ILLINOIS POLLUTION CONTROL BOARD
August 18, 2011

IN THE MATTER OF:	)	
	)	
AMENDMENTS TO 35 ILL. ADM. CODE	)	R11-20
PART 229:	)	(Rulemaking - Air)
HOSPITAL/MEDICAL/INFECTIOUS	)	
WASTE INCINERATORS	)	

Proposed Rule. Second Notice.

OPINION AND ORDER OF THE BOARD (by C.K. Zalewski):

In continued recognition of proponent's earlier-granted motion for expedited consideration, the Board today adopts a second notice rule proposal for review by the Joint Committee on Administrative Rules (JCAR)under the Administrative Procedure Act (APA), 5 ILCS 5/100 *et seq*. As explained in more detail below, the rules were initially proposed by the Illinois Environmental Protection Agency (Agency or IEPA) to update and tighten the Board's rules at 35 Ill. Adm. Code Part 209 consistent with the 2009 changes to federal rules for hospital/medical/infectious waste incinerators.

The second notice proposal adopted here is substantively unchanged from the first notice proposal adopted by the Board. The order's text contains the text of the Agency's proposal as amended by the Agency in its May 25 and June 13, 2011 *errata* sheets, and in its August 16, 2011 *errata* sheet filed along with its closing public comment (PC1). The rule text also contains some non-substantive changes suggested by JCAR. The only affected source, Stericycle, Inc. in Clinton, Dewitt County, testified at both hearings that the compliance dates proposed are acceptable.

The Board's June 16, 2011 first notice proposal (adopted after completion of the June 8, 2011 hearing) was published at 35 Ill. Reg. 10224 (July 1, 2011). As announced at the June 28, 2011 hearing, the public comment period closed on August 16, 2011. The only public comment received was filed by the Agency. Adoption of second notice today will facilitate completion of this rulemaking on proponent's preferred timetable.

PROCEDURAL HISTORY

On December 23, 2010, the Agency filed a rulemaking proposal for amendments to the Board's air quality standards rules pursuant to the general rulemakings provisions of Section 27 of the Illinois Environmental Protection Act (Act), 415 ILCS 5/27 (2010) and the Boards procedural rules at 35 Ill. Adm. Code 102. The proposal was accompanied by, among other

things, a Technical Support Document (TSD)[1], a motion for waiver of copy submission requirements (which is hereby granted), and a motion for expedited review (MER) (granted June 16, 2011).

In the Statement of Reasons (SR) accompanying the proposal, the Agency stated that this proposal contains amendments to 35 Ill. Adm. Code Part 229 "Hospital/Medical/Infectious Waste Incinerators" (HMIWI). The proposed rules would reflect amendments promulgated by the United States Environmental Protection Agency (USEPA) to federal air quality standards,[2] including new source performance standards and emissions guidelines. SR at 1. Changes include revised emission standards (more stringent than existing ones), revised waste management plan provisions (for greater flexibility in demonstrating compliance), and removal of an existing startup, shutdown, and malfunction provision. *Id.*

The compliance date for the new rules would be January 1, 2014. The Agency reports Illinois currently has only one HMIWI to which the new rules would apply: the Stericycle, Inc. facility located in Clinton, DeWitt County. SR at 8-9.

In a January 6, 2011 order, the Board accepted the petition for hearing. But, the Board reserved ruling on the pending motions, as participants' time to respond to them had not yet elapsed. Hearings were initially scheduled for March and April of this year. *See* hearing officer order (Feb. 1, 2011). Accordingly, the Agency prefiled testimony on February 18, 2011 and Stericycle did so on February 20, 2011.

On February 22, 2011, in accordance with Section 27(b) of the Act (415 ILCS 5/27(b) (2010)), the Board requested that the Department of Commerce and Economic Opportunity (DCEO) conduct an economic impact study for this rulemaking. On May 23, 2011, the Board received a response from DCEO, declining the request, and stating that it was unable to perform an economic impact study.

The first-scheduled set of hearings did not take place, as newspaper publication was not accomplished to allow for the 30-day pre-hearing notice required by the CAA in all of the state's 11 air regions. Hearings were rescheduled for June 8 and 28, 2011; to facilitate hearing efficiency, the Agency and Stericycle were directed by the hearing officer to pre-file answers to

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[1] The TSD is entitled "Control Options and Associated Costs of Complying with the Proposed Revisions to 35 Illinois. Administrative Code, Part 229: Hospital/Medical/Infectious Waste Incinerators", AQPSTR10-08, IEPA (Dec.10, 2010)

[2] USEPA adopted its "Standards of Performance for New Stationary Sources and Emissions Guidelines for Existing Sources: Hospital/Medical/Infectious Waste Incinerators" at 74 Fed. Reg. 51368 (Oct. 6, 2009). States were required to have State Implementation Plans (SIP) revisions with the new incinerator rules filed within a year of the date of USEPA promulgation of the new rules, *i.e.* by October 6, 2010. Section 129(b)(3) of the federal Clean Air Act (CAA), 42 USC7429(c), requires USEPA to develop a Federal Implementation Plan (FIP) within two years of federal rule promulgation *i.e.* by October 6, 2011.

questions concerning the previously-prefiled testimony. *See* hearing officer order (Apr. 20, 2011)[3].

Stericyle prefiled testimony and answers for the first hearing on May 23, 2011, and the Agency filed its answers and first errata sheet on May 25, 2011. The first hearing was held in Clinton on June 8, 2011, and the second is scheduled for June 28, 2011 in Chicago.

JUNE 8, 2011 HEARING

Hearing[4] commenced as scheduled in Clinton on June 8, 2011. The Agency was represented by Attorney Charles Matoesian, who was accompanied by witness Dixon Nwaji. 6/8/11 Tr. at 6. Stericycle was not represented by an attorney. Stericyle's spokesman was Selin Hoboy, its vice-president of legislative and regulatory affairs. 6/8/11 Tr. at 7. Ms. Hoboy was accompanied by Stericycle's Rick Gabey, Regional Operations Director, Jim Nold, Plant Operations Manager, and Wade Van Zee, Manager of Environmental Quality. *Id.*

The Agency and Stericycle each presented one witness, and six exhibits[5] were offered and admitted into the record. These included Exhibit 2, an agreed-upon revision of the

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[3] The hearing officer order stated:

> But, the hearing officer notes that the Board could still timely adopt rules on the schedule preferred by the Agency if the Board adopts a first notice proposal no later than the Board meeting scheduled for June 16, 2011.
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> The Board hypothetically could adopt the Agency's proposal as drafted for first notice without commenting on the merits of the proposal in advance of any hearings. But, given Stericycle's prefiled testimony concerning the proposed compliance dates, Board action in advance of hearing could be misconstrued as prejudgment on the merits of the proposal without allowing Stericycle to be heard.
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> Under these circumstances, it would be most helpful if the June 8 hearing could develop a record for Board deliberation that makes clear any agreements or disagreements the Agency and Stericycle have concerning the other's respective positions on the proposal. So, Board staff has taken steps to encourage the participants to refine their thinking concerning the Agency's proposal and Stericycle's testimony concerning the proposed compliance dates. Attached to this order are questions concerning the previously-filed testimony, which this order requests that the Agency and Stericyle respond to in writing in advance of hearing, on or before May 23, 2011. Hearing officer order (Apr. 20, 2011) at p. 3.

[4] The transcripts of the two hearings were not consecutively numbered. Accordingly, hearing transcript are cited as "6/8/11 Tr." and "6/28/11 Tr."

[5] Exhibit 1: Testimony of Dixon Nwaji, Environmental Protection Engineer, IEPA Air Quality Planning Section, filed 2/18/2011; Exhibit 2: 6/8/11 Amendments Agreed to by IEPA & Stericycle to 35 Ill. Adm. Code 229.115 "Compliance Schedules for HMIWIs That Will

compliance dates to reflect discussions between IEPA and Stericyle resolving concerns expressed about the originally proposed compliance dates by Stericycle in pre-filed testimony. 6/8/11 Tr. at 10-11. Both participants agreed to a minor language modification in Section 229.115 (b)(2)(B)(vii) suggested by the hearing officer and indicated on the face of Exhibit 2. 6/8/11 Tr. at 15.

Testimony of IEPA's Dixon Nwaji

The Agency presented the prefiled testimony of Dixon Nwaji an Environmental Protection Engineer in the Agency's Air Quality Planning Section. The testimony was entered into the record as if read as Exhibit 1. *See* 6/8/11Tr. at 9. Mr. Nwaji summarized much of the material in the TSD submitted by the Agency along with its proposal.

Since April 1991, Mr. Nwaji's responsibility in this capacity has included tracking the development of regulations under section 112 of the federal CAA, including the national emission standards for hazardous air pollutants (NESHAPS) and related regulations under Section 129 of the CAA. Mr. Nwaji also provides outreach to the regulated community and other stakeholders in the implementation of the regulations. Exh. 1 at unnumbered p. 2.

Regulatory Background. Mr. Nwaji reminded that the CAA requires the USEPA, in order to protect public health and welfare, to promulgate maximum achievable control technology standards (MACT) for the control of emissions of listed pollutants from HMIWI. MACT standards are based on the maximum degree of reduction in emissions of listed toxic air pollutants already being achieved by the best-controlled and lower-emitting sources in an industry group (in this instance, the HMIWI source category). The listed pollutants are hydrogen chloride, carbon monoxide, lead, cadmium, mercury, particulate matter, oxides of nitrogen, sulfur dioxide, and dioxin/furans. Exh. 1 at unnumbered p. 2.

Mr. Nwaji then reviewed the history of the rules at issue here. Mr. Nwaji stated that on September 15, 1997, USEPA published new source performance standards (NSPS) for new HMIWI units, and emissions guidelines (EG) for existing HMIWI units (the 1997 NSPS/EG standards). Illinois adopted rules codified as 35 Ill. Adm. Code Part 229, and USEPA approved as part of the Illinois SIP rules that reflect the emissions guidelines under the 1997 NSPS/EG standards. Exh. 1 at unnumbered p. 3.

Continue to Operate"; Exhibit 3: IEPA 5/25/11 Answers and First *Errata* to Questions Regarding Hospital/Medical/ Infectious Waste Incinerators; Exhibit 4: Stericycle Inc. Testimony on Amendments to 35 Ill. Adm. Code Part 229: HMIWI, filed 2/22/2011(signed by Selin Hoboy, VP Legislative and Regulatory Affairs); Exhibit 5: 5/23/11 Stericycle Inc. Testimony on Amendments to 35 Ill. Adm. Code Part 229: HMIWI, signed by Selin Hoboy, VP Legislative and Regulatory Affairs); Exhibit 6: 6/23/2011 Hearing officer order in R11-24 addressing questions to IEPA and Stericycle re their respective filings of 5/25/2011 & 5/23/2011.

On March 2, 1999, the U.S. Court of Appeals for the District of Columbia Circuit in a case challenging USEPA's methodology in deriving the 1997 MACT standards, remanded the rule for further explanation from USEPA of its derivation of the standards. Since the appellate court did not vacate the rule, rule requirements remained in effect during the remand and were fully implemented by September 15, 2002. Then, on October 6, 2009, the USEPA, in response to the appellate remand, published revised NSPS and EG for HMIWI units (the 2009 NSPS/EG standards). The amended standards addressed issues raised in litigation by petitioners, and also satisfied USEPA's obligation under the CAA to conduct a review of the HMIWI MACT standards every five years. Exh. 1 at unnumbered p. 3.

With the promulgation of the 2009 NSPS/EG standards, IEPA is required under the CAA to submit a revised SIP to address the new requirements under the revised emissions guidelines. Exh. 1 at unnumbered p. 3.

Waste Treatment by Medical Waste Incineration. Mr. Nwaji testified that the proposed amendments to 35 Ill. Adm. Code Part 229 will substantially reduce emissions of hazardous air pollutants (HAPs) and criteria pollutants from medical waste incinerators, also referred to as HMIWI. He explained that medical waste incinerators are major sources of persistent**,** bioaccumulative, and toxic pollutants such as lead, cadmium, dioxins/furans, and mercury. These pollutants are known or suspected to cause serious health effects, such as cancer, birth defects, and lung defects as well cause adverse environmental and ecological effects. The reductions in emissions of these toxic pollutants that will be achieved from the implementation of the proposed amendments will accordingly benefit public health and the environment. Exh. 1 at unnumbered p. 3.

Mr. Nwaji explained that incineration is among the existing waste treatment technologies used to process medical waste to make it biologically and chemically safe for disposal in a landfill. The advantages of incineration include destruction of pathogens and hazardous organics, reduction in the volume of material combusted, and energy recovery. In addition, incineration leaves wastes unrecognizable after treatment. But, a major disadvantage of incineration as a treatment method is the public health risk posed by the emissions of hazardous air pollutants from the waste incineration process. Other waste treatment technologies such as autoclaving (and landfilling), gas/vapor sterilization, chemical disinfection, thermal inactivation, microwave sterilization and others are being embraced as alternative treatment options to incineration as they do not pose the level of public health risk that incineration does. Exh. 1 at unnumbered p. 3.

Mr. Nwaji noted that each waste treatment method presents its own performance issues and environmental impacts. The alternative treatment options to varying degrees are not as effective as incineration when used to treat certain waste types such as pathological, chemotherapy and pharmaceutical wastes. In terms of environmental impacts, autoclaving, for example, does not achieve the volume reduction as incineration, and that some medical wastes that are autoclaved may require more landfill space than if incinerated. Other environmental impacts associated with landfilling of autoclaved medical wastes include landfill gas emissions, landfill leachate issues, and impacts of waste transportation traffic. Exh. 1 at unnumbered p. 3.

Summary of Proposed Revisions. Mr. Nwaji stated that emission limits under the 2009 NSPS/EG standards are far more stringent than the 1997 NSPS/EG standards, and that most of the HMIWI units nationwide (including units located in Illinois) would need to improve performance in order to comply with amended standards. The CAA requires that the standards under an approvable SIP be at least as protective as those under the promulgated emissions guidelines. Mr. Nwaji stated that the proposed revisions to Part 229 "are deemed equivalent in stringency to the amended standards under the 2009 NSPS/EG standards." Exh. 1 at unnumbered p. 3-4.

Mr. Nwaji said that the proposed emissions limits apply at all times, including during periods of startup, shutdown and malfunction (SSM). Since the regulatory exemption provision in the 1997 NSPS/EG standards that allowed facilities under MACT programs to exceed emission limits during periods of SSM was vacated in 2008 by the D. C. appellate court, that provision is deleted from the rules in the proposed revisions to Part 229. Exh. 1 at unnumbered p. 4.

Also deleted from the rules in the proposed revisions are percent reduction limits for hydrogen chloride, lead, cadmium, and mercury. Because the approach used in determining percent reduction limits for these pollutants under the 1997 NSPS/EG standards did not account for nontechnology factors that also affect emissions from HMIWI, the use of percent reduction limit as an option for compliance demonstration was deleted from the 2009 NSPS/EG standards. Exh. 1 at unnumbered p. 4.

Emissions from HMIWI units depend greatly on the materials that are combusted. Enhanced waste management practices such as waste segregation at the point of generation, purchasing of recycled or recyclable products, and good combustion control practices are effective pretreatment strategies for reducing emissions of certain target pollutants. Occupational Safety and Health Administration (OSHA) requirements preclude commercial HMIWI operators from segregating medical waste received from client waste generators for treatment. Taking into account the effectiveness of waste segregation as a pretreatment strategy, the proposed revisions include a requirement that commercial HMIWI operators provide training and education in waste management practices, and ensure that each client develops its own waste management plan that includes elements such as waste segregation and purchasing of recycled or recyclable products, among others. Exh. 1 at unnumbered p. 3-4.

The proposed revisions include additional stack testing requirements, and a provision that would allow for the use of previous test(s) results for initial compliance demonstration if certain criteria are met. Also included is the provision that would allow HMIWI operators to forego required annual test(s) for the subsequent two years if all three annual test(s) over a three-year period indicate compliance with the applicable limits for particulate matter, carbon monoxide, or hydrogen chloride. The proposed revisions also include the requirements for a one-time visible emissions test of ash handling operations, and annual equipment and air pollution control device(s) inspections. Exh. 1 at unnumbered p. 4.

Finally, the proposed revisions include a provision for a phased schedule for compliance with the amended emission limits. The phased schedule is provided to enable HMIWI operators

that may need to install and/or modify equipment in order to demonstrate compliance with the amended emission limits. Exh. 1 at unnumbered p. 4.

