NA	1,2
San Juan Medical Center	Farmington	NM	290	Consumat C120P	NA	1
General Hospital	Fort Sumner	NM	25	Vulcanor P-1, McNaulin	NA	1
Rehoboth McKinley Christian Hospital	Gallup	NM	NA	NA	NA	1
Cibola General Hospital	Grants	NM	30-60	Shenandoah P9 26N	NA	1
Lea Regional Hospital	Hobbs	NM	100	Mid - Continents (1974)	NA	1
Primate Research Institute	Holloman AFB	NM	530	Shenandoah NA	None	2
NMSU Primate Quarantine	Holloman Air Force Base	NM	150 lb/batch	Shenandoah	NA	1
NMSU Primate Research	Holloman Air Force Base	NM	60-100 lb/batch	Shenandoah	NA	1
Memorial General Center	Las Cruces	NM	NA	NA	NA	1
Las Vegas Medical Center	Las Vegas	NM	175	Cónsumat C75P type 4 (8yrs old)	NA	1
Los Alamos Medical Center	Los Alamos	NM	100-180	Environmental Enterprises, Inc.	NA	1
Lea Regional Hospital	Lovington	NM	NA	NA	NA	1
Holloman Air Force Base	NA	NM	NA	NA	None	1
Roosevelt General Hospital	Portales	NM	60	Shenandoah	NA	1
Miners Colfax Hospital	Raton	NM	30 to 60	Shenandoah P92GM	NA	1
Vista Verde Memorial Hospital	Rio Rancho	NM	2100	All Crematory Corp. Retort	None	1,2
Eastern New Mexico Medical Center	Roswell	NM	NA	Joseph Coder 69 in	None	1
Southern New Mexico Rehab. Center	Roswell	NM	NA	NA	NA	1
Lincoln County Medical Center	Ruidoso	NM	100	McMaulin/Vulcanor Model F10	NA	1
McGee Memorial Chapel	Santa Fe	NM	NA	NA	None	1
Santa Fe Animal Shelter	Santa Fe	NM	450-730	Shanandoah SHW2	None	1,2
St. Vincents Hosppital	Santa Fe	NM	360	Consumat C75	NA	1
Gila Regional Medical Center	Silver City	NM	50	Consumat Dual Chamber, Model C-1-8P	NA	1
Socorro General Hospital	Socorro	NM	NA	NA	None	1
Colfax General Hospital	Springer	NM	20 lb/batch	Old Boiler	None	1
N/A	Sunland Park	NM	60 lb/batch	Jox Ecolaire TE	None	1
Sierra Vista Hospital	*T or C*	NM	40	Thermal reduction TR-7-P	NA	1
Holy Cross Hospital	Taos	NM	NA	NA	None	1
Dan Trigg Hospital	Tucumcari	NM	35 lb/batch	Kellogg - Mann	NA	1
Zuni Hospital Indian Hospital	Zuni	NM	150-200 lb/batch	PZ200 Nat'l Incinerator, Inc.	NA	1
Humana Hospital-Sunrise	Las Vegas	NV	970 lb/batch	Simonds 2151B	None	2
Albany Medical Center	Albany	NY	NA	NA	VS/PB	2
South Oaks Hospital	Amityville	NY	480	Joy 480E	None	2
NA	Brookdale	NY	NA	International Waste Ind.	VS	2

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
USDA/Plum Island, Animal Disease	Greenport	NY	200	Joy 200T	None	2
USDA/Plum Island, Animal Disease	Greenport	NY	2000	Joy 2000T	None	2
C.S. Wilson Hospital	Johnson City	NY	1000	Joy 1000T	None	2
NAC	Long Island	NY	NA	International Waste Ind.	VS	2
NA	New York	NY	NA	International Waste Ind.	VS	2
Newark-Wayne Community Hospital	Newark	NY	480	Joy 480E	None	2
Brookhaven Memorial Hospital	Patchogue	NY	730	Simonds #3 AF	None	2
Smith-Kline	Plattsburg	NY	NA	International Waste	VS/PB	2
St. Charles Hospital	Port Jefferson	NY	100	Joy 100E	None	2
Genessee Hospital	Rochester	NY	480	Joy 480E	None	2
Rochester General Hospital	Rochester	NY	1500	Joy 1500T	None	2
St. Mary's Hospital	Rochester	NY	NA	Joy	None	2
St. Luke's Memorial Hospital	Utica	NY	NA	NA	VS/PB	2
Medical Energy Generation Assoc.	West Babylon	NY	2000	NA	DSI/FF	2
Medical Energy Generation Assoc.	West Babylon	NY	2000	NA	DSI/FF	2
Adams County Hospital	Adams	OH	217	NA	None	1
St. Thomas Hospital	Akron	OH	1620 lb/batch	Simonds 3600B	None	2
Lima Memorial Hospital	Allen	OH	200	NA	None	1
Springborn Laboratories, Inc.	Allen	OH	175	NA	None	1
St Rita's Medical Center	Allen	OH	360	NA	None	1
Kettering Hospital	Ashland	OH	360	NA	None	1
Ashtabula County Memorial Hospital	Ashtabula	OH	100	NA	None	1
Brown Memorial Hospital	Ashtabula	OH	375	NA	None	1
Joint Twnsp District Hospital	Auglaize	OH	120	NA	None	1
Barnesville Hospital	Belmont	OH	50	NA	None	1
Bellaire City Hospital	Belmont	OH	50	NA	None	1
Brown County General Hospital	Brown	OH	195	NA	None	1
BFI Medical Waste Systems Inc.	Butler	OH	1350	NA	NA	1
Mercy Hospital North	Butler	OH	125	NA	None	1
Mercy Memorial Hospital	Champaign	OH	150	NA	None	1
V.A. Hospital	Chillicothe	OH	1500	Joy 1500T	None	2
BFI Medical Waste Systems	Cincinnati	OH	1350	Simonds AF-5C	Scrubber	2
Good Samaritan Hospital	Cincinnati	OH	480	Joy 480E	None	2
Clinton Memorial Hospital	Clinton	OH	115	NA	None	1
East Liverpool City Hospital	Columbiana	OH	100	NA	None	1
Salem Community Hospital	Columbiana	OH	225	NA	None	1
Coshocton Memorial Hospital	Coshocton	OH	50	NA	None	1

