BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)
Hospital/Medical/Infectious)
Waste Incinerators: New Part)
35 Ill. Adm. Code 229)

R99- 10
(Air Rulemaking)

STATEMENT OF REASONS

The Illinois Environmental Protection Agency ("Illinois EPA"), by one of its attorneys, Bonnie Sawyer, hereby submits this Statement of Reasons to the Illinois Pollution Control Board ("Board") pursuant to Sections 9.1(d), 10, 27 and 28.5 of the Environmental Protection Act[1] and 35 Ill. Adm. Code 102.121(b) in support of the above captioned rule making proposal. Included in this proposal is the addition of 35 Ill. Adm. Code 229 ("Part 229"). The proposed Part 229 establishes emissions limits for hospital/medical/infectious waste incinerators (HMIWIs).

I. INTRODUCTION

Proposed Part 229 will reduce emissions of pollutants from the incineration of hospital, medical and infectious waste. One of the primary purposes for incinerating hospital and medical/infectious waste is to treat infectious or hazardous aspects of such waste. But, in the process of treating these wastes, a wide range of pollutants are released into the environment; some of which are both carcinogenic and bio-accumulative in nature.[2] The proposed Part 229

[1]415 ILCS 5/9.1(d), 10, 27 and 28.5. The Illinois Environmental Protection Act (415 ILCS 5/1 et seq.) will hereinafter be referred to as "the Act".

[2]Exhibit 10: "Hospital, Medical and Infectious Waste Incinerators: Background Information for Promulgation of Standards and Guidelines - Regulatory Impact Analysis for New and Existing Facilities," EPA-453/R-97-009b, July 1997.

establishes emission limits for: particulate matter ("PM"), carbon monoxide ("CO"), opacity, sulfur dioxide ("SO_2"), oxides of nitrogen ("NOx"), hydrogen chloride ("HCl"), lead ("Pb"), cadmium ("Cd"), mercury ("Hg") and dioxins and dibenzofurans ("dioxins/furans"). While each of these pollutants can have adverse effects on public health and welfare, dioxin/furans, PM, Pb, Cd and Hg may pose the most significant public health concerns. 62 Fed. Reg. 48350.

A. Federal Basis for Proposed Part 229

Congress also recognized the significance of reducing emissions from the incineration of hospital, medical and infectious waste as evidenced by the mandate in Section 129 of the Clean Air Act, which requires United States Environmental Protection Agency ("U.S. EPA") to set limits on emissions from the incineration of these waste streams.[3] Section 129 of the CAA specifically addresses standards for solid waste combustion sources and requires the development of standards, under Section 111 of the CAA (new source performance standards), to regulate the incineration of solid waste, including hospital and medical infectious waste.[4] The standards developed pursuant to Section 129 of the CAA must address emissions from both new and existing units. Id.

Section 111(d) of the CAA, as stated below, requires the U.S. EPA to establish a process under which States must develop and submit plans for the control of emissions from any source category, not otherwise regulated, for which U.S. EPA has promulgated a performance standard:

> The (U.S. EPA) Administrator shall prescribe regulations which shall establish a procedure similar to that provided by section 110 under which each State shall submit to the Administrator a plan which (A) establishes standards of performance for any existing source for any pollutant (i) for which air quality criteria have not been issued or which is not included on a list published under section 108(a) or emitted from a source category

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[3]*See,* 42 U.S.C. §7429. The Clean Air Act, as amended in 1990, Pub. L. 101-549, November 15, 1990, 104 Stat. 239 (1990) (codified at 42 U.S. C. §§ 7401-7671q) will hereinafter be referred to as the "CAA".
[4]42 U.S.C. 7429(a)(1)(C).

> which is regulated under section 112 or 112(b) but (ii) to which a standard of performance under this section would apply if such existing source were a new source, and (B) provides for the implementation and enforcement of such standards of performance.

42 U.S.C. §7411(d)(1). Therefore, Section 129 of the CAA establishes the substantive standards applicable to HMIWIs while deferring to Section 111(d) of the CAA to establish the procedures states must abide by in developing these standards.

U.S. EPA initially proposed regulations under Section 129 of the CAA addressing HMIWI emissions on February 27, 1995.[5] Based upon supplemental information that U.S. EPA received following the publication of its initial proposed regulations, U.S. EPA proposed a revised version of its HMIWI regulations on June 20, 1996.[6] On September 15, 1997, U.S. EPA promulgated the final new source performance standard and emission guideline to reduce emissions from hospital, medical and infectious waste incinerators.[7]

The new source performance standards are codified in Subpart Ec of Title 40, Part 60 of the Code of Federal Regulations (40 CFR §§ 60.50c - 60.58c) (hereinafter "NSPS") and apply to HMIWIs for which construction commenced after June 20, 1996 or for which a modification is commenced after March 16, 1998.[8] The emissions guidelines for existing HMIWIs, i.e., ones for which construction commenced on or before June 20, 1996, are codified in Subpart Ce of Title 40, Part 60 of the Code of Federal Regulations (40 CFR §§ 60.30e-60.39e) (hereinafter "EG").

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[5] Exhibit 2: Standards for Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Hospital/Medical/Infectious Waste Incinerators: Proposed Rule, 60 Fed. Reg. 10653 (February 27, 1995).
[6] Exhibit 3: Standards for Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Hospital/Medical/Infectious Waste Incinerators: Proposed Rule, 61 Fed. Reg. 31375 (June 20, 1996).
[7] Exhibit 1: Standards for Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Hospital/Medical/Infectious Waste Incinerators: Final Rule, 62 Fed. Reg. 48387 (September 15, 1997)(to be codified at 40 CFR. Part 60) (hereinafter "Final Rule for HMIWIs").
[8]Modification is a defined term in the NSPS and excludes any "[p]hysical or operational changes made to an existing HMIWI solely for the purpose of complying with emission guidelines under subpart Ce (the emissions guidelines for existing HMIWIs)." 40 CFR §60.50c(h).

Unlike the NSPS, the EG does not establish standards for HMIWIs but rather mandates states to adopt plans regulating existing HMIWIs and establishes minimum elements required in these State plans. For the most part, the requirements in the EG and the NSPS are the same and, in these instances, the EG simply cross-references the substantive requirements found in the NSPS.[9]

The Federal HMIWI regulations establish emission limits for PM, CO, opacity, SO_2, NOx, HCl, Pb, Cd, Hg and dioxins/furans.[10] The exact emission limits that the owner or operator of an HMIWI will be obliged to meet, however, vary depending on the size, the date by which construction of the HMIWI was initiated, and in some cases, the geographic location of the HMIWI. The proposed HMIWI regulations distinguish between three different sized HMIWIs: small, medium, and large. Additionally, the emission limits an HMIWI will have to meet are more stringent for certain pollutants if the unit is a new or modified unit subject to the NSPS rather than the EG. Finally, under the EG, those HMIWIs located more than 50 miles from the boundary of the nearest Standard Metropolitan Statistical Area ("SMSA"), as listed in OMB Bulletin No. 93-17,[11] that meet the criteria for "small HMIWI" and that burn less than 2,000 pounds per week of hospital and medical/infectious waste, will be subject to less stringent emission limits.

B. Illinois' Plan

The Illinois EPA's proposal includes the necessary provisions for implementing the EG for the control of emissions from existing HMIWIs in Illinois. The proposal contains standards

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[9]In those instances where the EG relies on the text found in the NSPS to establish the substantive requirements for State plans, this document will refer to those provisions hereinafter as the "EG/NSPS."

[10]Section 129 of the CAA specifies that standards regulating solid waste combustors (including hospital/medical/infectious waste combustors) must limit each of these pollutants.

[11] Office of Management and Budget Bulletin No. 93-17, "Revised Statistical Definitions for Metropolitan Areas," (June 30, 1993) (Number 14(a) of the Table of Contents).

and control requirements that are equivalent to those included in the EG/NSPS. On September 14, 1998, the Illinois EPA received a letter from U.S. EPA Region 5 stating that it has reviewed a draft of the Illinois EPA's proposed rule and providing minor comments on the draft.[12] U.S. EPA's comments are incorporated into the proposed rule. Upon adoption of the rules in the proposal by the Board and publication in the Illinois Register, the measures described below will be effective in the State of Illinois. Upon submittal of the adopted rules to U.S. EPA as Illinois' state plan for implementation of the federal EG and promulgation of a final rule in the Federal Register approving the state plan, the adopted rules will become federally enforceable.

Under proposed Part 229, HMIWIs are defined as "any device that combusts any amount of hospital waste or medical/infectious waste." *See also,* 40 CFR §60.51c. Based on this definition, the majority of the HMIWIs in Illinois are located in hospitals. However, this definition also encompasses HMIWIs at commercial waste treatment facilities, veterinary medical facilities, funeral homes and mortuaries, skilled nursing care facilities, commercial physical, biological and medical research facilities, and pharmaceutical manufacturing facilities.

In order to meet the emission limits contained in this regulatory proposal, owners or operators of HMIWIs will, in almost every case, have to install at least some form of add-on pollution control device to their incinerator. However, this proposal does not specify what the exact nature of those add-on controls must be. Instead, an HMIWI owner or operator is free to utilize any pollution control device, provided that they can demonstrate that their incinerator will be able to meet the relevant emission limits. In most instances, however, rural HMIWIs will not

[12]Exhibit 6: Letter from J. Elmer Bortzer, Chief, Regulation Development Section, *U.S. EPA Region V,* to Dennis Lawler, Manager, Division of Air Pollution Control, *Illinois EPA* (September 8, 1998).

need to install pollution control equipment and can meet the applicable emission limits through good combustion practices.

In addition to establishing emission limits, the proposed rules require the operation of HMIWIs by trained and qualified operators and waste management planning for both hospitals operating HMIWIs and for any hospital that sends any part of their waste for off-site incineration.

II. SECTION 28.5 OF THE ACT

This regulatory proposal is properly submitted to the Board pursuant to Section 28.5 of the Act as a fast-track rulemaking proceeding. A fast-track rulemaking is "a proceeding to promulgate a rule that the CAAA requires to be adopted. For purposes of this Section, 'requires to be adopted' refers only to those regulations or parts of regulations for which U.S. EPA is empowered to impose sanctions against the State for failure to adopt such rules." 415 ILCS 5/28.5.

