

The Texas Natural Resource Conservation Commission (commission) adopts amendments to §113.1 (Definitions), and new §113.2070 (Definitions), §113.2071 (Designated Facilities), §113.2072 (Emission Limits), §113.2074 (Inspection Requirements), §113.2075 (Compliance and Performance Testing Requirements), §113.2076 (Monitoring, Reporting, and Recordkeeping Requirements), §113.2077 (Waste Management Plan), §113.2078, (Operating Procedures and Operator Training/Qualification Requirements), and §113.2079 (Compliance Schedules). The commission adopts these revisions to Chapter 113 (Control of Air Pollution from Toxic Materials); Subchapter A (Definitions); and Subchapter D (Designated Facilities and Pollutants), new Division 2 (Hospital/Medical/Infectious Waste Incinerators) in order to implement the Hospital/Medical/Infectious Waste Incinerator (HMIWI) emission guidelines found in Title 40 Code of Federal Regulations Part 60 (40 CFR 60), Subpart Ce (Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators) adopted September 15, 1997. The commission also adopts a new section II. F. (Plan for Control of Hospital/Medical/Infectious Waste Incinerators) in the Control Strategy chapter of the State Plan for the Control of Designated Facilities and Pollutants (state plan). Sections 113.2070-113.2072 and 113.2075-113.2078 are adopted with changes to the proposed text as published in the February 25, 2000 issue of the *Texas Register* (25 TexReg 1523). Sections 113.1, 113.2074, and 113.2079 are adopted without changes to the proposed text and will not be republished.

BACKGROUND AND SUMMARY OF THE FACTUAL BASIS FOR THE ADOPTED RULES

The amendments, new sections, and state plan revisions are based on the federal rules regarding emission guidelines (40 CFR 60, Subpart Ce, Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators) published by the United States Environmental

Protection Agency (EPA) on September 15, 1997, under the authority of the Federal Clean Air Act (FCAA), §111 (42 United States Code (USC), §7411). A copy of the emission guidelines is available either through the EPA or the commission. The FCAA requires that state regulatory agencies implement the emission guidelines as part of a state plan developed in accordance with 42 USC, §7411(d) (Standards of Performance for Existing Sources) and §7429 (Solid Waste Combustion), and that the state regulatory agencies submit that plan to the EPA.

The commission regulations controlling air emissions from medical waste incinerators date back to 1990. These regulations were found in Title 30 Texas Administrative Code (30 TAC), Chapter 111 (Control of Air Pollution from Visible Emissions and Particulate Matter), §§111.123, 111.125, 111.127, and 111.129. The air emissions controlled in the existing regulations include visible emissions (opacity), particulate matter (PM), hydrogen chloride (HCl), and carbon monoxide (CO) with the level of control for each type of emissions based on the size of the incinerator unit. Under a separate but concurrent rulemaking action (Rule Log Number 1999-012-111-AI), the existing medical waste incinerator rules in §111.123 are being repealed. The new rules in Chapter 113, Subchapter D, Division 2, will control emissions from existing hospital/medical/infectious waste incinerators. The air emissions to be controlled in the new regulations include opacity, PM, CO, HCl, dioxins/furans, oxides of nitrogen (NO_x), sulfur dioxide (SO₂), mercury (Hg), lead (Pb), and cadmium (Cd). As with the existing regulations, the level of control for each type of emissions will be based on the size of the incinerator unit. There are four size categories of affected facilities: (1) large, with a charge rate design capacity greater than 500 pounds per hour (lb/hr); (2) medium, with a charge rate design capacity greater than 200 and less than or equal to 500 lb/hr; (3) small, with a charge rate design

capacity less than or equal to 200 lb/hr; and (4) small-remote, which is a small unit which combusts less than 2,000 pounds per week and is located greater than 50 miles from the boundary of the nearest metropolitan statistical area (MSA).

The emission guidelines and these adopted rules do not prescribe one control system over another.

The HMIWI owners or operators may choose the actual equipment to retrofit a unit that they believe will achieve the required emissions limits. One control system may be combustion system upgrades, referred to as "good combustion practices." "Good combustion practices" is referenced in the EPA emission guidelines as a two-second residence time in the secondary combustion chamber at 1,800 degrees Fahrenheit (F), but those operating parameters are not required by the EPA. The term "good combustion practices" is clarified by definition in the state rules at 30 TAC §113.2070. Good combustion practices will adequately control PM, CO, and dioxins/furans for many units. Other control systems include acid gas/PM scrubbing systems, and are typically more expensive than combustion upgrades. These systems will control multiple pollutants including dioxins/furans, PM, Pb, Cd, Hg, and HCl. Most of the existing units will need to install add-on control systems in order to meet all of the emission standards. Units at facilities meeting the small-remote definition may elect to comply emission limits based on the use of good combustion practices alone.

As part of a 1994 EPA grant objective (FY-94-CAAA-VI-123), the commission was required to develop a list of medical waste incinerators (MWI). The commission developed this list through a questionnaire that was sent to all hospitals registered with the Texas Department of Health, medical schools, Veterans Administration hospitals, and various other facilities. The questionnaire was mailed

to over 550 locations in June 1995, but the response was only approximately 60%. These lists were also updated with information compiled from existing commission databases and records. The commission identified 75 MWI operating in the state as of 1995, which included 68 on-site MWI units, and forwarded the source inventory data to the EPA in October 1995. The commission also identified, but did not list, an additional 47 MWI previously in existence, but which were no longer in operation. The EPA in turn produced a national source inventory list which included 62 HMIWI in Texas which are potentially affected by these rules.

SECTION BY SECTION DISCUSSION

These rules revise §113.1 by adding definitions for “designated facility” and “designated pollutant” as they are used in 42 USC, §7411(d) and §7429. The existing definition for “Section 111(d) state plan” was revised to clarify the federal requirements as codified in 42 USC, and to specify that the state plan was submitted in accordance with the FCAA.

The new §113.2070 defines terms used in the new division that are either previously undefined or are used differently by the federal emission guidelines that is the basis for the rules. The definitions were taken from 40 CFR §60.31e (Definitions) and include: “biologicals,” “blood products,” “body fluids,” “bypass stack,” “chemotherapeutic waste,” “co-fired combustor/incinerator,” “commercial medical waste incinerator,” “dioxins/furans,” “dry scrubber,” “fabric filter (or baghouse),” “facilities manager,” “good combustion practices,” “high-air phase,” “hospital,” “hospital/medical/infectious waste incinerator (HMIWI) or HMIWI unit,” “batch HMIWI,” “continuous HMIWI,” “intermittent HMIWI,” “large HMIWI,” “medium HMIWI,” “small HMIWI,” “small-remote HMIWI,” “hospital

waste,” “infectious agent,” “low-level radioactive waste,” “malfunction,” “maximum charge rate,” “maximum design waste burning capacity,” “maximum fabric filter inlet temperature,” “maximum flue gas temperature,” “medical waste,” “medical/infectious waste,” “minimum sorbent flow rate,” “minimum wet scrubber parameters,” “minimum secondary chamber temperature,” “modification (or modified incinerator),” “operating day,” “operation,” “particulate matter,” “pathological waste,” “primary chamber,” “pyrolysis,” “shutdown,” “standard conditions,” “startup,” “toxic equivalent quantity (TEQ),” and “wet scrubber.” The definition of “good combustion practices” was changed to clarify that the time and temperature parameters were not required to be two seconds and 1,800 degrees F for all HMIWI units.

Section 113.2071 specifies those designated facilities to which these rules apply, which are any facilities with existing HMIWI units for which construction was commenced on or before June 20, 1996. Section 113.2071 also lists those HMIWI units that are not subject to the control requirements, which include combustors during periods when burning only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste; co-fired combustors; combustors required to have a permit under the federal Solid Waste Disposal Act, §3005; combustors meeting the applicability requirements under 40 CFR 60, Subparts Cb, Ea, or Eb (Municipal Waste Combustors); pyrolysis units; and cement kilns firing hospital waste and/or medical/infectious waste. Section 113.2071 also states that any physical or operational changes made to an existing HMIWI solely for the purpose of complying with the requirements of these rules are not considered to be a modification as defined in 40 CFR 60, Subpart Ec (Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which

Construction is Commenced after June 20, 1996) and do not result in an existing HMIWI unit becoming subject to the provisions of Subpart Ec.

The new §113.2072 establishes emissions limits for all designated facilities, which are based on the sizes of the affected facilities. The limits are applied to emissions of PM, CO, dioxins/furans, HCl, SO₂, NO_x, Pb, Hg, and Cd. The section also specifies a limit for opacity of 5.0%. The EPA emission guidelines suggest an opacity requirement of 10%, however, the existing commission rules specify an opacity limit of 5.0%. The section also requires affected units to file an abbreviated federal operating permit application with the executive director. Subsection (b)(1) was changed to clarify that the minimum residence time and temperature are to be determined on a case-by-case basis.

The new §113.2074 specifies inspection requirements on those small HMIWI units that can meet the small-remote criteria. These small-remote units are not required to install add-on controls to meet the emission limits, but rather are required to implement good combustion practices. These practices are verified through the inspection requirements and are maintained by a repair timeline of ten days after an equipment inspection.

The new §113.2075 specifies the performance testing (stack test) requirements for all affected units. The stack tests are to be performed annually for a period of three years, after which they may be performed every third year. Any portion of the stack test that is failed must return to the annual schedule until it passes another three consecutive years. The section also requires that units with scrubbers must establish maximum and minimum operating parameters for each control system during

the initial performance test to determine compliance with the emission limits. Operation outside of these parameters shall constitute violations of the applicable emission standards. Finally, small-remote units are required to perform an initial stack test to determine operating parameters for maximum charge rate and minimum secondary chamber temperature, which are subsequently used to determine ongoing compliance with the emission standards.

The new §113.2076 specifies the monitoring, reporting, and recordkeeping requirements for the affected units. The units are required to have suitable equipment to monitor and record the operating parameters developed during the stack tests. The small-remote units are only required to install and operate a device for measuring and recording the temperature of the secondary chamber on a continuous basis, and a device which automatically measures and records the date, time, and weight of each charge fed into the HMIWI unit. Section 113.2076(a)(7) was changed to clarify that the continuous emissions monitoring system (CEMS) referenced is a CO CEMS.

The new §113.2077 requires each affected facility to prepare a waste management plan in order to reduce the amount of toxic emissions from incinerated waste. This plan shall identify the feasibility and the approach to separate certain components of the solid waste stream from the health care waste stream. Language was added to clarify the elements of a waste management plan.

The new §113.2078 specifies the operating procedures and operator training/qualification requirements for the affected facilities. Each owner or operator shall document their operating procedures and maintain those procedures in a readily accessible location for all HMIWI operators. These procedures

shall be reviewed annually. In addition, no owner or operator shall allow the affected facility to operate at any time unless a fully trained and qualified HMIWI operator is accessible. Unnecessary language was deleted to clarify that a fully-trained and qualified operator could directly supervise other operators. The section also specifies the minimum requirements for operator training.