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Table A-1. Partial Listing of U.S. Medical Waste Incinerators

Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Bucyrus Community Hospital	Crawford	OH	150	NA	None	1
Galion Community Hospital	Crawford	OH	85	NA	None	1
Brentwood Hospital	Cuyahoga	OH	400	NA	None	1
Cleveland Clinic	Cuyahoga	OH	650	NA	None	1
Euclid General Hospital	Cuyahoga	OH	165	NA	None	1
Grace Hospital	Cuyahoga	OH	250	NA	None	1
Marymount Hospital	Cuyahoga	OH	300	NA	NA	1
Mt. Sinai Medical Center	Cuyahoga	OH	575	NA	None	1
Parma Community General Hospital	Cuyahoga	OH	533	NA	None	1
Southwest General Hospital	Cuyahoga	OH	530	NA	None	1
St Alexis Hospital	Cuyahoga	OH	250	NA	None	1
St Luke's Hospital	Cuyahoga	OH	1200	NA	None	1
St Luke's Hospital	Cuyahoga	OH	85	NA	None	1
St Vincent Charity Hospital	Cuyahoga	OH	500	NA	None	1
Suburban Community Hospital	Cuyahoga	OH	200	NA	None	1
Thermal-Tron Inc.	Cuyahoga	OH	500	NA	NA	1
Thermal-Tron Inc.	Cuyahoga	OH	500	NA	NA	1
Thermal-Tron Inc.	Cuyahoga	OH	500	NA	NA	1
V.A. Hospital	Dayton	OH	300	Joy 300T	None	2
Roche Biomedical Labs	Dublin	OH	300	Joy 300E	None	2
Providence Hospital	Erie	OH	510	NA	None	1
Providence Hospital	Erie	OH	550	NA	None	1
Lancaster-Fairfield Com Hosp	Fairfield	OH	450	NA	None	1
Fayette County Memorial Hospital	Fayette	OH	225	NA	None	1
Adria Laboratories	Franklin	OH	200	NA	None	1
Battelle	Franklin	OH	400	NA	None	1
Children's Hospital	Franklin	OH	660	NA	None	1
Mt. Carmel East Hospital	Franklin	OH	200	NA	None	1
Ohio Dept Health Lab	Franklin	OH	100	NA	None	1
Ohio State Univ Incinerators	Franklin	OH	NA	NA	None	1
Ohio State Univ Incinerators	Franklin	OH	100	NA	None	1
Ohio State Univ Incinerators	Franklin	OH	1000	NA	None	1
Ohio State Univ Incinerators	Franklin	OH	250	NA	None	1
Roche Biomedical Laboratories	Franklin	OH	240	NA	None	1
St Ann's Hospital	Franklin	OH	150	NA	None	1
Holzer Medical Center	Gallia	OH	250	NA	NA	1
Geauga Community Hospital	Geauga	OH	360	NA	None	1

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Table A-1. Partial Listing of U.S. Medical Waste Incinerators

Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Brown County Hospital	Georgetown	OH	970 lb/batch	Simonds 2151B	None	2
Wright Patterson Air Force Base	*Greene*	*OH*	65	NA	None	1
Guernsey Memorial Hospital	Guernsey	OH	225	NA	None	1
Christ Hospital	Hamilton	OH	1250	NA	None	1
Clermont Mercy Hospital	Hamilton	OH	25	NA	None	1
Deaconess Hospital	Hamilton	OH	300	NA	None	1
Good Samaritan Hospital	Hamilton	OH	250	NA	None	1
Lady of Mercy Hospital	Hamilton	OH	125	NA	None	1
Therm-Tec Destruction Services	Hamilton	OH	1100	NA	NA	1
USEPA - AWBERC	Hamilton	OH	150	NA	None	1
University of Cincinnati	*Hamilton*	*OH*	*120*	NA	None	1
University of Cincinnati	Hamilton	OH	300	NA	None	1
Veterans Hospital	Hamilton	OH	320	NA	None	1
Blanchard Valley Hospital	Hancock	OH	550	NA	None	1
Highland District Hospital	Highland	OH	150	NA	None	1
New London Hospital	Huron	OH	40	NA	None	1
Ohio Valley Hospital	Jefferson	OH	85	NA	None	1
St John's Medical Center	Jefferson	OH	95	NA	None	1
Knox Community Hospital	Knox	OH	75	NA	None	1
Licking Memorial Hospital	Licking	OH	380	NA	None	1
Lorain Community Hospital	Lorain	OH	300	NA	NA	1
Lorain Community Hospital	Lorain	OH	520	NA	None	1
St Joseph Hospital	Lorain	OH	100	NA	None	1
Therm-Tec Destruction Services	Lorain	OH	1000	NA	NA	1
BFI Medical Waste Systems Inc.	Lucas	OH	560	NA	None	1
Medical College of Ohio	Lucas	OH	330	NA	None	1
Mercy Hospital	Lucas	OH	105	NA	None	1
Riverside Hospital	Lucas	OH	475	NA	None	1
St Luke's Hospital	Lucas	OH	795	NA	None	1
St Vincent Medical Center	Lucas	OH	800	NA	None	1
Toledo Hospital	Lucas	OH	1000	NA	None	1
Battelle	Madison	OH	200	NA	None	1
St Elizabeth's Hospital	Mahoning	OH	2000	NA	NA	1
St Joseph Riverside Hospital	Mahoning	OH	375	NA	None	1
Trumbull Memorial Hospital	Mahoning	OH	800	NA	NA	1
WMI Medical Services of Ohio	Mahoning	OH	1700	NA	NA	1
WMI Medical Services of Ohio	*Mahoning*	*OH*	*1700*	NA	NA	1