On September 15, 1997, the U.S. EPA, pursuant to Sections 111(d) and 129 of the CAA promulgated an EG for HMIWIs.[13] Section 111(d) of the CAA requires all States to adopt plans that establish standards of performance for any existing source for which a standard of performance under Section 111 of the CAA would apply if the source were a new source. 42 U.S.C. §7411(d). Section 129 of the CAA further requires states to submit a plan to U.S. EPA by one year after U.S. EPA promulgates guidelines for a solid waste combustion category. 42 U.S.C. §7429(b)(2). As U.S. EPA promulgated the guidelines for hospital and

[13]Exhibit 1, 62 Fed. Reg. 48347 (1997).

medical/infectious waste categories on September 15, 1997, Illinois was initially required to submit a plan implementing the EG to U.S. EPA by September 15, 1998.

Because of Illinois EPA's concern that meeting this submission date would be difficult, on December 15, 1997, Illinois EPA requested an additional 18 months in which to submit its HMIWI state plan to U.S. EPA.[14] Illinois EPA sought this extension for two reasons. First, given both the large number of sources affected by this proposed rule,[15] as well as the wide variability in individual circumstances, Illinois EPA believed that substantial outreach would be required prior to initiating the rulemaking process. Second, Illinois EPA believed that additional time for submitting this rule was warranted given the process by which environmental regulations are adopted in this State. U.S. EPA subsequently informed Illinois EPA that it did not believe that it had the authority to grant Illinois EPA's request.

Illinois EPA subsequently asked U.S. EPA to reconsider the issue of whether it had the necessary authority to grant Illinois additional time in which to submit its HMIWI state plan.[16] In this letter, Illinois EPA set forth its interpretation of relevant legal authorities that it believed supported its contention that U.S. EPA had the authority to grant a State's request for additional time in which to submit its HMIWI state plan. U.S. EPA has, however, consistently maintained that it does not have the authority to extend the time that states may have to submit their State plans.

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[14] Exhibit 5: Letter from Bharat Mathur, Chief, Bureau of Air, Illinois EPA to David Kee, Director, Air and Radiation Branch, U.S. EPA Region 5 (December 15, 1997).

[15] According to the U.S. EPA's estimated inventory of HMIWIs, Illinois has approximately 108 HMIWIs in operation. This would rank Illinois as having the sixth highest number of HMIWIs in the country. *See,* Exhibit 8: Hospital/ Medical/Infectious Waste Incinerator Guidelines: Summary of the Requirements for Section 111(d)/129 State Plans (November 1997), at xv-xvii.

[16] Exhibit 7: Letter from Bharat Mathur, Chief, Bureau of Air, Illinois EPA to David Kee, Director, Air and Radiation Branch, U.S. EPA Region 5, dated March 4, 1998 (unsigned letter transmitted by facsimile).

While Illinois has missed the September 15, 1998 deadline, so long as Illinois submits its State Plan to U.S. EPA and U.S. EPA approves it by September 15, 1999, Illinois will avoid the prospect of having a federal plan imposed on it by the U.S. EPA. 42 U.S.C. §7429(b)(3). Along with the imposition of a federal plan, U.S. EPA would have the authority to reduce the grant that Illinois receives pursuant to Section 105 of the CAA to administer programs required by the CAA. 42 U.S.C. §7405.

Imposition of a federal plan is a sanction. The State's authority to implement the most appropriate control measures would be constrained; and U.S. EPA would have the authority to reduce the funding that the Agency receives to administer CAA programs. For these reasons, this rulemaking properly appears before the Board pursuant to the fast-track provisions of Section 28.5 of the Act.

III. GEOGRAPHIC REGIONS AND SOURCES AFFECTED

The regulations that the Illinois EPA is proposing will affect every HMIWI within the State of Illinois for which construction commenced on or before June 20, 1996. HMIWIs in Illinois are located primarily at hospitals but also at commercial waste treatment facilities, veterinary medical facilities, funeral homes and mortuaries, skilled nursing care facilities, commercial physical, biological, and medical research facilities, and pharmaceutical manufacturing facilities.

The Illinois EPA has identified approximately 98 HMIWI potentially subject to the emission limits in the proposed rule located in Illinois.[17] Approximately another 75 HMIWIs

[17] *See* Exhibit 9. This number is based on recent information compiled by Illinois EPA, in part by a survey mailed to facilities that have the potential to operate HMIWIs.

may have to notify the Illinois EPA and U.S. EPA of exempt status based either on the type of waste burned or percentage of hospital, medical, or infectious waste combusted. Additionally, about 155 hospitals that send waste to off-site disposal facilities may be subject to the waste management planning requirements in the proposed rule. The potentially affected sources identified by Illinois EPA are listed in the Technical Support Document submitted with this regulatory proposal.[18]

As explained in greater detail above, the rule applies differently to certain HMIWI located in rural areas. To qualify, an HMIWI must be located more than 50 miles from the nearest Standard Metropolitan Statistical Area (as listed in OMB Bulletin No. 93-17). These metropolitan areas may be located in Illinois or in any surrounding state as long as the area is within 50 miles of the Illinois border. Attached to this document as Appendix 1 is a list identifying the metropolitan areas the Illinois EPA believes are relevant for HMIWIs in Illinois. The Illinois EPA has identified two HMIWIs (one of which has apparently ceased operations) that meet the "rural" criteria and thereby qualify for the less stringent emission limits and testing requirements.

IV. PURPOSE AND EFFECT OF THE PROPOSAL

A. Purpose

The Illinois EPA is proposing regulations to control air pollution from existing HMIWIs. These regulations implement the requirements of Sections 111(d) and 129 of the CAA. Both of these CAA sections require States to adopt plans to control emissions from existing sources

[18]This list is intended to serve as a reference tool only and does not affect applicability of the proposed rule for a given facility.

based on U.S. EPA promulgation of regulations or guidelines for the same type of sources, as it has done with HMIWI. Section 129 of the CAA, however, is directed to the regulation of solid waste combustion units, such as HMIWIs, and specifies the minimum level of control that U.S. EPA must implement. In turn, Illinois' HMIWI state plan must require the same level of control from existing sources as U.S. EPA does for existing HMIWIs (i.e., those for which construction commenced on or before June 20, 1996). 42 U.S.C. §§7411(d) and 7429.

Section 129 of the CAA defines the level of control that must be required for solid waste combustion units as:

> the maximum degree of reduction in emissions of air pollutants . . . that the Administrator, taking in to consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable for new or existing units in each category. [And,] [e]missions standards for existing units in a category may be less stringent than standards for new units in the same category but shall not be less stringent than the average emission limitation achieved by the best performing 12 percent of units in the category . . .

42 U.S.C. 7429(a)(2).[19]

Therefore, U.S. EPA established a MACT floor based on the level of control achieved by the best performing 12 percent HMIWIs in various categories. U.S. EPA is permitted, however, to require greater emission reductions than would be achieved under the MACT floor, provided it considers the cost and any non-air quality health and environmental impacts and energy requirements from such reductions. U.S. EPA elected to develop MACT for categories of HMIWIs based on their waste-burning capacity (small, medium, and large) and further refined

[19]Section 129 of the CAA requires the same level of control as is required for hazardous air pollutants under Section 112 of the Act. *See* 42 U.S.C. §7412(d)(2) and (3). This level of control is commonly known as the maximum achievable control technology and will be referred to as "MACT" hereinafter.

each of these categories based on design, i.e., whether the units were batch, continuous or intermittent. 62 Fed. Reg 48352 (1997).

B. Effects

1. MACT Standard

U.S. EPA ultimately determined the emission limits for the regulated pollutants based on the application of MACT for each of the categories described above. U.S. EPA determined that the MACT standard should incorporate the use of good combustion practices by all HMIWIs, as well as the installation of low efficiency wet scrubbers for small existing HMIWIs, the installation of moderate efficiency wet scrubbers for medium existing HMIWIs and the installation of high efficiency wet scrubbers for large existing HMIWIs. *Id.* at 48371. The purpose of good combustion practices is to control the levels of PM, CO, and organic emissions. By comparison, the purpose of the add-on pollution control system is to control multiple pollutants, in particular, those heavy metals that are associated with medical/infectious and hospital waste streams.

Therefore, the emission limits for each pollutant represent the level of emissions typically achieved if the above specified controls are used. The emission limits for the medium and large categories of HMIWIs reflect the MACT floor, while the emission limits for small HMIWIs are more stringent than the MACT floor for the smaller category of units. *Id.* at 48370. The MACT floor for small HMIWIs reflects the use of good combustion practices alone. *Id.* U.S. EPA selected a standard that reflects not only good combustion practices but also the installation of a low efficiency wet scrubber as MACT for small HMIWIs based on its determination that the additional reduction in emissions were substantial while the cost and economic impact on small HMIWIs would be minimal. *Id.* at 48371.

Instead, for existing sources, U.S. EPA created a fourth class of HMIWIs for small units located in rural areas. For these rural HMIWIs, U.S. EPA established the MACT standard based on the MACT floor for small HMIWIs. The MACT standard for small HMIWIs located in rural areas is based on good combustion practices alone and does not contemplate the installation of add-on pollution control devices. *Id.* In some instances, however, such facilities may need to rely on pollution prevention practices to meet the emission limit for mercury. *Id.* Of the facilities considered by U.S. EPA in developing MACT for small HMIWIs, one facility was able to meet the emission limit for mercury only after instituting waste management practices.[20] If a rural HMIWI fails to meet the emission limit for mercury based on its initial performance test, the owner or operator may need to consider instituting certain waste management practices designed to reduce mercury in the waste stream and re-test. U.S. EPA primarily adopted these different, less stringent requirements for rural HMIWI because of its concern that such facilities may have few alternatives to on-site incineration, unlike small incinerators located in or near metropolitan areas. *Id.* at 48370.

2. Alternative Waste Disposal

Illinois EPA and U.S. EPA anticipate that, as a result of these regulations, a number of facilities will choose to avail themselves of alternative medical/infectious waste treatment technologies, such as land filling, steam autoclaving, microwaving, or pyrolysis. *See,* 62 Fed. Reg. 48372 (1997). The increased use of these treatment technologies is not anticipated to create significant adverse economic, environmental or health and safety issues. *Id.* at 48373.