Section 113.2079 specifies the schedules for affected facilities to come into compliance with these rules. Within 60 days from the date the commission publishes in the *Texas Register* that the EPA has approved these rules and state plan, owners or operators shall submit a notice of intent to comply with these rules, a petition for a compliance extension, or a notice of intent to shut down the incinerator.

All affected HMIWI units must be in compliance with the rules or shut down within one year after the EPA has approved these rules and state plan, unless they have been granted a compliance or shutdown extension. In no case shall any affected facility delay compliance or shut down past September 15, 2002. Finally, this section specifies that any HMIWI unit subject to the requirements of the federal operating permits program shall submit an abbreviated application to the executive director on or before September 15, 2000.

REGULATORY IMPACT ASSESSMENT

The commission reviewed the rulemaking action in light of the regulatory analysis requirements of Texas Government Code, §2001.0225, and determined that the rulemaking could meet the definition of a “major environmental rule” as defined in that statute. “Major environmental rule” means a rule the specific intent of which is to protect the environment or reduce risks to human health from environmental exposure and that may adversely affect in a material way the economy, a sector of the

economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state. The specific intent of the amendments is to implement emission limits for existing HMIWI in accordance with federal guidelines and regulations under the FCAA. Certain HMIWI will be affected and will be required to comply with federal standards/guidelines whether or not the commission adopts the amendments. The amendments to Chapter 113 are not anticipated to add any significant additional costs to affected individuals or businesses beyond the requirements which will be implemented if the amendments are not adopted. These rules are intended to protect the environment and could have a material adverse effect on the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state. However, Texas Government Code, §2001.0225, only applies to a major environmental rule, the result of which is to: (1) exceed a standard set by federal law, unless the rule is specifically required by state law; (2) exceed an express requirement of state law, unless the rule is specifically required by federal law; (3) exceed a requirement of a delegation agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program; or (4) adopt a rule solely under the general powers of the agency instead of under a specific state law.

The amendments do not meet any of these four applicability requirements of a “major environmental rule.” Specifically, the emission standards within this proposal are based on federal performance-based guidelines/standards. In the amendments, none of the standards exceed any standard set by federal law. These rules are not an express requirement of state law, but were developed based on the EPA’s *Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators*

as mandated by the FCAA. If the commission does not adopt emission limits with EPA-approved emission limits within a specified time frame, then the EPA is required to adopt federal rules for those existing facilities. The affected facilities will be required to comply with EPA-approved emission limits whether they are promulgated by commission rules or by federal regulations. The amendments do not exceed a requirement of a delegation agreement or a contract between state and federal government. The amendments were not developed solely under the general powers of the agency, but are adopted under the authority of the Texas Water Code (TWC), §5.103; Texas Health and Safety Code, Texas Clean Air Act (TCAA), §§382.011, 382.012, 382.014, 382.016, 382.017, 382.0195, and 382.021; and 42 USC, §7411(d) and §7429. The commission invited public comment on the draft regulatory impact analysis, but received no comments.

TAKINGS IMPACT ASSESSMENT

The commission prepared a takings impact assessment for these rules in accordance with to Texas Government Code, §2007.043. The following is a summary of that assessment. On September 15, 1997, the EPA adopted rules regarding emission guidelines for existing HMIWI units and new source performance standards for new HMIWI units. The FCAA requires that state regulatory agencies implement the emission guidelines according to a state plan developed in accordance with the FCAA, 42 USC, §7411(d) and §7429, and submit that plan to the EPA. The specific purpose of the rulemaking action is to implement the emission guidelines for existing HMIWI units in accordance with 42 USC, §7411(d) and §7429 by the development and submittal of rules and a corresponding state plan to the EPA. These rules and corresponding state plan satisfy the federal requirement, therefore, the exemption that applies to these rules is that of an action reasonably taken to fulfill an obligation

mandated by federal law. Therefore, this rulemaking action will not constitute a takings under Chapter 2007 of the Texas Government Code.

CONSISTENCY WITH THE COASTAL MANAGEMENT PROGRAM

The commission determined that this rulemaking relates to an action or actions subject to the Texas Coastal Management Program (CMP) in accordance with the Coastal Coordination Act of 1991, as amended (Texas Natural Resources Code, §§33.201 et seq.), and the commission rules in 30 TAC Chapter 281, Subchapter B, concerning Consistency with the Coastal Management Program. As required by 31 TAC §505.11(b)(2) and 30 TAC §281.45(a)(3), relating to actions and rules subject to the CMP, commission rules governing air pollutant emissions must be consistent with the applicable goals and policies of the CMP. The commission has reviewed this rulemaking action for consistency with the CMP goals and policies in accordance with the rules of the Coastal Coordination Council, and determined that the rulemaking action is consistent with the applicable CMP goals and policies. The CMP goal applicable to this rulemaking action is the goal (31 TAC §501.12(l)) to protect, preserve, restore, and enhance the diversity, quality, quantity, functions, and values of the coastal natural resource areas. The CMP policy applicable to this rulemaking action is the policy (31 TAC §501.14(q)) that commission rules comply with federal regulations in 40 CFR to protect and enhance the air quality in the coastal area. The effect of these rules will be to implement state rules which are as strict as the minimum emission guidelines found in 40 CFR 60, Subpart Ce. No new sources of air contaminants will be authorized and emissions from existing HMIWI units will be significantly reduced as a result of these rules. Therefore, in compliance with 31 TAC §505.22(e), this rulemaking action is consistent with the CMP goals and policies.

No persons submitted comments on the consistency of the proposed rules with the CMP during the public comment period.

EFFECT ON SITES SUBJECT TO THE FEDERAL OPERATING PERMIT PROGRAM

Because 30 TAC Chapter 113 is an applicable requirement under 30 TAC Chapter 122 (Federal Operating Permits), owners or operators subject to the Federal Operating Permit Program must, consistent with the revision process in Chapter 122, revise their operating permit to include the revised Chapter 113 requirements for each emission unit affected by the revisions to Chapter 113 at their site.

HEARING AND COMMENTERS

A public hearing was held in Austin on March 21, 2000, and there were two attendees. No one provided oral comment at the hearing. The comment period closed on March 27, 2000. Written comments were received from the EPA, which expressed full support of the proposed rules and associated state plan. Written comments were also received from the Texas Hospital Association (THA) which acknowledged the fact that these rules and state plan are mandated by the EPA, but also made several recommendations on how the commission could assist hospitals comply with these rules.

ANALYSIS OF TESTIMONY

The EPA congratulated the commission for the work done to develop the rules and state plan, and expressed pleasure with the format and contents. The EPA also stated that the rules were very clear and closely followed the federal requirements. Finally, the EPA stated that the additional information required by 42 USC, §7411(d) in the overall state plan was clearly identified and meets the criteria for

submittal of state plans. The THA also acknowledged the fact that these rules and state plan are mandated by the EPA.

The commission appreciates the timely review of the rules and state plan submittal.

The THA stated that they supported efforts to promote a clean environment, nevertheless, for those hospitals that use on-site HMIWIs, the rules likely will create significant financial burdens at a time when they are least able to afford them. As a result, the THA requested that the commission consider several recommendations to assist hospitals with on-site HMIWIs in complying with the adopted rules. These recommendations include rule clarification, business assistance, future regulation, education and outreach, and compliance assistance.

Rule Clarification

The THA stated that the proposed rules (§113.2072(b)(1)) require HMIWIs to burn at 1,800 degrees F or higher for a minimum of two seconds; however, the EPA guidelines do not require two seconds at 1,800 degrees F. The THA also stated that some on-site HMIWIs in Texas currently may be burning at lower temperatures and for shorter times, and requested the commission clarify to the regulated community whether HMIWIs burning at less than 1,800 degrees F and/or for less than two seconds will be permitted to continue to do so.

The commission agrees that the proposed rules were written in such a way that the two-second residence time and 1,800-degree secondary chamber temperature could be construed to be firm

commission requirements where the EPA does not require those minimum values. The minimum values for these two operating parameters are determined by the design of the incinerator, as well as the quantity and composition of the wastes incinerated, such that each individual incinerator can meet the emissions limits specified in §113.2072. If an on-site HMIWI can meet all of the emission limits with different values for residence time and secondary chamber temperature, as demonstrated by a performance test performed in accordance with §113.2075, then those values define good combustion practice for that particular unit. Therefore, the commission changed the definition of “good combustion practice” and the operational requirements in §113.2072 accordingly so that their minimum value may be established during the performance test as indicators of good combustion practices.

Business Assistance

The THA stated that new scrubbers are estimated to cost between \$25,000 and \$500,000 each, required annual stack testing will cost at least \$15,000 per year, a new incinerator could cost a minimum of \$50,000, and extensive emissions reporting and training will also entail financial cost as well as administrative burdens for hospitals. The THA stated further that while it is clear that the goal of the commission and the EPA is to reduce reliance on the use of HMIWIs, and the number of HMIWIs is declining, there may be some hospitals that choose to continue using HMIWIs. Their decision could be based on practical considerations, including the inability to obtain feasible alternatives for medical waste disposal in their locales. The THA requested that the commission direct efforts of the small business assistance program to assist hospitals in complying with the new rules, including financial assistance.

The commission agrees that the hospital industry within this state, especially the smaller hospitals, could benefit from support of the commission's small business assistance program.

Therefore, the Small Business and Environmental Assistance (SBEA) Division has been notified of this request. The director of the SBEA division is Mr. Israel Anderson, who may be reached at (512) 239-5319.

Future Regulation

The THA stated that some smaller, rural hospitals would consider transport of medical waste as a disposal alternative; however, they are unable to obtain contracted transport services because of the cost and distances involved. The THA further stated that while the commission's transport rules do permit small special waste generators to transport their own untreated waste to a transfer station or storage facility without meeting the extensive transporter registration requirements, this exemption is limited to transport of 50 pounds or less per month. THA recommended that the commission consider an increase of this limit to allow a greater number of small-quantity generators to choose the self-transport option.

The 50-pound per month self transporter limit is found in 30 TAC §330.1005 (Transporters of Medical Waste). While a change to that rule to increase this limit is beyond the scope of this rulemaking action, an increase in the monthly limit deserves review as a means of providing flexibility to handle waste for smaller rural hospitals. Therefore, this recommendation has been referred to the Office of Environmental Policy, Analysis, and Assessment for further study.

Education and Outreach

The THA stated that the rules would require that an incinerator operator have a federally-mandated minimum of 24 hours of classroom training on 13 subjects, including recordkeeping requirements, combustion controls and monitoring, and work safety procedures. In addition, four hours of annual refresher training and an examination administered by the instructor would be required. Furthermore, the operator is required to be on-site or available within one hour anytime the HMIWI unit is operational. This on-site/availability requirement could make it difficult for operators to travel appreciable distances to attend training/education programs. The THA recommended that the commission make training programs available throughout the state so that operators can attend, or alternatively, make this training available through distance learning via computer modules and the internet.