Affected Sources. Mr. Nwaji stated that there are two known existing HMIWI units in operation in Illinois that are subject to Part 229 requirements. The two units are both categorized as large based on waste charging capacity, and are commercially operated by Stericycle, Inc ("Stericycle"), at its Clinton facility. Exh. 1 at unnumbered p. 4. Stericycle is a major provider of medical waste management services. In addition to its use of incineration to treat medical waste, Stericycle also uses other alternative treatment methods such as its proprietary Electro-Thermal Deactivation and autoclaving to process waste at its other facilities outside the state. *Id.* at unnumbered p. 4-5.

Cost and Economic Impacts. According to Mr. Nwaji, under the existing Part 229 standards, an initial performance test (for all target pollutants) and subsequent annual tests (for 3 of the target pollutants) are required for compliance demonstration. Based on the results of past performance tests, Mr. Nwaji stated that neither of the two known HMIWIunits (as configured) meet all the emission limits for the target pollutants in the proposed revisions. In other words, the 2 Stericycle HMIWI units at the Clinton facility would need to improve performance by installing control systems, adding incremental controls, using any of the alternatives to compliance, or some combination of these measures to meet the proposed standards. Exh. 1 at unnumbered p. 4.

Mr. Nwaji's analysis of USEPA's data developed for the 2009 NSPS/EG standards rulemaking shows an estimated total capital cost to Stericycle for compliance with the proposed revisions of approximately $2.3 million for the 2 HMIWI units. He estimates that the total annual cost of compliance as approximately $700,000. Mr. Nwaji commented that autoclaving followed by landfilling is considered a viable alternative to incineration. If this alternative disposal option is used by Stericycle, Mr. Nwaji estimated Stericycle's compliance costs for the 2 HMIWI units to be a total capital cost of approximately $981,000, and a total annual cost of approximately $526,000. Exh. 1 at unnumbered p. 5.

Mr. Nwaji stated that, based on the analysis of data used in developing the 2009 NSPS/EG standards on which the proposed revisions to Part 229 are based, it is not expected that the incremental costs of compliance will significantly impact commercial operators and waste generators, whether the costs are absorbed or passed on to customers. The additional costs, imposed by the proposed revisions both to commercial operators and waste generators, will accelerate the trend towards alternative waste treatment options such as autoclaving. For the waste generators, the additional costs serve as incentive to implement enhanced waste management practices such as waste segregation to reduce cost of disposing their waste by minimizing the amount of waste sent offsite for treatment. For the commercial operator(such as Stericycle), it is expected that this will translate to a decline in the quantity of medical waste received for treatment, as well as declines in treatment costs, incineration revenues, and profits. Exh. 1 at unnumbered p. 5.

Mr. Nwaji concluded that, in developing the proposed revisions to Part 229,IEPA reviewed and relied upon the documents detailing results of USEPA's analyses of data used in

developing the 2009 NSPS/EG standards on which the proposal is based. In Mr. Nwaji's opinion, the proposal to amend the existing Part 229 standards is both technically and economically feasible. Exh. 1 at unnumbered p. 4.

Answers to Questions Deferred at Hearing. Questions concerning Mr. Nwaji's testimony (Exh. 1) and the Agency's Answers to Questions and the Agency's First Errata Sheet (Exh. 3) were posed in a June 3, 2011 hearing officer order, entered into the record as Exh. 6. Many of these questions asked whether particular technical revisions to rule text (but not compliance dates) would be acceptable to the Agency. Mr. Matoesian stated that the IEPA was not prepared to respond at that time, but that IEPA would attempt to provide written answers on June 13, 2011. 6/8/11 Tr. at 18, 23. These answers would then be further addressed at the second hearing on June 28, 2011, if necessary.

Answers and Second Errata Sheet. On June 13, 2011, the Agency filed the promised answers to questions in Exhibit 6 in the filing entitled "Illinois EPA Answers and Second Errata to Questions Regarding Hospital/Medical/Infectious Waste Incinerators". These changes were technical changes to cross-references, addresses for obtaining materials incorporated by reference, and the like. The largest change is inclusion of text concerning HWIMI shutdown in Section229.116(c) similar to that in the USEPA rules.

Testimony of Stericycle's Selin Hoboy

After the Agency's presentation, Stericycle's Selin Hoboy presented a short statement. Ms. Hoboy did not present the text of the two previous Stericycle prefiled statements; these were entered into the record as Exhibits 3 & 4. Ms. Hoboy stated that Stericycle was present at hearing "to add comments to our prefiled testimony." 6/8/11 Tr. at 13. These prefiled statements will be summarized below, prior to summary of the balance of Ms. Hoboy's oral testimony.

Stericycle's February 22, 2011 Filing. In its initial filing, Stericycle explained that Stericycle is headquartered in Lake Forest, Illinois. Stericycle is a publicly traded company (SRCL) which employs over 5000 people in the United States and over 8000 worldwide. Stericycle is the leading provider of compliant healthcare waste services to over 400,000 customers, including local health departments and public facilities. Within Illinois, Stericycle employs approximately 600 employees with 1 treatment facility in Clinton, 2 corporate function facilities in the Chicago area, and 2 transportation facilities. Currently Stericycle operates 6 incineration treatment locations operating 8 incinerator units throughout the U.S., including the Clinton facility. Ex. 3, p. 1.

Stericycle stated that it acknowledges that it is subject to the Part 229 rules, and that the Agency-proposed amendments to the rules are necessary under the CAA. Stericycle's sole concern was about the compliance schedule as proposed: *i.e.* January 1, 2014 ultimate compliance date and interim dates:

Section 229.115 Compliance Schedules for HMIWIs That Will Continue to Operate

b) On and after January 1, 2014, each owner or operator of an HMIWI, as defined in Section 229.110 (a)(1) or (a)(2) of this Part, and subject to the emissions limits under Section 229.125(c) or (e) of this Part, as applicable, or Section 229.126(c) of this Part, shall comply with the applicable provisions of this Part according to the following schedules:

1) Except as provided in paragraph (2) of this subsection and unless another date is specified in the provisions of this Part, all owners or operators of HMIWIs shall comply with all of the provisions of this Part by January 1, 2014.

2) Except as provided in paragraph (3) of this subsection, the owner or operator of an HMIWI may have until October 6, 2014, to comply with this Part. To avail themselves of this extended compliance timeframe, the owner or operator of an HMIWI shall do all of the following:

A) Submit its CAAPP application to the Agency, on or before January 1, 2013, requesting an extended compliance schedule, pursuant to Section 39.5(5)(d) of the Act, [415 ILCS 5/39.5(5)(d)]. This compliance schedule shall include documentation supporting the need for an extension, a final control plan for the HMIWI and incremental steps to be taken toward compliance with this Part that, at a minimum, meet the increments of progress specified in subsection (b)(2)(B) of this Section;

B) Meet the following increments of progress by the dates indicated:

i) Finalize all contracts for the purchase of either pollution control equipment, process modification or control systems by July 1, 2011;

ii) Commence the implementation of either the process modifications or the necessary construction or installation of air pollution control devices for the HMIWI by April 1, 2012;

iii) Complete either the process modifications or the installation or construction of the new air pollution control equipment by January 1, 2013;

iv) Perform initial startup of the retrofitted HMIWI by July 1, 2013; and

v) Complete the initial performance test in accordance with Section 229.142 of this Part within 180 days after initial startup. Exh. 3 at 2-3, citing IEPA 12/23/10 proposal.

Stericycle proposed an alternate schedule below that identifies a final compliance date of August 1, 2014 (Exh. 3 at 4):

Increments of progress	**Stericycle Proposed Date**
i) Finalize all contracts for the purchase of either pollution control equipment, process modification or control systems	August 1, 2012
ii) Commence the implementation of either the process modifications or the necessary construction or installation of air pollution control devices for the HMIWI	March 1, 2013
iii) Complete either the process modifications or the installation or construction of the new air pollution control	September 1, 2013

Exh. 4 at 2.

Stericycle articulated five concerns, which it believed were met by its alternate proposal:

1. The time required to perform the requisite retrofit activities at the Clinton facility as outlined in the alternate schedule. The new HMIWI regulations will require very significant reductions in emissions from medical waste incinerators. U.S. EPA's new limits are so stringent that there is not an existing commercial HMIWI in operation anywhere in the U.S. that has demonstrated the ability to meet all of the new emission standards. As such, substantial air pollution control equipment changes and data acquisition system improvements/changes are going to be required at all HMIWI to comply with the new emission limits.

2. U.S. EPA identified three different air pollution control (APC) systems that would be employed to meet the new emission limits. Most HMIWI are currently equipped with some variation of these three systems; however, equipment upgrades, improvements, reconfiguration, etc. will still be required for these systems to reliably and consistently comply with the new limits. U.S. EPA acknowledges this fact and further encourages States to adopt the full implementation schedule in the preamble to the rule as follows:

> "The proposed amendments… would allow existing HMIWI to demonstrate compliance with the amended standards within 3 years from the date of approval of a State plan or 5 years after promulgation of the revised standards, whichever is earlier. Consistent with CAA [Clean Air Act] section 129, EPA expects states to require compliance as expeditiously as practicable. **However, because we believe that many HMIWI will find it necessary to retrofit existing emission control equipment and/or install additional emission control equipment in order to meet the proposed revised limits, EPA anticipates that States may choose to provide the maximum compliance period allowed by CAA section 129(f)(2).** (emphasis

added). Federal Register / Vol. 73, No. 231 / Monday, December 1, 2008, Page 72974.

3. The time required to develop and to submit the construction permit application for the retrofit activities and then adequate time to allow IEPA to review the application and issue the resulting air permit must be accounted for. There are tasks beyond Stericycle's control that will have an impact on the implementation schedule, and the feasibility of meeting the time frames. Specifically, the administrators of the State Plans (such as IEPA) will need time to review and approve designs and construction plans/permit applications, as well as test results. In addition, the public will have an opportunity for review and comment. Stericycle recognizes that certain construction/retrofit activities may not be started without the requisite agency approvals and/or permits. Based on Stericycle's past experience with implementation of the 1997 HMIWI Rule, the time required for these events to occur will be significant, regardless of how quickly the actual work to install the upgrades is accomplished. The January 1, 2014 deadline is insufficient time to allow for these events, and the upgrade work, to occur.

4. The anticipated shortage of external engineering and air pollution control vendors and the extended delivery times due to a drain on these industries associated with U.S. EPA regulatory deadlines including the HMIWI regulations and Boiler MACT. The HMIWI industry will be competing for engineering and air pollution control resources with other industrial sectors that will influence the availability and lead time for equipment and services. Other Federal air quality rules (e.g., Boiler MACT/CISWI) have similar compliance schedules and will put a significant demand on engineering and APC resources. The large industrial sectors impacted by those rules (e.g. utilities, industrial manufacturing sources) have a larger market share and "buying power" than the HMIWI sector, and Stericycle may be pushed to "the back of the pack" when attempting to contract for these resources.

5. The time required to efficiently plan and stage the equipment and personnel to retrofit eight (8) HMIWI across the U.S. while maintaining the ability to service Stericycle customers.

6. Any individual improvements made to an HMIWI APC to positively impact the emissions of one pollutant, may actually have an opposite effect and negatively impact the emissions of another pollutant. As such, an appropriate implementation schedule is not only necessary to upgrade/install/improve the APC systems as a whole, but to evaluate the performance of these systems and ensure reliable, consistent compliance with all of the emission limits.

The APC evaluation will require pre-testing to confirm proper system operation and the ability to demonstrate compliance with the new limits. Actual testing of the HMIWI with retrofit APC will include scheduling a testing company, performing a test, receiving results, and possibly re-evaluating or making minor system adjustments as necessary to demonstrate future compliance. This is especially true with the very low emission limits associated with the new rule. Reliable compliance with these limits will likely require a lengthy shakedown period.

As a result, Stericycle must plan for contingency time to perform the shakedown of the new equipment at the Clinton facility in advance of conducting the Initial Performance Test. Exh. 4 at 2-6.

Stericycle's May 25, 2011 Filing. After additional conversations with IEPA, and in response to questions contained in an April 20, 2011 hearing officer order, in a May 25, 2011 filing (Exh.5), Stericycle proposed another compliance schedule:

Increments of progress	**Stericycle Proposed Date**
Stericycle will submit construction permit application	January 1, 2012
i) Finalize all contracts for the purchase of either pollution control equipment, process modification or control systems	August 1, 2012
ii) Commence the implementation of either the process modifications or the necessary construction or installation of air pollution control devices for the HMIWI	March 1, 2013
iii) Complete either the process modifications or the installation or construction of the new air pollution control equipment	September 1, 2013
iv) Final compliance	June 21, 2014
v) Complete the initial performance test in accordance with Section 229.142 of this Part	October 6, 2014

Exh. 5 at 2, fn. omitted

Ms. Hoboy's testimony. Ms. Hoboy stated that Stericycle had reviewed the proposed amendments, and worked with IEPA to review alternative time frames and dates for demonstrating compliance. Ms. Hoboy then read from the agreed upon changes to the rules memorialized in Exhibit 2. 6/8/11 Tr. at 13-16. To allow for an easy comparison, this information has been entered below into a table of the sort earlier prepared by Stericycle:

Increments of progress	**Agreed Compliance Date No Later Than**
i) Finalize all contracts for the purchase of either pollution control equipment, process modification and control systems	August 1, 2012
ii) Commence the implementation of either the process modifications or the necessary construction or installation of air pollution control devices for the HMIWI	March 1, 2013
iii) Complete either the process modifications or the installation or construction of the new air pollution control equipment	September 1, 2013
iv) Achieve final compliance which includes incorporating all process changes, and/or completing	June 1, 2014

retrofit construction as described in the final control plan connecting the air pollution control equipment or process changes such that the unit is brought online and ensuring that all necessary process changes and air pollution control equipment are operating properly	
v) Complete the initial performance test in accordance with Section 229.142 of this Part	October 6, 2014
vi) Submit the results of the initial performance test and revised waste management plans to IEPA	60-days following initial performance tests
vii) Submit notification to IEPA within 10 business days of completing or failing to complete i)-v) above	Various

In response to questions by Board staff, Ms. Hoboy agreed that the milestone date of January 1, 2012 in Section 229.115(b)(2)(A) was agreeable to Stericycle, 6/8/11 Tr. at 17, and that Stericycle would do everything in its power to comply with the agreed-upon dates. 6/8/11 Tr. at 20.

ADOPTION OF FIRST NOTICE PROPOSAL

The Board adopted its first notice proposal on June 16, 2011, granting the Agency's motion for expedited decision. The first notice proposal contained the text of the Agency's proposal as amended by the Agency to date in its May 25 and June 13, 2011 *errata* sheets, and also contained the compliance dates agreed to by Stericycle at the first hearing.

The *Illinois Register* publication of the first notice proposal was at 35 Ill. Reg. 10224 (July 1, 2011). This publication initiated the 45-day public comment period, expiring August 16, 2011.

In preparing the first notice text, JCAR suggested several minor changes which are included in the Board's second notice order below. But, the Board does not make certain changes which the Board believes are the result of scrivener's error. These occur in the definitions in Section 229.102. The definition being added for "minimum reagent flow rate" must continue to be underlined. The definition being amended for "minimum secondary chamber temperature" must show only the added words as underlined. (Some confusion may have been introduced by the Agency's original proposal to strike the existing definition in its entirety, and then propose a new definition with minimal additions—the order below shows the amendment intended.)

JUNE 28, 2011 HEARING

The second hearing was held in Chicago on June 28, 2011. The Agency was again represented by Attorney Charles Matoesian, who was again accompanied by witness Dixon Nwaji. 6/28/11 Tr. at 4. Stericycle was not represented by an attorney. Stericyle's spokesman was again Selin Hoboy, its vice-president of legislative and regulatory affairs. Ms. Hoboy was accompanied by Stericycle's Rick Gabey, Regional Operations Director. *Id.* No other participants were present at the hearing.

No additional testimony was presented at the very short (14 transcript pages) hearing. The participants discussed various date discrepancies in documents, but agreed that the numbers appeared correctly in the Board's June 16, 2011 opinion. 6/28/11 Tr. at 6-12. The participants agreed to file any closing comments no later than August 16, 2011, to allow for the possibility of Board adoption of a second notice opinion and order at the Board's August 18, 2011 meeting. No written closing comments were filed by either the Agency or Stericycle.