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[20]Exhibit 9: "HMIWI Background Information for Promulgated Standards and Guidelines - Summary of Public Comments and Responses." (July 1997) EPA-453/R-97-006b, pp. 3-15.

3. Health and Environmental Impacts

As stated above, the pollutants limited in the proposed rule can have adverse impacts both on public health and the environment. The emission limits in proposed Part 229 will result in significant reductions of each of the regulated pollutants. Attached to this document as Appendix 2 is an estimate of the emissions reductions anticipated for each regulated pollutant. These estimates assume all HMIWIs will remain operational and will operate an air pollution control device, namely a wet scrubber, to control emissions. U.S. EPA anticipates that a number of (primarily small and medium) incinerators will shut down rather than comply with the proposed emission limits. 62 Fed. Reg. 48370 (1997). If such sources opt to use treatment methods alternative to incineration, emissions of the regulated pollutants would decrease more than is indicated in Exhibit 2.

V. SUMMARY OF THE RULE

The Illinois EPA's proposed rule will require any incinerator for which construction commenced either on or before June 20, 1996, that combusts any quantity of medical/infectious waste or hospital waste to meet certain emission limits, depending on the incinerator's capacity and geographic location. Units that burn any quantity of these types of waste are classified as "HMIWIs."

A. Subject Sources

While all HMIWIs are covered by these regulations, the degree to which an HMIWI will be covered by these regulations will depend on the types and percentages of waste that are actually incinerated in the HMIWI. For instance, any HMIWI that incinerates 10 percent or less of hospital waste and/or medical infectious waste, as portion of the total volume of waste that it

incinerates, is considered a "co-combustor" under these regulations. As a co-combustor, an HMIWI owner or operator is only required to notify the Illinois EPA and U.S. EPA that it is a co-combustor, commit to this status as a permit condition, and maintain certain records of the waste it is incinerating.

Additionally, owners and operators of HMIWIs that incinerate only pathological, low-level radioactive waste, or chemotherapeutic waste will only be required to notify the Illinois EPA and U.S. EPA that they are incinerating these waste types and maintain records related to these incineration activities. An example of one of these types of sources are crematoriums. However, while sources may be subject to only limited requirements under these regulations, Illinois EPA anticipates that U.S. EPA will be developing specific regulations and emission limits for these sources at a later date.

In the EG/NSPS, U.S. EPA excluded human remains intended for cremation or interment from the definition of both hospital and medical/infectious waste. Under this approach, pathological waste incinerators that only incinerate human remains such as crematoriums would not be covered by the rule. Of note, the EG/NSPS further exempts facilities that only burn pathological waste from the emissions control requirements. In this instance, only notification and record keeping requirements apply to pathological waste combustors that incinerate pathological waste other than human remains intended for cremation or interment.

The proposed rule does not exclude human remains intended for cremation or interment from the definition of medical/infectious waste. However, the exemption from control requirements for pathological waste combustors remains applicable to these facilities. Therefore, crematorium-type facilities will be required to comply with only minimal reporting and record keeping requirements. The Illinois EPA maintains that meeting these minimal requirements is

important to establish a sufficient database to ensure that the appropriate facilities are complying with the rule.

This regulatory proposal also applies, in a limited manner, to any hospital that sends any quantity of either its hospital or medical/infectious waste off-site for incineration. These hospitals will be required to develop and implement a waste management plan. The Illinois EPA has decided to require these hospitals to abide by this condition because the Illinois EPA believes that this will ensure even further reductions in those pollutants that are produced as a by-product of the incineration process.

Further, certain source types are excluded from the scope of this rule. Exempt sources include incinerators that are already permitted under Section 3005 of the Solid Waste Disposal Act, 42 U.S.C. §6925; any municipal waste combustor; any pyrolysis unit; cement kilns; and any HMIWI that is subject to the NSPS standards. These sources are excluded based on either their compliance with other, mostly more stringent requirements or anticipated future U.S. EPA regulations specifically addressing these types of sources.

B. Compliance Schedule

All HMIWI subject to this regulatory proposal will be required to be in compliance with the emissions limits in the proposed Part 229 by September 15, 2000. This time frame is applicable to both HMIWIs that will continue to operate, as well as for those HMIWI that will be shut down.[21]

[21] In order to shut down an HMIWI, in compliance with the provisions of this regulatory proposal, an owner or operator "shall take affirmative steps to demonstrate that the[ir] HMIWI has been rendered permanently inoperable." Proposed 35 Illl. Adm. Code 229.116(c).

However, a deadline extension is available in some circumstances. Owners or operators of HMIWIs that will continue operation after these regulations go into effect may have additional time to come into compliance with the provisions of the proposed Part 229. However, all HMIWI owners or operators must be in full compliance with all of the provisions of this Part not later than September 15, 2002. In order for an HMIWI owner or operator to be able to take advantage of this extended compliance time frame, they must commit to a series of enforceable increments of progress and include these increments as part of the compliance schedule that will be filed with their CAAPP permit application.

By comparison, HMIWI owners or operators that intend to permanently shut their units down, but who will need beyond September 15, 2000 to do so will have to file for a variance. The Illinois EPA has adopted this approach because owners or operators of an HMIWI that intend to permanently shut their units down will not need to obtain a CAAPP permit. As a result, the Illinois EPA lacks the authority to allow a longer compliance time frame for an HMIWI owner or operator under these circumstances. Also, the Illinois EPA believes that, in almost all instances, owners and operators of HMIWIs that intend to shut down should be able to do so by September 15, 2000.

U.S. EPA envisioned certain scenarios under which the owner or operator of an incinerator that either plans to retro-fit the unit or intends to shut it down may need additional time to do so. The EG, therefore, permits State plans to allow sources up to three years after U.S. EPA's approval of the State plan to achieve compliance. The EG appears to contemplate a system whereby sources petition the State for permission to meet an extended compliance time frame. As explained above, the proposed rule provides a mechanism for sources that intend to continue operation of their HMIWI to apply for an extended schedule. U.S. EPA, however,

believed that owners or operators of HMIWIs that intend to shut down may also need additional time to complete their shut down. One such circumstance may occur when a facility is planning to install an alternative waste treatment technology, such as a pyrolysis unit, but is unable to bring this technology on-line before the deadline.

If an owner or operator of an HMIWI needs additional time to shut down their unit they will have to petition the Board for a variance in sufficient time to allow for the Board's review and approval prior to the deadline for shutting down. Additionally, U.S. EPA mandates the consideration of certain factors when an extended compliance schedule is allowed under a State plan. First, in the EG and the State Plan Guidance, U.S. EPA has specified the showing that will be required to justify allowing the owner or operator of an HMIWI more than the one year after U.S. EPA's approval of the State Plan to come into compliance. To satisfy U.S. EPA's approval criteria, sources must address the factors set out in 40 CFR §60.39e(d) in their variance petition. These factors include that a petition for an extension must evaluate the feasibility of transporting waste offsite on a temporary basis. Second, the EG prescribes that any extension granted must expire on or before the date three years after U.S. EPA approval of the State plan but not later than September 16, 2002. 40 CFR §60.39e(c); 62 Fed. Reg. 48381 (1997). This date has a statutory basis under the CAA. Section 129 of the CAA prescribes that State plans must require that each subject unit be in full compliance by no later than five years after the federal guidelines were promulgated, which was September 15, 1997. To remain consistent with this federal requirement as required by Section 35 of the Act (415 ILCS 5/35) and 35 Ill Adm. Code 104.122, the Board can only grant a variance until this date.

Even if the Board finds that an HMIWI owner or operator has demonstrated that their particular situation warrants additional time in which to finally shut down their incinerator, there

are still requirements under proposed Part 229 that the owner or operator must satisfy in order for U.S. EPA to approve the variance. If the owner or operator wants beyond September 15, 2000, to permanently shut down their HMIWI , the owner or operator will still have to comply with the operator training and qualification requirements described in greater detail below.

C. CAAPP Permit Requirements

While there are currently some HMIWIs within the State of Illinois that are already required to have a CAAPP permit because they were considered major sources, this regulatory proposal will require that all HMIWIs subject to the emissions limits under proposed Part 229 operate pursuant to a CAAPP permit. This requirement is based on the applicability of Title V of the CAA, which requires, among other things, that any source subject to a standard under Section 111 of the CAA is subject to the Title V permitting requirements. Section 39.5(2)(a)(ii) of the Act provides that "[a]ny source subject to a standard or other requirement promulgated under Section 111 . . . of the Clean Air Act" is subject to CAAPP permitting. 415 ILCS 5/39.5(2)(a)(ii).

For most subject sources, CAAPP applications must be submitted to the Illinois EPA by September 15, 2000. If, however, a source desires an extended compliance schedule, the owner or operator must submit their CAAPP application within six months of the Board's adoption of Part 229. This earlier submittal date is needed as the EG mandates that State plans which allow extended compliance schedules require a facility to submit its request for an extended schedule "to allow the State adequate time to grant or deny the extension within one year after EPA approval of a State program." 40 CFR 60.39e(d)(1); 62 Fed. Reg. 48381 (1997).

D. Emission Limits

This regulatory proposal primarily establishes emission limits for HMIWIs based upon their waste charging capacity (i.e., the amount of waste that can be incinerated over a period of time). In addition, this proposal also establishes separate emission limits for "rural HMIWI." These emission limits are less stringent than those that were established for other small HMIWIs because of concern that there may be less access to cost-effective, alternative waste disposal options in these rural areas. 62 Fed. Reg. 48370 (1997).

E. Initial and Annual Inspections for Rural HMIWIs

Not only the emissions limits but also the compliance requirements under the proposed rule vary between rural HMIWI and other HMIWI. In lieu of most annual performance testing requirements, owners or operators of rural HMIWI are required to inspect their HMIWIs annually. These inspections are designed to ensure that the HMIWI is in proper working order and will perform in accordance with good combustion practices. All HMIWIs are required to perform an initial performance test by September 15, 2000; but only small, medium, and large HMIWIs are required to conduct subsequent annual performance tests, (except that all HMIWIs must conduct annual tests for opacity). And, when conducting their initial performance test, rural HMIWIs are not required to test for HCl, Pb, and Cd.