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Table A-1. Partial Listing of U.S. Medical Waste Incinerators

Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Youngstown Osteopathic Hospital	Mahoning	OH	400	NA	None	1
Youngtown North Side Medical Center	Mahoning	OH	40	NA	None	1
Community Medical Hospital	Marion	OH	210	NA	None	1
Medina Community Hospital	Medina	OH	362	NA	None	1
Wadsworth Rittman Hospital	Medina	OH	75	NA	None	1
Community Hospital	Mercer	OH	70	NA	None	1
Piqua Memorial Medical Center	Miami	OH	94	NA	None	1
Comm. Hosp./Springfield	Montgomery	OH	435	NA	None	1
Miami Valley Hospital	Montgomery	OH	150	NA	None	1
Veterans Adminstration Center	Montgomery	OH	240	NA	None	1
WMI Medical Services of Ohio	Montgomery	OH	1700	NA	NA	1
WMI Medical Services of Ohio	Montgomery	OH	1700	NA	NA	1
WMI Medical Services of Ohio	Montgomery	OH	520	NA	None	1
Morrow County Hospital	Morrow	OH	NA	NA	None	1
Knox Community Hospital	Mt. Vernon	OH	340 lb/batch	Simonds 751B	None	2
Bethesda Hospital	Muskingum	OH	475	NA	None	1
E&J Incineration	Muskingum	OH	400	NA	None	1
H.B. Magruder Memorial Hospital	Ottawa	OH	125	NA	None	1
Robinson Memorial Hospital	Portage	OH	880	NA	NA	1
Southern Hills Hospital	Portsmouth	OH	480	Joy 480E	None	2
Animal Disease Building	Reynoldsburg	OH	600	Simonds 604	None	2
Mansfield General Hospital	Richland	OH	95	NA	None	1
Shelby Memorial Hospital	Richland	OH	25	NA	None	1
Chillicothe Correctional	Ross	OH	NA	NA	NA	1
Medical Center Hospital	Ross	OH	795	NA	None	1
VA Hospital	Ross	OH	1100	NA	None	1
Providence	Sandusky	OH	555	Joy 555TE	None	2
Hempstead Manor Hospital	Scioto	OH	150	NA	None	1
Mercy Hospital	Scioto	OH	85	NA	NA	1
Mercy Hospital	Seneca	OH	300	NA	None	1
Aultman Hospital	Stark	OH	50	NA	None	1
Canton South Animal Hospital	Stark	OH	60	NA	None	1
Doctors Hospital	Stark	OH	75	NA	None	1
Massillon Comm Hospital	Stark	OH	250	NA	None	1
Timken Mercy Medical Center	Stark	OH	200	NA	None	1
Akron City Hospital	Summit	OH	1200	NA	None	1
Akron City Hospital	Summit	OH	175	NA	NA	1