PUBLIC COMMENT 1 (IEPA)

The Agency filed closing comments on August 16, 2011, which it captioned as its "first notice comments and third errata" and which the Board docketed as PC 1. The Agency requested changes in three specific subsections of 35 Ill. Adm. Code Section 229.142 "Initial Performance Testing and Establishment of Operating Parameters for all HMIWIs":

1. The Agency believes it made a typographical error which is reflected in the Boards order at Section 229.142(b)(1). In the Board's order of June 16, 2011, subsection (b)(1) stated "[e]xcept as provided in Section 229.115(a)(2)(B)(v) of this Part…" The citation contains an error, the text should read, "[e]xcept as provided in Section 229.115(b)(2)(B)(v) ~~(a)(2)(B)(v)~~ of this Part" PC 1 at 1.

2. The Board also noted on page 13 of its June 16, 2011, order that "[t]he first notice proposal also reflects editorial changes to the Agency's proposal by the Board at 229.116(a)(2), (b) and (c), on which the Agency is encouraged to comment." Upon reflection, the Agency disagrees with the Board's changes to 229.116(a)(2) and (b) removing cross situations to subsection to (a)(1). The Agency accordingly requests that the text be changed to read as follows:

***

2) On or before January 1, 2013, except as provided for in Section 229.116(c), for an HMIWI as defined in Section 229.110 (a)(1) or (a)(2) of this Part subject to the emissions limits under Section 229.125(c), as applicable, or Section 229.126(c) of this Part.

3. b) Take the following affirmative steps to demonstrate that the HMIWI has been rendered permanently inoperable by September 15, 2000, for an HMIWI as defined in Section 229.110 (a)(1), or by January 1, 2014 for an HMIWI as defined in Sections 229.110 (a)(1) and (a)(2) of this Part. PC 1 at 2.

The Agency continued to agree with the Board's editorial change to Section 229.11 and requested no change in that subsection. PC 1 at 2.

DISCUSSION

The Board granted the motion for expedited review on June 16, 2011, ordering second notice publication of the rules. Consistent with grant of the motion, the Board today adopts a

second notice proposal substantively unchanged from that published at first notice. The second notice proposal includes the Agency's original proposal, as amended by the May 25, 2011 and June 13, 2011 errata sheets, and the agreed-upon compliance dates presented at the June 8, 2011 hearing. The second notice proposal also reflects editorial changes to the Agency's proposal by the Board at 35 Ill. Adm. Code 229.116 (c), with which the Agency agreed. But, the order restores language in 229.116 (a)(2) and (b) consistent with the Agency request in PC1, and similarly corrects the Agency's typographical error repeated by the Board in Section 229.142(b)(1).

The record developed demonstrates that Illinois must timely adopt more stringent rules to regulate HMIWI consistent with USEPA rules. Stericyle agrees that the rules must be amended, and agrees that the compliance dates as amended during the course of this proceeding are achievable. The undisputed economic data placed in the record to date indicates that the economic impacts of these rule amendments emanate from the CAA and USEPA rules they mirror. The Board accordingly finds that this record demonstrates, within the meaning of Section 27(b) of the Act that there is no "adverse economic impact on the People of the State of Illinois."

ORDER

The Board directs the Clerk to submit the following rules to the Joint Committee on Administrative Rules for second notice review under the APA. New language is indicated by underlining, and language to be deleted by strike-through.

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE B: GENERAL PROVISIONS
CHAPTER I: POLLUTION CONTROL BOARD
SUBCHAPTER c: EMISSION STANDARDS AND LIMITATIONS FOR STATIONARY SOURCES

PART 229
HOSPITAL/MEDICAL/INFECTIOUS WASTE INCINERATORS

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229.125 Emissions Limits for Small, Medium, and Large HMIWIs
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SUBPART F: EXCEPTIONS FROM EMISSION LIMITS

Section
229.130 Operation During Periods of Startup, Shutdown, or Malfunction (Repealed)

SUBPART G: METHODS AND PROCEDURES FOR PERFORMANCE TESTING

Section
229.140 Methods and Procedures for Performance Testing

SUBPART H: COMPLIANCE REQUIREMENTS

Section
229.142 Initial Performance Testing and Establishment of Operating Parameters for All HMIWIs
229.144 Subsequent Performance Testing for All HMIWIs
229.146 Annual Testing for Opacity
229.148 Annual Performance Testing for All ~~Small, Medium and Large~~ HMIWIs
229.150 Compliance with Operating Parameter Values
229.152 Compliance Requirements for HMIWIs Using CEMS
229.154 Violations by HMIWIs Equipped with a Dry Scrubber Followed by a Fabric Filter
229.156 Violations by HMIWIs Equipped with a Wet Scrubber
229.158 Violations by HMIWIs Equipped with a Dry Scrubber Followed by a Fabric Filter and a Wet Scrubber
229.160 Compliance Requirements for Rural HMIWIs
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SUBPART I: MONITORING REQUIREMENTS

Section
229.166 Monitoring Requirements for All ~~Small, Medium, and Large~~ HMIWIs
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SUBPART J: REQUIREMENTS FOR HMIWI OPERATORS

Section
229.170 Operator Training and Qualification Requirements
229.172 Documentation To Be Maintained On-Site for Employees Operating HMIWIs

SUBPART K: WASTE MANAGEMENT PLAN REQUIREMENTS

Section
229.176 Waste Management Plan Requirements for Hospitals Using On-Site Incinerators
229.178 Waste Management Plan Requirements for Hospitals Transporting Waste Off-Site to an HMIWI Waste Management Requirements for Commercial HMIWIs ~~Accepting Waste Generated Off-Site~~
229.181 Waste Management Plan Requirements for Other HMIWIs

SUBPART L: RECORDKEEPING AND REPORTING REQUIREMEN**TS**

Section
229.182 Recordkeeping Requirements
229.184 Reporting Requirements

229.Appendix A Toxic Equivalency (TEQ) Factors
229.Appendix B Operating Parameters to Be Monitored and Minimum Measurement and Recording Frequencies
229.Appendix C Reference Test Methods and Procedures for Performance Tests

AUTHORITY: Implementing Sections 10, 39 and 39.5 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/10, 27, 39 and 39.5]

SOURCE: Adopted at 23 Ill. Reg. 6477, effective May 15, 1999; amended in R11-20 at 35 Ill. Reg. _____, effective _____.

SUBPART A: GENERAL PROVISIONS

Section 229.100 Abbreviations

The following abbreviations have been used in this Part:

Act Illinois Environmental Protection Act [415 ILCS 5]

Agency	Illinois Environmental Protection Agency
Board	Illinois Pollution Control Board
Btu	British thermal units
CAAPP	Clean Air Act Permit Program [415 ILCS 5/39.5]
Cd	cadmium
CEMS	Continuous Emissions Monitoring System
CO	carbon monoxide
~~dscf~~	~~dry standard cubic foot~~
~~dscm~~	~~dry standard cubic meter~~
~~ft^3~~	~~cubic feet~~
gr/10^3 dscf	grains per thousand dry standard cubic feet
gr/10^9 dscf	grains per billion dry standard cubic feet
gr/dscf	grains per dry standard cubic foot
HCl	Hydrogen chloride
Hg	Mercury
HMIWI	Hospital/Medical/Infectious Waste Incinerator
hr	hour
lb(s)	pound(s)
mg/dscm	milligrams per dry standard cubic meter
~~mg~~	~~milligrams~~
ng/dscm	nanograms per dry standard cubic meter
NO_x	Nitrogen Oxide
Pb	Lead
PM	Particulate matter
ppmv	parts per million by volume
SO_2	Sulfur dioxide
TEQ	Toxic equivalent ~~equivalency~~
USEPA	United States Environmental Protection Agency

(Source: Amended at 35 Ill. Reg._____, effective _____)

Section 229.102 Definitions

The definitions contained in this Section apply only to the provisions of this Part. Unless otherwise defined herein and unless a different meaning of a term is clear from its context, the definitions of terms used in this Part shall have the meanings specified for those terms in 415 ILCS 5/39.5, 35 Ill. Adm. Code 201.102 or 35 Ill. Adm. Code 211.

"Bag leak detection system" means an instrument that is capable of monitoring PM loadings in the exhaust of a fabric filter in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, lightscattering, light-transmittance, or other effects to monitor relative PM loadings.

"Batch HMIWI" means an HMIWI that is designed in such a way that neither waste charging nor ash removal can occur during combustion.

“Biologicals” means 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.

“Body fluids” means liquid emanating or derived from humans and limited to: blood; dialysate; amniotic, cerebrospinal, synovial, pleural, peritoneal and pericardial fluids; semen and vaginal secretions.

“Bypass stack” means an alternative stack used for discharging combustion gases to the atmosphere primarily to avoid severe damage to an air pollution control device or other equipment.

“Charge” means the act of placing waste into an HMIWI for incineration.

“Chemotherapeutic waste” means waste material resulting from the production or use of antineoplastic agents used for the purpose of stopping or reversing the growth of malignant cells.

“Co-fired combustor” means a unit combusting hospital waste 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, of which 10 percent or less of the weight is comprised, in aggregate, of hospital waste and medical/infectious waste as measured on a calendar quarter basis. For 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.

<u>“Commercial HMIWI” means an HMIWI that offers incineration services for hospital/medical/ infectious waste generated offsite by firms unrelated to the firm that owns the HMIWI.</u>

“Continuous emission monitoring system” or “CEMS” means a monitoring system for continuously measuring and recording the emissions of a pollutant from an affected facility.

“Continuous HMIWI” means an HMIWI that is designed to allow waste charging and ash removal during combustion.

“Dioxins/furans” means the total emissions of any tetra- through octa-chlorinated dibenzo-para-dioxins and dibenzofurans, as measured by EPA Reference Method 23, incorporated by reference in Section 229.104(d) of this Subpart.

“Dry scrubber” means 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 an HMIWI exhaust stream, forming a dry powder material.

“Fabric filter” means an add-on air pollution control system that removes PM and nonvaporous metals emissions by passing flue gas through filter bags.

“Facilities manager” means the individual in charge of purchasing, maintaining, and operating an HMIWI, or the owner's or operator's representative responsible for the management of an HMIWI. Alternative titles may include director of facilities or vice president of support services.

“High air phase” means the stage of the batch operating cycle when the primary chamber reaches and maintains maximum operating temperatures.

“Hospital” means any facility that has an organized medical staff, maintaining at least 6 inpatient beds and where the primary function of the facility 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.

“Hospital/medical/infectious waste incinerator” or “HMIWI” means any device that combusts any amount of hospital waste or medical/infectious waste.

“Hospital waste” means discards generated at a hospital, except unused items returned to the manufacturer. The definition of hospital waste does not include human corpses, remains, or anatomical parts that are intended for interment or cremation.

“HMIWI operator” means any person who operates, controls, or supervises the day-to-day operation of an HMIWI.

“Infectious agent” means any organism that is capable of being communicated by invasion and multiplication in body tissues and is also capable of causing disease or adverse health impacts in humans.

“Intermittent HMIWI” means an HMIWI that is designed to allow waste charging, but not ash removal, during combustion.

“Large HMIWI” means:

An HMIWI whose maximum design waste burning capacity is more than 500 lbs per hour; or

A continuous or intermittent HMIWI whose maximum charge rate is more than 500 lbs per hour; or

A batch HMIWI whose maximum charge rate is more than 4,000 lbs per day.

“Low-level radioactive waste” means waste that contains radioactive nuclides 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 USC ~~U.S.C~~ 2014(e)(2)).

"Malfunction" means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or of 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.

"Maximum charge rate" means:

For continuous and intermittent HMIWI, 110 percent of the lowest 3-hour average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits specified in Subpart E of this Part.

For batch HMIWI, 110 percent of the lowest daily charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits specified in Subpart E of this Part.

"Maximum design waste burning capacity" means:

For intermittent and continuous HMIWI:

$$C = \frac{P_V \times 15{,}000}{8{,}500}$$

Where:

C	=	HMIWI capacity, lb/hr
P_V	=	primary chamber volume, ft^3
15,000	=	primary chamber heat release rate factor, $Btu/ft^3/hr$
8,500	=	standard waste heating value, Btu/lb;

For batch HMIWI:

$$C = \frac{P_V \times 4.5}{8}$$

Where:

C	=	HMIWI capacity, lb/hr
P_V	=	primary chamber volume, ft^3
4.5	=	waste density factor, lb/ft^3
8	=	typical hours of operation of a batch HMIWI, hours.

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

"Maximum flue gas temperature" means 110 percent of the lowest 3-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 applicable Hg emission limit specified in Subpart E of this Part.

"Medical/infectious waste" means 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 biologicals. The definition of medical/infectious waste does not include hazardous waste identified or listed under the regulations in 40 CFR 261; household waste, as defined in 40 CFR 261.4(b)(1); and domestic sewage materials identified in 40 CFR 261.4(a)(1). For the purposes of this Part, medical/infectious waste includes:

Cultures and stocks of infectious agents and associated biologicals, including: vaccines and cultures intended for use in diagnosing, immunizing, or treating humans or animals; cultures from medical and pathological laboratories; cultures and stocks of infectious agents from research and industrial laboratories; wastes from the production of biologicals; and discarded live and attenuated vaccines;

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;

Human blood, any products derived from human blood, or anything that has been in contact with human blood in any form;

Intravenous bags and associated tubing;

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, and needles with attached tubing;

Culture dishes, regardless of the presence of infectious agents, and culture dishes and devices used to transfer, inoculate, and mix cultures;

Any type of broken or unbroken glassware that has been in contact with infectious agents;

Animal waste, including contaminated animal carcasses, body parts, 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;

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

Unused sharps, including the following unused, discarded sharps: hypodermic needles, suture needles, syringes, and scalpel blades.

"Medium HMIWI" means:

An HMIWI whose maximum design waste burning capacity is more than 200 lbs per hour but less than or equal to 500 lbs per hour; or

A continuous or intermittent HMIWI whose maximum charge rate, as set by permit, is more than 200 lbs per hour but less than or equal to 500 lbs per hour; or

A batch HMIWI whose maximum charge rate, as set by permit, is more than 1,600 lbs per day but less than or equal to 4,000 lbs per day.

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

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

"Minimum HCl sorbent flow rate" means 90 percent of the highest 3-hour average HCl sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the applicable HCl emission limit specified in Subpart E of this Part.

"Minimum horsepower" or "minimum amperage" means 90 percent of the highest 3-hour average horsepower or amperage to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the applicable emission limits specified in Subpart E of this Part.

"Minimum pressure drop across the wet scrubber" means 90 percent of the highest 3-hour average pressure drop across the wet scrubber PM control device (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the applicable PM emission limit specified in this Subpart E of this Part.

<u>"Minimum reagent flow rate" means 90 percent of the highest 3-hour average reagent flow rate at the inlet to the selective noncatalytic reduction technology (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the applicable NOx emissions limit specified in Subpart E of this Part.</u>

"Minimum scrubber liquor flow rate" means 90 percent of the highest 3-hour average liquor flow rate at the inlet to the wet scrubber (taken, at a minimum, once every minute)

measured during the most recent performance test demonstrating compliance with the applicable emission limits specified in Subpart E of this Part.

"Minimum scrubber liquor pH" means 90 percent of the highest 3-hour average liquor pH at the inlet to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the applicable HCl emission limit specified in Subpart E of this Part.

"Minimum secondary chamber temperature" means 90 percent of the highest 3-hour average secondary chamber temperature (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the applicable PM, CO, ~~and~~ dioxin/furan, and NOx emissions limits specified in Subpart E of this Part.

"Operating day" means a 24-hour period between 12:00 midnight and the following midnight during which any amount of hospital waste or medical/infectious waste is combusted at any time in an HMIWI.

"Operation" means any period during which waste is combusted in an HMIWI, excluding periods of startup or shutdown.

"Pathological waste" means waste material consisting of only human or animal remains, anatomical parts, tissue, and the bags or containers used to collect and transport the waste material and associated animal bedding, if applicable.

"Primary chamber" means the chamber in an HMIWI that receives waste material, in which the waste is ignited, and from which ash is removed.

"Rural HMIWI" means any HMIWI identified in Section 229.110(a) of this Part, that is located more than 50 miles from the boundary of the nearest Standard Metropolitan Statistical Area, as defined in OMB Bulletin No. 93-17, incorporated by reference at Section 229.104(b) of this Part, meets the criteria specified in the definition of "small HMIWI" and burns less than 2,000 lbs per week of hospital waste and medical/infectious waste (except the 2,000 lbs per week limitation does not apply during performance testing).