F. Operator Training

Once this regulatory proposal becomes effective, HMIWIs may only be operated if a trained and qualified operator is on-site. To meet this requirement, an HMIWI operator must attend an initial training course and annual refresher courses and must meet a hands on experience requirement.

The proposed rule differs from the minimum elements required for a State plan under the EG. The EG/NSPS allows a trained and qualified operator to be available within one hour of the HMIWI during all periods of operation. The Illinois EPA elected to require the trained and qualified operator to be on-site at all times during HMIWI operation for several reasons. First, the Illinois EPA believes that the significance of incinerator operations and the associated emissions necessitates operation by or supervision of operation by a trained and qualified operator. This is significant with HMIWIs because of the variable waste streams combusted. Second, the Illinois EPA believes that the NSPS/EG "within one hour" provision is too ambiguous to provide the needed assurance that the incinerator is being properly operated. This provision does not explicitly require that this HMIWI operator ever be on-site or that the facility contact this operator if problems arise. Third, the Illinois EPA believes the "within one-hour" provision from the NSPS/EG would be too difficult to implement, monitor and enforce, i.e., both the affected facility and the regulating entity will have difficulty determining if the requirement is being met at all times.

G. Waste Management Plan

The proposed rule requires affected entities to develop and implement a waste management plan. This requirement is intended to encourage hospitals to reduce the volume and toxicity of waste that they generate, and thereby reduce emissions from the incineration of such waste. The waste management plan component of this regulatory proposal does not require hospitals to achieve any particular waste reduction goals. Rather, the waste management requirement is intended to recognize each hospital's unique circumstances while attempting to find ways in which to reduce the amount of waste that it generates.

The Illinois EPA recognizes that many hospitals in this State already have some type of waste management or waste reduction practices in place. Hospitals have been – and continue to be - pro-active in seeking out ways to decrease the volume of waste that is generated as a by product of patient treatment and care.[22] Consequently, to the extent that hospitals have already undertaken these types of efforts, they may incorporate documentation of their existing efforts into the waste management plan required by the proposed rule.

This regulatory proposal also establishes a limited waste management plan requirement for those hospitals that do not use an on-site incinerator to treat their medical/infectious or hospital waste, but do utilize an off-site HMIWI for this purpose. While the EG that the Illinois EPA's regulatory proposal is based on does not require such hospitals to develop and implement a waste management plan, the Illinois EPA believes this portion of the proposal is consistent with the mandate from U.S. EPA. Anytime medical/infectious or hospital waste is treated in an HMIWI, no matter where that HMIWI may be located, a variety of highly toxic pollutants are released; this aspect can be further magnified if these pollutants bioaccumulate in the environment. Because HMIWIs have been identified as significant sources of these pollutants, waste reduction initiatives from any facility generating this type of waste will be beneficial to the environment. The Illinois EPA also believes that requiring hospitals to develop and implement a waste management plan if they send their waste off-site to be incinerated is consistent with the recently announced MOU between the U.S. EPA and the American Hospital Association regarding waste management and waste reduction goals. (See footnote 22.)

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[22] The American Hospital Association and U.S. EPA signed a memorandum of understanding ("MOU") on June 23, 1998. This MOU commits hospitals to eliminating mercury from the hospital waste stream by 2005 as well as achieving a 33% reduction in the volume of waste generated at hospitals by 2010. BNA Environment Reporter, Vol. 29, No. 10, p. 508, "Hospital Group, EPA Agree on Plan to Cut Mercury, Other Medical Wastes," Bureau of National Affairs, Inc., Washington, DC (July 3, 1998).

VI. TECHNICAL FEASABILITY AND ECONOMIC REASONABLENESS

The technology for controlling emissions from HMIWI is readily available. The emission limits in this rule are exactly the same as those in the EG. This proposal requires HMIWIs to achieve the maximum achievable control technology ("MACT"). What this proposal does not do is require that the owner or operator of an HMIWI install any particular type of air pollution control device. Although wet scrubbers, dry scrubbers and fabric filters are referenced in the text of this regulatory proposal, the owner or operator need only demonstrate that they meet the applicable emission limit criteria during performance testing.

Illinois EPA estimated the cost of compliance for affected sources within Illinois based on different scenarios considered by U.S. EPA.[23] Under the first scenario, U.S. EPA considered costs based on all HMIWIs remaining operational, i.e., it was assumed that no existing incinerators would utilize alternative waste treatment and disposal options. U.S. EPA considers this scenario "unrealistic"and believes costs are grossly overstated under this scenario. 62 Fed. Reg. 48372 (1997). Under the remaining scenarios, U.S. EPA assumed a certain percentage of small, medium and large HMIWIs would shut down and find alternative methods of waste disposal. *Id.* U.S. EPA believes these scenarios present a more realistic national cost estimate. *Id.* Illinois EPA also relied on assumptions as to source shut downs, based on U.S. EPA's scenarios, and arrived at a statewide annualized compliance cost of $2.5 to $6.0 million.

VII. COMMUNICATION WITH INTERESTED PARTIES

The Illinois EPA began discussing certain aspects of this regulatory proposal with

[23] *See, generally,* 62 Fed. Reg. 48372-73, *see also,* the Illinois EPA's Technical Support Document.

interested parties at a very early stage of development. Because the waste management plan requirement in the EG represented a new area of regulation, the Illinois EPA's workgroup for this rulemaking felt that a certain degree of investigation and fact finding was necessary. Consequently, the workgroup felt that it would be better able to develop the waste management plan language for this regulatory proposal if it had an understanding of how hospitals currently treat the waste they generate.

Illinois EPA representatives visited four hospitals located throughout central Illinois between January and April 1998.[24] All of the hospitals visited had instituted some degree of waste management or waste reduction practices. In addition, all of the hospitals that Illinois EPA representatives visited relied on HMIWIs as part of their waste disposal strategies. This gave the representatives an opportunity to see a range of different HMIWIs, both in terms of size, as well as age and technical sophistication. During these hospital visits, Illinois EPA representatives also discussed the U.S. EPA's HMIWI EG and how these regulatory requirements would be implemented in the State of Illinois.

The Illinois EPA held a series of workshops on this regulatory proposal with members of the interested public on June 23, 24, and 25, 1998 in Oak Brook, Springfield, and Carterville respectively. In advance of these meetings, the Illinois EPA sent a fact sheet, a copy of a draft rule, a brochure and a questionnaire regarding this regulatory proposal to hospitals in the State. An invitation was also extended to personnel at U.S. EPA Region 5 to attend the Oak Brook workshop. In addition, this same information was sent to veterinary, mortuary, biological and pharmaceutical research facilities.

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[24] The four hospitals that were visited were: St. John's Hospital, Springfield; Memorial Medical Center, Springfield; St. Vincent's Hospital, Taylorville and St. Joseph Medical Center, Bloomington.

In addition to comments raised during these outreach sessions, the Illinois EPA elicited written comments. As a result of its outreach efforts, the Illinois EPA received comments regarding a wide range of issues from a number of interested parties. The proposed rules incorporate many of the issues raised both at outreach meetings and in written comments thereafter. Some of the most significant questions that were posed during the outreach workshops and in comments concerned the operator training and qualification aspects of the proposed rule and how the regulatory proposal's definition of medical/infectious waste compared with the already existing Board definition of "potentially infectious medical waste" in 35 Ill. Adm. Code. 1420.102.

One commentor questioned whether it would be possible to substitute the already existing definition of "PIMW" for the regulatory proposal's definition of "medical/infectious waste." This commentor was concerned about this issue because of his experience educating the staff at his hospital on how to properly dispose of PIMW. PIMW is defined for purposes of land pollution control and is intended to identify the potentially infectious nature of waste to ensure that such materials are disposed of in a manner that addresses the risk of infection. The definition of medical/infectious waste in the proposed rule is not intended to address the potentially infectious nature of the waste but rather to address waste streams, the incineration of which, creates the emissions of concern under the rule.

One significant difference between the definition of PIMW and medical/infectious waste is that the former does not includes intravenous (IV) bags that are not contaminated with blood while IV bags are included in the proposed rule as medical/infectious waste regardless of any potentially infectious nature of such bags. Further, the incineration of IV bags is likely to result in emissions of the more toxic pollutants regulated in the proposed rule, namely dioxin/furans.

Based on various differences in the definitions and the different pollution problems addressed, the Illinois EPA remains concerned that the rule would not be as restrictive as the EG if the PIMW definition was used in lieu of the proposed definition of medical/infectious waste. The Illinois EPA, therefore, determined that including a definition of medical/infectious waste that is essentially the same as the definition in the EG/NSPS was appropriate.

Comments were also received by the Illinois EPA concerning the operator training and qualification portion of the proposed rule. One commentor was concerned that some hospitals might find it difficult to have a trained and qualified operator on-site at all times the HMIWI is operating because of staffing issues and the associated expense that may be incurred.

These comments suggested that the Illinois EPA consider going back to the original EG/NSPS requirement that only mandates that a "fully trained and qualified HMIWI operator" is available either on-site or within one hour. As explained in more detail above, the Illinois EPA believes that requiring a trained and qualified operator on-site at all times the HMIWI is operating is appropriate and believes this approach is consistent with U.S. EPA's mandate. As the EG/NSPS requires training and criteria to assure that HMIWI operators are qualified, U.S. EPA has apparently determined that HMIWI operation merits this level of concern. Illinois EPA believes that a trained and qualified operator is more useful to the regulated entity if on-site during HMIWI operation. Illinois EPA also believes that the elements needed to be deemed a qualified operator are not particularly onerous and afford an owner or operator of an HMIWI the opportunity to train more than one individual to fulfill this role.

The Illinois EPA also received comments concerning how operators that had been trained to operate HMIWIs according to different training programs, possibly in other states, would be able to work as operators in Illinois. The Illinois EPA believes that, as States go through the

process of implementing the EG, most of these States will require operators to meet at least the minimum training requirements set forth in the EG. Consequently, the Illinois EPA believes that an individual that has become a trained and qualified operator according to another State's EG implementing regulations will meet Illinois' requirements as well.

