

ILLINOIS POLLUTION CONTROL BOARD  
June 30, 1994

IN THE MATTER OF: )  
 )  
REGULATION OF LANDSCAPE ) R93-29  
WASTE COMPOST FACILITIES ) (Rulemaking)  
35 ILL. ADM. CODE 830-832 )

Proposed Rule. First Notice.

OPINION AND ORDER OF THE BOARD (by M. McFawn):

On November 30, 1993, the Illinois Environmental Protection Agency (Agency) filed with the Board a proposal for regulating landscape waste compost facilities in Illinois. The Agency filed its proposal pursuant to Section 22.33 of the Environmental Protection Act (Act) (415 ILCS 5/1 et seq.), which directs the Agency to develop and recommend to the Board by January 1, 1994 regulations establishing performance standards for landscape waste compost facilities, and testing procedures and standards for end-product compost produced by such facilities. Section 22.33 of the Act requires the Board to adopt such standards by December 1, 1994. Sections 22.34 and 22.35 similarly direct the Agency to propose standards for organic waste and mixed municipal waste compost facilities, respectively.

The Agency has not proposed regulations pertaining to organic waste composting facilities or mixed municipal waste facilities at this time. Therefore, the regulations the Board is proposing in this rulemaking concern only landscape waste compost facilities. We express no opinion on what regulations would be appropriate for organic waste or mixed municipal waste compost facilities.

Today the Board acts to send this proposal to first notice. Pursuant to Section 5.01 of the Illinois Administrative Procedure Act and Section 102.342 of the Board's procedural rules, a 45-day public comment period will commence upon publication of today's proposal in the Illinois Register, during which the Board will accept written comments from any person. Persons interested in providing additional comment on this proposal, or in responding to inquiries posed by the Board herein, should submit such response in writing to the Clerk of the Board prior to the expiration of this 45-day period.

Development of the Regulatory Proposal

To assist the Agency in developing its proposal, Section 22.33 of the Act directs the Agency to appoint, in conjunction with the Department of Energy and Natural Resources (DENR), a compost advisory committee composed of a balanced representation of interest groups. In response, the Agency and DENR appointed the Compost Quality Standards Technical Advisory Committee

(CQSTAC), which consisted of representatives of academia, environmental groups, the composting industry, the landscaping industry, municipalities, counties, and the Department of Agriculture. The CQSTAC met seven times between July 12, 1993 and November 23, 1993 to advise and assist the Agency in developing its proposal. Part 830 of the proposal, which contains the location and operating standards for compost facilities and the quality standards for end-product compost, reflects the input received by the Agency from the CQSTAC.

Parts 831 and 832 of the regulations were proposed to the Board as an independent Agency effort to codify permitting procedures and requirements that are already largely in practice pursuant to the Agency's authority under Section 39(m) of the Act. Part 831 sets forth the information that needs to be in a permit application, while Part 832 sets forth procedural requirements for the issuance of permits. These parts remain unchanged from the Agency proposal.

### Procedural History

The Agency submitted its proposal to the Board on November 30, 1993. Hearings were held on April 15, 1994 in Chicago, and April 22, 1994 in Springfield. At the April 15 hearing the Agency presented its proposal and answered questions directed to its witnesses. Additionally, Mr. David Albert made a statement concerning odors and setback requirements. At the April 22 hearing the Agency answered additional questions, and testimony was presented by Joanna Hoelscher of Citizens for a Better Environment (CBE), Kevin Rogers of EMI Environmental Management, and Kristina Karr, the Resource Recovery Manager for the City of Naperville.

In addition to the testimony provided at hearing, several public comments were submitted to the Board. The McHenry Department of Health submitted a comment concerning odors (Public Comment #1), Thomas Augustine of the Organic Crop Improvement Association submitted a comment concerning end-product compost standards (Public Comment #2), and Dr. William Hallenbeck, Director of Environmental and Occupational Health Sciences for the University of Illinois at Chicago, submitted a comment concerning testing of end-product compost (Public Comment #3).

The Board has considered all testimony, exhibits, and public comments to date in reaching its decisions in this rulemaking. The Board will hold another public hearing on the merits of this proposal during first notice. Originally, the purpose of this additional hearing was to hear testimony concerning the applicability of the setback requirements to commercial, as well as residential, establishments and testimony by Maureen Drankiewicz. (Tr. 1 at 172-176). The Board now anticipates that the Agency and other interested parties will also address the

particulars of the instant first notice proposal. Most specifically, the Board invites testimony and comments concerning the merits of applying the location standards, and where statutorily permitted, performance standards, for facilities that compost more than 100 cubic yards of landscape waste annually.