The commission is not funded nor staffed to develop and conduct specific training programs regarding compliance with these rules; however, it does believe that operator training is a vital part of the safe and efficient operation of an HMIWI unit. The EPA established the basic requirements for HMIWI training courses in their emission guidelines and new source performance standard for HMIWI units. These basic training requirements are echoed in these rules and state plan. The EPA produced a handbook titled "Operation and Maintenance of Hospital Medical Waste Incinerators," EPA/425/6-89/024, January 1990, which is an excellent source for HMIWI information. The EPA also maintains a list of certified training vendors who can provide HMIWI operator training. In addition, the incinerator manufacturing and servicing vendors typically have training programs that cover their product lines. Regarding training

availability through distance learning via computers and the internet, the EPA operates the Air Pollution Training Institute (APTI) which may be found at <http://www.epa.gov/oar/oaqps/eog/apti.html> on the internet. APTI operates several training formats which include classroom, self-study, satellite, and internet training. With the large number of HMIWI units located throughout the country and this state which require operator training, the commission believes that certified training vendors will be readily available within the state.

Compliance Assistance

The THA requested that the commission provide compliance assistance to hospitals in other ways. The THA suggested that the commission develop and publish a list of companies that provide alternative medical waste disposal methods, including a list of medical waste transport companies. The commission should also provide educational opportunities concerning management of hospital waste streams, segregation of medical waste from other waste, good combustion practices, and compliance with the new rules. Finally, the THA recommended that the commission send a letter to each hospital with an on-site HMIWI stating clearly the compliance deadlines, estimated cost of compliance for each component of the rules, the fundamental requirements of the rules, and the names and telephone numbers of resource people at the commission.

The commission agrees that a list of companies that provide alternative medical waste disposal methods, including medical waste transport companies, would be useful to the member hospitals of THA, and the SBEA Division has been notified of this request. On the other hand, each of the

hospitals in the THA also belong to various trade associations, such as the Texas Association of Healthcare Facilities Management and the American Society for Healthcare Environmental Services, which would be an excellent sources for vendor information.

The commission agrees that information concerning management of hospital waste streams, alternative waste treatment methods, and segregation of medical waste from other waste streams would be very useful to the individual THA hospitals. The SBEA Division has also been notified of this request.

The commission agrees that a letter to each hospital with an on-site HMIWI would be a useful tool for each facility to achieve compliance with the new rules. However, the commission's list of facilities with active HMIWI is incomplete. As part of a 1994 EPA grant objective (FY-94-CAAA-VI-123), the commission was required to develop a list of medical waste incinerators. The commission developed this list through a questionnaire that was sent to all hospitals registered with the Texas Department of Health, medical schools, Veterans Administration hospitals, and various other facilities. The questionnaire was mailed to over 550 locations in June 1995, but the response was only approximately 60%. These lists were also updated with information compiled from existing commission databases and records. The commission identified 75 MWI operating in the state as of 1995, which included 68 on-site MWI units, and forwarded the source inventory data to the EPA in October 1995. The commission also identified, but did not list, an additional 47 MWI previously in existence, but which were no longer in operation. Based on the rate of return for the questionnaires and other information in various commission data bases, the

commission estimates that there are approximately 100 affected facilities within the state. The EPA emissions guidelines also require the commission to update the list of affected facilities and develop an emissions inventory based on the facilities with active HMIWI units. As part of the commission update, letters will be sent to each of the known affected facilities. These letters will contain a copy of the adopted rules and the names and telephone numbers of the appropriate resource personnel at the commission. The commission would appreciate any information the THA could provide concerning an updated list of member hospitals which have on-site HMIWI to assist the commission in its efforts to notify the appropriate hospitals.

SUBCHAPTER A: DEFINITIONS

§113.1

STATUTORY AUTHORITY

The amendment is adopted under the TWC, §5.103, which provides the commission the authority to adopt rules to carry out its powers and duties under the TWC. The amendment is also adopted under the Texas Health and Safety Code, TCAA, §382.011, which provides the commission the authority to control the quality of the state's air; §382.012, which provides the commission the authority to prepare and develop a general, comprehensive plan for the control of the state's air; §382.014, which provides the commission the authority to require the submission of emissions data for an emissions inventory; §382.016, which provides the commission the authority to prescribe reasonable requirements for measuring, monitoring, and recording emissions; §382.017, which provides the commission the authority to adopt rules consistent with the policy and purposes of the TCAA; §382.0195 which provides the commission the authority to prescribe control technology for infectious waste incinerators; §382.021, which provides the commission the authority to prescribe sampling methods and procedures; and FCAA, 42 USC, §7411(d) and §7429, which require the state to implement emission guidelines as part of a state plan.

§113.1. Definitions.

Unless specifically defined in the TCAA or in the rules of the commission, the terms used in this subchapter have the meanings commonly ascribed to them in the field of air pollution control. In

addition to the terms which are defined in the TCAA, §3.2 of this title (relating to Definitions), and §101.1 of this title (relating to Definitions), the following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise.

(1) Designated facility - Any existing facility which emits a designated pollutant and which would be subject to a standard of performance for that pollutant if the existing facility were an affected facility.

(2) Designated pollutant - Any air pollutant, the emissions of which are subject to a standard of performance for new stationary sources, but for which air quality criteria have not been issued, and which is not included on a list published under the FCAA, 42 United States Code, §7408(a) or §7412(b)(1)(A).

(3) Section 111(d) state plan - A plan submitted by the state, in accordance with the FCAA, 42 United States Code (USC), §7411(d), to the EPA Administrator which establishes standards of performance for any existing source for any air pollutant for which air quality criteria have not been issued or which is not included on a list published under FCAA, 42 USC, §7408(a), or emitted from a source category which is regulated under FCAA, 42 USC, §7412 or §7412(b), but to which a standard of performance under FCAA, 42 USC, §7411 would apply if such existing source were a new source, and provides for the implementation and enforcement of such standards of performance.

SUBCHAPTER D: DESIGNATED FACILITIES AND POLLUTANTS

{FCAA, 42 USC §7411(d) and §7429}

DIVISION 2. HOSPITAL/MEDICAL/INFECTIOUS WASTE INCINERATORS

§§113.2070 - 113.2072, 113.2074 - 113.2079

STATUTORY AUTHORITY

The new sections are adopted under the Texas Water Code (TWC), §5.103, which provides the commission the authority to adopt rules necessary to carry out its powers and duties under the TWC. The new sections are also adopted under the Texas Health and Safety Code, Texas Clean Air Act (TCAA), §382.011, which provides the commission the authority to control the quality of the state's air; §382.012, which provides the commission the authority to prepare and develop a general, comprehensive plan for the control of the state's air; §382.014, which provides the commission the authority to require the submission of emissions data for an emissions inventory; §382.016, which provides the commission the authority to prescribe reasonable requirements for measuring, monitoring, and recording emissions; §382.017, which provides the commission the authority to adopt rules consistent with the policy and purposes of the TCAA; §382.0195 which provides the commission the authority to prescribe control technology for commercial infectious waste incinerators; §382.021, which provides the commission the authority to prescribe sampling methods and procedures; and Federal Clean Air Act, 42 United States Code, §7411(d) and §7429, which require the state to implement emission guidelines as part of a state plan.

§113.2070. Definitions.

Unless specifically defined in the TCAA or in the rules of the commission, the terms used in this division have the meanings commonly ascribed to them in the field of air pollution control. In addition to the terms which are defined in the TCAA, §3.2 of this title (relating to Definitions), §101.1 of this title (relating to Definitions), and §113.1 of this title (relating to Definitions), the following words and terms, when used in this division, shall have the following meanings, unless the context clearly indicates otherwise.

(1) **Biologicals** - Preparations made from living organisms and their products, including vaccines, cultures, etc., intended for use in diagnosing, immunizing, or treating humans or animals or in research pertaining thereto.

(2) **Blood products** - Any product derived from human blood including, but not limited to, blood plasma, platelets, red or white blood corpuscles, and other derived licensed products, such as interferon, etc.

(3) **Body fluids** - Liquid emanating or derived from humans and limited to blood, dialysate, amniotic, cerebrospinal, synovial, pleural, peritoneal and pericardial fluids; and semen and vaginal secretions.

(4) **Bypass stack** - A device used for discharging combustion gases to avoid severe damage to the air pollution control device or other equipment.

(5) **Chemotherapeutic waste** - Waste material resulting from the production or use of antineoplastic agents used for the purpose of stopping or reversing the growth of malignant cells.

(6) **Co-fired combustor/incinerator** - A unit combusting hospital waste and/or medical/infectious waste with other fuels or wastes (e.g., coal, municipal solid waste) and subject to an enforceable requirement limiting the unit to combusting a fuel feed stream, 10% or less of the weight of which is comprised, in aggregate, of hospital waste and medical/infectious waste as measured on a calendar quarter basis. For the purposes of this definition, pathological waste, chemotherapeutic waste, and low-level radioactive waste are considered "other" wastes when calculating the percentage of hospital waste and medical/infectious waste combusted.

(7) **Commercial medical waste incinerator** - A facility that accepts for incineration medical waste generated outside the property boundaries of the facility.

(8) **Dioxins/furans** - The combined emissions of tetra- through octa-chlorinated dibenzi-para-dioxins and dibenzofurans, as measured by EPA Reference Method 23.

(9) **Dry scrubber** - An add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gases in the incinerator exhaust stream forming a dry powder material.

(10) **Fabric filter (or baghouse)** - An add-on air pollution control system that removes particulate matter and non-vaporous metals emissions by passing flue gas through filter bags.

(11) **Facilities manager** - The individual in charge of purchasing, maintaining, and operating the hospital/medical/infectious waste incinerator (HMIWI) or the owner/operator's representative responsible for the management of the HMIWI. Alternative titles may include director of facilities or vice president of support services.

(12) **Good combustion practices** - The minimum residence time and temperature in the secondary chamber as determined by the design of the incinerator, as well as the quantity and composition of the wastes incinerated, such that the incinerator can meet the emissions limits specified in §113.2072 of this title (relating to Emission Limits).

(13) **High-air phase** - The stage of the batch operating cycle when the primary chamber reaches and maintains maximum operating temperatures.

(14) **Hospital** - Any facility which has an organized medical staff, maintains at least six inpatient beds, and where the primary function of the institution is to provide diagnostic and

therapeutic patient services and continuous nursing care primarily to human inpatients who are not related and who stay on average in excess of 24 hours per admission. This definition does not include facilities maintained for the sole purpose of providing nursing or convalescent care to human patients who generally are not acutely ill, but who require continuing medical supervision.

(15) **Hospital/medical/infectious waste incinerator (HMIWI) or HMIWI unit** - Any device that combusts any amount of hospital waste and/or medical/infectious waste.