VIII. THE ILLINOIS EPA'S PROPOSAL

The Illinois EPA proposes to add a new Part 229 to Title 35 of the Illinois Administrative Code that will regulate the operations of HMIWIs in Illinois. The proposed Part 229 includes 12 subparts, which are: the general provisions, including definitions; applicability; compliance schedules; CAAPP permit requirements; emission limits; exceptions from emission limits; methods and procedures for performance testing; compliance requirements; operator training; waste management plans; and recordkeeping and reporting requirements.

A. Subpart A: General Provisions

This Subpart contains incorporations by reference, abbreviations, and the definitions that the Illinois EPA has developed for this proposal.

1. Section 229.100 Abbreviations

The Illinois EPA proposes to add a Section that lists those abbreviations used in Part 229.

2. Section 229.102 Definitions

The Illinois EPA proposes to add a number of definitions to the Board's rules within this proposed new Part. The Illinois EPA has chosen to include most of the definitions for terms used in this regulatory proposal within this new Part 229, rather than as amendments to existing Part 211 *("Definitions")*.

The Illinois EPA's reason for including the definitions for terms used within Part 229, as a section within this Part, was based on its belief that the proposed Part 229 regulations will create new regulatory obligations for classes of facilities that have not previously been subject to air pollution regulations. Therefore, in order to better inform sources of their obligations under this new Part 229, the Illinois EPA felt that the definitions should be included in the same Part as the substantive requirements. Furthermore, the Illinois EPA anticipates that this approach is warranted because the definitions that will be added to the Board's regulations as a result of this regulatory proposal will only be referred to by sources that are regulated under this Part. Most of the definitions contained in this regulatory proposal are technical in nature and are used to describe the various modes and features of HMIWI operations. However, some of the definitions in this regulatory proposal are used to define the types of waste that are generated within medical, veterinary, mortuary, and pharmaceutical environments and institutions. Consequently, the Illinois EPA is concerned that the owners and operators of these incinerators may be unfamiliar with the structure of the existing rules.

The definitions proposed in Section 229.102 apply only to Part 229. Where other Sections in the Act or 35 Ill. Adm. Code Parts 201 or 211 contain a definition for the same word, the definition in Section 229.102 takes precedence. But, where there is no definition for a word in Section 229.102, the definitions in Section 39.5 of the Act, 35 Ill. Adm. Code 201.102 and Part 211 apply.

The Illinois EPA's proposal for Section 229.102 reflects the definitions in the EG/NSPS for HMIWIs. The proposal contains substantially identical definitions, except in the instances discussed below. Since many of the definitions are identical to the EG/NSPS, the following section describes only those definitions that vary from the federal regulations in a significant

way, those definitions that are central to the HMIWI proposal, and those definitions that are not necessarily clear from a quick review.

a. Body fluids

This definition is largely the same as the EG/NSPS definition, with the inclusion of some minor grammatical revisions, and has been included for the convenience of the reader.

b. Charge

This definition was not included in the EG/NSPS, and was added to the regulatory proposal in order to clarify certain other definitions within proposed Section 229.102, as well as to clarify references in certain portions of the proposed regulatory text. Charge is defined as placing waste into an HMIWI for incineration.

c. Co-fired combustor

This definition is the same as the EG/NSPS definition. If an HMIWI combusts 10 percent or less hospital waste or medical/infectious waste in the aggregate, as measured on a calendar quarter basis, then the HMIWI is exempt from most of the requirements under proposed Part 229, except minimal record keeping and reporting requirements.

d. Facilities manager

This definition is the same as the EG/NSPS definition. This definition describes the title of an individual that is instrumental in the administration, oversight, or management of an HMIWI. Under these regulations, the person who acts in the capacity of the "facilities manager" is required to certify and sign documents that are submitted to the Illinois EPA under the reporting provisions of proposed Part 229.

e. Hospital

This definition is the same as the EG/NSPS definition, and is instrumental in defining

what facilities are required to implement a waste management plan, according to Subpart K of this proposal and which facilities generate hospital waste. The term has been broadly defined to include facilities with at least 6 inpatient beds, where the primary function is to provide diagnostic and therapeutic patient services primarily to patients who stay more than 24 hours. Nursing homes are excluded from this definition.

f. Hosital/medical/infectious waste incinerator

This definition is the same as the EG/NSPS definition, and, as an initial matter, defines the class of incinerators that this regulatory proposal is intended to control. There are three operational types of hospital and medical/infectious waste incinerators: batch, continuous, and intermittent. Batch HMIWIs are distinguished by the inability to charge additional waste while the incinerator is in the combustion phase. Both continuous and intermittent HMIWIs allow waste to be added during combustion, but are distinguished by the fact that ash can be removed from a continuous HMIWI during combustion, while no ash can be removed from an intermittent HMIWI during combustion.

g. Hospital waste

This definition is the same as the EG/NSPS definition, and describes one of the two waste types whose combustion in an incinerator is subject to requirements under the proposed Part 229. Hospital waste is defined as any waste generated at a hospital which is not returned to the manufacturer, but it does not include human corpses or body parts intended for interment or cremation.

h. Large HMIWI

This definition is the same as the EG/NSPS definition. Three different size categories for HMIWI are established under this regulatory proposal: small, medium and large. The difference

between these categories is based upon a calculation of either a HMIWI's designed waste burning capacity or its maximum charge rate.

i. Malfunction

This definition is initially the same as the EG/NSPS definition. However, the definition of this term in the regulatory proposal has been abridged from the definition that was used for this term in the EG/NSPS because some of the more substantive regulatory requirements found in the EG/NSPS definition have been moved from the definition into the text of the regulatory proposal itself. In the EG/NSPS, the term was defined to include affirmative requirements applicable to owners or operators of HMIWIs. The Illinois EPA found it more appropriate to include these requirements in the main body of the rule that contains an affected facility's obligations.

j. Medical/infectious waste

The term medical/infectious waste is defined to determine, in conjunction with the term "hospital waste," which incinerators are addressed by the proposed rule. If an unit incinerates any amount of medical/infectious or hospital waste, that unit is covered, to some extent, by the proposed rule.

The term "medical/infectious waste" is comprehensive and includes both infectious and non-infectious waste materials. Medical/infectious waste is defined as 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 and includes, generally:

- Cultures and stocks of infectious agents and associated biologicals
- Human pathological waste
- Human blood and blood products

- Intravenous bags
- Used and unused sharps
- Culture dishes
- Glassware that has been in contact with infectious agents
- Animal waste
- Isolation Waste

If an incinerator combusts medical/infectious waste (or hospital waste), the proposed rule will apply. Certain facilities that combust medical/infectious or hospital waste may be exempt from the emissions control requirements of the rule based on the amount or type of waste combusted. These facilities are covered by the proposed rule but are only required to maintain records and report their status as exempt facilities.

This definition is based on the EG/NSPS definition but differs in two notable ways. First, the definition has been reworded to add clarity and to eliminate redundancies the Illinois EPA noted in U.S. EPA's definition. For example, the EG/NSPS definition includes human blood and blood products but also contains a list of items included under this category. The proposed rule provides a more inclusive general description of blood related materials that would be covered by the definition of medical/infectious waste and omits the list of items found in the EG/NSPS. Illinois EPA believes that the definitions in the proposed rule have the same meaning as the terms do in the EG/NSPS despite minor changes intended to provide greater clarity.

Second, the EG/NSPS excludes human corpses, remains, and anatomical parts that are intended for interment or cremation from the definition of medical/infectious waste. This exclusion would mostly capture crematoriums. As explained above, Illinois EPA omitted this exclusion from the definition of medical/infectious waste in the proposed rule so that such

facilities would be treated like other pathological waste incinerators. Therefore, under the proposed rule, pathological waste incinerators, including those that only cremate human corpses, would only be required to provide notification of their exempt status and maintain records of the waste combusted. Illinois EPA believes it is important to maintain a database of the crematorium-type facilities excluded from the control requirements of the proposed rule. It is perhaps more important that such facilities maintain records of the type of waste combusted to ensure that this exemption is applicable.

k. Pathological Waste

This definition is substantively the same as the definition for this term in the EG/NSPS. However, it has been revised to incorporate some grammatical changes in order to clarify this provision. Of note, sources are not subject to the emission limits in the proposed Part 229 during periods when only this type of waste is being combusted.

l. Primary chamber

This definition is the same as the EG/NSPS definition. HMIWIs are generally designed to incorporate two chambers, the primary and the secondary. The primary chamber is that portion of the HMIWI in which the waste material is ignited, and from which ash is removed, while the secondary chamber is where the combustion process is completed.

m. Rural HMIWI

This term is not defined in the EG/NSPS, but has substantively the same meaning as the EG concept of small HMIWI meeting a rural criteria and with limited weekly waste charging activities. The Illinois EPA believes that including a definition in this section will enable the regulated community to more clearly identify which requirements apply to small HMIWIs in rural areas and which apply to all other small HMIWIs.

n. Shutdown

This definition is initially the same as the EG/NSPS definition. However, the definition of this term in this regulatory proposal has been abridged from the definition that was used for this term in the EG/NSPS because some of the more substantive regulatory requirements that were found in the EG/NSPS definition have been moved from the definition into the substantive text of the regulatory proposal itself. As with the term "malfunction" in the EG/NSPS, shutdown was defined to include affirmative requirements applicable to owners or operators of HMIWIs. The Illinois EPA found it more appropriate to include these requirements in the main body of the rule that contains an affected facilities obligations.

3. Section 229.104 Incorporations By Reference

The Illinois EPA proposes to add a Section listing the documents that are incorporated by reference in this Part. Subsection (a) incorporates by reference "An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities," by the American Society for Healthcare Environmental Services, which was cited by the U.S. EPA in the EG/NSPS as an informational resource for use when hospitals develop their waste management plan. Subsection (b) incorporates by reference the United States Office of Management and Budget's, Bulletin No. 93-17, entitled "Revised Statistical Definitions for Metropolitan Areas," (June 30, 1993). This bulletin lists the Standard Metropolitan Statistical Areas (SMSAs) in the United States, and provides the reference points to be used when determining whether an HMIWI meets the geographical criteria for rural HMIWI status. Subsection (c) incorporates by reference 40 CFR Part 60.8, which provides the criteria and standards to be used when conducting performance tests pursuant to the provisions of this regulatory proposal. Subsection (d) incorporates by reference the various test methods that are set forth in 40 CFR Part 60, Appendix A, that are to

be followed when conducting a performance test, pursuant to the provisions of proposed Part 229. Subsection (e) incorporates by reference 40 CFR Part 60, Appendices B and F, which establish the performance and quality assurance standards to be followed when using continuous emission monitoring systems.