"Secondary chamber" means that component of an HMIWI that receives combustion gases from the primary chamber and in which the combustion process is completed.

"Shutdown" means the period of time after all waste has been combusted in the primary chamber.

"Small HMIWI" means:

An HMIWI whose maximum design waste burning capacity is less than or equal to 200 lbs per hour; or

A continuous or intermittent HMIWI whose maximum charge rate, as set by permit, is less than or equal to 200 lbs per hour; or

A batch HMIWI whose maximum charge rate, as set by permit, is less than or equal to 1,600 lbs per day.

"Startup" means the period of time between the activation of an HMIWI and the first charge of waste to the unit. For batch HMIWI, startup means the period of time between activation of an HMIWI and ignition of the waste.

"Wet scrubber" means an add-on air pollution control device that utilizes either an alkaline or some other type of scrubbing liquor to collect pollutants and/or neutralize acid gases.

(Source: Amended at 35 Ill. Reg._____, effective _____)

Section 229.104 Incorporations by Reference

The following materials are incorporated in this Part by reference. These incorporations by reference do not include any later amendments or editions.

a) "An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities," American Society for Healthcare Environmental Services, 840 North Lake Shore Drive, Chicago, Illinois 60611 (1993).

1)

b) "Revised Statistical Definitions for Metropolitan Areas," OMB Bulletin No. 93-17, Office of Management and Budget, Washington, D.C. (June 30, 1993). Office of Management and Budget, National Technical Information Services, 5285 Port Royal Road, Springfield, VA 22161. (703) 487-4600.

1)

c) 40 CFR 60.8.

1)

d) 40 CFR 60, appendix A, Methods 1, 2, 3, 3A, 5, 9, 10, 10B, 23, 26, 26A, 29.

e) 40 CFR 60, appendices B and F.

f) 40 CFR appendix A, Methods 3B, 6, 6C, 7, 7E, 22 (2010).

g) 40 CFR 60, subpart Ce and Ec (2010).

h) ANSI/ASME PTC19.10-1981, Flue and Gas Analyses, [Part 10, Instruments and Apparatus]. American National Standards Institute (ANSI), Attn: Customer Service Department, 25 West 43rd Street, 4th Floor, New York, NY 10036. (212) 642-4980.

i) ASTM D6784-02, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method). American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, PO Box C70, West Conshohocken, PA 19428-2959. (610) 832-9585.

j) "Fabric Filter Bag Leak Detection Guidance", U.S. Environmental Protection Agency. (EPA-454/R-98-015, September 1997). Superintendent of Documents, U.S. Government Printing Office (GPO), P979050, St. Louis, MO 63197-9000.

(Source: Amended at 35 Ill. Reg._____, effective _____)

SUBPART B: APPLICABILITY

Section 229.110 General Applicability

a) Except as provided for in subsections (b), (c), (d) and (e) of this Section and Section 229.112 of this Subpart, this Part applies to all HMIWIs for which:

1) Construction commenced either on or before June 20, 1996, or modification was commenced either on or before March 16, 1998; or

2) Construction commenced either after June 20, 1996 but no later than December 1, 2008, or for which modification is commenced after March 16, 1998 but no later than April 6, 2010. ~~This Part applies to all HMIWIs for which construction commenced either on or before June 20, 1996, except as provided for in subsections (b), (c), (d) and (e) of this Section and Section 229.112 of this Subpart.~~

b) An HMIWI otherwise subject to the emission limits in this Part is only subject to the recordkeeping requirements set forth in Section 229.182(b), (f) and (g) of this Part during those periods when it combusts only pathological waste, low-level radioactive waste, or chemotherapeutic waste, provided the owner or operator of the HMIWI notifies the Agency of its intention to operate pursuant to this operating scenario in its CAAPP application submitted in accordance with either Section 229.115(b)(1), Subpart D of this Part, or Section 39.5 of the Act.

c) An HMIWI that combusts only pathological waste, low-level radioactive waste, or chemotherapeutic waste is subject to only the recordkeeping requirements set forth in Section~~Sections~~ 229.182(c), (f) and (g) of this Part, provided that the owner or operator of an HMIWI provides, by December 15, 1999, both the Agency and the USEPA with a written certification of its status as an HMIWI burning only the wastes listed in this subsection.

d) A co-fired combustor is subject only to the recordkeeping requirements set forth in Section~~Sections~~ 229.182(d), (f) and (g) of this Part, provided that the owner or operator of the combustor is subject to a permit condition limiting its fuel feed stream to co-fired combustor status, provides, by December 15, 1999, both the Agency and USEPA with a written certification of its status as a co-fired combustor, including an estimate of the relative weight of hospital waste, medical/infectious waste, and other fuels and/or waste combusted at the facility.

e) Any hospital that does not operate an HMIWI but that sends any of its hospital waste or medical/infectious waste to an off-site HMIWI is subject only to the waste management plan provisions set forth at Section 229.178 of this Part.

f) Before January 1, 2014, each owner or operator of an HMIWI, as defined in subsection (a)(1) of this Section subject to the emissions limits under Section 229.125(a) or Section 229.126(a), shall comply with all the applicable provisions of this Part.

g) On and after January 1, 2014, an HMIWI as defined in subsection (a)(1) of this Section is no longer subject to the emissions limits under Section 229.125(a) or Section 229.126(a) of this Part, but is subject to the emissions limits under Section 229.125(c) or Section 229.126(c), and shall comply with all the applicable provisions of this Part.

h) On and after January 1, 2014, each owner and operator of an HMIWI as defined in subsection (a)(2) of this Section is no longer subject to the provisions under New Source Performance Standards for Hospital/Medical/Infectious Waste Incinerators (40 CFR 60, subpart Ec), but is subject to the emissions limits under Section 229.125(c) or Section 229.126(c), and shall comply with all the applicable provisions of this Part.

(Source: Amended at 35 Ill. Reg._____, effective _____)

Section 229.112 Exemptions

Notwithstanding other provisions of this Part, the following emission units are exempt from the requirements of this Part:

a) Any combustor required to have a permit under Section 3005 of the Solid Waste Disposal Act, 42 USC ~~U.S.C.~~6925;

b) Any municipal waste combustor that meets the applicability provisions for municipal waste combustors under Subparts Cb, Ea or Eb of 40 CFR 60;

c) Any pyrolysis unit (i.e., a unit that uses endothermic gasification to treat hospital waste or medical/infectious waste in order to render such waste harmless);

d) Any cement kiln firing hospital waste or medical/infectious waste; or

e) Any HMIWI that meets the applicability provisions for Standards of Performance for Hospital/Medical/Infectious Waste Incinerators under subpart Ec of 40 CFR 60.

~~e) Any HMIWI subject to the *Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996*, contained in Subpart Ec of 40 CFR 60.50c.~~

(Source: Amended at 35 Ill. Reg._____, effective _____)

SUBPART C: COMPLIANCE SCHEDULES

Section 229.115 Compliance Schedules for HMIWIs That Will Continue to Operate

a) Before January 1, 2014, each owner or operator of an HMIWI, as defined in Section 229.110 (a)(1) of this Part, subject to the emissions limits under Section 229.125(a) or Section 229.126(a) of this Part, shall comply with all the applicable provisions of this Part according to the following schedules:

1~~a~~) Except as provided in subsection (a)(2) ~~(b)~~ of this Section and unless another date is specified in the provisions of this Part, all owners or operators of HMIWIs shall be in compliance with all of the provisions of this Part by September 15, 2000.

2~~b~~) Except as provided in subsection (a)(3) ~~(c)~~ of this Section, the owner or operator of an HMIWI may have up to September 15, 2002, to come into compliance with this Part. To avail themselves of this extended compliance timeframe, the owner or operator of an HMIWI shall:

A~~1~~) Submit its CAAPP application to the Agency, on or before November 15, 1999, requesting an extended compliance schedule, pursuant to Section 39.5(5)(d) of the Act, [415 ILCS 5/39.5(5)(d)]. This compliance schedule shall include documentation supporting the need for an extension, a final control plan for the HMIWI and incremental steps to be taken toward compliance with this Part that, at a minimum, meet the increments of progress specified in subsection (a)(2)(B) ~~(b)(2)~~ of this Section;

B~~2~~) Meet the following increments of progress by the dates indicated:

i~~A~~) Finalize all contracts for the purchase of either pollution control equipment, process modification or control systems by February 29, 2000;

ii~~B~~) Commence the implementation of either the process modifications or the necessary construction or installation of air pollution control devices for the HMIWI by November 30, 2000;

iii~~C~~) Complete either the process modifications or the installation or construction of the new air pollution control equipment by August 31, 2001;

iv~~D~~) Perform initial startup of the retrofitted HMIWI by January 15, 2002; and

v~~E~~) Complete the initial performance test in accordance with Section 229.142 of this Part within 180 days after initial startup.

3~~c~~) Any owner or operator of an HMIWI that fails to demonstrate compliance with this Part by September 15, 2002, shall cease operation of the HMIWI until compliance with the provisions of this Part is achieved.

4~~d~~) Notwithstanding subsection (a)(2) ~~(b)~~ of this Section, all owners or operators of HMIWIs shall be in full compliance with all of the HMIWI operator provisions of Subpart J of this Part by September 15, 2000.

b) On and after January 1, 2014, each owner or operator of an HMIWI, as defined in Section 229.110 (a)(1) or (a)(2) of this Part, and subject to the emissions limits under Section 229.125(c) of this Part as applicable, or Section 229.126(c) of this Part, shall comply with the applicable provisions of this Part according to the following schedules:

1) Except as provided in subsection (b)(2) of this Section and unless another date is specified in the provisions of this Part, all owners or operators of HMIWIs shall comply with all of the provisions of this Part by January 1, 2014.

2) Except as provided in subsection (b)(4) of this Section, the owner or operator of an HMIWI may have until October 6, 2014 to come into compliance with the emissions limits under Section 229.125(c) or 229.126(c) of this Part. To avail itself of this extended compliance timeframe, the owner or operator of an HMIWI shall:

A) Submit its CAAPP application and construction permit to the Agency, on or before January 1, 2012, requesting an extended compliance schedule, pursuant to Section 39.5(5)(d) of the Act [415 ILCS 5/39.5(5)(d)]. This compliance schedule shall include documentation supporting the need for an extension, a final control plan for the HMIWI and incremental steps to be taken toward compliance with this Part that, at a minimum, meet the increments of progress specified in subsection (b)(2)(B) of this Section;

B) Meet the following increments of progress by the dates indicated:

i) Finalize all contracts for the purchase of pollution control equipment, process modification or control systems by August 1, 2012;

ii) Commence the implementation of either the process modifications or the necessary construction or installation of air pollution control devices for the HMIWI by March 1, 2013;

iii) Complete either the process modifications or the installation or construction of the new air pollution control equipment by September 1, 2013;

iv) Achieve final compliance, which includes incorporating all process changes and/or completing retrofit construction as described in the final control plan, connecting the air pollution control equipment or process changes so that the unit is brought on line, and ensuring that all necessary process changes and air pollution control equipment are operating properly, no later than June 1, 2014;

v) Complete the initial performance test in accordance with Section 229.142 of this Part no later than October 6, 2014;

vi) Submit the results of the initial performance test and revised waste management plan to the Agency no later than 60 days following the initial performance test; and

vii) Submit notification to the Agency within 10 business days after completing (or failing to complete by the applicable date) each of the increments of progress specified in subsection (b)(2)(B) of this Section. The notification must be signed by the owner's or operator's representative responsible for the management of the HMIWI.

3) If a petition for compliance extension is granted, the owner or operator of an HMIWI, as defined in Section 229.110 (a)(1) or (a)(2), must continue to comply with the provisions of its current CAAPP permit during the interim.

4) Any owner or operator of an HMIWI that fails to demonstrate compliance with this Part by October 6, 2014 shall cease operation of the HMIWI until compliance with the provisions of this Part is achieved.

5) Notwithstanding subsection (b)(2) of this Section, all owners or operators of HMIWIs shall be in full compliance with all of the HMIWI operator provisions of Subpart J of this Part before January 1, 2014.

(Source: Amended at 35 Ill. Reg._____, effective _____)

Section 229.116 Compliance Schedules for HMIWIs That Will Shut Down

All owners or operators of HMIWIs that intend to permanently shut down their HMIWI as a means of complying with this Part shall:

a) Provide the Agency with written notice of their intention to permanently shut down their HMIWI, as follows:

1) On or before November 15, 1999, for an HMIWI as defined in Section 229.110 (a)(1) of this Part, subject to the emissions limits under Section 229.125(a) or Section 229.126(a) of this Part;

2) On or before January 1, 2013, except as provided for in Section 229.116(c), for an HMIWI as defined in Section 229.110(a)(1) or (a)(2) of this Part, subject to the emissions limits under Section 229.125(c), as applicable, or Section 229.126(c) of this Part.

b) Take the following affirmative steps to demonstrate that the HMIWI has been rendered permanently inoperable by September 15, 2000, for an HMIWI as defined in Section 229.110(a)(1), or by January 1, 2014 for an HMIWI as defined in Sections 229.110(a)(1) and (a)(2) of this Part:

~~a) Provide the Agency with written notice of their intention to permanently shut down their HMIWI on or before November 15, 1999; and~~

~~b) Take the following affirmative steps to demonstrate that the HMIWI has been rendered permanently inoperable by September 15, 2000:~~

1) Weld the primary chamber door shut;

2) Dismantle the HMIWI; or

3) Other means that reasonably demonstrate that the HMIWI is no longer functional.

c) Except as provided in subsection (c)(5) of this Section, owners or operators may have up to October 6, 2014 to shut down their HMIWIs to avoid being subject to compliance with the emissions limits under Section 229.125(c) or 229.126(c). To avail themselves of this extended compliance timeframe, the owner or operator of an HMIWI shall:

1) Submit its application to the Agency by July 1, 2013 requesting an extended compliance schedule, pursuant to Section 39.5(5)(d) of the Act, [415 ILCS 5/39.5(5)(d)]. This compliance schedule shall include documentation of the analysis undertaken to support the need for an extension, including an explanation of why the timeframe up to October 6, 2014 is sufficient while the timeframe up to January 1, 2014 is not sufficient, and incremental steps to be taken toward compliance with applicable requirements of this Part.

2) If an onsite alternative waste treatment technology is needed to be installed before the HMIWI is shut down, an application for compliance

extension shall include the following elements of increments of progress and completion date for each step of progress:

A) Finalize contract with an alternative waste treatment technology vendor;

B) Initiate onsite construction or installation of alternative waste treatment technology;

C) Complete onsite construction or installation of alternative waste treatment technology; and

D) Take the steps described under subsection (b) of this Section to demonstrate that the HMIWI has been rendered permanently inoperable.

3) If an onsite alternative waste treatment technology is not needed to be installed before an HMIWI is shut down, an application for compliance extension shall include a plan for shut down. The plan for shut down shall include steps described under subsection (b) of this Section to demonstrate that the HMIWI has been rendered permanently inoperable.

4) If a petition for compliance extension is granted, the owner or operator of an HMIWI, as defined in Section 229.110 (a)(1) or (a)(2) must continue to comply with the provisions of its current CAAPP permit during the interim.

5) Any owner or operator of an HMIWI that fails to demonstrate compliance with this Part by October 6, 2014 shall cease operation of the HMIWI until compliance with the provisions of this Part is achieved.

6) Notwithstanding subsection (c)(1) of this Section, all owners or operators of HMIWIs shall be in full compliance with all of the HMIWI operator provisions of Subpart J of this Part by January 1, 2014.

(Source: Amended at 35 Ill. Reg._____, effective _____)

SUBPART D: CAAPP PERMIT REQUIREMENTS

Section 229.120 CAAPP Permit Requirements

a) All HMIWIs subject to the emissions limits in this Part shall operate pursuant to a CAAPP permit, as follows:

1) By September 15, 2000, for an HMIWI as defined in Section 229.110 (a)(1) of this Part; and

2) By January 1, 2014, for an HMIWI as defined in Section 229.110 (a)(1) or (a)(2) of this Part.

b) For any HMIWI subject to the emission limits in this Part that is first required to obtain a CAAPP permit because it is subject to the emission limits in this Part, the owner or operator shall submit a complete application for a CAAPP permit, as follows:

1) By September 15, 2000, except as provided for in Section 229.115(a)(2)(A) of this Part, for an HMIWI as defined in Section 229.110 (a)(1) of this Part; or

2) By January 1, 2014, except as provided for in Section 229.115(b)(2)(A) of this Part, for an HMIWI as defined in Section 229.110 (a)(1) or (a)(2) of this Part.