(A) **Batch HMIWI** - An HMIWI unit that is designed such that neither waste charging nor ash removal can occur during combustion.

(B) **Continuous HMIWI** - An HMIWI unit that is designed to allow waste charging and ash removal during combustion.

(C) **Intermittent HMIWI** - An HMIWI unit that is designed to allow waste charging, but not ash removal, during combustion.

(D) **Large HMIWI** - An HMIWI unit which has a maximum design waste combustor capacity that is greater than 500 pounds per hour (lb/hr), or a continuous or intermittent HMIWI unit which has a maximum charge rate that is greater than 500 lb/hr, or a batch HMIWI unit which has a maximum charge rate that is greater than 4,000 pounds per day.

(E) **Medium HMIWI** - An HMIWI unit which has a maximum design waste combustor capacity that is greater than 200 lb/hr but less than or equal to 500 lb/hr, or a continuous or intermittent HMIWI unit which has a maximum charge rate that is greater than 200 lb/hr but less than or equal to 500 lb/hr, or a batch HMIWI unit which has a maximum charge rate that is greater than 1,600 pounds per day but less than or equal to 4,000 pounds per day.

(F) **Small HMIWI** - An HMIWI unit which has a maximum design waste combustor capacity that is less than or equal to 200 lb/hr, or a continuous or intermittent HMIWI unit which has a maximum charge rate that is less than or equal to 200 lb/hr, or a batch HMIWI unit which has a maximum charge rate that is less than or equal to 1,600 pounds per day.

(G) **Small-remote HMIWI** - A small HMIWI unit which is located more than 50 miles from the boundary of the nearest Standard Metropolitan Statistical Area (as defined in Office of Management and Budget Bulletin Number 93-17 entitled "Revised Statistical Definitions for Metropolitan Areas" dated June 30, 1993), and burns less than 2,000 pounds of waste per week.

(16) **Hospital waste** - Discards generated at a hospital, except unused items returned to the manufacturer. The definition of hospital waste does not include human corpses, remains, and anatomical parts that are intended for interment or cremation.

(17) **Infectious agent** - Any organism (such as a virus or bacteria) that is capable of being communicated by invasion and multiplication in body tissues and capable of causing diseases or adverse health impacts in humans.

(18) **Low-level radioactive waste** - Waste material which contains radionuclides emitting primarily beta or gamma radiation, or both, in concentrations or quantities that exceed applicable federal or state standards for unrestricted release. Low-level radioactive waste is not high-level radioactive waste, spent nuclear fuel, or by-product material as defined by the Atomic Energy Act of 1954 (42 United States Code, §2014(e)(2)).

(19) **Malfunction** - Any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused, in part, by poor maintenance or careless operation are not malfunctions. During periods of malfunction the operator shall operate within established parameters as much as possible, and monitoring of all applicable operating parameters shall continue until all waste has been combusted or until the malfunction ceases, whichever comes first.

(20) **Maximum charge rate** - For continuous and intermittent incinerators, 110% of the lowest three-hour average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits; and for batch incinerators, 110% of the lowest daily charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits.

(21) **Maximum design waste burning capacity -**

(A) for intermittent and continuous incinerators,

Figure: 30 TAC §113.2070(21)(A)

$$C = \frac{P_v(15,000)}{8,500}$$

where:

C = incinerator capacity measured in pounds per hour (lb/hr)

P_v = primary chamber volume measured in cubic feet (ft³)

15,000 = primary chamber heat release rate factor measured in British thermal units per cubic foot per hour (Btu/ft³/hr)

8,500 = standard waste heating value (Btu/lb)

(B) for batch incinerators,

Figure: 30 TAC §113.2070(21)(B)

$$C = \frac{P_v(4.5)}{8}$$

where:

C = incinerator capacity measured in lb/hr

P_v = primary chamber volume measured in ft³

4.5 = waste density measured in lb/ft³

8 = typical hours of operation measured in hours

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

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

(24) **Medical waste** - Waste generated by health-care-related facilities and associated with health-care activities, not including garbage or rubbish generated from offices, kitchens, or other non-health-care activities. The term includes special waste from health-care-related facilities which is comprised of animal waste, bulk blood and blood products, microbiological waste, pathological waste, and sharps as those terms are defined in 25 TAC §1.132 (relating to Definition, Treatment, and Disposition of Special Waste from Health-Care Related Facilities). The term does not include medical waste produced on farmland or ranchland as defined in Texas Agriculture Code, §252.001(6) (relating

to Definitions - Farmland or Ranchland), nor does the term include artificial, nonhuman materials removed from a patient and requested by the patient including, but not limited to, orthopedic devices and breast implants.

(25) **Medical/infectious waste** - Any waste generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of the following biologicals:

(A) cultures and stocks of infectious agents and associated biologicals, including: cultures from medical and pathological laboratories; cultures and stocks of infectious agents from research and industrial laboratories; wastes from the production of biologicals; discarded live and attenuated vaccines; and culture dishes and devices used to transfer, inoculate, and mix cultures;

(B) human pathological waste, including: tissues; organs; and body parts and body fluids that are removed during surgery or autopsy, or other medical procedures; and specimens of body fluids and their containers;

(C) human blood and blood products, including: liquid waste human blood; products of blood; items saturated and/or dripping with human blood; or items that were saturated and/or dripping with human blood that are now caked with dried human blood; including serum, plasma, and other blood components, and their containers, which were used or intended for use in

either patient care, testing and laboratory analysis, or the development of pharmaceuticals. Intravenous bags are also included in this category;

(D) sharps that have been used in animal or human patient care or treatment or in medical, research, or industrial laboratories, including: hypodermic needles; syringes (with or without the attached needle); Pasteur pipettes; scalpel blades; blood vials; needles with attached tubing; and culture dishes (regardless of presence of infectious agents). Also included are other types of broken or unbroken glassware that were in contact with infectious agents, such as slides and cover slips;

(E) animal waste, including: contaminated animal carcasses, body parts, and bedding of animals that were known to have been exposed to infectious agents during research (including research in veterinary hospitals); production of biologicals; or testing of pharmaceuticals;

(F) isolation wastes, including: biological waste and discarded materials contaminated with blood, excretions, exudates, or secretions from humans who are isolated to protect others from certain highly communicable diseases, or isolated animals known to be infected with highly communicable diseases;

(G) unused sharps, including the following unused, discarded sharps: hypodermic needles; suture needles; syringes; and scalpel blades; and

(H) does not include: hazardous waste identified or listed under the regulations in Title 40 Code of Federal Regulations Part 261 (40 CFR 261); household waste, as identified in 40 CFR 261.4(b)(1); ash from incineration of medical/infectious waste, once the incineration process has been completed; human corpses, remains, and anatomical parts that are intended for interment or cremation; and domestic sewage materials identified in 40 CFR 261.4(a)(1).

(26) **Minimum sorbent flow rate** - 90% of the highest three-hour average sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the applicable (dioxin/furan, mercury, and hydrogen chloride) emission limit.

(27) **Minimum wet scrubber parameters** - 90% of the highest three-hour average scrubber parameter (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the applicable emission limits. The parameters include:

(A) horsepower or amperage to the scrubber;

(B) pressure drop across the wet scrubber;

(C) liquid flow rate at the scrubber inlet; and

(D) liquid pH at the scrubber inlet.

(28) **Minimum secondary chamber temperature** - 90% of the highest three-hour average secondary chamber temperature (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the particulate matter, carbon monoxide, or dioxin/furan emission limits.

(29) **Modification (or modified incinerator)** - Any change to an incinerator unit after the effective date of these standards such that:

(A) the cumulative costs of the modifications, over the life of the unit, exceed 50% of the original cost of the construction and installation of the unit (not including the cost of any land purchased in connection with such construction or installation) updated to current costs; or

(B) the change involves a physical change in or change in the method of operation of the unit which increases the amount of any air pollutant emitted by the unit for which standards have been established under the FCAA, 42 United States Code, §7411 or §7429.

(30) **Operating day** - A 24-hour period between 12:00 a.m., midnight and the following midnight during which any amount of hospital waste or medical/infectious waste is combusted at any time in the incinerator.

(31) **Operation** - The period during which waste is combusted in the incinerator excluding periods of startup or shutdown.

(32) **Particulate matter** - The total particulate matter emitted from an incinerator as measured by EPA Reference Method 5, concerning Determination of Particulate Emissions from Stationary Sources (40 CFR 60, Appendix A, 1999), or Reference Method 29, concerning Determination of Metals Emissions from Stationary Sources (40 CFR 60, Appendix A, 1999).

(33) **Pathological waste** - Waste material consisting of only human or animal remains, anatomical parts, and/or tissue, the bags/containers used to collect and transport the waste material, and animal bedding (if applicable).

(34) **Primary chamber** - The chamber in an incinerator that receives waste material in which the waste is ignited and from which ash is removed.

(35) **Pyrolysis** - The endothermic gasification of hospital waste and/or medical/infectious waste using external energy.

(36) **Shutdown** - The period of time after all waste has been combusted in the primary chamber. For continuous incinerators, shutdown shall commence no less than two hours after the last charge to the incinerator. For intermittent incinerators, shutdown shall commence no less than four

hours after the last charge to the incinerator. For batch incinerators, shutdown shall commence no less than five hours after the high-air phase of combustion has been completed.

(37) **Standard conditions** - A temperature of 68 degrees Fahrenheit (20 degrees Centigrade) and a pressure of 14.7 pounds per square inch (101.3 kilopascals).

(38) **Startup** - The period of time between the activation of the system and the first charge to the unit. For batch incinerators, startup is the period of time between activation of the system and ignition of the waste.

(39) **Toxic equivalent quantity (TEQ)** - For dioxins/furans, a TEQ basis=2,3,7,8-tetrachlorinated dibenzo-p-dioxin toxic equivalent based on the 1989 international toxic equivalency factors.

(40) **Wet scrubber** - An add-on air pollution control device that utilized an alkaline scrubbing liquor to collect particulate matter (including non-vaporous metals and condensed organics) and/or to absorb and neutralize acid gases.

§113.2071. Designated Facilities.

(a) Except as specified in Table 1 of this subsection, the rules in this division apply to those designated facilities with existing hospital/medical/infectious waste incinerator (HMIWI) units for which construction was commenced on or before June 20, 1996.

Figure: 30 TAC §113.2071(a)

Table 1. HMIWI Units Not Subject to Control Requirements.