B. Subpart B: Applicability

The Illinois EPA proposes to add a Subpart that sets out the applicability criteria under the proposed rule, as well as the applicability exemptions.

1. Section 229.110 General Applicability

The Illinois EPA proposes to add a Section that would specify when a source is subject to Part 229. This section meets the minimum elements required under the EG. Subsection (a) provides that the provisions of this regulatory proposal would apply to all HMIWIs for which construction commenced either on or before June 20, 1996 and which are not exempt from Part 229, or portions thereof, based on another provision in the Part.

Subsection (b) provides that an owner or operator an HMIWI is only subject to certain record-keeping requirements during periods when only pathological, chemotherapeutic, or low-level radioactive waste are incinerated. This provision is intended to relieve HMIWI owners or operators from having to follow the emission limit and other provisions of this regulatory proposal when burning exempt waste types.

Subsection (c) provides that an owner or operator an HMIWI that uses their incinerator solely for the purpose of combusting pathological, chemotherapeutic, or low-level radioactive waste is only required to comply with certain record-keeping and notification requirements established under this regulatory proposal. In order for an HMIWI owner or operator to take advantage of these limited requirements, they must provide notice certifying to the Illinois EPA

and U.S. EPA, that after the effective date of this regulatory proposal, they will only use their HMIWI to burn exempt wastes.

Subsection (d) provides that an owner or operator an HMIWI may commit to operating their HMIWI as a "co-combustor." This commitment would take the form of a permit condition, and would prohibit the owner or operator from burning more than 10 percent hospital or medical/infectious waste of the total volume of waste in their HMIWI. As a co-combustor, the owner or operator of the HMIWI must initially notify Illinois EPA and U.S. EPA of its status and, afterward, is only required to comply with certain recordkeeping requirements. The notification to Illinois EPA may be in the form of a permit application requesting the limitations needed to attain co-combustor status.

Subsection (e) provides that any hospital that sends any part of its hospital or medical/infectious waste off-site for incineration at an HMIWI must institute a waste management plan at its facility.

2. Section 229.112 Exemptions

The Illinois EPA proposes that five categories of sources be completely exempt from the requirements of this regulatory proposal. These exemptions are based on the EG/NSPS and the reasons for these exemptions are discussed, as applicable, in each subsection below.

Subsection (a) exempts combustors from complying with the requirements of this regulatory proposal if the combustor is already regulated under 42 U.S.C. Section 6925, or the regulations promulgated thereunder. Section 6925 addresses the permitting requirements for hazardous waste treatment, storage or disposal facilities.

Subsection (b) exempts all municipal waste combustors that meet the applicability provisions for these combustors established under Subparts Cb, Ea, or EB of 40 CFR Part 60

from complying with proposed Part 229. These units are exempt as they are already subject to generally more stringent control requirements.

Subsection (c) exempts any pyrolysis unit from complying with the requirements of this regulatory proposal. Although pyrolysis units are designed to treat hospital and medical/infectious waste, they do not use the same type of combustion process as HMIWIs. Consequently, it would not be practical to regulate these units under this regulatory proposal.

Subsection (d) exempts all cement kilns from having to comply with the provisions of this regulatory proposal, regardless of whether they might combust hospital or medical/infectious waste. While cement kilns utilize a similar combustion technology as that used by HMIWIs, they operate on a much larger scale and are more efficient in both their primary and secondary combustion processes, and thus are exempt from the requirements of this regulatory proposal.

Subsection (e) exempts all HMIWIs from complying with the provisions of this regulatory proposal if that HMIWI would be subject to the more stringent NSPS provisions that were issued at the same time that U.S. EPA issued the EG requirements for existing HMIWIs.

C. Subpart C: Compliance Schedules

This Subpart describes the dates by which all HMIWIs - whether they will continue to operate or shut down - must come into compliance with the applicable requirements of proposed Part 229.

1. Section 229.115 Compliance Schedules for HMIWIs That Will Continue to Operate

Subsection (a) requires all owners or operators of HMIWIs that continue operating their HMIWIs to be in full compliance with the provisions of this Part by September 15, 2000.

Subsection (b) allows for an extended compliance time frame - up to September 15, 2002 - provided that the owner or operator of the HMIWI submits an extended compliance schedule as

part of their CAAPP permit application. However, an owner or operator of an HMIWI that wants to take advantage of this provision must submit their extended compliance schedule as a component of their CAAPP application within six months of approval of this proposal by the Board. The compliance schedule must contain documentation of the need for such an extension, a final control plan for the facility, and the incremental steps that will be taken by the facility to achieve compliance. In addition, the subsection lists five increments of progress that each facility must meet by specific deadlines to take advantage of the extended compliance schedule. Subsection (c) provides an ultimate backstop date of September 15, 2002 by which all HMIWIs who can not demonstrate compliance with this Part must shut down. Subsection (d) provides that, regardless of whether the HMIWI comes into compliance under a normal or extended compliance schedule, the provisions relating to qualification and presence on site of HMIWI operators must be complied with by September 15, 2000.

2. Section 229.116 Compliance Schedules for HMIWI That Will Shut Down

This Section provides the requirements that must be met when an owner or operator of an HMIWI intends to shut their combustor down, as an alternative to complying with these requirements.

Subsection (a) requires the owner or operator of an HMIWI that intends to shut down operations to do so by September 15, 2000 and notify the Illinois EPA of their intent to do so within 6 months of adoption of this proposal by the Board.

Subsection (b) provides that in order to shut down an HMIWI in compliance with this regulatory proposal, the owner or operator must take affirmative steps to render their HMIWI permanently inoperable, such as welding shut the primary chamber door or dismantling the HMIWI.

D. Subpart D (Section 229.120): CAAPP Permit Requirements

This regulatory proposal requires all owners or operators of HMIWIs that have not previously been required to apply for a CAAPP permit to do so. All HMIWIs that will be subject to the emission limits under this regulatory proposal will need to apply for, and ultimately obtain, a CAAPP permit in order to be able to continue operation. Sources will have to submit a CAAPP permit application to the Illinois EPA by September 15, 2000 and will be granted an application shield if their application is complete and has been timely submitted. If the source is seeking an extended compliance schedule, as explained above, the CAAPP permit application must be submitted within six months of the Board's approval of Part 229. Where a CAAPP permit has already been issued for an HMIWI, if the permit has more than three years remaining on its permit term, the HMIWI owner or operator must apply for a revision of their permit within six months of the Board's adoption of this proposal. However, if there are less than three years remaining on an HMIWI's CAAPP permit, then the CAAPP permit shall be revised upon renewal of the permit to comply with Part 229. These provisions are consistent with Section 39.5 of the Act. *See* 415 ILCS 5/39.5(15).

E. Subpart E: Emissions Limits

This Subpart establishes the emission limits that must be met by small, medium, and large HMIWI, as well as rural HMIWI. The emission limits are the same as the limits prescribed in the EG.

1. Section 229.125 Emission Limits for Small, Medium, and Large HMIWIs

The Illinois EPA is proposing to establish the emission limits that all non-exempt HMIWIs would be required to meet, except for rural HMIWIs and except for the exemptions from these limits provided for in Subpart F of this regulatory proposal. The emission limits for

the pollutants PM, CO, dioxin/furans, HCl, SO_2, NOx, Pb, Cd, and Hg for the three sizes of HMIWIs are displayed in tabular form. This section also limits emissions from these HMIWIs to 10 percent opacity.

2. Section 229.126 Emission Limits for Rural HMIWIs

The Illinois EPA is proposing that HMIWIs that meet geographical criteria, criteria for "small HMIWI" and burn 2,000 lb/week or less of hospital or medical/infectious waste are permitted to comply the less stringent emission levels set forth in subsection (b) of Section 229.126. The emission limits for CO, SO_2 and NOx are the same as those for small, medium, and large HMIWIs; but less stringent limits are set for PM, dioxins/furans, HCl, Pb, Cd, and Hg. This section also limits emissions from rural HMIWIs to 10 percent opacity.

F. Subpart F: Exceptions From Emission Limits

This Subpart contains provisions that provide that emission limits are not in effect during certain periods of HMIWI operation, or during certain types of operational situations.

1. Section 229.130 Operation During Periods of Startup, Shutdown, or Malfunction

The Illinois EPA proposes adding a Section that provides that the emission limits under Subpart E of this regulatory proposal are not in effect during periods of startup, shutdown, or malfunction, as those terms are defined in proposed Section 229.102. However, certain requirements must be met in order to take advantage of this exemption.

Subsection (b) provides that no waste is to be charged to the HMIWI during startup, shutdown, or malfunction periods in order for an HMIWI to be exempt from the emission limits. Subsection (c) establishes when the shutdown phase may begin for each of the three operational types of HMIWI regulated under this proposal in order to be exempt from the emission limits in

Subpart E. Continuous HMIWIs may not shutdown less than two hours after the last charge to the HMIWI. For intermittent HMIWIs, this limitation is at least four hours after the last charge and for batch HMIWIs it is at least five hours after the high-air phase of combustion has been completed. The high-air phase of combustion is the stage of the batch operating cycle when the primary chamber is operated at maximum operating temperatures.

Subsection (d) establishes certain requirements that HMIWI owners or operators must follow during periods of malfunction, in order to minimize emissions from the incinerator, if they want to take advantage of exemption from the emission limits. This section requires reasonable attempts to operate the HMIWI within the site-specific operating parameters of that HMIWI, monitoring of the parameters, and corrective action measures prior to resuming the charging of waste to the HMIWI.

G. Subpart G: Methods and Procedures for Performance Testing

The Illinois EPA proposes to require that all HMIWIs meet certain performance testing requirements. All HMIWI must conduct an initial performance test and test annually for opacity. Small, medium and large HMIWI must also conduct annual performance tests for other pollutants, as explained below. This subpart establishes the methods and procedures to be followed during performance tests. The testing requirements in the proposed rule are based on the EG/NSPS but provide greater specificity for subject sources.