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Akron General Medical Center	Summit	OH	75	NA	None	1
Baberton Citizen's Hospital	Summit	OH	200	NA	None	1
Children's Hospital	Summit	OH	50	NA	None	1
Cuyahoga Falls General Hospital	Summit	OH	175	NA	None	1
Saint Thomas Hospital	Summit	OH	300	NA	None	1
Riverside Hospital	Toledo	OH	480	Joy 480E	None	2
BFI Medical Waste Systems Inc.	Trumbull	OH	1350	NA	NA	1
Union Hospital Association	Tuscarawas	OH	95	NA	None	1
Union County Memorial Hospital	Union	OH	345	NA	None	1
VanWert County Hospital	VanWert	OH	25	NA	None	1
Huston Nursing Home	Vinton	OH	NA	NA	None	1
BFI Medical Waste Systems	Warren	OH	1350	Simonds AF-5B	Scrubber	2
Trumbull Memorial Hospital	Warren	OH	1000	Joy 1000T	None	2
Wooster Community Hospital	Wayne	OH	200	NA	None	1
Adams County Hospital	West Union	OH	300	Joy 300E	None	2
WMI Medical Services of Ohio	Wood	OH	1700	NA	NA	1
WMI Medical Services of Ohio	Wood	OH	1700	NA	NA	1
Wood County Hospital	Wood	OH	50	NA	None	1
St. Elizabeth Hospital	Youngstown	OH	2130	NA	WS	2
St. Joseph's Regional Medical Center	Ponca City	OK	500 lb/batch	Simonds 1121B	None	2
Tulsa Animal Shelter	Tulsa	OK	480	Joy 480E	None	2
Columbia Memorial Hospital	Astoria	OR	50	NA	NA	1
St. Elizabeth Hospital	Baker	OR	50	NA	NA	1
Southern Coos General Hospital	Bandon	OR	50	NA	NA	1
Bay Area Hospital	Coos Bay	OR	50	NA	NA	1
Coquille Valley Hospital	Coquille	OR	100	NA	NA	1
Good Samaritan Hospital	Corvallis	OR	50	NA	NA	1
Wallowa Memorial Hospital	Enterprise	OR	NA	NA	NA	1
Curry General Hospital	Gold Beach	OR	50	NA	NA	1
Pioneer Memorial Hospital	Heppner	OR	50	NA	NA	1
Good Shepard Community Hospital	Hermiston	OR	100	NA	NA	1
Tuality Community Hospital	Hillsboro	OR	50	NA	NA	1
Hood River Memorial Hospital	Hood River	OR	200	NA	NA	1
Blue Mountain Hospital	John Day	OR	50	NA	NA	1
Merle West Medical Center	Klamath Falls	OR	100	NA	NA	1
Grande Ronde Hospital	LaGrande	OR	150	NA	NA	1
Lake District Hospital	Lakeview	OR	80	NA	NA	1

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
North Lincoln Hospital	Lincoln City	OR	160	NA	NA	1
Providence Hospital	Medford	OR	100	NA	NA	1
Rogue Valley Medical Center	Medford	OR	100	NA	NA	1
Pacific Communities Hospital	Newport	OR	100	NA	NA	1
Holy Rosary Medical Center	Ontario	OR	300	NA	NA	1
St. Anthony Hospital	Pendleton	OR	360	NA	NA	1
Holladay Park Medical Center	Portland	OR	100	NA	NA	1
Oregon Health Sci. University	Portland	OR	750	NA	NA	1
St. Vincent Hospital	Portland	OR	500	NA	NA	1
US Veterans Administration Hospital	Portland	OR	NA	NA	NA	1
Woodland Park Hospital	Portland	OR	25	NA	NA	1
Douglas Community Hospital	Roseburg	OR	65 (340 lb/batch)	Simonds 751B	None	1,2
Mercy Medical Center	Roseburg	OR	400	NA	NA	1
Veterans Administration Hospital	Roseburg	OR	NA	NA	NA	1
Salem Memorial Hospital	Salem	OR	15	NA	NA	1
Seaside General Hospital	Seaside	OR	20	NA	NA	1
Silverton Hospital	Silverton	OR	60	NA	NA	1
Allentown Hospital	Allentown	PA	500	Joy 500T	None	2
Lehigh Valley Hospital Center	Allentown	PA	NA	Joy NA	None	2
Holy Spirit Hospital	Camp Hill	PA	750	Joy 750TE	None	2
Cannonsburg Hospital	Cannonsburg	PA	150	Joy 150E	None	2
Carlisle Hospital	Carlisle	PA	600	Cleaver Brooks	VS/PB	2
Montgomery County SPCA	Conshohocken	PA	300	Joy 300E	None	2
United Community Hospital	Grove City	PA	340 lb/batch	Simonds 750B	None	2
Hershey Medical Center	Hershey	PA	1500	Joy 1500T	VS/PB	2
Delaware Valley Medical Center	Langhorne	PA	150	Joy 150E	None	2
Holy Redeemer Hospital	Meadowbrook	PA	800	Joy 800E	None	2
Riddle Memorial Hospital	Media	PA	780	Joy 780E	None	2
Grandview Hospital	NA	PA	600	Cleaver Brooks	VS/PB	2
Sacred Heart Hospital	Norristown	PA	480	Joy 480E	None	2
Suburban General Hospital	Norristown	PA	300	Joy 300E	None	2
Al Einstein Medical Center	Philadelphia	PA	1500	Joy 1500T	VS/PB	2
Fox Chase Cancer Center	Philadelphia	PA	480	Joy 480E	VS/PB	2
Frankford Hospital	Philadelphia	PA	300	Joy 300E	None	2
Institute of Pennsylvania Hospital	Philadelphia	PA	800	Joy 800E	None	2
J.C. Giuffre Medical Center	Philadelphia	PA	150	Joy 150E	None	2
Nazareth Hospital	Philadelphia	PA	1000	Cleaver Brooks	VS/PB	2