COMBUSTOR TYPE	SPECIAL REQUIREMENTS
Combustors during periods when burning only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste, as defined in §113.2070.	<ul style="list-style-type: none"> • Owner/Operator must perform notification and recordkeeping requirements specified in §113.2076(e).
Co-fired combustor, as defined in §113.2070.	<ul style="list-style-type: none"> • Hospital waste and medical/infectious waste (by weight) must be less than 10% of total waste burned on a calendar quarter basis. • Owner/Operator must perform notification and recordkeeping requirements specified in §113.2076(f).
Any combustor required to have a permit under §3005 of the federal Solid Waste Disposal Act.	<ul style="list-style-type: none"> • None
Combustors which meet the applicability requirements under Title 40 Code of Federal Regulations Part 60 (40 CFR 60), Subparts Cb, Ea, or Eb (concerning Municipal Waste Combustors).	<ul style="list-style-type: none"> • None
Pyrolysis units, as defined in §113.2070.	<ul style="list-style-type: none"> • None
Cement kilns firing hospital waste and/or medical/infectious waste.	<ul style="list-style-type: none"> • None

(b) Physical or operational changes made to an existing HMIWI unit solely for the purpose of complying with the requirements of this division are not considered a modification as defined in §113.2070(28) of this title (relating to Definitions) and do not result in an existing HMIWI unit becoming subject to the provisions of 40 Code of Federal Regulations 60, Subpart Ec (relating to Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced after June 20, 1996).

§113.2072. Emission Limits.

(a) All affected hospital/medical/infectious waste incinerator (HMIWI) units burning of medical waste, as defined in §113.2070 of this title (relating to Definitions), shall meet the emission limits specified in Table 2 of this subsection. The emission limits under this section apply at all times except during periods of startup, shutdown, or malfunction, provided that no hospital waste or medical/infectious waste is charged to the affected facility during startup, shutdown, or malfunction.

Figure: 30 TAC §113.2072(a)

Table 2. Emission Limits for Small, Medium, and Large HMIWI.

Pollutant	Units (Corrected to 7% oxygen, dry basis according to the formula in §113.2075)	Emission Limits			
		HMIWI Size			
		Small	Small Remote	Medium	Large
Particulate Matter	milligrams per dscm ¹ (grains per dscf ²)	115 (0.05)	197 (0.086)	69 (0.03)	34 (0.015)
Carbon Monoxide	parts per million by volume	40	40	40	40
Dioxins/furans	nanograms per dscm total dioxins/furans (grains per billion dscf)	125 (55)	800 (350)	125 (55)	125 (55)
	or nanograms per dscm on a TEQ basis ³ (grains per billion dscf)	2.3 (1.0)	15 (6.6)	2.3 (1.0)	2.3 (1.0)
Hydrogen Chloride	parts per million by volume	100		100	100
	or percent reduction	or 95%	3100	or 95%	or 95%
Sulfur Dioxide	parts per million by volume	55	55	55	55
Nitrogen Oxides	parts per million by volume	250	250	250	250
Lead	milligrams per dscm (grains per thousand dscf)	1.2 (0.52)		1.2 (0.52)	1.2 (0.52)
	or percent reduction	or 70%	(4.4)	or 70%	or 70%
Cadmium	milligrams per dscm (grains per thousand dscf)	0.16 (0.07)		0.16 (0.07)	0.16 (0.07)
	or percent reduction	or 65%	(1.7)	or 65%	or 65%

Pollutant	Units (Corrected to 7% oxygen, dry basis according to the formula in §113.2075)	Emission Limits			
		HMIWI Size			
		Small	Small Remote	Medium	Large
Mercury	milligrams per dscm	0.55		0.55	0.55
	(grains per thousand dscf)	(0.24)	7.5	(0.24)	(0.24)
	or	or	(3.3)	or	or
	percent reduction	85%		85%	85%

Footnotes:

¹ dscm = dry standard cubic meter

² dscf = dry standard cubic foot

³ TEQ basis=2,3,7,8-tetrachlorinated dibenzo-p-dioxin toxic equivalent based on the 1989 international toxic equivalency factors. Dioxins/furans and oxygen content shall be measured at the same location.

(b) All affected HMIWI units burning hospital waste or medical/infectious waste, as defined in §113.2070 of this title, shall comply with the following operational requirements:

(1) be operated in accordance with good combustion practices as defined in §113.2070 of this title, and be equipped with a secondary chamber which retains all combustion gases for a minimum period of time and at a minimum temperature measured at the exit of the secondary chamber and recorded continuously, as determined by a performance test conducted in accordance with §113.2075 of this title (relating to Compliance and Performance Testing Requirements);

(2) not exceed visible emissions of 5.0% opacity averaged over any six-minute period;

and

(3) file an abbreviated federal operating permit application with the executive director.

§113.2074. Inspection Requirements.

(a) Each small-remote hospital/medical/infectious waste incinerator (HMIWI) unit as defined in §113.2070 of this title (relating to Definitions) shall undergo an initial equipment inspection, followed by annual inspections. The initial inspection shall occur within one year following EPA approval of the state plan, and the annual inspection shall occur no later than 12 months after the previous equipment inspection and that is at least as protective as specified in Table 3 of this subsection.

Figure: 30 TAC §113.2074(a)

Table 3. Initial and Annual Inspection Requirements.

Items to be Inspected	Requirements
Burners, pilot assemblies, and pilot sensing devices	Inspect for proper operation; clean pilot flame sensor, as necessary.
Combustion air	Ensure proper adjustment of primary and secondary chamber combustion air, and adjust as necessary.
Hinges and door latches	Inspect and lubricate as necessary.
Dampers, fans, and blowers	Inspect for proper operation.
Incinerator door and door gaskets	Inspect for proper sealing.
Motors	Inspect for proper operation.
Primary chamber refractory lining	Inspect lining; clean and repair/replace as necessary.
Incinerator shell	Inspect for corrosion and/or hot spots.
Secondary/tertiary chamber and stack	Inspect and clean as necessary.
Mechanical loader, including limit switches	Inspect for proper operation, if applicable.
Waste bed (grates)	visually inspect and repair/seal, as appropriate.
Air pollution control device(s)	Inspect device(s) for proper operation, if applicable.
Waste heat boiler systems	Inspect to ensure proper operation, if applicable.
Bypass stack components	Inspect components.
Thermocouples, sorbent feed systems, and any other monitoring equipment	Ensure proper calibration of equipment.
General equipment	Generally observe that the equipment is maintained in good operating condition.
Incinerator operation	For the burn cycle that follows the inspection, document that the incinerator is operating properly and make any necessary adjustments.

(b) Each small-remote HMIWI unit shall complete all necessary repairs within ten operating days, but in no case longer than 30 calendar days, following an equipment inspection date where the problems were first noted, unless the owner or operator obtains written approval from the executive director, or a designated representative of the commission, establishing a date when all necessary repairs will be completed.

§113.2075. Compliance and Performance Testing Requirements.

(a) Except as provided in subsection (b) of this section, each hospital/medical/infectious waste incinerator (HMIWI) unit shall meet the following compliance and performance testing requirements.

(1) The owner or operator of an affected facility shall ensure an initial performance test is conducted to determine compliance with the emission limits using the test methods and procedures listed in Table 4 of this paragraph and subparagraphs (A)-(H) of this paragraph. The use of the bypass stack during a performance test shall invalidate the performance test.

Figure: 30 TAC §113.2075(a)(1)

Table 4. Test Methods.

EMISSION LIMIT	TEST METHODS (EPA Reference Methods are as specified in Title 40 Code of Federal Regulations, Appendix A, dated 1999, unless otherwise specified)	
	Small-Remote HMIWI	Small, Medium, and Large HMIWI
Opacity	Method 9	Method 9
Particulate Matter (PM)	Method 5 or Method 29	Method 5 or Method 29
Carbon Monoxide (CO)	Method 10 or 10B	Method 10, or 10B
Dioxins/furans	Method 23 ¹ for total dioxins/furans or TEQ Method specified in §113.2075(a)(2)(I)(ii)	Method 23 ¹ for total dioxins/furans or TEQ Method specified in §113.2075(a)(2)(I)(ii)
Hydrogen Chloride (HCl)	Testing not required	Method 26
Sulfur Dioxide (SO ₂)	Testing not required	Testing not required
Nitrogen Oxides (NO _x)	Testing not required	Testing not required
Lead (Pb)	Testing not required	Reference Method 29
Cadmium (Cd)	Testing not required	Reference Method 29
Mercury (Hg)	Reference Method 29	Reference Method 29

Footnotes:

¹ Minimum sample time is 4 hours per test run.

(A) All performance tests shall consist of a minimum of three test runs conducted under representative operating conditions.

(B) The minimum sample time shall be one hour per test run unless otherwise indicated.

(C) EPA Test Method 1 of 40 Code of Federal Regulations (CFR) 60, Appendix A, shall be used to select the sampling location and number of traverse points.

(D) EPA Test Method 3 or 3A of Appendix A shall be used for gas composition analysis, including measurement of oxygen concentration. Method 3 or 3A shall be used simultaneously with each test method referenced in Table 4 of this paragraph.

(E) The pollutant concentrations shall be adjusted to 7.0% oxygen using the following equation.

Figure: 30 TAC §113.2075(a)(1)(E)

$$P_c = P_m \left(\frac{13.9}{20.9 - Y} \right)$$

Where:

P_c = the corrected concentration of the pollutant in question,

P_m = the measured pollutant concentration,

13.9 = 20.9% oxygen - 7% oxygen (defined oxygen correction basis),

20.9 = oxygen content in air (%), and

Y = the measured concentration of oxygen (%) in the stack gas using the Orsat method for oxygen analysis of dry flue gas as defined in 40 CFR 60, Appendix A (Method 3).

(F) If the affected facility has selected the toxic equivalent quantity method for dioxins/furans, the following procedures shall be used to determine compliance:

(i) measure the concentration of each dioxin/furan tetra- through octa-cogener emitted using EPA Reference Method 23;

(ii) for each dioxin/furan cogener, multiply the cogener concentration by its corresponding toxic equivalency factor specified in Table 5 of this clause; and

Figure: 30 TAC §113.2075(a)(1)(F)(ii)

Table 5. Toxic Equivalency Factors (TEF).

Dioxin/furan Cogener	TEF
2, 3, 7, 8-tetrachlorinated dibenzo-p-dioxin	1.0
1, 2, 3, 7, 8-pentachlorinated dibenzo-p-dioxin	0.5
1, 2, 3, 4, 7, 8-hexachlorinated dibenzo-p-dioxin	0.1
1, 2, 3, 7, 8, 9-hexachlorinated dibenzo-p-dioxin	0.1
1, 2, 3, 6, 7, 8-hexachlorinated dibenzi-p-dioxin	0.1
1, 2, 3, 4, 6, 7, 8-heptachlorinated dibenzi-p-dioxin	0.01
octachlorinated dibenzi-p-dioxin	0.001
2, 3, 7, 8-tetrachlorinated dibenzofuran	0.1
2, 3, 4, 7, 8-pentachlorinated dibenzofuran	0.5
1, 2, 3, 7, 8-pentachlorinated dibenzofuran	0.05
1, 2, 3, 4, 7, 8-hexachlorinated dibenzofuran	0.1
1, 2, 3, 6, 7, 8-hexachlorinated dibenzofuran	0.1
1, 2, 3, 7, 8, 9-hexachlorinated dibenzofuran	0.1
2, 3, 4, 6, 7, 8-hexachlorinated dibenzofuran	0.1
1, 2, 3, 4, 6, 7, 8-heptachlorinated dibenzofuran	0.01
1, 2, 3, 4, 7, 8, 9-heptachlorinated dibenzofuran	0.01
Octachlorinated dibenzofuran	0.001

(iii) sum the products calculated in clause (ii) of this subparagraph to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

(G) If the affected facility has selected the percentage reduction method for hydrogen chloride (HCl), the percentage reduction in HCl ($\%R_{\text{HCl}}$) is computed using the following formula.