### REGULATORY FRAMEWORK

The regulations proposed today establish location and operating standards for landscape waste compost facilities, quality standards and testing procedures for all end-product compost offered by facilities for sale or use in Illinois, and permitting procedures for certain landscape waste compost facilities. They are divided into three parts: Part 830, which contains the location and operation standards for compost facilities, and the quality standards for end-product compost; Part 831, which sets forth the information which must be included in a permit application; and Part 832, which sets forth the procedural requirements for the permitting of compost facilities.

The Board has made two significant changes to proposed Section 830 as presented to the Board by the Agency. First, the Board has expanded the applicability of the location and performance standards. The location standards are applicable to all but the very smallest of landscape composting facilities, and the regulations contained in Sections 830.204 through 830.213 are applicable to permit-exempt facilities which compost more than 100 cubic yards of material per year and offer it for off-site sale or use, as well as all permitted landscape waste compost facilities. The Agency had proposed that these regulations be applicable only to permitted facilities. Second, the Board has eliminated certification by a qualified groundwater specialist as a means of demonstrating that the compost area is located on relatively impermeable soils. The rationale for these changes is set forth below in more detail.

### Applicability Based Upon Facility Class

Part 830 of the proposed regulations establishes several classes of facilities which are subject to different levels of regulation. The first class is generally referred to as backyard or garden composting. The second class is the on-site facility which does not offer compost for off-site sale or use. This class is further delineated as those on-site facilities which compost less than or more than 100 cubic yards of landscape waste compost on an annual basis. The third class of facility is that which is also on-site, but which offers end-product compost for off-site sale or use. As with the totally on-site operation, this class is further divided depending on whether the amount of landscape waste material composted annually is less than or greater than 100 cubic yards per year. The next class is the on-farm composting operation. The fifth and final class is the

facility which receives landscape waste from off-site and offers the end-product for sale or use off-site.

These classes of facilities can be further defined depending on whether or not they are exempt from the requirement to have a permit. Curiously, three of the five classes are permit-exempt by statute, and a fourth will be exempt by rule. As proposed by the Agency and today by the Board for first notice, garden composting operations are exempt from having to obtain a permit. (See Section 830.104.) The three classes of facilities statutorily exempted from the permitting requirement are: 1) the on-site facility which does not offer compost for off-site sale or use, pursuant to Section 21(q)(1) of the Act; 2) the on-site facility which offers compost for off-site sale or use, also pursuant to Section 21(q)(1) of the Act; and 3) the on-farm composting operation, exempted pursuant to 21(q)(3) of the Act. Thus, the final class, the facility at which the landscape compost material is generated off-site and the end-product is offered off-site for sale or use, is the only class required to have a permit.

The proposed regulations impose additional requirements for on-site facilities, whether or not they offer compost for off-site sale or use, if such facilities compost more than 100 cubic yards of material annually. This is based on the Board's belief that permit-exempt facilities can potentially impact groundwater and surrounding properties to the same extent as permitted facilities. Therefore, subject to statutory limitations, we have sought to establish standards which will provide the protection necessary to prevent or minimize these impacts.

Gardener's Exemption. The first class of facility is created by the definition of "garden compost operation" at Section 830.102 of the regulations. This definition creates what is referred to as the "gardener's exemption," which applies to all landscape waste operations that have no more than 25 cubic yards of material on-site at one time, and that do not engage in commercial activity. For purposes of these regulations, these operations are not considered landscape waste compost facilities, and they are therefore entirely exempt from the regulations. This exemption is intended to ensure that very small composting operations such as those conducted in residential backyards, community gardens, or city landscaping projects, remain outside the regulatory scheme.



The Agency recommended this restriction at the urging of Ms. Hoelscher of CBE, a member of CQSTAC. (Baer at 33.)<sup>1</sup> Ms. Hoelscher argued that the legislature intended to regulate landscape waste "facilities," and did not intend to regulate small landscape waste compost operations. (Baer at 33, Ex. 1-28; Ex. 1-108.) The volume limitation of 25 cubic yards or less was selected because it is a small enough volume to be managed by low technology and inexperienced labor. (Baer at 34.) We accept the rationale offered for this exemption and accordingly incorporate it into the regulations proposed today.

To successfully exempt this type of operation from the requirements of Part 830 and the permitting requirements of Part 831, "Garden compost operation" is first defined and then excepted from the definition of "landscape waste compost facility" at Section 830.102. Since a "garden compost operation" is not a "landscape waste facility" by definition, it is not subject to Parts 830 and 831. This exemption is clearly set forth at Section 830.104, Exempt Operations and Activities.

On-Site facilities which do NOT offer compost for off-site sale or use. The second class of facility created under the regulations is made up of on-site facilities which compost landscape waste generated on-site, and which do not offer end-product compost for off-site sale or use, defined as an "on-site facility" at Section 830.102. Pursuant to Section 21(q)(1) of the Act, these facilities are exempted from any permitting requirements. Furthermore, pursuant to Section 22.33 of the Act, these facilities are exempted from any performance standards or end-product quality standards.