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Presbyterian Hospital	Philadelphia	PA	1000	Haufler Inc.	VS/PB	2
Presbyterian U. of Pennsylvania Med. Ctr.	Philadelphia	PA	1000	Joy 1000T	None	2
Sunbury Community Ho9spital	Sunbury	PA	480	Joy 480E	None	2
Torrance State Hospital	Torrance	PA	100	Joy 100E	None	2
Riverview Hospital	West Chester	PA	NA	Namex Corp.	VS/PB	2
Geisinger Wyoming Medical Center	Wilkes-Barre	PA	150	Joy 150E	None	2
Zambarano Hospital	Burrillville	RI	1000	NA	NA	1
Coventry Dog Pound	Coventry	RI	75	Simonds 74	None	2
Cranston General Hospital	Cranston	RI	150	NA	NA	1
RI Medical Center	Cranston	RI	145	NA	NA	1
St Joseph's Hospital - Fatima Unit	N. Providence	RI	720	NA	NA	1
Town of North Smithfield Dog Pound	North Smithfield	RI	100	Simonds 104	None	2
Memorial Hospital	Pawtucket	RI	150	NA	NA	1
RI Department of Health - Div of Labs	Providence	RI	50	NA	NA	1
RI Hospital	Providence	RI	1500	NA	NA	1
Roger Williams Realty (Biomedical Waste)	Providence	RI	750	NA	NA	1
Veterans Administration Hospital	Providence	RI	125	NA	NA	1
Hebert Nursing Home	Smithfield	RI	500 lb/batch	Simonds 1121B	None	2
South County Hospital	Wakefield	RI	100	NA	NA	1
Kent County Hospital	Warwick	RI	514	NA	NA	1
Westerly Hospital	Westerly	RI	50	NA	NA	1
Aiken Community Hospital	Aiken	SC	1620 lb/batch	Simonds 3600B	None	2
Marlboro Park Hospital	Bennettsville	SC	340 lb/batch	Simonds 751B	None	2
Kershaw County	Camedon	SC	300	Joy 300E	None	2
Charleston Naval Hospital	Charleston	SC	480	Joy 480E	None	2
North Trident Hospital	Charleston	SC	1620 lb/batch	Simonds 3600B	None	2
Roper Hospital	Charleston	SC	1000	Joy 1000	None	2
V.A. Medical Center	Charleston	SC	650	Joy 650E	None	2
Chesterfield General Hospital	Cheraw	SC	340 lb/batch	Simonds 750B	None	2
V.A. Hospital	Columbia	SC	500	Joy 500T	None	2
McLeod Medical Center	Florence	SC	150	Joy 150E	None	2
Cherokee Memorial Hospital	Gaffney	SC	150	Joy 150E	None	2
St. Francis Hospital	Greenville	SC	300	Joy 300E	None	2
Allen Bennett Memorial Hospital	Greer	SC	300	Joy 300E	None	2
Loris Community Hospital	Loris	SC	340 lb/batch	Simonds 751B	None	2
Grand Strand Hospital	Myrtle Beach	SC	340 lb/batch	Simonds 750B	None	2
Grand Strand Hospital	Myrtle Beach	SC	500 lb/batch	Simonds 1121B	None	2

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Shaw Air Force Base	NA	SC	160 lb/batch	Simonds Pyromizer	None	2
Cannon Memorial Hospital	Pickens	SC	340 lb/batch	Simonds 750B	None	2
Mary Balck Memorial	Spartanburg	SC	300	Joy 300E	None	2
Spartanburg General Hospital	Spartanburg	SC	300	Joy 300E	None	2
Wallace Thompson Hospital	Union	SC	300	Joy 300E	None	2
Colleton Regional Hospital	Walterboro	SC	340 lb/batch	Simonds 751B	None	2
Hot Springs VA Medical Center	Hot Springs	SD	300	Joy 300E	None	2
Rapid City Regional Hospital	Rapid City	SD	160 lb/batch	Simonds Pyromizer	None	2
V.A. Hospital	Sioux Falls	SD	300	Joy 300E	None	2
Athens Community Hospital	Athens	TN	50	Simonds 54	None	2
Athens Community Hospital	Athens	TN	500 lb/batch	Simonds 1121B	None	2
Haywood Park General Hospital	Brownsville	TN	150	Joy 150E	None	2
Carthage General Hospital	Carthage	TN	160 lb/batch	Simonds Pyromizer	None	2
Smith County Hospital	Carthage	TN	340 lb/batch	Simonds 750B	None	2
East Ridge Community Hospital	Chattanooga	TN	340 lb/batch	Simonds 751B	None	2
Medical Park Hospital	Chattanooga	TN	340 lb/batch	Simonds 750B	None	2
Memorial Hospital	Chattanooga	TN	1000	Radicator J-80-D3	NA	2
Parkside Hospital	Chattanooga	TN	500 lb/batch	Simonds 1121B	None	2
Clarksville Memorial Hospital	Clarksville	TN	480	Joy 480E	None	2
Bradley County Memorial Hospital	Cleveland	TN	480	Joy 480S	None	2
Cookeville Memorial Hospital	Cookeville	TN	480	Joy 480E	None	2
Tipton County Hospital	Covington	TN	340 lb/batch	Simonds 750B	None	2
Cumberland Medical Center Incinerator	Crossville	TN	NA	NA	NA	1
Goodlark Medical Center	Dickson	TN	300	Joy 300E	None	2
Dyersburg Methodist Hospital	Dyersburg	TN	300	Joy 300E	None	2
Methodist Hospital Incinerator	Dyersburg	TN	NA	NA	NA	1
Carter County Hospital	Elizabethton	TN	340 lb/batch	Simonds 751B	None	2
Trinity Hospital	Erin	TN	NA	NA	NA	1
Laughlin Memorial Hospital	Greeneville	TN	NA	NA	NA	1
Jackson-Madison Hospital	Jackson	TN	780	Joy 780E	None	1,2
Holston Valley Medical Incinerator	Kingsport	TN	NA	NA	NA	1
Ft. Sanders Reg. Medical Center	Knoxville	TN	150	Joy 150E	None	2
St. Mary's Hospital	Knoxville	TN	300	Joy 300E	None	2
Tennessee Christian	Madison	TN	480	Joy 480E	None	2
River Park Hospital	McMinnviller	TN	160 lb/batch	Simonds Pyromizer	None	2
BFI Medical Waste Systems, Inc.	Memphis	TN	1350	Simonds AF-5B	None	2
Health Management Incinerator	Memphis	TN	NA	NA	NA	1