Figure: 30 TAC §113.2075(a)(1)(G)

$$\%R_{HCl} = \left(\frac{E_1 - E_0}{E_1} \right) * 100$$

Where:

$\%R_{HCl}$ = percentage reduction of HCl emissions achieved;

E_i = HCl emission concentration measured at the control device inlet,
corrected to 7% oxygen (dry basis);

E_o = HCl emission concentration measured at the control device outlet,
corrected to 7% oxygen (dry basis).

(H) If the affected facility has selected the percentage reduction method for metals (lead, cadmium, or mercury), the percentage reduction of each metal ($\% R_{metal}$) is computed using the following formula.

Figure: 30 TAC §113.2075(a)(1)(H)

$$\%R_{Metal} = \left(\frac{E_1 - E_0}{E_1} \right) * 100$$

Where:

$\%R_{metal}$ = percentage reduction of metal emissions achieved;

E_i = metal emission concentration measured at the control device inlet, corrected to 7% oxygen (dry basis);

E_o = metal emission concentration measured at the control device outlet, corrected to 7% oxygen (dry basis).

(2) Following the date on which the initial performance test is completed or is required to be completed under §113.2079 of this title (relating to Compliance Schedules), whichever date comes first, the owner or operator of an affected facility shall:

(A) determine compliance with the opacity limit by conducting an annual performance test (no more than 12 months following the previous performance test) using the applicable procedures and test methods listed in Table 4 of paragraph (1) of this subsection;

(B) determine compliance with the particulate matter (PM), carbon monoxide (CO), and HCl emission limits by conducting an annual performance test (no more than 12 months following the previous performance test) using the applicable procedures and test methods listed in paragraph (1) of this subsection. If all three performance tests over a three-year period indicate compliance with the emission limit for a pollutant (PM, CO, or HCl), the owner or operator may forego a performance test for that pollutant for the subsequent two years. At a minimum, a

performance test for PM, CO, or HCl shall be conducted every third year (no more than 36 months following the previous performance test). If a performance test conducted every third year indicates compliance with the emission limit for a pollutant (PM, CO, or HCl), the owner or operator may forego a performance test for that pollutant for an additional two years. If any performance test indicates noncompliance with the respective emission limit, a performance test for that pollutant shall be conducted annually until all annual performance tests over a three-year period indicate compliance with the emission limit. The use of the bypass stack during a performance test shall invalidate the performance test; and

(C) facilities using a continuous emissions monitoring system (CEMS) to demonstrate compliance with any of the emission limits shall:

(i) determine compliance with the appropriate emission limits using a 12-hour rolling average, calculated each hour as the average of the previous 12 operating hours (not including startup, shutdown, or malfunction); and

(ii) operate all CEMS in accordance with the applicable procedures under 40 CFR 60, Appendixes B and F.

(3) For an affected facility equipped with a dry scrubber followed by a fabric filter, a wet scrubber, or dry scrubber followed by both a fabric filter and a wet scrubber, the following conditions apply.

(A) The owner or operator shall establish the appropriate maximum and minimum operating parameters, indicated in Table 6 of this subparagraph for each control system, as site specific operating parameters based on data obtained from the initial performance test to determine compliance with the emission limits.

Figure: 30 TAC §113.2075(a)(3)(A)

Table 6. Operating Parameters to be Monitored, and Minimum Measurement and Recording Frequencies.

Operating Parameters to be Monitored (3-hour rolling averages)	Minimum Frequency		Control System		
	Data Measurement	Data Recording	Dry Scrubber followed by Fabric Filter	Wet Scrubber	Dry Scrubber followed by Fabric Filter and Wet Scrubber
Maximum Operating Parameters					
Charge Rate	continuous	1 per hour	✓	✓	✓
Fabric Filter Inlet Temperature	continuous	1 per minute	✓		✓
Flue Gas Temperature	continuous	1 per minute		✓	✓
Minimum Operating Parameters					
Secondary Chamber Temperature	continuous	1 per minute	✓	✓	✓
Dioxin/furan Sorbent Flow Rate	hourly	1 per hour	✓		✓
HCl Sorbent Flow Rate	hourly	1 per hour	✓		✓
Mercury (H _g) Sorbent Flow Rate	hourly	1 per hour	✓		✓
Pressure Drop Across the Wet Scrubber or Horsepower or Amperage to Wet Scrubber	continuous	1 per minute		✓	✓
Wet Scrubber Liquor Flow Rate	continuous	1 per minute		✓	✓
Wet Scrubber Liquor pH	continuous	1 per minute		✓	✓

(B) Following the date on which the initial performance test is completed or is required to be completed, whichever date comes first, the owner or operator shall ensure that the

affected facility does not operate above any of the applicable maximum operating parameters or below any of the applicable minimum operating parameters listed in Table 6 of subparagraph (A) of this paragraph and measured as three-hour rolling averages (calculated each hour as the average of the previous three operating hours) at all times except during periods of startup, shutdown, and malfunction. Operating parameter limits do not apply during performance tests. Operation above the established maximum or below the established minimum operating parameters shall constitute a violation of established operating parameters. Except as provided in subparagraph (C) of this paragraph, operation of affected facilities outside of the operating parameter limit combinations as listed in Table 7 of this subparagraph shall constitute violations of the applicable emission standards.

Figure: 30 TAC §113.2075(a)(3)(B)

Table 7. Emission Violation Triggers.

CONTROL METHOD	OPERATING PARAMETER (3-hour rolling averages)	Particulate Matter	Carbon Monoxide	Dioxin/furan	Hydrogen Chloride	Sulfur Dioxide	Oxides of Nitrogen	Lead	Cadmium	Mercury
Dry Scrubber followed by a Fabric Filter	> Max. Charge Rate and < Min. Secondary Chamber Temp.		✓ ¹							

CONTROL METHOD	OPERATING PARAMETER (3-hour rolling averages)	Particulate Matter	Carbon Monoxide	Dioxin/furan	Hydrogen Chloride	Sulfur Dioxide	Oxides of Nitrogen	Lead	Cadmium	Mercury
	> Max. Charge Rate and > Max. Fabric Filter Inlet Temp. and < Min. Dioxin/furan Sorbent Flow Rate			✓						
	> Max. Charge Rate and < Min. HCl Sorbent Flow Rate				✓					
	> Max. Charge Rate and < Min. Hg Sorbent Flow Rate									✓
	Use of Bypass Stack (except during startup, shutdown, or malfunction)	✓		✓	✓			✓	✓	✓
Wet Scrubber	> Max. Charge Rate and < Min. Pressure Drop Across Wet Scrubber or < Min. Horsepower to Wet Scrubber or < Min. Amperage to Wet Scrubber	✓								

CONTROL METHOD	OPERATING PARAMETER (3-hour rolling averages)	Particulate Matter	Carbon Monoxide	Dioxin/furan	Hydrogen Chloride	Sulfur Dioxide	Oxides of Nitrogen	Lead	Cadmium	Mercury
	> Max. Charge Rate and <Min. Secondary Chamber Temp.		✓ ¹							
	> Max. Charge Rate and <Min. Secondary Chamber Temp. and <Min. Wet Scrubber Liquor Flow Rate			✓						
	> Max. Charge Rate and <Min. Wet Scrubber Liquor pH				✓					
	> Max. Charge Rate and >Max. Flue Gas Temp.									✓
	Use of Bypass Stack (except during startup, shutdown, or malfunction)	✓		✓	✓			✓	✓	✓
Dry Scrubber followed by a Fabric Filter	> Max. Charge Rate and <Min. Secondary Chamber Temp.		✓ ¹							

and a Wet
 Scrubber

CONTROL METHOD	OPERATING PARAMETER (3-hour rolling averages)	Particulate Matter	Carbon Monoxide	Dioxin/furan	Hydrogen Chloride	Sulfur Dioxide	Oxides of Nitrogen	Lead	Cadmium	Mercury
	> Max. Charge Rate and > Max. Fabric Filter Inlet Temp. and < Min. Dioxin/furan Sorbent Flow Rate			✓						
	> Max. Charge Rate and < Min. Wet Scrubber Liquor pH				✓					
	> Max. Charge Rate and < Min. Hg Sorbent Flow Rate									✓
	Use of Bypass Stack (except during startup, shutdown, or malfunction)	✓		✓	✓			✓	✓	✓

Footnotes:

¹ If a CO CEMS is used, the violation of the CO emissions limit is determined by the CEMS.

(C) The owner or operator may conduct a repeat performance test within 30 days of violation of applicable operating parameters to demonstrate that the affected facility is not in violation of the applicable emission limits. Repeat performance tests conducted under this subparagraph shall be conducted using the identical operating parameters that indicated a violation under subparagraph (B) of this paragraph.

(4) The owner or operator of an affected facility using an air pollution control device other than a dry scrubber followed by a fabric filter, a wet scrubber, or a dry scrubber followed by a fabric filter and a wet scrubber to comply with the emission limits under §113.2072 of this title (relating to Emission Limits), shall petition the executive director or his designated representative for other site-specific operating parameters to be established during the initial performance test and continuously monitored thereafter. The owner or operator shall not conduct the initial performance test until after the petition has been approved by the executive director or his designated representative.

(5) The owner or operator of an affected facility may conduct a repeat performance test at any time to establish new values for the operating parameters. The executive director or his designated representative may also request a repeat performance test at any time.

(b) Each small-remote HMIWI unit, as defined in §113.2070 of this title (relating to Definitions) shall demonstrate compliance with §113.2072 of this title by meeting the following compliance and performance testing requirements.

(1) The owner or operator shall conduct the performance testing requirements in subsection (a)(1)(A)-(E) of this section; Table 4 of subsection (a)(1) of this section for opacity, PM, CO, dioxins/furans, and mercury; and subsection (a)(2)(A) of this section, as appropriate. The 2,000 pound per week limitation under §113.2072(a)(4) of this title does not apply during performance tests.

(2) The owner or operator shall establish maximum charge rate and minimum secondary chamber temperature as site-specific operating parameters during the initial performance test to determine compliance with applicable emission limits.

(3) Following the date on which the initial performance test is completed or is required to be completed under §113.2079 of this title, whichever date comes first, the owner or operator shall ensure that the designated facility does not operate above the maximum charge rate or below the minimum secondary chamber temperature measured as three-hour rolling averages (calculated each hour as the average of the previous three operating hours) at all times except during periods of startup, shutdown, and malfunction. Operating parameter limits do not apply during performance tests. Operation above the maximum charge rate or below the minimum secondary chamber temperature shall constitute a violation of the established operating parameters.