As proposed by the Agency, an on-site operation would be completely exempt from the applicability of Part 830. The Agency's stated reason was that the exemption was taken directly from Section 22.33(c) of the Act. Read in its entirety, the Board finds nothing in this section which would preclude regulating the location of this class of facility. The purpose of so regulating would be to adequately protect human health and

<sup>1</sup> The Board has received pre-filed testimony from the following parties: 1) Dr. Shirley Baer, Gary Cima, Heather Young, Ed Bakowski, and John Taylor, all of whom testified on behalf of the Agency; and 2) Joanna Hoelscher, who testified on behalf of CBE. Throughout this opinion, pre-filed testimony will be referred to by the last name of the person who filed it, followed by the page number of the testimony. Similarly, transcripts from the April 15, 1994 and April 22, 1994 hearings will be referred to as Tr. 1 and Tr. 2, respectively, followed by the page number from the transcript.

the environment, including but not limited to, the groundwater of the State.

In pertinent part, Section 22.33(c) provides that this type of operation is "exempt from any standards promulgated under subsections (a) and (b)." Subsection (b) mandates that the Board adopt by December 1, 1994 "(1) performance standards for landscape waste compost facilities; and (2) testing procedures and standards for the end-product compost...." Subsection (a) provides that:

Performance standards for landscape waste compost facilities shall at a minimum include:

1. the management of odor;
2. the management of surface water;
3. contingency planning for handling end-product compost material that does not meet the requirements of subsection (b);
4. plans for intended purposes of end-use product; and
5. a financial assurance plan necessary to restore site as specified in Agency permit.

(415 ILCS 5/22.33) (Emphasis added.)

No reference is made to the location standards set out elsewhere in the Act to protect groundwater and against other environmental hazards. Therefore, the Board proposes to impose location standards similar to those statutorily imposed upon on-farm operations and permitted facilities at Sections 21(q) and 39(m) of the Act, respectively.

Depending on their size and location, on-site facilities have the same potential to impact groundwater as permitted facilities. Therefore, location standards are appropriate regulatory constraints on this class of facilities which compost more than 100 cubic yards of material per year. Whether 100 cubic yards per year is the appropriate size restriction is discussed below in the context of on-site/off-site facilities.

Regardless of size, this class of facility continues to be exempt, as statutorily mandated, from the permitting scheme, performance standards, and end-product quality standards. Thus, these facilities are only subject to the location standards set forth in Section 830.203. These standards require that no composting material be placed within five feet of the watertable, establish a 200-foot setback from the composting area to the nearest potable water supply well, and establish a 200-foot setback from the composting area to the nearest residence. For facilities developed or expanded after November 17, 1991, the setback from the nearest residence must be at least an 1/8 mile.

These location requirements parallel those set out at Section 39(m) of the Act.

On-site facilities which offer compost for off-site sale or use. The next class of facility is on-site facilities which offer end-product compost for off-site sale or use, defined as an "on-site/off-site" facility at Section 830.102. This class of facility is exempt from the requirement to have a permit pursuant to Section 21(q)(1) of the Act. As applied to landscape waste composting facilities, this section establishes that no permit may be required for a facility which composts landscape wastes generated on-site. Unlike totally on-site facilities, this class is not exempt from performance standards adopted by the Board pursuant to Section 22.33(c). Despite their permit-exempt status, the Agency proposed that these facilities be subject to the minimum performance standards set forth in Section 830.202 and that their end-product compost be required to satisfy the standards set forth in Subpart E, regardless of the size of the operation.

Today's proposal adopts additional requirements for on-site/off-site facilities which compost more than 100 cubic yards of landscape waste annually. Instead of being subject to just the minimum performance standards of Section 830.202, they are also subject to the performance and recordkeeping requirements contained in Sections 830.204 through 830.213. As proposed by the Agency, those on-site/off-site facilities which do not compost 100 cubic yards annually must comply only with Subpart E and the minimum performance and recordkeeping requirements set forth at Section 830.202. Pursuant to subsection (h) therein, they are required to file an annual report estimating the amount of material received for composting, and the total amount of material still on-site, used, or sold during the previous year. This recordkeeping requirement will serve to identify whether the on-site/off-site facility is below or above the 100 cubic yard per year cut-off.