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
Mid South Regional Blood Incinerator	Memphis	TN	NA	NA	NA	1
St. Jude's Childrens' Hospital	Memphis	TN	350	Consumat	VS/PB	2
Middle Tennessee Medical Center	Murfreesboro	TN	300	Joy 300E	None	2
American Red Cross	Nashville	TN	970 lb/batch	Simonds 2151B	None	2
Bordeaux Hospital Incinerator	Nashville	TN	NA	NA	NA	1
JJ Wimbley Incinerator	Nashville	TN	NA	NA	NA	1
Med-Safe of Tennessee	Nashville	TN	500	Joy 500T	None	2
West Side Hospital	Nashville	TN	340 lb/batch	Simonds 750B	None	2
River Chase Hospital	Red Bank	TN	50	Mid-Continent Metal NA	NA	2
McNairy County Hospital Incinerator	Selmer	TN	NA	NA	NA	1
White County Hospital	Sparta	TN	340 lb/batch	Simonds 750B	None	2
Whitewell Medical Center	Whitwell	TN	150	Joy 150E	None	2
Methodist Hospital-Mid-Tennessee	Winchester	TN	300	Joy 300ES	None	2
Stones River Hospital	Woodbury	TN	340 lb/batch	Simonds 750B	None	2
Arlington Community Hospital	Arlington	TX	1620 lb/batch	Simonds 3600B	None	2
South Austin Hospital	Austin	TX	340 lb/batch	Simonds 750B	None	2
Malone-Hogan Hospital	Big Springs	TX	970 lb/batch	Simonds 2150B	None	2
Brownwood Regional Hospital	Brownwood	TX	340 lb/batch	Simonds 751B	None	2
City	Carthage	TX	NA	NA	NA	1
City	Center City	TX	NA	NA	NA	1
Humanma Hospital-Brazos Valley	College Station	TX	340 lb/batch	Simonds 751B	None	2
Medical Examiner	Collins County	TX	50	Joy 50E	None	2
Baylor University Medical Center	Dallas	TX	500 lb/batch	Simonds 1121B	None	2
Dallas Re-Hab. Institute	Dallas	TX	500 lb/batch	Simonds 1121B	None	2
Parkland Hospital	Dallas	TX	150	Joy 150E	None	2
R. H. Dedman Hospital	Dallas	TX	970 lb/batch	Simonds 2151B	None	2
Stevens Park Osteo. Hosp.	Dallas	TX	970 lb/batch	Simonds 2151B	None	2
University of Texas Health Sciences	Dallas	TX	1000	Joy 1000T	None	2
V.A. Hospital	Dallas	TX	350	Cleaver Brooks	VS/PB	2
First Texas Medical Hospital	Dentone	TX	160 lb/batch	Simonds Pyromizer	None	2
Med Con	Fresno	TX	NA	NA	NA	1
John Peter Smith	Ft. Worth	TX	450	Simonds AF-2C	None	2
Medical Plaza Hospital	Ft. Worth	TX	1620 lb/batch	Simonds 3600B	None	2
Saint Joseph's Hospital	Ft. Worth	TX	730	Simonds AF-3B	None	2
University of Texas Medical Branch	Galveston	TX	500	Joy 500T	None	2
Memorial City General Hospital	Houston	TX	500 lb/batch	Simonds 1121B	None	2
Memorial S.E. Hospital	Houston	TX	500 lb/batch	Simonds 1121B	None	2