~~a) All HMIWIs subject to the emissions limits in this Part shall operate pursuant to a CAAPP permit by September 15, 2000.~~

~~b) For any HMIWI subject to the emission limits in this Part that is first required to obtain a CAAPP permit because it is subject to the emission limits in this Part, the owner or operator shall submit a complete application for a CAAPP permit by September 15, 2000, except as provided for in Section 229.115(b)(1) of this Part.~~

c) Upon submittal of a timely and complete CAAPP application, the owner or operator of an HMIWI shall not be in violation of the requirement, specified in subsection (a) of this Section, to have a CAAPP permit, to the extent provided in Section 39.5(5)(h) of the Act [415 ILCS 5/39.5(5)(h)].

d) For any HMIWI that currently has a CAAPP permit, the following conditions apply:

1) If the CAAPP permit has 3 or more years remaining on the permit term, the owner or operator of an HMIWI shall apply for revision to the CAAPP permit to incorporate the applicable requirements of this Part, as follows: ~~on or before November 15, 1999; or~~

A) On or before November 15, 1999, for an HMIWI as defined in Section 229.110 (a)(1) of this Part; and

B) On or before January 1, 2013, for an HMIWI as defined in Section 229.110 (a)(1) or (a)(2) of this Part; or

2) If the CAAPP permit has less than 3 years remaining on the permit term, the CAAPP permit shall be revised to incorporate the applicable requirements of this Part, upon renewal of the permit.

(Source: Amended at 35 Ill. Reg._____, effective _____)

SUBPART E: EMISSION LIMITS

Section 229.125 Emissions~~Emission~~ Limits for Small, Medium, and Large HMIWIs

~~a)~~The emission limits in this Section shall apply at all times to HMIWIs identified in Section 229.110(a) ~~at all times~~, except as provided in Section 229.110(b) of this Part and~~,~~ Section 229.126 of this Subpart ~~and Subpart F of this Part~~.

a) Before January 1, 2014, each owner or operator of a small, medium, or large HMIWI as defined in Section 229.110(a)(1) of this Part, shall comply with the following emissions limits:

~~b)~~ ~~The emission limits for small, medium, and large HMIWIs are as follows:~~

Pollutant	**Units** (7% oxygen, dry basis)	**HMIWI Emissions Limits**		
		Small	**Medium**	**Large**
Particulate matter	Milligrams per dry standard cubic meter (mg/dscm) (grains per dry standard cubic foot (gr/dscf))	115 (0.05)	69 (0.03)	34 (0.015)
Carbon monoxide	Parts per million by volume (ppmv)	40	40	40
Dioxins/furans	Nanograms per dry standard cubic meter total dioxins/furans (ng/dscm) (grains per billion dry standard cubic feet ($gr/10^9$ dscf)) or ng/dscm TEQ ($gr/10^9$ dscf)	125 (55) or 2.3 (1.0)	125 (55) or 2.3 (1.0)	125 (55) or 2.3 (1.0)
Hydrogen chloride	(ppmv) or percent reduction	100 or 93%	100 or 93%	100 or 93%
Sulfur dioxide	(ppmv)	55	55	55
Nitrogen oxides	(ppmv)	250	250	250
Lead	mg/dscm (grains per thousand dry standard cubic feet ($gr/10^3$ dscf)) or percent reduction	1.2 (0.52) or 70%	1.2 (0.52) or 70%	1.2 (0.52) or 70%
Cadmium	mg/dscm ($gr/10^3$ dscf) or percent reduction	0.16 (0.07) or 65%	0.16 (0.07) or 65%	0.16 (0.07) or 65%
Mercury	mg/dscm ($gr/10^3$ dscf) or percent reduction	0.55 (0.24) or 85%	0.55 (0.24) or 85%	0.55 (0.24) or 85%

		HMIWI EMISSION LIMITS		
Pollutant	**Units** (7% oxygen, dry basis)	**Small**	**Medium**	**Large**
PM	mg per dscm(grains per dscf)	115 (0.05)	69 (0.03)	34 (0.015)
CO	ppmv	40	40	40
Dioxins/ Furans	Nanograms per dscm, total dioxins/furans (grains per billion dscf), or nanograms per dscm TEQ (grains per billion dscf)	125 (55) or 2.3 (1.0)	125 (55) or 2.3 (1.0)	125 (55) or 2.3 (1.0)
HCl	ppmv or percent reduction	100 or 93%	100 or 93%	100 or 93%
SO_2	ppmv	55	55	55
NOx	ppmv	250	250	250
Pb	mg per dscm (grains per thousand dscf) or percent reduction	1.2 (0.52) or 70%	1.2 (0.52) or 70%	1.2 (0.52) or 70%
Cd	mg per dscm (grains per thousand dscf) or percent reduction	0.16 (0.07) or 65%	0.16 (0.07) or 65%	0.16 (0.07) or 65%
Hg	mg per dscm (grains per thousand dscf) or percent reduction	0.55 (0.24) or 85%	0.55 (0.24) or 85%	0.55 (0.24) or 85%

b) No owner or operator of a small, medium, or large HMIWI subject to emissions limits listed under subsection (a) of this Section shall cause or allow any emissions that cause greater than 10 percent opacity, as measured on a 6-minute block average, according to Method 9, 40 CFR 60, appendix A, incorporated by reference in Section 229.104(d) of this Part, from any stack used by an HMIWI.

c) On and after January 1, 2014, except as provided for in Section 229.115(b)(3) or Section 229.116(c)(4), as applicable, each owner or operator of a small, medium, or large HMIWI, as defined in Section 229.110(a)(1) and (a)(2) of this Part, shall comply with the following emissions limits, as applicable:

c) No owner or operator of a small, medium, or large HMIWI shall cause or allow any emissions that cause greater than 10 percent opacity, as measured on a 6 minute block average, according to Method 9, 40 CFR 60, Appendix A,

~~incorporated by reference at Section 229.104(d) of this Part, from any stack used by an HMIWI.~~

Pollutant	Units (7% oxygen, dry basis)	HMIWI Emissions Limits		
		Small	Medium	Large
Particulate matter	Milligrams per dry standard cubic meter (mg/dscm) (grains per dry standard cubic foot (gr/dscf))	66 (0.029)	46 (0.020)[a] 34 (0.015)[b]	25 (0.011)
Carbon monoxide	Parts per million by volume (ppmv)	20	5.5	11
Dioxins/furans	Nanograms per dry standard cubic meter total dioxins/furans (ng/dscm) (grains per billion dry standard cubic feet ($gr/10^9$ dscf)) or ng/dscm TEQ ($gr/10^9$ dscf)	16 (7.0) or 0.013 (0.0057)	0.85 (0.37) or 0.020 (0.0087)	9.3 (4.1) or 0.054 (0.024)
Hydrogen chloride	(ppmv)	44[a] 15[b]	7.7	6.6
Sulfur dioxide	(ppmv)	4.2	4.2	9.0
Nitrogen oxides	(ppmv)	190	190	140
Lead	mg/dscm (grains per thousand dry standard cubic feet ($gr/10^3$ dscf))	0.31 (0.14)	0.018 (0.0079)	0.036 (0.016)
Cadmium	mg/dscm ($gr/10^3$ dscf)	0.017 (0.0074)	0.013 (0.0057)	0.0092 (0.0040)
Mercury	mg/dscm ($gr/10^3$ dscf)	0.014 (0.0061)	0.025 (0.011)	0.018 (0.0079)

[a] Emissions limits for HMIWIs as defined in Section 229.110(a)(1) of this Part.
[b] Emissions limits for HMIWIs as defined in Section 229.110(a)(2) of this Part.

d) No owner or operator of a small, medium, or large HMIWI subject to emission limits listed under subsection (c) of this Section shall cause or allow any emissions that cause greater than 6 percent opacity, as measured on a 6-minute block average, according to Method 9, 40 CFR 60, appendix A, incorporated by reference at Section 229.104(d) of this Part, from any stack used by an HMIWI.

e) On and after the date on which the initial performance test is completed or required to be completed under Section 229.142 of this Part, whichever date

comes first, no owner or operator of an HMIWI, as defined in Section 229.110 (a)(1) or (a)(2) of this Part and subject to the emissions limits under subsection (c) of this Section, shall cause to be discharged into the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points), enclosures of ash conveying systems, buildings, or other sources in excess of 5 percent of the observation period of 9 minutes per 3-hour period, according to Method 22, 40 CFR 60, appendix A, incorporated by reference in Section 229.104(d) of this Part, except as provided by the following exclusions:

1) Visible emissions discharged inside buildings or enclosures of ash conveying systems; or

2) During maintenance and repair of ash conveying systems. Maintenance and/or repair shall not exceed 10 operating days per calendar quarter unless the owner or operator of an HMIWI makes a request to the Agency in writing for a longer period of time to complete maintenance and/or repair, and the Agency approves the owner's or operator's request in writing.

(Source: Amended at 35 Ill. Reg._____, effective _____)

Section 229.126 Emissions~~Emission~~ Limits For Rural HMIWIs

~~a)~~Notwithstanding the emissions~~emission~~ limits set out in Section 229.125 of this Part, any rural HMIWI shall comply with the emissions~~emission~~ limits set out in subsection (a) or (c) ~~(b)~~ of this Section. The emissions~~emission~~ limits under this Section shall apply at all times, except as provided for in Section 229.110(b) ~~and Subpart F of this Part~~.

a) Before January 1, 2014, a rural HMIWI as defined in Section 229.110(a)(1) shall comply with the following emissions limits:

~~b)~~ ~~The emission limits for rural HMIWI are as follows:~~

Pollutant	**Units** (7% oxygen, dry basis)	**HMIWI Emissions Limits**
Particulate matter	mg/dscm (gr/dscf)	197 (0.086)
Carbon monoxide	ppmv	40
Dioxins/furans	ng/dscm total dioxins/furans ($gr/10^9$ dscf) or ng/dscm TEQ ($gr/10^9$ dscf)	800 (350) or 15 (6.6)
Hydrogen chloride	ppmv	3100
Sulfur dioxide	ppmv	55
Nitrogen oxides	ppmv	250

Lead	mg/dscm (gr/10^3 dscf)	10 (4.4)
Cadmium	mg/dscm (gr/10^3 dscf)	4 (1.7)
Mercury	mg/dscm (gr/10^3 dscf)	7.5 (3.3)

Pollutant	**Units** (7% oxygen, dry basis)	**EMISSION LIMITS**
PM	mg per dscm (grains per dscf)	197 (0.086)
CO	ppmv	40
Dioxin/ Furans	nanograms per dscm total dioxins/furans (grains per billion dscf), or nanograms per dscm TEQ (grains per billion dscf)	800 (350) or 15 (6.6)
HCl	ppmv	3100
SO_2	ppmv	55
NOx	ppmv	250
Pb	mg per dscm (grains per thousand dscf)	10 (4.4)
Cd	mg per dscm (grains per thousand dscf)	4 (1.7)
Hg	mg per dscm (grains per thousand dscf)	7.5 (3.3)

b) No owner or operator of a rural HMIWI subject to emissions limits listed under subsection (a) of this Section shall cause or allow any emissions that cause greater than 10 percent opacity, as measured on a 6-minute block average, according to Method 9, 40 CFR Part 60, appendix A, incorporated by reference at Section 229.104(d) of this Part, from any stack used by an HMIWI.

c) No owner or operator of a rural HMIWI shall cause or allow any emissions that cause greater than 10 percent opacity, as measured on a 6-minute block average, according to Method 9, 40 CFR Part 60, Appendix A, incorporated by reference at Section 229.104(d) of this Part, from any stack used by an HMIWI.

c) On and after January 1, 2014, except as provided for in Section 229.115(b)(3) or Section 229.116(c)(4), as applicable, a rural HMIWI, as defined in Section 229.110(a)(1) or (a)(2) of this Part, shall comply with the following emissions limits:

Pollutant	**Units** (7% oxygen, dry basis)	**Emissions Limits**

Particulate matter	mg/dscm (gr/dscf)	87 (0.038)
Carbon monoxide	ppmv	20
Dioxins/furans	ng/dscm total dioxins/furans ($gr/10^9$ dscf) or ng/dscm TEQ ($gr/10^9$ dscf)	240 (100) or 5.1 (2.2)
Hydrogen chloride	ppmv	810
Sulfur dioxide	ppmv	55
Nitrogen oxides	ppmv	130
Lead	mg/dscm ($gr/10^3$ dscf)	0.50 (0.22)
Cadmium	mg/dscm ($gr/10^3$ dscf)	0.11 (0.048)
Mercury	mg/dscm ($gr/10^3$ dscf)	0.0051 (0.0022)

d) No owner or operator of a rural HMIWI subject to emissions limits listed under subsection (c) of this Section shall cause or allow any emissions that cause greater than 6 percent opacity, as measured on a 6 minute block average, according to Method 9, 40 CFR Part 60, appendix A, incorporated by reference at Section 229.104(d) of this Part, from any stack used by an HMIWI.

e) On and after the date on which the initial performance test is completed or required to be completed under Section 229.142 of this Part, whichever date comes first, no owner or operator of a rural HMIWI, as defined in Section 229.110 (a)(1) or (a)(2) of this Part, subject to the emissions limits under subsection (c) of this Section, shall cause to be discharged into the atmosphere visible emissions of combustion ash from ash conveying system (including conveyor transfer points), enclosures of ash conveying systems, buildings, or other sources in excess of 5 percent of the observation period of 9 minutes per 3-hour period, according to Method 22, 40 CFR 60, appendix A, incorporated by reference at Section 229.104(d) of this Part, except as provided by the following exclusions:

1) Visible emissions discharged inside buildings or enclosures of ash conveying systems; or

2) During maintenance and repair of ash conveying systems. Maintenance and/or repair shall not exceed 10 operating days per calendar quarter, unless the owner or operator of an HMIWI makes a request to the Agency in writing for a longer period of time to complete maintenance and/or repair, and the Agency approves the owner's or operator's request in writing.

(Source: Amended at 35 Ill. Reg._____, effective _____)

SUBPART F: EXCEPTIONS FROM EMISSION LIMITS

Section 229.130 Operation During Periods of Startup, Shutdown, or Malfunction <u>(Repealed)</u>

~~a)~~ ~~The emission limits specified in Subpart E of this Part do not apply to an HMIWI during periods of startup, shutdown or malfunction, if the requirements provided in subsections (b), (c) and (d) of this Section are met.~~

~~b)~~ ~~No waste shall be charged to an HMIWI during periods of startup, shutdown or malfunction.~~

~~c)~~ ~~The shutdown of any HMIWI shall proceed according to the following requirements:~~

~~1)~~ ~~For continuous HMIWIs, shutdown may commence no less than 2 hours after the last charge to an HMIWI;~~

~~2)~~ ~~For intermittent HMIWIs, shutdown may commence no less than 4 hours after the last charge to an HMIWI; and~~

~~3)~~ ~~For batch HMIWIs, shutdown may commence no less than 5 hours after the high air phase of combustion has been completed.~~

~~d)~~ ~~During periods of malfunction, the owner or operator of an HMIWI shall do all of the following:~~

~~1)~~ ~~Take all reasonable steps to ensure that an HMIWI operates within the parameters established for that HMIWI and to minimize excess emissions;~~

~~2)~~ ~~Continue monitoring all applicable parameters; and~~

~~3)~~ ~~Take appropriate corrective actions prior to resuming the charging of any waste to an HMIWI.~~

(Source: Amended at 33 Ill. Reg._____, effective _____)

SUBPART H: COMPLIANCE REQUIREMENTS

Section 229.142 Initial Performance Testing and Establishment of Operating Parameters <u>for All HMIWIs</u>

a) Before January 1, 2014, each owner or operator of an HMIWI as defined in Section 229.110 (a)(1) of this Part, subject to the emissions limits under Section 229.125(a) or Section 229.126(a) of this Part, shall comply with the following requirements:

~~The owner or operator of an HMIWI subject to the emissions limits under this Part shall comply with the following requirements:~~

1~~a~~) Except as provided in Section 229.115(b)(2)(B)(v) ~~229.115(b)(2)(E)~~ of this Part, conduct an initial performance test on their HMIWI by September 15, 2000~~;~~.

2~~b~~) Except as provided in subsection (a)(3) ~~(c)~~ of this Section, in the initial performance test, test for all pollutants limited pursuant to Subpart E of this Part~~;~~.