1. Section 229.140 Methods and Procedures for Performance Testing

Subsection (a) of proposed Section 229.140 requires hospitals to provide the facilities needed to conduct emissions testing as specified in 40 CFR §60.8(e). Section 60.8 of Part 40 of the federal code provides procedures for the testing of sources subject to new source performance standards. The EG/NSPS requires state plan testing provisions to meet these federal

requirements. The facilities that must be provided are sampling ports, safe access to sampling platforms and utilities for testing equipment.

Subsection (b) specifies certain criteria that must be met during testing: the waste charging rate that must be used, the composition of the waste that will be charged and accuracy specifications for the weighing of waste charged. These provisions provide greater clarity to the general testing requirements specified than the EG/NSPS.

Subsections (c) and (d) require the owner or operator of an HMIWI to submit information to the Illinois EPA prior to conducting performance testing and specifies the information that must be included in test plans. Subsection (c) requires a test plan to be submitted at least 45 days before performance testing is to be conducted that includes the following information: date of the test, roster of testing personnel, description of test conditions and the HMIWI itself, parameters and pollutants to be tested, and the quality assurance procedures that will be used. Subsection (d) also requires the owner or operator of an HMIWI to notify the Illinois EPA in writing five days in advance of actually conducting the performance test. These specific requirements for the submission of test plans and notification to the Illinois EPA do not originate in the EG/NSPS. However, such plans are typically submitted to the Illinois EPA when testing is conducted, usually in accordance with construction permit conditions. Illinois EPA included these specific requirements in the proposed rule to provide uniformity and to provide more thorough notification of applicable testing requirements to subject sources.

Subsection (e) directs owners or operators of HMIWIs to Appendix C for testing procedures and methods for each regulated pollutant. This appendix lists the testing methods and procedures specified in the EG/NSPS, which rely on federal test methods.

Subsection (f) allows the use of alternative testing methods if approved by the Illinois EPA in a permit and also approved by U.S. EPA.

Subsection (g) provides that the use of a bypass stack invalidates the results of the test run. Bypass stacks are used as an alternative means of discharging combustion gases directly to the atmosphere, usually circumventing air pollution control devices.

H. Subpart H: Compliance Requirements for HMIWIs

This Subpart contains general compliance requirements for HMIWIs such as specifying when performance tests should be conducted and requirements for monitoring emissions based on EG/NSPS provisions.

1. Section 229.142 Initial Performance Testing and Establishment of Operating Parameters

This section outlines the requirements for the initial performance test, which subsection (a) states must be conducted by September 15, 2000. Under subsections (b) and (c), small, medium and large HMIWIs must test for all pollutants limited in the proposed rule, while rural HMIWIs must test for all pollutants except for HCl, Pb and Cd. Subsection (d) provides that HMIWIs equipped with specified control devices (i.e., a dry scrubber followed by a fabric filter, a wet scrubber, or a dry scrubber followed by a fabric filter and a wet scrubber) must establish their site-specific operating parameters during the initial performance test. The maximum and minimum values that must be established are those identified in Appendix B of proposed Part 229. If an HMIWI is utilizing air pollution control equipment other than those devices specified above, the initial performance test may not be conducted until the site specific operating parameters to be tested for have been established in a construction permit (see subsection (e)). Subsection (f) requires rural HMIWIs to establish a maximum charge rate and a minimum

secondary chamber temperature during an initial performance test. All parameter values obtained during the initial performance test are only valid if the test itself demonstrates compliance with the applicable emission limits in Subpart E.

2. Section 229.144 Subsequent Performance Testing for All HMIWIs

This section provides for optional performance testing subsequent to the initial performance test. It allows an owner or operator of any HMIWI to conduct a repeat test in order to establish new parameter values for that HMIWI, though these values must also be approved by the Illinois EPA as a permit condition. Subsection (b) also gives the Illinois EPA or U.S. EPA authority to request a new performance test be conducted by the owner or operator of an HMIWI at any time.

3. Section 229.146 Annual Testing for Opacity

This Section provides that annual testing for compliance with opacity limits must be conducted on all HMIWIs (small, medium, large and rural). After the initial performance test has been conducted, the annual opacity test must be conducted by September 15 of each year.

4. Section 229.148 Annual Performance Testing for Small, Medium, and Large HMIWIs

This section specifies the annual performance testing requirements for small, medium and large HMIWI and for pollutants other than opacity. Following completion of the initial performance test, these HMIWIs must be tested annually (by September 15 of each year) for PM, CO and HCl. Subsection (a) provides that if all three performance tests over a three year period indicate compliance for PM, CO or HCl, the owner or operator of the HMIWI may forego testing for that pollutant for the next 2 years. If the test conducted in the third year continues to indicate compliance for that pollutant, this owner or operator may again forego testing for the next two

years. Subsection (b) provides that if any of these performance tests indicate non-compliance (either an annual test or the test conducted following two years without a testing requirement), the owner or operator must retest annually until three consecutive years reveal clean data for that pollutant before they are again permitted to skip years of performance testing. Rural HMIWI are not subject to these annual performance test requirements.

5. Section 229.150 Compliance with Operating Parameter Values

This Section provides that, following completion of the initial performance test, an HMIWI shall not operate above the maximum or below the minimum operating parameter values listed in Appendix B. Appendix B specifies the operating parameters that must be established and subsequently monitored based on the type of control equipment used by the HMIWI.

This Section also provides that these parameters must be measured at all times, except during startup, shutdown, malfunction, or performance testing. The parameters are to be calculated each hour as three-hour rolling averages over the previous three operating hours. The control equipment addressed in Appendix B of the proposed rule are a dry scrubber followed by a fabric filter, a wet scrubber, or a dry scrubber followed by a fabric filter along with a wet scrubber. For batch HMIWIs, the charge rate is measured for each batch.

6. Section 229.152 Compliance Requirements for HMIWIs using CEMS

This section allows the use of continuous emission monitoring systems (CEMS) as an alternative to annual testing. If the owner or operator of a HMIWI elects to use CEMS, compliance with emissions limits will be determined as a 12 hour rolling average and must comply with the procedures found in 40 CFR Part 60, Appendices B and F. Appendix B in 40 CFR Part 60 of the federal code provides specifications for continuous emissions monitoring in general, and for continuous emissions monitoring to measure specific pollutants. The owner or

operator of the HMIWI should reference both the general CEMS procedures and the procedures specific to the pollutant(s) for which the CEMS is being employed. Appendix F provides quality assurance requirements for gas CEMS.

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

This section applies to HMIWIs equipped with a dry scrubber followed by a fabric filter and provides that simultaneous operation above certain maximum or below certain minimum operating parameter values, measured on three hour rolling averages, constitutes a violation of the emission limits for given pollutants. Namely, operation above the maximum charge rate and below the minimum secondary chamber temperature (simultaneously) is a violation of the CO emission limit; operation above the maximum fabric filter inlet temperature, above the maximum charge rate and below the minimum dioxin/furan sorbent flow rate (simultaneously) is a violation of the dioxin/furan emission limit; operation above the maximum charge rate and below the minimum HCl sorbent flow rate (simultaneously) is a violation of the HCl limit; and operation above the maximum charge rate and below the minimum Hg sorbent flow rate (simultaneously) is a violation of the Hg emission limit. In addition, subsection (e) provides that use of the bypass stack, other than during startup, shutdown, or malfunction, is a violation of the PM, dioxin/furan, HCl, Pb, Cd, and Hg emission limits.

8. Section 229.156 Violations by HMIWIs Equipped with a Wet Scrubber

This section applies to HMIWIs equipped with a wet scrubber and provides that simultaneous operation above certain maximum or below certain minimum operating parameter values, measured on three hour rolling averages, constitutes a violation of the emission limits for given pollutants. Namely, operation above the maximum charge rate and below the minimum

pressure drop across the wet scrubber or below the minimum horsepower amperage to the system (simultaneously) is a violation of the PM emission limit; operation above the maximum charge rate and below the minimum secondary chamber temperature (simultaneously) is a violation of the CO emission limit; operation above the maximum charge rate, below the minimum secondary chamber temperature, and below the minimum scrubber liquor flow rate (simultaneously) is a violation of the dioxin/furan emission limit; operation above the maximum charge rate and below the minimum scrubber liquor pH (simultaneously) is a violation of the HCl limit; and operation above the maximum flue gas temperature and above the maximum charge rate (simultaneously) is a violation of the Hg emission limit. In addition, subsection (f) provides that use of the bypass stack, other than during startup, shutdown, or malfunction, is a violation of the PM, dioxin/furan, HCl, Pb, Cd, and Hg emission limits.

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

This section applies to HMIWIs equipped with a dry scrubber followed by a fabric filter and a wet scrubber, and provides that simultaneous operation above certain maximum or below certain minimum operating parameter values, measured on three hour rolling averages, constitutes a violation of the emission limits for given pollutants. Namely, operation above the maximum charge rate and below the minimum secondary chamber temperature (simultaneously) is a violation of the CO emission limit; operation above the maximum fabric filter inlet temperature, above the maximum charge rate and below the minimum dioxin/furan sorbent flow rate (simultaneously) is a violation of the dioxin/furan emission limit; operation above the maximum charge rate and below the minimum scrubber liquor pH (simultaneously) is a violation of the HCl limit; and operation above the maximum charge rate and below the minimum Hg

sorbent flow rate (simultaneously) is a violation of the Hg emission limit. As in the previous Sections, subsection (e) provides that use of the bypass stack is a violation of the PM, dioxin/furan, HCl, Pb, Cd, and Hg emission limits.

10. Section 229.160 Compliance Requirements for Rural HMIWIs

This section provides compliance requirements specific to rural HMIWIs. Following the date initial performance testing is completed (or required to by completed by Part 229) operation of a rural HMIWI above a maximum charge rate or below a minimum secondary chamber temperature value is a violation of the rule (except during periods of startup, shutdown, or malfunction). Additionally, simultaneous operation of a rural HMIWI above the maximum charge rate and below the minimum secondary chamber temperature will be a violation of PM, CO and dioxin/furan emissions limits.