(4) Except as provided in paragraph (5) of this subsection, operation of the designated facility above the maximum charge rate and below the minimum secondary chamber temperature on a three-hour rolling average simultaneously shall constitute a violation of the PM, CO, and dioxin/furan emission limits.

(5) The owner or operator may conduct a repeat performance test within 30 days of violation of applicable operating parameters to demonstrate that the designated facility is not in violation of the applicable emission limits. Repeat performance tests conducted under this subsection

must be conducted using the identical operating parameters that indicated a violation under paragraph (4) of this subsection.

(c) Equivalent test methods may be approved by the executive director or his designated representative.

§113.2076. Monitoring, Reporting, and Recordkeeping Requirements.

(a) Monitoring Requirements for Affected Facilities. Except as provided in subsection (b) of this section, the owner or operator of a hospital/medical/infectious waste incinerator (HMIWI) unit, as defined in §113.2070 of this title (relating to Definitions) shall comply with the following monitoring requirements.

(1) The owner or operator of an affected facility shall install, calibrate (to manufacturers' specifications), maintain, and operate devices (or establish methods) for monitoring the applicable maximum and minimum operating parameters listed in Table 6, §113.2075(a)(3)(A) of this title (relating to Compliance and Performance Testing Requirements), such that these devices (or methods) measure and record values for these operating parameters at the frequencies indicated in Table 6, §113.2075(a)(3)(A) of this title, at all times, except during periods of startup and shutdown.

(2) The owner or operator of an affected facility shall install, calibrate (to manufacturers' specifications), maintain, and operate a device or method for measuring the use of the bypass stack including date, time, and duration.

(3) The owner or operator of an affected facility using some method other than a dry scrubber followed by a fabric filter, a wet scrubber, or a dry scrubber followed by a fabric filter and a wet scrubber to comply with the emission limits under §113.2072 of this title (relating to Emission Limits) shall install, calibrate (to manufacturers' specifications), maintain, and operate the equipment necessary to monitor the site-specific operating parameters developed under §113.2075(a)(5) of this title.

(4) The owner or operator of an affected facility shall obtain monitoring data at all times during HMIWI operation except during periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data shall be obtained for 75% of the operating hours per day and for 90% of the operating days per calendar quarter that the affected facility is combusting hospital waste and/or medical/infectious waste.

(5) Commercial medical waste incinerators and HMIWI units burning more than 200 (medium and large units) pounds per hour of hospital waste or medical/infectious waste shall be equipped with continuous emissions monitoring systems (CEMS) which measure and record in-stack carbon monoxide (CO) in addition to the other requirements of this section. Compliance with the CO limits specified in Table 1, §113.2071(a) of this title (relating to Designated Facilities) may be

demonstrated using a rolling hourly average. The rolling hourly average shall be defined as the arithmetic mean of the 60 most recent one-minute concentrations measured by the CEMS.

(6) HMIWI units may be equipped with certified continuous opacity monitoring systems (COMS) which measure and record exhaust plume opacity. Compliance with the opacity limits specified in §113.2072(b)(2) of this title may be demonstrated using a rolling hourly average. The rolling hourly average shall be defined as the arithmetic mean of the 60 most recent one-minute opacity values measured by the COMS.

(7) Except in the case of incinerators with COMS, CO CEMS, or equivalent monitors approved by the executive director or his designated representative, the incinerator shall be limited in hours of operation from one hour after sunrise to one hour before sunset.

(b) Monitoring Requirements for Small-Remote HMIWI Units. The owner or operator of a small-remote HMIWI unit, as defined in §113.2070 of this title shall comply with the following monitoring requirements.

(1) The owner or operator shall install, calibrate (to manufacturers' specifications), maintain, and operate a device for measuring and recording the temperature of the secondary chamber on a continuous basis, the output of which shall be recorded, at a minimum, once every minute throughout operation.

(2) The owner or operator shall install, calibrate (to manufacturers' specifications), maintain, and operate a device which automatically measures and records the date, time, and weight of each charge fed into the HMIWI.

(3) The owner or operator shall obtain monitoring data at all times during HMIWI operation except during periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data shall be obtained for 75% of the operating hours per day and for 90% of the operating days per calendar quarter that the designated facility is combusting hospital waste and/or medical/infectious waste.

(c) Reporting and Recordkeeping Requirements for Affected HMIWI Units. Except as provided in subsections (d) - (f) of this section, the owner or operator of an HMIWI unit, as defined in §113.2070 of this title shall comply with the following reporting and recordkeeping requirements. The owner or operator of an affected facility shall maintain the information (as applicable) listed in Table 8 of this subsection. This information shall be maintained on-site for a period of at least five years in paper copy, computer-readable format, or an alternative format approved by the executive director or his designated representative. The information shall be made available upon request by authorized representatives of the commission, the EPA, or local air pollution control agencies.

Figure: 30 TAC §113.2076(c)

Table 8. Records and Reports for Affected Facilities.

Record or Report	Record or Report Type	Data to be Recorded or Reported
<p>Operating Records (Include calendar dates for each record)</p>	<p>Emission Rates and Operating Parameters</p>	<ul style="list-style-type: none"> • Concentration of any pollutant listed in §113.2072, or • Measurements of opacity or CO as determined by the continuous monitoring system (if applicable).
		<ul style="list-style-type: none"> • Charge dates, times, weights, and hourly charge rates.
		<ul style="list-style-type: none"> • Fabric filter inlet temperatures during each minute of operation, as applicable.
		<ul style="list-style-type: none"> • Amount and type of dioxin/furan sorbent used during each hour of operation, as applicable.
		<ul style="list-style-type: none"> • Amount and type of Hg sorbent used during each hour of operation, as applicable.
		<ul style="list-style-type: none"> • Amount and type of HCl sorbent used during each hour of operation, as applicable.
		<ul style="list-style-type: none"> • Secondary chamber temperatures recorded during each minute of operation.
		<ul style="list-style-type: none"> • Liquor flow rate to the wet scrubber inlet during each minute of operation, as applicable.
		<ul style="list-style-type: none"> • Horsepower or amperage to the wet scrubber during each minute of operation, as applicable.
		<ul style="list-style-type: none"> • Pressure drop across the wet scrubber system during each minute of operation, as applicable.
		<ul style="list-style-type: none"> • Temperature at the outlet from the wet scrubber during each minute of operation, as applicable.
		<ul style="list-style-type: none"> • pH att the inlet to the wet scrubber during each minute of operation, as applicable.
		<ul style="list-style-type: none"> • Use of the bypass stack, including dates, times, and durations.
<ul style="list-style-type: none"> • All operating parameter data collected by facilities complying with §113.2075(a)(5) and §113.2076(a)(3). 		
	<p>Days Where Emissions Rates or Operating Parameters Have Not Been Obtained</p>	<ul style="list-style-type: none"> • Dates of occurrences • Emission rate or operating parameter not measured. • Reason for not obtaining the data. • Corrective action taken.

Record or Report	Record or Report Type	Data to be Recorded or Reported
	Equipment Malfunctions	<ul style="list-style-type: none"> • Calendar days, times, and durations of malfunctions. • Malfunction description. • Corrective action taken.
	Days Where Emissions Rates or Operating Parameters Have Been Exceeded	<ul style="list-style-type: none"> • Calendar days limits have been exceeded. • Exceedance description. • Exceedance reason. • Corrective action taken.
	Performance Test Results	<ul style="list-style-type: none"> • Results of initial, annual, and any subsequent performance tests to determine compliance with emission limits and/or establish operating parameters, as applicable.
	Operator Training and Qualification	<ul style="list-style-type: none"> • Names of operators who have completed operator training requirements, including training documentation and training dates. • Names of operators who have met the criteria for qualification under §113.2078 and their dates of qualification. • Names of operators who have completed review of information required by §113.2078(b), including dates of initial and subsequent reviews.
	Calibration	<ul style="list-style-type: none"> • Calibration records of any monitoring devices required under §113.2076(a)(1)-(3).
Initial Performance Test Report	Report signed by the facilities manager and submitted to the executive director no later than 60 days after the initial performance test.	<ul style="list-style-type: none"> • Initial performance test data as recorded under §113.2075(a)(2)(A)-(M). • Values for the site-specific operating parameters established under §113.2075(a)(4) or (5). • Waste management plan as specified under §113.2077.

Record or Report	Record or Report Type	Data to be Recorded or Reported
<p>Annual Reports</p>	<p>Report signed by the facilities manager and submitted to the executive director one year following the submission of the initial performance test report or subsequent annual reports, unless the affected facility is subject to permitting requirements under Title V of the FCAA. Title V facilities shall submit these reports semiannually.</p>	<ul style="list-style-type: none"> • Values for the site-specific operating parameters established under §113.2075(a)(4) or (5). • Highest maximum and lowest minimum operating parameter, as applicable, for each operating parameter recorded for the calendar year (or semi-annual period) being reported, and the previous calendar year (or semi-annual period) being reported, in order to provide the executive director or his designated representative with a summary of the facility performance over a 2-year period. • If a performance test was conducted during the reporting period, the results of that test. • Any information recorded under §113.2076(c)(1)(C) or (E) for the calendar year being reported, and the previous calendar year, in order to provide the executive director or his designated representative with a summary of the facility performance over a 2-year period. • If no exceedances or malfunctions were reported under §113.2076(c)(1)(C) or (E) for the calendar year being reported, a statement that no exceedances occurred during the reporting period. • Any use of the bypass stack, the duration, reason for malfunction, and corrective action taken. • Waste Management Plan as specified under §113.2077, if revised during the reporting period.

Record or Report	Record or Report Type	Data to be Recorded or Reported
Semiannual Reports	Report signed by the facilities manager and submitted to the executive director no later than 60 days following the end of the reporting period. The first semi-annual reporting period ends 6 months following the submission of the initial performance test report. Subsequent reports shall be submitted no later than 6 calendar months following the previous report.	<ul style="list-style-type: none"> • Any information recorded under §113.2076(c)(1)(C) or (E) for the semi-annual period being reported.

(d) Reporting and Recordkeeping Requirements for Small-Remote HMIWI Units. The owner or operator of a small-remote HMIWI unit, as defined in §113.2070 of this title shall comply with the following reporting and recordkeeping requirements:

(1) maintain records of the annual equipment inspections, any required maintenance, and any repairs not completed within ten operating days of an inspection. This information shall be maintained on-site for a period of at least five years in paper copy, computer-readable format, or an alternative format approved by the executive director or his designated representative. The information shall be made available upon request by authorized representatives of the commission, the EPA, or local air pollution control agencies; and

(2) submit an annual report containing information recorded under paragraph (1) of this subsection no later than 60 days following the year in which data was collected. Subsequent reports shall be sent no later than 12 calendar months following the previous report, unless the HMIWI unit is subject to permitting requirements under Title V of the FCAA, when the reports must be submitted semiannually. The report shall be signed by the facilities manager.