3~~c~~) During the initial performance test, rural HMIWIs are not required to test for HCl, Pb or Cd~~;~~.

4~~d~~) If an HMIWI is equipped with a dry scrubber followed by a fabric filter, a wet scrubber, ~~or~~ a dry scrubber followed by a fabric filter and wet scrubber, or a selective noncatalytic reduction system, establish the appropriate maximum and minimum operating parameter values indicated in Appendix B of this Part for the relevant control system during the initial performance test, provided that the performance test demonstrates compliance with the emission limits specified in Section 229.125 of this Part~~;~~.

5~~e~~) If air pollution control equipment other than a dry scrubber followed by a fabric filter, a wet scrubber, a~~or~~ dry scrubber followed by a fabric filter and a wet scrubber, or a selective noncatalytic reduction system is used to comply with the emission limits under Section 229.125 of this Part, the initial performance test may not be conducted until site-specific operating parameters that will be monitored to demonstrate compliance with this Part have been established by the Agency in a construction permit and approved by USEPA.

6~~f~~) For rural HMIWI, establish the maximum charge rate and minimum secondary chamber temperature as site-specific parameters during the initial performance test, provided that the performance test demonstrates that the HMIWI is in compliance with the emission limits specified in Section 229.126 of this Part.

b) On and after January 1, 2014, each owner or operator of an HMIWI, as defined in Section 229.110 (a)(1) or (a)(2) of this Part, and subject to the emissions limits

under Section 229.125(c) as applicable, or Section 229.126(c) of this Part shall comply with the following requirements:

1) Except as provided in Section 229.115(b)(2)(B)(v)~~(a)(2)(B)(v)~~ of this Part, conduct an initial performance test on its HMIWI by January 1, 2014.

2) Except as provided for in subsection (b)(6), in the initial performance test, test for all pollutants to demonstrate compliance with Section 229.125(c), or Section 229.126(c) emissions limits, as applicable, pursuant to Subpart E of this Part.

3) If an HMIWI is equipped with a dry scrubber followed by a fabric filter, a wet scrubber, a dry scrubber followed by a fabric filter and wet scrubber, or a selective noncatalytic reduction system, establish the appropriate maximum and minimum operating parameter values indicated in Appendix B of this Part for the relevant control system during the initial performance test, provided that the performance test demonstrates compliance with the emission limits specified in Section 229.125 or 229.126 of this Part.

4) If an air pollution control device other than a dry scrubber followed by a fabric filter, a wet scrubber, a dry scrubber followed by a fabric filter and a wet scrubber, or a selective noncatalytic reduction system is used to comply with the emission limits under Section 229.125 or Section 229.126 of this Part, the initial performance test may not be conducted until site-specific operating parameters that will be monitored to demonstrate compliance with this Part have been established by the Agency in a construction permit and approved by USEPA.

5) For a rural HMIWI that is not equipped with an air pollution control device, establish the maximum charge rate and minimum secondary chamber temperature as site-specific parameters during the initial performance test, provided that the performance test demonstrates that the HMIWI is in compliance with the emission limits specified in Section 229.126(c) of this Part.

6) The owner or operator of an HMIWI may use results of previous performance tests for initial compliance demonstration with the applicable emissions limits, provided the following conditions are met:

   A) The previous emissions tests were conducted using procedures and test methods listed in Section 229.140 of this Part, or USEPA-accepted voluntary consensus standards;

   B) The test results are certified as representative of current operations; and

   C) The previous emissions tests were conducted no earlier than 1996.

7) The owner or operator of an HMIWI that cannot certify and/or whose previous performance tests results do not demonstrate compliance with one or more of the revised emission limits must conduct another performance test for those pollutants.

8) The owner or operator of an HMIWI, as defined in Section 229.110(a)(1) or (a)(2) of this Part, and subject to the emissions limits under Section 229.125(c) as applicable, or Section 229.126(c) of this Part, as applicable shall determine compliance with the visible emissions limit for fugitive emissions from ash handling in Sections 229.125(g) and 229.126(e) by conducting an initial performance test using Method 22, at 40 CFR 60, appendix A, incorporated by reference at Section 229.104(d) of this Part.

(Source: Amended at 35 Ill. Reg._____, effective _____)

Section 229.146 Annual Testing for Opacity

Following the date on which the initial performance test is completed, as required by Section 229.142 of this Section, the owners or operators of all HMIWIs shall conduct an annual opacity test, in accordance with Section 229.140 of this Part. The opacity test schedules are as follows: ~~, by September 15 of each year.~~

a) By September 15 of each year, for an HMIWI, as defined in Section 229.110 (a)(1) of this Part and subject to the emissions limits under subsection 229.125(a) or subsection 229.126(a) of this Part; and

b) By January 1 of each year, for an HMIWI, as defined in Section 229.110 (a)(1) or (a)(2) of this Part~~,~~ and subject to the emissions limits under Section 229.125(c), as applicable, or Section 229.126(c) of this Part.

(Source: Amended at 35 Ill. Reg._____, effective _____)

Section 229.148 Annual Performance Testing for All ~~Small, Medium and Large~~ HMIWIs

Following the date on which the initial performance test is completed, as required by Section 229.142 of this Part, ~~all owners or operators of small, medium, or large HMIWIs~~ each owner or operator of an HMIWI, as applicable, shall conduct an annual performance test~~, by September 15 of each year~~ to determine compliance with the applicable PM, CO and HCl emission limits specified in Section 229.125~~(b)~~ or 229.126 of this Part, using the applicable test procedures and methods specified in Section 229.140 of this Part.

a) Annual performance test schedules are as follows:

1) Before January 1, 2014, each owner or operator of a small, medium, or large HMIWI as defined in Section 229.110(a)(1), subject to the emissions

limits under Section 229.125(a) of this Part shall complete an annual performance test by September 15 of each year; and

2) On and after January 1, 2014, an owner or operator of a small, rural, medium, or large HMIWI, as defined in Section 229.110(a)(1) or (a)(2), subject to the emissions limits under Section 229.125(c) as applicable, or in Section 229.126(c) of this Part shall complete an annual performance test by January 1 of each year.

b~~a~~) If all 3 annual performance tests over a 3-year period indicate compliance with the applicable emission limits for PM, CO, or HCl specified in Section 229.125~~(b)~~ of this Part, the owner or operator of an HMIWI may forego a performance test for that pollutant during the next 2 years. If the next performance test conducted every third year indicates compliance with the emission limits for PM, CO, or HCl specified in Section 229.125~~(b)~~ of this Part, the owner or operator of an HMIWI may forego a performance test for that pollutant for an additional 2 years from the date of the previous performance test.

c~~b~~) If any performance test indicates noncompliance with the respective emission limit, the owner or operator of an HMIWI shall conduct a performance test for that pollutant annually until all annual performance tests over a 3-year period indicate compliance with the respective emission limits.

d) The owner or operator of an HMIWI may use any of the following types of continuous emission monitoring systems (CEMS), as provided in Section 229.152 of this Part, to substitute for annual performance tests and parameter monitoring to demonstrate compliance with applicable emissions limits:

1) PM CEMS: replace annual PM testing and opacity testing and monitoring of pressure drop across the wet scrubber, if applicable;

2) CO CEMS: replace annual CO testing and monitoring of minimum secondary chamber temperature;

3) HCl CEMS: replace annual HCl testing and monitoring of minimum HCl sorbent flow rate and minimum scrubber liquor pH.

(Source: Amended at 35 Ill. Reg._____, effective _____)

Section 229.150 Compliance with Operating Parameter Values

a) Following the date on which the initial performance test is completed, or is required to be completed under ~~as provided in~~ Section 229.142 of this Subpart, whichever date comes first ~~Part~~, an HMIWI, using 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 of this Part~~,~~ shall not operate above any of the applicable maximum or below any of the applicable minimum operating parameters values specified in Appendix B of this Part. All operating parameters

shall be measured as a 3-hour rolling average (calculated each hour as a 3-hour rolling average of the previous 3 operating hours) at all times~~, except during periods of startup, shutdown, and malfunction (calculated each hour as a 3-hour rolling average of the previous 3 operating hours)~~. For batch HMIWIs, the charge rate shall be measured on a per batch basis.

b) Except as provided in Section 229.164 of this Subpart, for an HMIWI equipped with a selective noncatalytic reduction system, operation of the HMIWI above the maximum charge rate, below the minimum secondary chamber temperature, and below the minimum reagent flow rate simultaneously shall constitute a violation of the NOx emissions limit.

c~~b~~) For HMIWIs using air pollution control equipment other than a dry scrubber followed by a fabric filter, a wet scrubber, or dry scrubber followed by a fabric filter and a wet scrubber to comply with the emission limits under Section 229.125 or Section 229.126 of this Part, following the date on which the initial performance test is completed, as provided in Section 229.142 of this Part, an HMIWI shall not operate above any applicable maximum or below any applicable minimum operating parameter values established in its CAAPP permit.

d~~c~~) Operating parameter limits do not apply during performance tests.

(Source: Amended at 35 Ill. Reg._____, effective _____)

Section 229.152 Compliance Requirements for HMIWIs using CEMS

The owner or operator of an HMIWI may use a CEMS to demonstrate compliance with any of the emission limits under Section 229.125~~(b)~~ or Section 229.126 of this Part, if provided for in its permit. ~~Any HMIWI that is allowed to use a CEMS to demonstrate compliance with the emission limits of this Part shall:~~

a) Any HMIWI that is allowed to use a CEMS to demonstrate compliance with the emission limits of this Part shall:

1~~a~~) Determine compliance with the applicable 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

2~~b~~) Operate all CEMS in accordance with the applicable procedures under ~~appendices~~Appendices B and F of 40 CFR 60, incorporated by reference at Section 229.104(e) of this Part.

b) In the case of CEMS for which USEPA has not published performance specifications, the option to use the CEMS takes effect on the date of publication of the performance specifications in the Federal Register or after site-specific operating parameters used to demonstrate compliance with this Part have been established by the Agency in a construction permit and approved by USEPA.

(Source: Amended at _____, effective _____)

Section 229.154 Violations by HMIWIs Equipped with a Dry Scrubber Followed by a Fabric Filter

Except as provided in Section 229.164 of this Subpart, for an HMIWI equipped with a dry scrubber followed by a fabric filter:

a) Simultaneous operation of an HMIWI above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a 3-hour rolling average) shall be a violation of the CO emissions~~emission~~ limit;

b) Simultaneous operation of an HMIWI above the maximum fabric filter inlet temperature, above the maximum charge rate, and below the minimum dioxin/furan sorbent flow rate (each measured on a 3-hour rolling average) shall be a violation of the dioxin/furan emissions~~emission~~ limit;

c) Simultaneous operation of an HMIWI above the maximum charge rate and below the minimum HCl sorbent flow rate (each measured on a 3-hour rolling average) shall be a violation of the HCl emissions~~emission~~ limit;

d) Simultaneous operation of an HMIWI above the maximum charge rate and below the minimum Hg sorbent flow rate (each measured on a 3-hour rolling average) shall be a violation of the Hg emissions~~emission~~ n limit; ~~or~~

e) Use of the bypass stack ~~(except during startup, shutdown or malfunction)~~ at any time during operation of an HMIWI is a violation of the PM, dioxin/furan, HCl, Pb, Cd and Hg emissions~~emission~~ limits;~~.~~

f) If a CO CEMS is used to determine compliance with a CO emissions limit, operation of the HMIWI above the CO emissions limit as measured by the CO CEMS shall be a violation of the emissions limit;

g) If a bag leak detection system is used, failure to initiate corrective action within one hour after the bag leak detection system alarm, or failure to operate and maintain the fabric filter so that the alarm is not engaged for more than 5 percent of the total operating time in a 6-month block reporting period shall be a violation of the PM emissions limit;

h) If a bag leak detection system is used to demonstrate compliance with the opacity limit, failure to initiate corrective action within one hour after the bag leak detection system alarm shall be a violation of the opacity emissions limit;

i) If a CEMS is used to determine compliance with a PM, HCl, Pb, Cd, and/or Hg emissions limit, operation of the HMIWI above the applicable emissions limit as measured by the CEMS shall be a violation of the emissions limit;

j) If a continuous automated sampling system is used, operation of the HMIWI above the dioxin/furan emissions limit as measured by the continuous automated sampling system shall be a violation of the dioxin/furan emissions limit; or

k) If a continuous automated sampling system is used, operation of the HMIWI above the Hg emissions limit as measured by the continuous automated sampling system shall be a violation of the Hg emissions limit.

(Source: Amended at 35 Ill. Reg._____, effective _____)

Section 229.156 Violations by HMIWIs Equipped with a Wet Scrubber

Except as provided in Section 229.164 of this Subpart, for an HMIWI equipped with a wet scrubber:

a) Simultaneous operation of an HMIWI above the maximum charge rate and below the minimum pressure drop across the wet scrubber or below the minimum horsepower or amperage to the system (each measured on a 3-hour rolling average) is a violation of the PM emissions~~emission~~ limit;

b) Simultaneous operation of an HMIWI above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a 3-hour rolling average) is a violation of the CO emissions~~emission~~ limit;

c) Simultaneous operation of an HMIWI above the maximum charge rate, below the minimum secondary chamber temperature and below the minimum scrubber liquor flow rate (each measured on a 3-hour rolling average) is a violation of the dioxin/furan emissions~~emission~~ limit;

d) Simultaneous operation of an HMIWI above the maximum charge rate and below the minimum scrubber liquor pH (each measured on a 3-hour rolling average) is a violation of the HCl emissions~~emission~~ limit;

e) Simultaneous operation of an HMIWI above the maximum flue gas temperature and above the maximum charge rate (each measured on a 3-hour rolling average) is a violation of the Hg emissions~~emission~~ limit; ~~or~~

f) Use of the bypass stack ~~(except during startup, shutdown, or malfunction)~~ at any time during operation of an HMIWI is a violation of the PM, dioxin/furan, HCl, Pb, Cd and Hg emissions~~emission~~ limits;~~.~~

g) If a CO CEMS is used to determine compliance with a CO emissions limit, operation of the HMIWI above the CO emissions limit as measured by the CO CEMS shall be a violation of the emissions limit;

h) If a CEMS is used to determine compliance with a PM, HCl, Pb, Cd, and/or Hg emissions limit, operation of the HMIWI above the applicable emissions limit as measured by the CEMS shall be a violation of the emissions limit;

i) If a continuous automated sampling system is used, operation of the HMIWI above the dioxin/furan emissions limit as measured by the continuous automated sampling system shall be a violation of the dioxin/furan emissions limit; or

j) If a continuous automated sampling system is used, operation of the HMIWI above the Hg emissions limit as measured by the continuous automated sampling system shall be a violation of the Hg emissions limit.

(Source: Amended at 35 Ill. Reg._____, effective _____)

Section 229.158 Violations by HMIWIs Equipped with a Dry Scrubber Followed by a Fabric Filter and a Wet Scrubber

Except as provided in Section 229.164 of this Subpart, for an HMIWI equipped with a dry scrubber followed by a fabric filter and a wet scrubber:

a) Simultaneous operation of an HMIWI above the maximum charge rate and below the minimum secondary chamber temperature (each measured on a 3-hour rolling average) is a violation of the CO emissions~~emission~~ limit;

b) Simultaneous operation of an HMIWI above the maximum fabric filter inlet temperature, above the maximum charge rate and below the minimum dioxin/furan sorbent flow rate (each measured on a 3-hour rolling average) is a violation of the dioxin/furan emissions~~emission~~ limit;

c) Simultaneous operation of an HMIWI above the maximum charge rate and below the minimum scrubber liquor pH (each measured on a 3-hour rolling average) is a violation of the HCl emissions~~emission~~ limit;

d) Simultaneous operation of an HMIWI above the maximum charge rate and below the minimum Hg sorbent flow rate (each measured on a 3-hour rolling average) is a violation of the Hg emissions~~emission~~ limit; ~~or~~

e) Use of the bypass stack ~~(except during startup, shutdown, or malfunction)~~ at any time during operation of an HMIWI is a violation of the PM, dioxin/furan, HCl, Pb, Cd and Hg emissions~~emission~~ limits;~~.~~

f) If CO CEMS is used to determine compliance with a CO emissions limit, operation of the HMIWI above the CO emissions limit as measured by the CO CEMS shall be a violation of the emissions limit;

g) If a bag leak detection system is used, failure to initiate corrective action within one hour after the bag leak detection system alarm, or failure to operate and maintain the fabric filter so that the alarm is not engaged for more than 5 percent of the total operating time in a 6-month block reporting period, shall be a violation of the PM emissions limit;

h) If a bag leak detection system is used to demonstrate compliance with the opacity limit, failure to initiate corrective action within one hour after the bag leak detection system alarm shall be a violation of the opacity emissions limit;

i) If CEMS is used to determine compliance with a PM, HCl, Pb, Cd, and/or Hg emissions limit, operation of the HMIWI above the applicable emissions limit as measured by the CEMS shall be a violation of the emissions limit;

j) If a continuous automated sampling system is used, operation of the HMIWI above the dioxin/furan emissions limit as measured by the continuous automated sampling system shall be a violation of the dioxin/furan emissions limit; or

k) If a continuous automated sampling system is used, operation of the HMIWI above the Hg emissions limit as measured by the continuous automated sampling system shall be a violation of the Hg emissions limit.