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Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
University of Texas Sys. Cancer	Houston	TX	1500	Joy 1500T	None	2
Waste Solution Resources	Houston	TX	2500	Joy 2500TESI	VS/PB	2
Huntsville Memorial Hospital	Huntsville	TX	340 lb/batch	Simonds 750B	None	2
Fort Sanders Medical Center	Knoxville	TX	300	Joy 300E	None	2
Midway Park General	Lancaster	TX	340 lb/batch	Simonds 750B	None	2
USDA-APHIS Quar. Fum. Station	Laredo	TX	150	Joy 150E	None	2
Village Oaks Regional Hospital	Live Oak	TX	340 lb/batch	Simonds 751B	None	2
Longview Regional Hospital	Longview	TX	340 lb/batch	Simonds 750B	None	2
St. Mary's Plains Hospital	Lubbock	TX	1620 lb/batch	Simonds 3600B	None	2
Memorial Hospital	Lufkin	TX	500 lb/batch	Simonds 1120B	None	2
Woodland Heights Hospital	Lufkin	TX	340 lb/batch	Simonds 750B	None	2
Mansfield Community Hospital	Mansfield	TX	160 lb/batch	Simonds Pyromizer	None	2
V.A. Medical Center	Marlin	TX	160 lb/batch	Simonds Pyromizer	None	2
McAllen Community Hospital	McAllen	TX	340 lb/batch	Simonds 750B	None	2
Rio Grande Regional	McAllen	TX	340 lb/batch	Simonds 750B	None	2
USDA-APHIS Vet. Service	Mission	TX	480	Joy 480E	None	2
North Hills Medical Center	North Richland	TX	160 lb/batch	Simonds Pyromizer	None	2
Coronado Community Hospital	Pampa	TX	340 lb/batch	Simonds 750B	None	2
Scientific Waste Soln.	Paralin	TX	NA	NA	NA	1
Plano General Hospital	Plano	TX	970 lb/batch	Simonds 2150B	None	2
Round Rock Community Hospital	Round Rock	TX	160 lb/batch	Simonds Pyromizer	None	2
MedaSure	Somerset	TX	NA	NA	NA	1
Scott & White Memorial Hospital	Temple	TX	1620 lb/batch	Simonds 3600B	None	2
V.A. Medical Center	Temple	TX	1620 lb/batch	Simonds 3600B	None	2
Waste Management	Terrel	TX	NA	NA	NA	1
Mother Francis Hospital	Tyler	TX	1620 lb/batch	Simonds 3600B	None	2
Victorial Regional Med. Center	Victoria	TX	970 lb/batch	Simonds 2151B	None	2
Providence Hospital	Waco	TX	500 lb/batch	Simonds 1121B	None	2
Wichita General Hospital	Wichita Falls	TX	500 lb/batch	Simonds 1121B	None	2
South Davis Hospital	Bountiful	UT	340 lb/batch	Simonds 750B	None	2
Brigham City Hospital	Brigham City	UT	340 lb/batch	Simonds 750B	None	2
BFI (under construction)	NA	UT	1300 lb/day	NA	VS	1
Payson Community Hospital	Payson	UT	340 lb/batch	Simonds 750B	None	2
New Carbon Hospital	Price	UT	340 lb/batch	Simonds 750B	None	2
Johnston Memorial Hospital	Abingdon	VA	500 lb/batch	Simonds 1121B	None	2
Metr Funeral Services	Alexandria	VA	6 tons/day	Ecol-Air	NA	1
Montgomery County Hospital	Blacksburg	VA	340 lb/batch	Simonds 750B	None	2

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Table A-1. Partial Listing of U.S. Medical Waste Incinerators

Name	City	State	Size (lb/hr or as noted)	Manufacturer/Model	APCD	Reference(s)
American Health	Clintonwood	VA	100	Joy 100E	None	2
Hazelton Research	Cumberland	VA	100	Consumat C32P	None	2
Potomac Hospital	Dale City	VA	480	Joy 480E	None	2
Memorial Hospital	Danville	VA	780	Joy 780E	None	2
Greensville Memorial Hospital	Emporia	VA	150	Joy 150E	None	2
Buchanan General Hospital	Grundy	VA	480	Joy 480E	None	2
Prince William Hospital	Manassas	VA	300	Joy 300E	None	2
Southwest State Hospital	Marion	VA	150	Joy 150E	None	2
Memorial Hospital	Martinsville	VA	340 lb/batch	Simonds 750B	None	2
Mary Immaculate Hospital	Newport News	VA	300	Joy 300E	None	2
Whittaker Hospital	Newport News	VA	340 lb/batch	Simonds 750B	None	2
Bay Disposal Inc.	Norfolk	VA	2300	Consumat CS760HE	None	2
Bay Disposal Inc.	Norfolk	VA	2300	Consumat CS760HE	None	2
Bay Disposal Inc.	Norfolk	VA	2300	Consumat CS760INF	None	2
Incidere	Norfolk	VA	50 tons/day	Consumat	NA	1
Reston Community Hospital	Reston	VA	500 lb/batch	Simonds 1121B	None	2
Chippenham Hospital	Richmond	VA	340 lb/batch	Simonds 750B	None	2
Humana Hospital - St. Lukes	Richmond	VA	500 lb/batch	Simonds 1121B	None	2
Johnston-Willis Hospital	Richmond	VA	340 lb/batch	Simonds 750B	None	2
Richmond Community Hospital	Richmond	VA	340 lb/batch	Simonds 750B	None	2
Lewis Gale Hospital	Salem	VA	500 lb/batch	Simonds 1120B	None	2
Lewis-Gale Hospital	Salem	VA	650	Joy 650E	None	2
V.A. Hospital	Salem	VA	500	Joy 500T	None	2
V.A. Medical Center	Salem	VA	480	Joy 480E	None	2
Hazelton Labs	Vienna	VA	480	Joy 480E	None	2
Virginia Beach Hospital	Virginia Beach	VA	300	Joy 300E	None	2
Fauquier Hospital	Warrenton	VA	100	Joy 100E	None	2
Safety Medical Systems	South Burlington	VT	2x1000	Joy 1000 TESI	NA	1
Anacortes Animal Hospital	Anacortes	WA	NA	NA	NA	1
Island Hospital	Anacortes	WA	NA	NA	NA	1
Fountain Veterinary	Bellingham	WA	NA	NA	NA	1
US Navy Hospital	Bremerton	WA	NA	NA	NA	1
Providence Hospital	Centralia	WA	NA	NA	NA	1
Whidbey General Hospital	Coupeville	WA	NA	NA	NA	1
Stevens Memorial Hospital	Edmonds	WA	NA	NA	NA	1
Columbia Basin Hospital	Ephrata	WA	NA	NA	NA	1
Everett General Hospital	Everett	WA	NA	NA	NA	1