(e) Reporting and Recordkeeping Requirements for Units Burning Only Pathological Waste, Low-level Radioactive Waste, and/or Chemotherapeutic Waste. Combustors and incinerators burning only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste, all as defined in §113.2070 of this title, are exempt from all requirements of this division with the exception of the following reporting and recordkeeping requirements provided that the owner or operator of the combustor:

(1) files an exemption claim with the executive director or his designated representative, with a copy to the EPA, Region VI, within one year of the effective date of this division; and

(2) keeps records on a calendar quarter basis of the periods of time when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste is burned.

(f) Reporting and Recordkeeping Requirements for Co-fired Combustors. Any co-fired combustor, as defined in §113.2070 of this title, is not subject to this division provided that the owner/operator of the combustor:

(1) files an exemption claim with the executive director or his designated representative, with a copy to the EPA, Region VI, within one year of the effective date of this division;

(2) provides an estimate of the relative weight of hospital waste, medical/infectious waste, and other fuels and/or wastes to be combusted; and

(3) keeps records on a calendar quarter basis of the weight of hospital waste and medical/infectious waste combusted, and the weight of all other fuels and wastes combusted at the co-fired combustor.

§113.2077. Waste Management Plan.

The owner or operator of the affected facility shall prepare a waste management plan. The plan shall identify both the feasibility and the approach to separate certain components of solid waste from the health care waste stream in order to reduce the amount of toxic emissions from incinerated waste. A waste management plan may include, but is not limited to, consideration of solid waste components such as paper, cardboard, plastics, glass, battery, or metal recycling; or purchasing

recycled or recyclable products. A plan may include different goals or approaches for different areas or departments of the facility and need not include new waste management goals for every waste stream. It should identify, where possible, reasonably available additional waste management measures, taking into account the effectiveness of waste management measures already in place, the costs of additional measures, the emission reductions expected to be achieved, and any other environmental or energy impacts they might have. The American Hospital Association publication entitled "An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities," dated 1993, shall be considered in the development of the waste management plan.

§113.2078. Operating Procedures and Operator Training/Qualification Requirements.

(a) Operating Procedure Documentation. The owner or operator of a hospital/medical/infectious waste incinerator (HMIWI) unit subject to the requirements of this division shall document their operating procedures as specified in Table 9 of this subsection, and maintain the information listed in a readily accessible location for all HMIWI operators. This information, along with records of training shall be available for inspection by the commission, the EPA, or the local air pollution control agency. The owner or operator of an affected facility shall establish a program for reviewing the information listed in Table 9 of this subsection annually with each HMIWI operator for the purpose of maintaining proficiency of the operators. The initial review shall be conducted within six months after the effective date of this division or prior to assumption of responsibilities affecting HMIWI operation, whichever date is later.

Figure: 30 TAC §113.2078(a)

Table 9. Operating Procedure Documentation.

DOCUMENT TYPE	REQUIREMENTS
Source Documents	<ul style="list-style-type: none"> • A summary of the applicable standards under this division. • A copy of the current Waste Management Plan. • A description of the basic combustion theory applicable to the HMIWI unit.
Procedures	<ul style="list-style-type: none"> • Waste receiving, handling, and charging. • Startup and shutdown. • HMIWI unit operation. • Maintenance of proper combustion air supply. • Applicable air pollution control system operation to maintain emission standards. • Response to periodic malfunctions or conditions that may lead to malfunctions. • Bypass stack operation. • Emissions monitoring. • Recordkeeping and reporting. • Ash handling.

(b) Training and Qualification. No owner or operator of an affected facility shall allow the affected facility to operate at any time unless a fully trained and qualified HMIWI operator is accessible, either at the facility or available within one hour. The trained and qualified HMIWI operator may operate the HMIWI directly or be the direct supervisor of one or more HMIWI operators.

(1) The minimum requirements for operator training are specified in Table 10 of this paragraph and shall be obtained through any course which meets these requirements.

Figure: 30 TAC §113.2078(b)(1)

Table 10. Training Course Requirements.

<p>Initial Classroom Training (24 hours on following subjects)</p>	<ul style="list-style-type: none"> • Environmental concerns, including pathogen destruction and emission types. • Basic combustion principles, including products of combustion. • Operation of the incinerator type to be used by the operator, including proper startup, waste charging, and shutdown procedures. • Combustion controls and monitoring. • Operation of air pollution control equipment and factors affecting performance. • Monitoring methods for continuous emissions monitoring systems (CEMS), HMIWI and air pollution control equipment operating parameters, and calibration procedures as applicable. • Inspection and maintenance of HMIWI, air pollution control equipment, and CEMS. • Actions to correct malfunctions or conditions which may lead to malfunction. • Bottom and fly ash characteristics and handling procedures. • Applicable federal, state, and local regulations. • Work safety procedures. • Pre-startup inspections. • Recordkeeping requirements.
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Annual Refresher Training (4 hours on following subjects)	<ul style="list-style-type: none"> • Update of regulations. • Operation of the incinerator type used by the operator, including startup and shutdown procedures. • Inspection and maintenance. • Actions to correct malfunctions or conditions which may lead to malfunction. • Discussion of operating problems encountered by attendees.
Examination	<ul style="list-style-type: none"> • An examination designed and administered by the instructor.
Reference Material	<ul style="list-style-type: none"> • Material distributed to attendees covering the course topics.

(2) Qualification shall be obtained by:

(A) completion of a training course that satisfies the criteria under paragraph (1) of this subsection; and

(B) either six months experience as an HMIWI operator, six months experience as a direct supervisor of an HMIWI operator, or completion of at least two burn cycles under the observation of two qualified HMIWI operators.

(3) Qualification is valid for a period of one year beginning on the date on which the examination is passed or the completion of the required experience, whichever is later.

(4) To maintain qualification, the trained and qualified HMIWI operator shall complete and pass an annual review or refresher course of at least four hours covering the

requirements in Table 10 of paragraph (1) of this subsection. A lapsed qualification shall be renewed by one of the following methods.

(A) For those operators whose qualification has lapsed less than three years, the re-qualification requirements shall include successfully completing annual refresher training described in Table 10 of paragraph (1) of this subsection.

(B) For those operators whose qualification has lapsed three years or longer, the re-qualification requirements shall include repeating the initial classroom training.

§113.2079. Compliance Schedules.

(a) Within 60 days from the date the commission publishes notice in the *Texas Register* that the EPA has approved these rules and state plan, an owner or operator subject to the requirements of this division shall submit to the executive director a notice of intention to comply with these requirements within one year after EPA approval, a petition requesting a compliance extension, a notice of intention to shut down their hospital/medical/infectious waste incinerator (HMIWI) unit, or a petition requesting an extension of the shutdown date. The executive director will approve or deny a petition for compliance or shutdown extension within 60 days of receipt of the petition.

(1) Except as provided in paragraph (2) of this subsection, an owner or operator subject to the requirements of this division shall be in compliance with all provisions of this division on

or before the date one year after EPA approval of these rules and state plan, regardless of whether a designated facility is identified in the state plan inventory.

(2) An owner or operator who files a petition requesting a compliance extension shall comply with the requirements in Table 11 of this paragraph. The compliance schedule may be extended to allow compliance on or before the date three years after EPA approval of these rules and state plan, but in no case will a compliance extension be granted for a compliance date later than September 15, 2002.

Figure: 30 TAC §113.2079(a)(2)

Table 11. Compliance Extension Requirements.

<p>Analysis of Need</p>	<ul style="list-style-type: none"> • Document the analysis undertaken to support the need for a compliance extension, including an explanation why one year is insufficient.
<p>Analysis of Off-site Transport Option</p>	<ul style="list-style-type: none"> • Evaluate the option of temporary or permanent transport of the waste offsite to a commercial medical waste treatment and disposal facility.
<p>Control Plan</p> <p>Must specify measurable and enforceable incremental steps of progress (dates) toward compliance for installation of necessary air pollution control equipment.</p>	<ul style="list-style-type: none"> • Obtain services of architectural and engineering firm regarding the air pollution control devices (APCD). • Obtain design drawings of APCDs. • Contract award for control systems or process modifications, or purchase orders for APCDs. • Submit petition for site-specific operating parameters under §113.2075(5), as applicable. • Obtain major components of APCDs. • Initiate of on-site construction or installation of APCDs or process changes. • Complete on-site construction or installation of APCDs or process changes. • Initial startup of APCDs. • Initial compliance test(s) of APCDs. • Final compliance.

(3) Except as provided in paragraph (4) of this subsection, any HMIWI unit for which the owner or operator has filed a notice of intention to shut down will complete the shutdown on or before the date one year after EPA approval of these rules and state plan.

(4) An owner or operator who files a petition requesting a shutdown extension shall comply with the requirements in Table 12 of this paragraph. The shutdown schedule may be extended to allow compliance on or before the date three years after EPA approval of these rules and state plan, but in no case will a compliance extension be granted for a compliance date later than September 15, 2002.

Figure: 30 TAC §113.2079(a)(4)

Table 12. Shutdown Extension Requirements.

Analysis of Need	<ul style="list-style-type: none"> • Document the analysis undertaken to support the need for a shutdown extension, including an explanation why one year is insufficient.
Analysis of Off-site Transport Option	<ul style="list-style-type: none"> • Evaluate the option of temporary or permanent transport of the waste offsite to a commercial medical waste treatment and disposal facility.
<p>Shutdown Plan</p> <p>Must specify measurable and enforceable incremental steps of progress (dates) toward shutdown.</p>	<p style="text-align: center;">Installing Alternative Treatment Technology (ATT)</p> <ul style="list-style-type: none"> • Contract award for ATT vendor. • Initiate of on-site construction or installation of ATT. • Complete on-site construction or installation of ATT. • Shutdown of existing HMIWI unit. • Render existing HMIWI unit inoperable
	<p style="text-align: center;">Contracting With Commercial Waste Treatment & Disposal Company (WTDC)</p> <ul style="list-style-type: none"> • Obtain price quotes for commercial disposal services. • Contract start with WTDC. • Shutdown of existing HMIWI unit. • Render existing HMIWI unit inoperable.

(b) An owner or operator subject to the requirements of this division shall be in compliance with the operator training and qualification requirements specified in §113.2078(b) of this title (relating to Operating Procedures and Operator Training/Qualification Requirements) and the inspection

requirements specified in §113.2078(c) of this title on or before the date one year after EPA approval of these rules and state plan. Any owner or operator who has been granted an extended compliance schedule shall be in compliance with any additional operator training and qualification requirements and inspection requirements necessitated by the addition of air pollution control equipment on or before the extended compliance date granted by the executive director.

(c) An owner or operator of an affected HMIWI unit subject to the requirements of the federal operating permits program shall submit an abbreviated application to the executive director on or before September 15, 2000.