(Source: Amended at 35 Ill. Reg._____, effective _____)

Section 229.160 Compliance Requirements for Rural HMIWIs

a) Prior to January 1, 2014, the requirements set forth in subsections (c) through (e) of this Section shall apply to all rural HMIWIs subject to the emissions limits under Section 229.126 of this Part.

b) On and after January 1, 2014, the requirements set forth in subsections (c) through (e) of this Section shall apply to all rural HMIWIs that are not equipped with an air pollution control device and that are subject to the emissions limits under Section 229.126 of this Part.

c~~a~~) Following the date on which the initial performance test is completed or is required to be completed under Section 229.142 of this Subpart, whichever date comes first, the owners or operators of rural HMIWI shall not operate their HMIWI either above the maximum charge rate or below the minimum secondary chamber temperature measured as 3-hour rolling averages ~~at all times, except during periods of startup or shutdown~~ (calculated each hour as the average of the previous ~~a 3-hour rolling average of the previous~~ 3 operating hours) at all times.

d) Operating parameter limits do not apply during performance tests.

e~~b~~) Except as provided in Section 229.164 of this Subpart, the simultaneous operation of a rural HMIWI above the maximum charge rate and below the minimum secondary chamber temperature (calculated as a 3-hour rolling average) shall constitute a violation of the PM, CO and dioxin/furan emission limits.

(Source: Amended at 35 Ill. Reg._____, effective _____)

Section 229.162 Inspection Requirements for All ~~Rural~~ HMIWIs

a) Before January 1, 2014, each owner or operator of a rural HMIWI subject to the emission limits under Section 229.126 of this Part shall inspect the HMIWI according to the following schedule: ~~Each owner or operator of a rural HMIWI shall inspect the HMIWI according to the following schedule:~~

1) An initial inspection shall be conducted by September 15, 2000; and

2) An annual inspection shall be conducted by September 15 of each year thereafter.

b) Each equipment inspection shall be conducted to ensure the proper operation of the ~~rural~~ HMIWI and, at a minimum, shall consist of the following steps:

1) An inspection of all burners, pilot assemblies, and pilot sensing devices, cleaning the pilot flame sensor, as necessary;

2) An inspection of the primary and secondary chamber combustion air flow, adjusting, as necessary;

3) An inspection of the hinges and door latches, lubricating, as necessary;

4) An inspection of dampers, fans, and blowers;

5) An inspection of the HMIWI door and door gaskets;

6) An inspection of all HMIWI motors;

7) An inspection of the primary chamber refractory lining, cleaning, repairing or replacing the lining, as necessary;

8) An inspection of the incinerator shell for corrosion or hot spots;

9) An inspection of the secondary/tertiary chamber and stack, cleaning as necessary;

10) Where applicable, an inspection of the mechanical loader, including limit switches;

11) A visual inspection of the waste bed (grates), repairing or sealing, as necessary;

12) Where applicable, an inspection of air pollution control devices to ensure their proper operation;

13) Where applicable, an inspection of the waste heat boiler systems;

14) An inspection of all bypass stack components;

15) Calibration of thermocouples, sorbent feed systems and monitoring equipment; and

16) A general inspection of all equipment to ensure that it is maintained in good operating condition.

c) The owner or operator of an ~~a rural~~ HMIWI shall document that, during the burn cycle immediately following the inspection required by this Section, the HMIWI is operating properly and make any necessary adjustments.

d) All maintenance, adjustments, or repairs identified during the equipment inspection required under this Section shall be completed within 10 days after the inspection. The owner or operator of an HMIWI may have a longer period of time in which to complete any repairs identified as a result of the inspection required by this Section, provided that it makes this request to the Agency in writing, and the Agency approves the owner or operator of an HMIWI's request in writing.

e) The owner or operator of a small, rural, medium, or large HMIWI subject to the emission limits under Section 229.125(c) as applicable, or Section 229.126 of this Part, shall inspect the HMIWI as outlined in subsection (b) of this Section, according to the following schedule:

1) An initial equipment inspection shall be conducted by January 1, 2014; and

2) An annual equipment inspection shall be conducted by January 1 of each year thereafter.

f) The owner or operator of an HMIWI subject to the emission limits under Section 229.125(c), as applicable, or Section 229.126(c) of this Part, shall inspect the air pollution control devices, according to the following schedule:

1) An initial air pollution control device inspection shall be conducted by January 1, 2014; and

2) An annual air pollution control device inspection shall be conducted by January 1 of each year thereafter.

g) Each air pollution control device inspection, as applicable, shall be conducted to ensure the proper operation of the device and, at a minimum, shall consist of the following steps:

1) Where applicable, an inspection of the thermocouples, sorbent feed systems, and any other monitoring equipment, adjusting applicable calibrations, as necessary; and

2) A general inspection of the equipment to ensure that it is maintained in good operating condition.

h) All maintenance, adjustments, or repairs identified during an air pollution control device inspection required under this Section shall be completed within 10 days after the inspection. The owner or operator of an HMIWI may have a longer period of time in which to complete any repairs identified as a result of the inspection required by this Section, provided that it makes this request to the Agency in writing and the Agency approves the request in writing.

(Source: Amended at 35 Ill. Reg._____, effective _____)

SUBPART I: MONITORING REQUIREMENTS

Section 229.166 Monitoring Requirements for All ~~Small, Medium, and Large~~ HMIWIs

a) Each owner or operator of an HMIWI subject to the emissions~~emission~~ limits under Section 229.125(c), as applicable, or Section 229.126(c) of this Part, shall comply with requirements of this Section according to the following schedule:

1) Before January 1, 2014, for a small, medium or large HMIWI;

2) On and after January 1, 2014, except as provided for in Section 229.115(b)(3) or Section 229.116(c)(4), for a small, medium or large HMIWI and a rural HMIWI that is equipped with an air pollution control device.

b~~a~~) Once the initial performance test required by Section 229.142 of this Part has been performed, and the site-specific minimum and maximum operating parameter values have been established, the owner or operator of an ~~a small, medium or large~~ HMIWI, as applicable, shall continuously monitor those parameters.

c~~b~~) The owner or operator of an ~~a small, medium or large~~ HMIWI, as applicable, shall comply with the following monitoring requirements:

1) Install, calibrate according to manufacturer's specifications, maintain, and operate devices or establish methods for monitoring the applicable maximum and minimum operating parameters specified in Appendix B of this Part (unless CEMS are used as a substitute for certain parameters as specified) so that these devices or methods measure and record values for these operating parameters at the frequencies indicated in Appendix B of this Part at all times~~ except during periods of startup and shutdown~~;

2) Install, calibrate according to manufacturer's specifications, maintain, and operate a device or establish a method for identifying the use of the bypass stack, including date, time, and duration of use;

3) If control equipment 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, or a selective noncatalytic reduction system is used to comply with the applicable emissions~~emission~~ limits under Section 229.125(c) ~~229.125(b)~~, as applicable, or Section 229.126(c) of this Part, install, calibrate according to manufacturer's specifications, maintain, and operate the equipment necessary to monitor the site-specific operating parameters developed and approved pursuant to Section 229.142(a)(5) or (b)(5) ~~Section 229.142 (e)~~ of this Part; and

4) Record monitoring data at all times during HMIWI operation, except during the periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data shall be recorded for 75 percent of the operating hours per day ~~and~~ for 90 percent of the operating days per calendar quarter that an HMIWI is combusting hospital waste or medical/infectious waste.

d) If an HMIWI is equipped with an air pollution control device that includes a fabric filter and a PM CEMS is not used to demonstrate compliance, the owner or operator of the HMIWI may use a bag leak detection system to determine compliance with the PM emissions limit. The owner or operator shall meet the following requirements for each bag leak detection system installed:

1) Each triboelectric bag leak detection system may be installed, calibrated, operated, and maintained according to the "Fabric Filter Bag Leak Detection Guidance, " as incorporated by reference in Section 229.104;

2) The bag leak detection system shall be certified by the manufacturer as being capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less;

3) The bag leak detection system sensor shall provide an output of relative PM loadings;

4) The bag leak detection system shall be equipped with a device to continuously record the output signal from the sensor;

5) The bag leak detection system shall be equipped with an audible alarm system that sounds automatically when an increase in relative PM emissions over a preset level is detected. The alarm shall be located where it is easily heard by plant operating personnel;

6) For positive pressure fabric filter systems, a bag leak detector shall be installed in each baghouse compartment or cell;

7) For negative pressure or induced air fabric filters, a bag leak detector shall be installed downstream of the fabric filter;

8) If multiple bag leak detectors are required, the bag leak detection system's instrumentation and alarm may be shared among detectors;

9) The baseline output shall be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time according to section 5.0 of the "Fabric Filter Bag Leak Detection Guidance," as incorporated by reference in Section 229.104;

10) Following initial adjustment of the system, the sensitivity or range, averaging period, alarm set points, or alarm delay time may not be adjusted. Increasing the sensitivity by more than 100 percent or decreasing by more than 50 percent over a 365-day period is a violation unless the adjustment follows a complete fabric filter inspection that demonstrates that the fabric filter is in good operating condition. Each adjustment shall be recorded;

11) Records of the results of each inspection, calibration, and validation check; shall be maintained; and

12) The fabric filter must be operated and maintained so that the bag leak detection system alarm is not engaged for more than 5 percent of the total operating time in a 6-month block reporting period; however, corrective action must be initiated within 1 hour after the alarm.

(Source: Amended at 35 Ill. Reg._____, effective _____)

Section 229.168 Monitoring Requirements for Rural HMIWIs

a) Each owner or operator of a rural HMIWI subject to the emissions limits under Section 229.126 of this Part shall comply with requirements of this Section according to the following schedule:

1) Before January 1, 2014, for a rural HMIWI; and

2) On and after January 1, 2014, except as provided for in Section 229.115(b)(3) or Section 229.116(c)(4), for a rural HMIWI that is not equipped with an air pollution control device.

b) The owner or operator of each rural HMIWI shall comply with the following monitoring requirements:

1a) Install, calibrate according to manufacturer's specifications, maintain, and operate a device 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 of operation;

2b) Install, calibrate according to manufacturer's specifications, maintain, and operate a device that automatically measures and records the date, time, and weight of each charge fed into an HMIWI; and

3c) Record 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 recorded for 75 percent of the operating hours per day ~~and~~ for 90 percent of the operating hours per calendar quarter that an HMIWI is combusting hospital waste or medical/infectious waste.

(Source: Amended at 35 Ill. Reg._____, effective _____)

SUBPART K: WASTE MANAGEMENT PLAN REQUIREMENTS

Section 229.180 Waste Management Requirements for Commercial HMIWIs ~~Accepting Waste Generated Off-Site~~

a) The owner or operator of any commercial HMIWI that accepts hospital waste or medical/infectious waste generated off-site shall:

1) Provide hospital, medical or infectious waste customers with written information at least once a year concerning the availability of waste management practices for reducing the volume and toxicity of waste to be incinerated; ~~and~~

2) Conduct training and education programs in waste segregation for each of the company's waste generator customers;

3) Ensure that each waste generator customer prepares its own waste management plan that includes, at a minimum, the following elements:

A) Segregation of recyclable wastes such as paper products, glass, batteries and metals;

B) Segregation of non-recyclable wastes such as polyvinyl chloride plastics, pharmaceutical waste, and mercury-containing waste; and

C) Purchasing recycled or recyclable products.

42) Submit a waste management plan to the Agency, in accordance with Section 229.184(b) of this Part, that outlines the efforts that will be

undertaken to implement the requirements ~~distribute information~~ as specified in subsections (a)(1) through (a)(3) of this Section. ~~and identifies the information that will be distributed.~~

b) Paper or electronic copies of the materials disseminated under this Section shall be made available to the Agency upon written request.

(Source: Amended at 35 Ill. Reg._____, effective _____)

SUBPART L: RECORDKEEPING AND REPORTING REQUIREMENTS

Section 229.182 Recordkeeping Requirements

a) The owner or operator of an HMIWI subject to the emissions~~emission~~ limits under Subpart E of this Part shall maintain records of the following information:

1) The calendar date of each record;

2) The following data, where applicable:

A) Concentrations of all applicable pollutants listed in Section 229.125 (a) (c), or in Section 229.126 (a) or (c) of this Part (as determined by the CEMS, if applicable), and any measurements of opacity as required under Section 229.125(b), (d), or (f) or Section 229.126(b) or (d);

~~Concentrations of all applicable pollutants listed in Section 229.125(b) or 229.126(b) of this Part (as determined by the CEMS, if applicable) and any measurements of opacity as required under Section 229.125(c) or 229.126(c);~~

B) HMIWI charge dates, times and weights, and hourly charge rates;

C) If a fabric filter is used, the fabric filter inlet temperatures during each minute of operation;

D) The amount and type of dioxin/furan sorbent used during each hour of operation;

E) The amount and type of Hg sorbent used during each hour of operation;

F) The amount and type of HCl sorbent used during each hour of operation;

G) If a selective noncatalytic reduction system is used to comply, the amount and type of NO_X reagent used during each hour of operation;

H) If a selective noncatalytic reduction system is used to comply, the minimum secondary chamber temperature recorded during each minute of operation;

I~~G~~) The secondary chamber temperatures recorded during each minute of operation;

J~~H~~) The liquor flow rate to the wet scrubber inlet during each minute of operation;

K~~I~~) The horsepower or amperage to the wet scrubber during each minute of operation;

L~~J~~) Any pressure drop across the wet scrubber system during each minute of operation;

M~~K~~) The temperature at the outlet from the wet scrubber during each minute of operation;

N~~L~~) The pH at the inlet to the wet scrubber during each minute of operation;

O~~M~~) Identification of any use of the bypass stack, including dates, times, and the duration of such use; ~~and~~

P~~N~~) For sources complying with Section 229.166(c) ~~(b)(3)~~ of this Part, all operating parameter data collected ~~monitored~~; and

Q) If a bag leak detection system is used, maintain records of the system alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken, as applicable;

3) Identification of any calendar days for which data on emissions~~emission~~ rates or operating parameters specified under subsection (a)(2) of this Section have not been obtained, with an identification of the emissions~~emission~~ rates or operating parameters not measured, reasons for not obtaining data, and a description of the corrective actions taken;

4) Identification of any malfunctions, including the calendar date, the time and duration, and a description of the malfunction and of the corrective action taken to remedy it;

5) Identification of calendar days for which data on emissions~~emission~~ rates or operating parameters specified under subsection (a)(2) of this Section exceeded the applicable limits, with a description of the exceedences,

reasons for such exceedences, and a description of the corrective actions taken;

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

7) Records of calibration of any monitoring devices as required under Sections 229.166(c)~~(b)~~(1), (2) and (3) and 229.168(b)~~(a)~~(1) and (2) of this Part; and

8) Identification of the names of all HMIWI operators who have met the criteria for qualification under Section 229.170 of this Part, including:

A) Documentation of training and the dates of the training; and

B) The date of the initial review and all subsequent annual reviews of the information specified in Section 229.172(a) of this Part, as required by Section 229.172(b) of this Part.

b) The owner or operator of an HMIWI claiming an exemption from the emissions~~emission~~ limits in this Part pursuant to Section 229.110(b) of this Part shall keep contemporaneous records identifying each period of time when only pathological waste, low-level radioactive waste, or chemotherapeutic waste is burned, including the calendar date and duration of such periods.

c) The owner or operator of an HMIWI claiming an exemption pursuant to Section 229.110(c) of this Part shall keep records on a calendar quarter basis demonstrating that only pathological waste, low-level radioactive waste, or chemotherapeutic waste is burned.

d) The owner or operator of a co-fired combustor claiming an exemption from the emissions~~emission~~ limits under Section 229.110(d) of this Part shall maintain records on a calendar quarter basis of the relative weight of hospital waste and/or medical/infectious waste, and of all other fuels or waste combusted.

e) The owner or operator of each HMIWI subject to the emissions limits under Section 229.125(c), or Section 229.126 of this Part, shall maintain records of the annual equipment inspection required under Section 229.162 of this Part.