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Providence Hospital	Everett	WA	NA	NA	NA	1
St Francis Community Hospital	Federal Way	WA	NA	NA	NA	1
Forks Community Hospital	Forks	WA	NA	NA	NA	1
Ocean Beach Hospital	Ilwaco	WA	NA	NA	NA	1
Kennewick General Hospital	Kennewick	WA	NA	NA	NA	1
Vista Veterinary	Kennewick	WA	NA	NA	NA	1
Evergreen Hospital Medical	Kirkland	WA	NA	NA	NA	1
St John's Hospital	Longview	WA	NA	NA	NA	1
Lynnwood Manor Health	Lynnwood	WA	NA	NA	NA	1
Valley General Hospital	Monroe	WA	NA	NA	NA	1
Skagit Valley Hospital	Mount Vernon	WA	NA	NA	NA	1
Black Hills Community Hospital	Olympia	WA	340 lb/batch	Simonds 751B	None	2
Deschutes Animal Clinic	Olympia	WA	NA	NA	NA	1
St Peter's Hospital	Olympia	WA	NA	NA	NA	1
Lady of Lourdes Hospital	Pasco	WA	NA	NA	NA	1
Olympic Memorial Hospital	Port Angeles	WA	NA	NA	NA	1
Jefferson General Hospital	Port Townsend	WA	NA	NA	NA	1
Good Samaritan Hospital	Puyallup	WA	NA	NA	NA	1
Quincy Valley Hospital	Quincy	WA	NA	NA	NA	1
Group Health Service	Renton	WA	NA	NA	NA	1
Valley Medical Center	Renton	WA	NA	NA	NA	1
Kadlec Hospital	Richland	WA	NA	NA	NA	1
Ballard Animal Hospital	Seattle	WA	NA	NA	NA	1
Childrens Hospital	Seattle	WA	NA	NA	NA	1
Northeast Veterinary	Seattle	WA	NA	NA	NA	1
Northwest Hospital	Seattle	WA	NA	NA	NA	1
Providence Medical Center	Seattle	WA	NA	NA	NA	1
Swedish Hospital Medical	Seattle	WA	NA	NA	NA	1
US Veterans Admin. Medical	Seattle	WA	NA	NA	NA	1
UW Medical School RR-133	Seattle	WA	NA	NA	NA	1
United General Hospital	Sedro Woolley	WA	NA	NA	NA	1
Sequim Nursing Center, Inc	Sequim	WA	NA	NA	NA	1
Mason General Hospital	Shelton	WA	NA	NA	NA	1
Shelton Veterinary Hospital	Shelton	WA	NA	NA	NA	1
Snoqualmie Valley Hospital	Snoqualmie	WA	NA	NA	NA	1
Willapa General Hospital	South Bend	WA	NA	NA	NA	1
Sunnyside/Valley Memorial Hospital	Sunnyside	WA	NA	NA	NA	1

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Allenmore Hospital	Tacoma	WA	NA	NA	NA	1
Humana Hospital of Tacoma	Tacoma	WA	NA	NA	NA	1
Lakewood Hospital	Tacoma	WA	NA	NA	NA	1
St Joseph's Hospital	Tacoma	WA	NA	NA	NA	1
Tacoma General Hospital	Tacoma	WA	NA	NA	NA	1
Associated Veterinary	Walla Walla	WA	NA	NA	NA	1
St Mary's Hospital	Walla Walla	WA	NA	NA	NA	1
Walla Walla General	Walla Walla	WA	NA	NA	NA	1
Skyline Hospital	White Salmon	WA	NA	NA	NA	1
Bio-Safe	Eau Claire	WI	600	Cleaver Brooks	VS/PB	2
St. Agnes Hospital	Fond du Lac	WI	3780 lb/batch	Simonds 8400BL	None	2
Community Memorial Hospital	Menomonee Falls	WI	150	Joy 150E	None	2
St. Luke's Medical Center	Milwaukee	WI	600	NA	WS	2
New Berlin Memorial Hospital	New Berlin	WI	150	Joy 150E	None	2
Reedsburg Memorial	Reedsburg	WI	150	Joy 150E	None	2
Bluefield Community Hospital	Bluefield	WV	340 lb/batch	Simonds 750B	None	2
Cabell Huntington Hospital	Huntington	WV	300	Joy 300E	None	2
Logan General Hospital	Logan	WV	NA	NA	NA	1
City Hospital	Martinsburg	WV	340 lb/batch	Simonds 750B	None	2
Greenlawn Memorial Park	Martinsburg	WV	480	Joy 480E	None	2
Charleston Hospital	Racen	WV	NA	NA	NA	1
Stevens Clinic Hospital	Welch	WV	NA	NA	NA	1
Wyoming Medical Center	Casper	WY	750	Joy 750TE	None	2
V.A. Medical Center	Cheyenne	WY	1620 lb/batch	Simonds 3600BL	None	2
Veteran's Administration	Cheyenne	WY	135	Simonds 3600BL	None	1
Wyoming State Hospital	Evanston	WY	45	Thermotech, Inc. Model G-1	None	1
Memorial Hospital of Sweetwater County	Rock Springs	WY	75	Shenandoah P25-2GMI	None	1

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1. REPORT NO. EPA-454/R-93-053	2.	3. RECIPIENT'S ACCESSION NO.
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15. SUPPLEMENTARY NOTES

EPA Project Officer - Michael W. Hamlin

16. ABSTRACT

This report will assist users in identifying pollutants from Medical Waste Incinerators.

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group

18. DISTRIBUTION STATEMENT Unclassified	19. SECURITY CLASS (This Report)	21. NO. OF PAGES 139
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