11. Section 229.162 Inspection Requirements for Rural HMIWIs

The Illinois EPA is proposing a Section to establish certain inspection requirements for the owners of rural HMIWIs based on the EG requirements. These inspections would be in lieu of the annual performance testing requirements for all other HMIWIs, except that rural HMIWIs are still subject to annual opacity testing. This regulatory proposal requires that an initial inspection be performed by September 15, 2000. Annual inspections are then required, and must be performed by September 15 of each succeeding year. Each inspection consists of a minimum of 16 different steps.

Subsection (c) requires that the HMIWI owner or operator document that the incinerator is operating properly in the burn cycle immediately following the inspection. Subsection (e) requires that any needed repairs identified during the inspection shall be completed within 10

days of the inspection, unless the owner or operator requests, and receives, written permission for additional time.

12. Section 229.164 Optional Performance Testing to Address Actual or Potential Violations

This Section allows owners or operators of HMIWIs that have exceeded a parameter value to conduct another performance test within 30 days of the exceedance in order to demonstrate that the HMIWI was not in violation of the applicable emission limits. The test must use the same operating parameter values that was exceeded; notify the Illinois EPA in writing 21 days in advance of the optional test (notify Illinois EPA in writing of intent to proceed with the test five days in advance of the test); and use the same test plan used for the performance test in which the parameter values was established.

I. Subpart I: Monitoring Requirements for All HMIWIs

This Subpart of the proposed Part 229 highlights the monitoring requirements for small, medium, large and rural HMIWIs.

1. Section 229.166 Monitoring Requirements for Small, Medium and Large HMIWIs

This Section establishes the monitoring requirements that are applicable to small, medium, and large HMIWIs. Subsection (a) requires continuous monitoring of the site-specific operating parameters once they have been established in the initial performance test. Subsection (c) requires monitoring of the maximum and minimum operating parameters listed in Appendix B at the frequencies outlined in Appendix B at all times the HMIWI is in operation and monitoring of the use of the bypass stack. If unspecified control equipment are used, the equipment must be maintained in a manner to enable monitoring of the site-specific operating parameters outlined in the construction permit. In addition, monitoring data must be recorded

for at least 75 percent of the operating hours per day and 90 percent of the operating days per calendar quarter.

2. Section 229.168 Monitoring Requirements for Rural HMIWIs

Rural HMIWIs must monitor the temperature of the secondary chamber at least once every minute of operation. They also must record the date, time, and weight of each charge fed into the HMIWI. Monitoring data must be recorded during all periods of operation and must at a minimum record valid data for 75 percent of the operating hours per day and 90 percent of the operating hours per calendar quarter. Rural HMIWI are subject to less extensive monitoring requirements since rural HMIWI will not need to use emissions control equipment to meet the applicable emissions limits.

J. Subpart J: Requirements for HMIWI Operators

This Subpart provides for the training of personnel who will be operating the HMIWIs regulated by proposed Part 229. It also requires the presence of a trained operator on site at all times the HMIWI is in operation, and places certain requirements for reference documents that must be maintained on site to be available for review by the HMIWI operators.

1. Section 229.170 Operator Training and Qualification Requirements

Subsection (a) prohibits operation of an HMIWI beyond September 15, 2000 unless a "trained and qualified" operator is on-site to operate the HMIWI or supervise its operation. As explained above, this requirement differs from the minimum prescribed in the EG. In order to become "trained and qualified" this proposal requires a person complete a training program, pass an exam, and have six months experience as an HMIWI operator or complete two burn cycles under the observation of two trained and qualified operators (subsection (b)).

An acceptable training program must consist of at least 24 hours of instruction in work safety procedures, pre-startup procedures, environmental concerns, combustion principles, operation of the same type of incinerator, combustion controls and monitoring, operation of air pollution control equipment, methods of monitoring pollutants, inspection and maintenance, corrective measures to remedy malfunctions, proper handling of bottom and fly ash, recordkeeping procedures, and applicable regulations and offer an examination and reference materials (subsection (c)).

Subsection (e) provides that operator qualification is valid from the date both the examination has been passed and the experience requirements are completed. Maintenance of operator training qualifications are discussed in subsection (f). This provision requires a four hour annual review course with an exam. If an operator's qualifications lapse for less than three years, they can be reinstated by taking and passing the annual review course; after three years or longer the operator must retake the training course.

2. Section 229.172 Documentation To Be Maintained On-Site for Employees Using HMIWIs

This section requires owners and operators of HMIWIs to maintain, in a readily accessible location on site, certain classes of reference materials for use of the HMIWI operators and to provide for annual review of such materials by all employees that operate the HMIWI. The initial review must be conducted by September 15, 2000 or prior to assuming responsibility for operating the HMIWI (whichever is later).

K Subpart K: Waste Management Plan Requirements

This subpart explains the requirements of the waste management plans that must be

drafted and submitted by all hospitals and the information that must be distributed by commercial HMIWIs to their customers.

1. Section 229.176 Waste Management Plan Requirements for Hospitals using On-site Incinerators

This section explains the components of the waste management plans that must be created by hospitals using on-site incinerators and submitted to the Illinois EPA. Primarily, a plan must outline the "technically and economically feasible policies and practices for reducing the amount and toxicity of hospital and medical/infectious waste incinerated at the hospital. Prior to development of the waste management plan, these hospitals are required to make an assessment of their current waste management practices. Subsection (c) lists the minimum measures that must be considered. Hospitals are allowed to incorporate previously developed waste management plans into this plan under subsection (d). Waste management plans are to be submitted to the Illinois EPA by these hospitals at the same time as its site-specific operating parameters are reported, and must be updated every five years along with renewal of the CAAPP permit. Each such hospital must also submit an annual waste management progress report to the Illinois EPA along with its annual emissions report which includes: description of progress made toward the goals of the plan, a summary of waste management practices that were implemented, and any amendments to the plan. Subsection (f) requires the hospital to make the waste management plan and the annual progress report available for public review.

2. Section 229.178 Waste Management Plan Requirements for Hospitals Transporting Waste Off-Site to an HMIWI

This Section outlines the waste management plan requirements for hospitals that transport their waste to an off-site HMIWI. These hospitals are only required to conduct an assessment of current waste management practices and consider additional technically and economically

feasible measures by September 15, 2000. Subsection (b) lists the minimum practices that must be considered. These include: segregation of waste streams, phasing out products containing toxic materials, reusing or reducing products or packaging, collecting recyclables, and improving inventory control and housekeeping practices. Like those hospitals that incinerate waste on-site, these hospitals must also submit an annual waste management progress report to the Illinois EPA. The first report must be submitted within one year of the initial assessment. As explained above, this requirement is not addressed in the EG/NSPS, but was included in the proposed rule to more equitably address pollution derived from incineration of hospital/medical/infectious waste.

3. Section 229.180 Waste Management Requirements for HMIWIs Accepting Waste Generated Off-Site

This section places a requirement on HMIWIs accepting off-site waste to provide information annually to their customers regarding availability of practices to reduce volume and toxicity of waste to be incinerated and to maintain copies of the materials disseminated to be made available to the Illinois EPA upon request. This Section addresses the waste management plan provisions in the EG/NSPS, which require state plans to devise waste management strategies for all incinerators subject to emission limits under the regulations. *See* 40 CFR §60.55c.

L. Subpart L: Recordkeeping and Reporting Requirements

This Section outlines the recordkeeping and reporting requirements for affected HMIWIs.

1. Section 229.182 Recordkeeping Requirements

Subsection (a) of this Section identifies the recordkeeping requirements for all HMIWIs

subject to the emission limitations of this Part. These sources must maintain the calendar date of each record; data regarding concentrations of regulated pollutants, charge rates, pollution control devices and procedures, uses of the bypass stack, and operating parameter data; data regarding failures to record required data, malfunctions, and exceedances; results of performance tests; calibration records; and identification of all qualified HMIWI operators. HMIWIs which claim an exemption from the emission limits for certain time periods when only pathological, low-level radioactive, or chemotherapeutic waste is being incinerated must keep records of the calendar date and duration of these exempt periods under subsection (b). If an HMIWI claims exemption because only pathological, low-level radioactive, or chemotherapeutic waste is burned at all times, the owner or operator must keep records which demonstrate this under subsection (c). Co-fired combustors must keep records of the relative weight of hospital or medical/infectious waste and other fuels or waste combusted under subsection (d). Rural HMIWIs must maintain records of annual inspections under subsection (e). All of the above records must be kept for five years and made available to the Illinois EPA upon request.

2. Section 229.184 Reporting Requirements

Subsection (a) requires the facilities manager and the responsible official to certify each required report. Responsible official is a term germane to the CAAPP and is defined in Section 39.5 of the Act (415 ILCS 5/39.5). The facilities manager and responsible official could be the same person. If not, two signatures would be required to remain consistent with both the EG/NSPS and the CAAPP requirements. Results of performance tests must be submitted within 60 days of conducting the test. Beginning in 2001, annual reports must be submitted by September 15 of each year. Once the CAAPP permit is issued to the HMIWI, they must be submitted semi-annually within 60 days of March 15 and September 15 of each year. Subsection

(c) lists the information that must be included in the report. Rural HMIWIs are essentially subject to the same reporting requirements (see subsection (e)).

M. Section 229.Appendix A

This Appendix contains the Toxic Equivalency (TEQ) factors to be used to determine compliance with the dioxin/furans standards.

N. Section 229.Appendix B

This Appendix contains charts with the operating parameters that must be monitored as well as the minimum frequencies of measurement and recording. This Appendix applies to HMIWIs (small, medium and large) equipped with the specific control equipment U.S. EPA anticipates will be needed to meet the relevant emission limits.

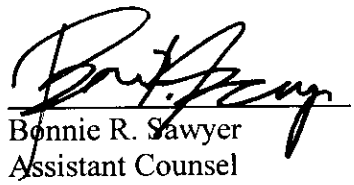
O. Section 229.Appendix C

This Appendix explains the reference test methods and procedures to be used when conducting performance testing under proposed Part 229. This Appendix is consistent with the test methods and procedures prescribed by the EG/NSPS. Alternative test methods may be used only if approved by Illinois EPA and U.S. EPA.

IX. CONCLUSION

For the reasons set forth above, the Illinois EPA respectfully requests that the Board adopt proposed Part 229 for the State of Illinois pursuant to Section 28.5 of the Act (415 ILCS 5/28.5).

Respectfully submitted,
Illinois Environmental Protection Agency

by: 

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