~~e) The owner or operator of each rural HMIWI shall maintain records of the annual equipment inspections required under Section 229.162 of this Part, any required maintenance, and any repairs not completed within 10 days after an inspection or the time frame established by the Agency.~~

f) The owner or operator of each HMIWI subject to the emissions limits under Section 229.125(c), or 229.126(c) of this Part, shall maintain records of the annual air pollution control device inspection required under Section 229.162 of this Part.

g) If a bag leak detection system is used, the owner or operator shall maintain records of the system alarm, the time of the alarm, the time corrective action was initiated and completed, a brief description of the cause of the alarm and the corrective action taken, as applicable.

h) The owner or operator of each HMIWI, when applicable, shall maintain records of any required maintenance, adjustments, or repairs identified during an inspection required under Section 229.162 of this Part not completed within 10 days after the inspection or the timeframe approved in writing by the Agency.

i~~f~~) All records required under this Section shall be maintained onsite for a period of 5 years, in either paper copy or electronic format, unless an alternative format has been approved by the Agency in a permit condition.

j~~g~~) All records required to be maintained pursuant to this Section shall be made available to the Agency upon request.

(Source: Amended at 35 Ill. Reg._____, effective _____)

Section 229.184 Reporting Requirements

a) The facilities manager and the responsible official for the affected source shall certify each report required under this Section.

b) The owner or operator of an HMIWI shall submit to the Agency the results of any performance test conducted on the HMIWI within 60 days after conducting the performance test. The information submitted with the initial performance test required by Section 229.142 of this Part shall include:

1) Before January 1, 2014, except as provided for in Section 229.115(b)(3) or Section 229.116(c)(4), as applicable, the test data and values for the site-specific operating parameters established pursuant to Section 229.142(a)(4), (5) or (6), as applicable, and a description, including sample calculations, of how the operating parameters were established during the initial performance test for an HMIWI subject to the emissions limits under Section 229.125(a) or 229.126(a) of this Part;

~~The test data and values for the site-specific operating parameters established for an HMIWI pursuant to either Section 229.142(d), (e) or (f) of this Part, as applicable; and~~

2) On and after January 1, 2014, the test data and values for the site-specific operating parameters established pursuant to Section 229.142(b)(3), (4) or (5), as applicable, and a description, including sample calculations, of how the operating parameters were established during the initial performance test for an HMIWI subject to the emissions limits under Section 229.125(c) or Section 229.126(c) of this Part;

3) If a bag leak detection system is used, analysis and supporting documentation demonstrating conformance with guidance and specifications for bag leak detection systems in Section 229.166(d)(1); and

4~~2~~) A copy of the waste management plan required under Subpart K of this Part.

c) All owners or operators of HMIWIs shall submit the information specified under this subsection (c) to the Agency, as follows:

~~All owners or operators of HMIWIs shall submit the information specified under this subsection (c) to the Agency by September 15, 2001 and by September 15 of each year thereafter. Once an HMIWI is issued a CAAPP permit, the owner or operator of an HMIWI shall submit these reports semi-annually, in accordance with subsection (d) of this Section. The annual report shall include the following information:~~

1) By September 15, 2001, and by September 15 of each year thereafter, for an HMIWI subject to the emissions limits under Section 229.125(a) or 229.126(a) of this Part;

2) By January 1, 2014, and by January 1 of each year thereafter, except as provided for in Section 229.115(b)(3) or Section 229.116(c)(4), as applicable, for an HMIWI subject to the emissions limits under Section 229.125(c) or (e) or Section 229.126(c) of this Part; and

3) The annual report required under subsection (c)(1) or (2) of this Section shall include the following information:

A~~1)~~ Before January 1, 2014, the values for site-specific operating parameters established pursuant to Section 229.142(a)(4), (5) or (6) of this Part, as applicable;

B) On and after January 1, 2014, except as provided for in Section 229.115(b)(3) or Section 229.116(c)(4), as applicable, the values for site-specific operating parameters established pursuant to Section 229.142(b)(3), (4) or (5) of this Part, as applicable;

C~~2)~~ The highest maximum operating parameter and the lowest minimum operating parameter, as applicable, for each operating parameter~~,~~ recorded for the calendar year being reported pursuant to Section 229.142(a)(4), (5) or (6), or Section 229.142(b)(3), (4) or (5) of this Part, as applicable; ~~and for the calendar year preceding the year being reported;~~

D) The highest maximum operating parameter and the lowest minimum operating parameter, as applicable, for each operating parameter recorded pursuant to Section 229.142(a)(4), (5) or (6) or Section 229.142(b)(3), (4) or(5), of this Part, as applicable, for the calendar year preceding the year being reported, in order to provide the Agency with a summary of the performance of the affected facility over a 2-year period;

E~~3)~~ Any information recorded pursuant to Section 229.182(a)(3) through (5) of this Subpart for the calendar year being reported and for the calendar year preceding the year being reported;

F~~4)~~ If no exceedences or malfunctions were recorded under Section 229.182(a)(3) through (a)(5) of this Subpart for the calendar year being reported, a statement that no exceedences occurred during the reporting period; and

G~~5~~) Any use of the bypass stack, the duration of use, the reason for malfunction, and the corrective actions taken.

d) Once an HMIWI is issued a CAAPP permit, the owner or operator of the HMIWI shall submit the reports required under subsection (c) of this Section semiannually. The semiannual reports must be submitted within 60 days following the end of the reporting period. The first semiannual reporting period ends on June 30 of each year and the second semiannual reporting period ends on December 31 of each year.

~~Once the owner or operator of an HMIWI is required to submit semiannual reports, these reports must be submitted within 60 days following the end of the reporting period. The first semiannual reporting period ends on March 15 of each year and the second semiannual reporting period ends on September 15 of each year.~~

e) The owner or operator of each rural HMIWI subject to the emissions~~emission~~ limits under Section 229.126(b) of this Part, shall submit an annual report containing all information listed in subsections (b) and (c) of this Section by no later than 60 days following the year in which the data was collected. Subsequent reports shall be sent no later than 12 calendar months following the previous report. Once the unit is subject to permitting requirements under the CAAPP, the owner or operator shall submit these reports semiannually in accordance with the schedule specified in subsection (d) of this Section.

(Source: Amended at 35 Ill. Reg._____, effective _____)

Section 229.APPENDIX B Operating Parameters to be Monitored and Minimum Measurement and Recording Frequencies

An "X" in any box in this matrix means that measurement of that parameter is required.

MINIMUM FREQUENCY			CONTROL SYSTEM			
Operating Parameters	**Data Measurement**	**Data Recording**	**Dry Scrubber Followed by Fabric Filter**	**Wet Scrubber**	**Dry Scrubber Followed by Fabric Filter and Wet Scrubber**	**Selective Noncatalytic Reduction System**
Maximum Charge Rate[1]	Continuous	Once per hour	X	X	X	X
Maximum Fabric Filter Inlet Temperature	Continuous	Once per minute	X		X	
Maximum Flue Gas Temperature	Continuous	Once per minute	X	X		
Minimum Secondary Chamber Temperature	Continuous	Once per minute	X	X	X	X
Minimum Dioxin/Furan Sorbent Flow Rate	Hourly	Once per hour	X		X	
Minimum HCl Sorbent Flow Rate	Hourly	Once per hour	X		X	
Minimum Reagent Flow Rate	Hourly	Once per hour				X
Minimum Hg Sorbent Flow Rate	Hourly	Once per hour	X		X	
Minimum Pressure Drop Across the Wet	Continuous	Once per minute		X	X	

Scrubber or Minimum Horsepower or Amperage to Wet Scrubber						
Minimum Scrubber Liquor Flow Rate	Continuous	Once per hour		X	X	
Minimum Scrubber Liquor pH	Continuous	Once per hour		X	X	

[1]For batch HMIWIs, record the charge per batch.

~~Operating Parameters to be Monitored and Minimum Measurement and Recording Frequencies. An "x" in any box in this matrix means that measurement of that parameter is required.~~

~~**MINIMUM FREQUENCY**~~			~~**CONTROL SYSTEM**~~		
~~**Operating Parameters**~~	~~**Data Measurement**~~	~~**Data Recording**~~	~~**Dry Scrubber Followed by Fabric Filter**~~	~~**Wet Scrubber**~~	~~**Dry Scrubber Followed by Fabric Filter and Wet Scrubber**~~
~~Maximum[1] Charge Rate~~	~~Continuous~~	~~Once per hour~~	~~X~~	~~X~~	~~X~~
~~Maximum Fabric Filter Inlet Temperature~~	~~Continuous~~	~~Once per minute~~	~~X~~		~~X~~
~~Maximum flue gas temperature~~	~~Continuous~~	~~Once per minute~~	~~X~~	~~X~~	
~~Minimum secondary chamber temperature~~	~~Continuous~~	~~Once per minute~~	~~X~~	~~X~~	~~X~~
~~Minimum Dioxin/ Furan Sorbent Flow Rate~~	~~Hourly~~	~~Once per hour~~	~~X~~		~~X~~

~~Minimum HCl Sorbent Flow Rate~~	~~Hourly~~	~~Once per hour~~	~~X~~		~~X~~
~~Minimum Hg Sorbent Flow Rate~~	~~Hourly~~	~~Once per hour~~	~~X~~		~~X~~
~~Minimum Pressure Drop Across the Wet Scrubber or Minimum Horsepower or Amperage to Wet Scrubber~~	~~Continuous~~	~~Once per minute~~		~~X~~	~~X~~
~~Minimum Scrubber Liquor Flow Rate~~	~~Continuous~~	~~Once per minute~~		~~X~~	~~X~~
~~Minimum Scrubber Liquor pH~~	~~Continuous~~	~~Once per minute~~		~~X~~	~~X~~

[1]For batch HMIWIs, record the charge per batch.

(Source: Amended at 35 Ill. Reg._____, effective _____)

Section 229.APPENDIX C Reference Test Methods and Procedures for Performance Tests

The following test methods and procedures shall be used as specified in Section 229.140(e) of this Part, when conducting any performance test for the purpose of demonstrating compliance with the emissions~~emission~~ limits established under this Part.

a) All performance tests shall consist of a minimum of 3 test runs conducted under representative operating conditions. The minimum sample time of 1 hour per test run shall be used unless otherwise indicated. In order to demonstrate compliance with the emissions~~emission~~ limits set forth in Subpart E of this Part, the arithmetic average of all 3 performance test runs shall be used.

b) Method 1, at 40 CFR 60, incorporated by reference at Section 229.104(d) of this Part, shall be used to select the sampling location and number of traverse points.

c) Method 2, at 40 CFR 60, shall be used to determine average gas density, as well as to measure gas velocity.

d) Method 3, 3A, or 3B, at 40 CFR 60, shall be used for gas composition analysis, including measurement of oxygen concentration. Method 3, 3A or 3B, at 40 CFR 60, shall be used simultaneously with each of the other reference methods. As an alternative to Method 3B, ASME PTC-19-10-1981-Part 10 may be used.

~~d) Method 3 or 3A, at 40 CFR 60 shall be used for gas composition analysis, including measurement of oxygen concentration. Method 3 or 3A, at 40 CFR 60 shall be used simultaneously with each reference method.~~

e) The pollutant concentrations shall be adjusted to 7 percent oxygen using the following equation:

$$C_{adj} = C_{meas} (20.9-7)/(20.9-\%O_2)$$

Where:

C_{adj} = pollutant concentration adjusted to 7 percent oxygen;

C_{meas} = pollutant concentration measured on a dry basis

(20.9-7) = 20.9 percent oxygen – 7 percent oxygen (defined oxygen corrective basis);

20.9 = oxygen concentration in air, percent; and

$\%O_2$ = oxygen concentration measured on a dry basis, percent.

f) Method 5, 26A, or 29, at 40 CFR 60, shall be used to measure PM emissions. As an alternative, a PM CEMS may be used in determining compliance with PM emissions using a 12-hour rolling average, calculated each hour as the average of the previous 12 operating hours.

~~f) Method 5 or 29, at 40 CFR 60 shall be used to measure particulate matter emissions.~~

g) Method 7 or 7E, at 40 CFR 60, shall be used to measure NO_X emissions.

h) Method 6 or 6C, at 40 CFR 60, shall be used to measure SO_2 emissions.

ig) Method 9, at 40 CFR 60, shall be used to measure stack opacity. As an alternative, the use of a bag leak detection system or a PM CEMS to demonstrate compliance with the PM standards is considered demonstrative of compliance with the opacity requirements.

j~~h~~) Method 10 or 10B, at 40 CFR 60, shall be used to measure CO emissions. As an alternative, a CO CEMS may be used to measure CO emissions.

k) Method 22, at 40 CFR 60 shall be used to measure fugitive ash emissions.

l~~i~~) Method 23, at 40 CFR 60, shall be used to measure total dioxin/furan emissions. As an alternative, the facility may elect to sample total dioxins/furans by installing, calibrating, maintaining, and operating a continuous automated sampling system for monitoring dioxin/furan emissions. The minimum sample time for Method 23 sampling shall be 4 hours per test run. If the affected facility has selected the TEQ for dioxin/furans (set out in Appendix A of this Part), as provided under Section 229.125~~(b)~~ or 229.126~~(b)~~ of this Part, whichever is applicable, the following procedures shall be used to determine compliance:

1) Measure the concentration of each dioxin/furan tetra-through-octa-congener emitted using Method 23;

2) For each dioxin/furan congener measured in accordance with subsection (i)(1) of this Section, multiply the congener concentration by its corresponding TEQ factor specified in Appendix A of this Part; and

3) Sum the products calculated in accordance with subsection (i)(2) of this Section to obtain the total concentration of dioxin/furans emitted in terms of TEQ.

m~~j~~) Method 26 or 26A, at 40 CFR 60, shall be used to measure HCl emissions. As an alternative, an HCl CEMS may be used to measure HCl emissions. Before January 1, 2014, if ~~If~~ the affected facility has selected the percentage reduction standard for HCl as provided under Section 229.125(a)~~(b)~~ or 229.126(a)~~(b)~~ of this Part, whichever is applicable, the percentage reduction in HCl emissions ($\%R_{HCl}$) is computed using the following formula:

$$(\%R_{HCl}) = ((E_i - E_o)/E_i) \times 100$$

Where:

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

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

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

n~~k~~) Method 29, at 40 CFR 60, shall be used to measure Pb, Cd, and Hg emissions. As an alternative, ASTM D6784-02 may be used to measure Hg emissions; a multi-metals CEMS or Hg CEMS may be used to measure Pb, Cd, and Hg emissions; or the facility may elect to sample Hg by installing, calibrating, maintaining, and operating a continuous automated sampling system for monitoring Hg emissions. Before January 1, 2014, if~~If~~ the affected facility has selected the percentage reduction standards for metals as provided in Section 229.125(a) ~~(b)~~ or 229.126(a) ~~(b)~~ of this Part, whichever is applicable, the percentage reduction in emissions ($\%R_{metal}$) is computed using the following formula:

$$(\%R_{metal})=((E_i-E_o)/E_i)x\ 100$$

Where:

$\%R_{METAL}$ = percentage reduction of metal emissions (Pb, Cd, or Hg) achieved;

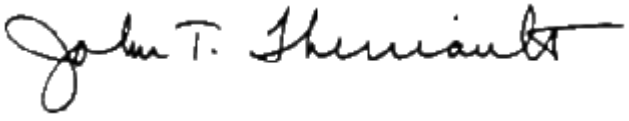
E_i = metal emissions concentration (Pb, Cd, or Hg) measured at the control device inlet, corrected to 7 percent oxygen (dry basis); and

E_O = metal emissions concentration (Pb, Cd, or Hg) measured at the control device outlet, corrected to 7 percent oxygen (dry basis).

(Source: Amended at 35 Ill. Reg._____, effective _____)

IT IS SO ORDERED.

I, John Therriault, Assistant Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion and order on August 18, 2011, by a vote of 5-0.



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John T. Therriault, Assistant Clerk
Illinois Pollution Control Board