During the course of hearings, the Board questioned whether the more stringent operational standards proposed at Section 830.203 through 830.213 should be made applicable to permit-exempt facilities greater than a certain size. The Agency had proposed only that permitted facilities be subject to these regulations and that all other facilities, not otherwise excluded at Section 830.201, be subject to the more general requirements of Section 830.202. The Board's concern with defining applicability based on the statutory requirement for a permit harkens back to the landfill regulations. Therein the Board found the distinction between permitted and permit-exempt facilities due to Section 21(d) of the Act to have no bearing as to whether any particular facility could harm the environment. Accordingly, the Board imposed operational standards on permit-exempt facilities as well as permitted facilities. (See In the Matter of Development,

Operating, and Reporting Requirements for Non-Hazardous Landfills (February 25, 1988), R88-7, 86 PCB 666.) In so doing, the Board noted that the Act does not by its terms preclude application of requirements to permit-exempt facilities. (Id. at 690.) That theory is similarly applicable in regulating compost facilities. Just because a facility is an on-site operation does not mean that operational standards need not be imposed to protect health and the environment.

Recognizing that the majority of on-site/off-site facilities may not be very large, the Board asked the Agency to recommend a particular volume cutoff beyond which permit-exempt facilities should be subject to additional operation standards. (Tr. 1 at 85.) The Agency declined to recommend an appropriate volume, and instead responded with a legal analysis. The Agency believes that by exempting on-site/off-site facilities from the permit requirements, the legislature may have intended to exempt on-site/off-site landscape waste compost facilities from the operating constraints imposed pursuant to Section 39(m). (See Agency Response to Board Questions Raising Legal Issues of April 22, 1994; see also Tr. 1 at 85-90.)

As the statutory support for the permit-exemption for on-site/off-site facilities, the Agency cited the following language in pertinent part from Section 21(d) of the Act.

...no permit shall be required for (i) any person conducting a waste-storage, waste-treatment, or waste-disposal operation for wastes generated by such person's own activities which are stored, treated, or disposed within the site where such wastes are generated..."

(415 ILCS 5/21(d)) (Emphasis added.)

This language is nearly identical to that contained at Section 21(q) of the Act. The only exception is that "operation" and "wastes" are more specifically described as a landscape waste composting operation at subsection (q). We believe that the more specific language of Section 21(q) controls and exempts these on-site operations from the requirement to have a permit. However, as the Agency's reliance on Section 21(d) points out, just because an operation is permit-exempt does not mean that it cannot be subject to operational standards to protect health and the environment. The landfill operating requirements are applicable to on-site facilities despite their exemption from permitting pursuant to Section 21(d) of the Act.

The landfill rules provide a clear precedent for subjecting non-permitted facilities to the same requirements as permitted facilities, while allowing them to remain outside the permitting

scheme. Here, the majority of sites will probably not be subject to the more restrictive requirements, since it is anticipated that the volume restriction will exempt most of the on-site/off-site facilities from the additional requirements. Only the larger facilities which have a greater potential for impacting groundwater and causing other harm will be subject to the more stringent standards.

We now examine what constitutes an appropriate volume limitation. As mentioned above, the Agency declined to suggest an appropriate volume cut-off for more stringent requirements, although the Board specifically requested that it do so. (Tr. 1 at 88-91.) Therefore, a proposed cut-off of 100 cubic yards per year is chosen because the Agency indicated that these facilities are of sufficient size to warrant tracking and the imposition of reporting requirements. (See Section 830.202 (h)(2).)

Currently, the record contains no information as to what constitutes a reasonable cut-off point. The Agency has included in the record a table which purports to list the amount of waste received by landscape waste facilities, reported in tons per year, but an attached cover letter indicates that the data is unreliable, because some of the sites may have reported their data in cubic yards rather than tons. (Ex. 52.) We ask that, at a minimum, the Agency and/or CQSTAC submit a usable and accurate inventory of landscape waste compost facilities in Illinois based on uniform measurement. We welcome further comment on what size of permit-exempt facility poses a sufficient threat to groundwater or other environmental harm to warrant the imposition of these regulations, and we specifically ask that the Agency address this issue at the up-coming merit hearing during first notice.

On-Farm Operations. The next class of facilities is on-farm operations, as defined at Section 830.102. Pursuant to Section 21(q) of the Act, on-farm operations which meet certain detailed location, operation, and reporting requirements are exempt from permitting requirements. Those location, operation and reporting requirements are incorporated into the regulations at Section 830.106. In addition, operators of on-farm operations may have to comply with the minimum performance standards in Section 830.202. The only way they will be exempt from those minimum requirements is if the operation qualifies as an on-site facility, i.e., the landscape material for composting is generated on-site only.

Permitted Facilities. The final class of facilities is permitted facilities. This class includes all facilities which are not garden compost operations, on-site facilities, on-site/off-site facilities or on-farm operations. In addition to meeting all the requirements in 830.202 and 830.203 - 830.213, and complying with the end-product standards in Subpart E, these

facilities must comply with the financial assurance requirements in Subpart F, and must submit a permit application which complies with the requirements outlined in Part 831.

#### SUMMARY BY PART, SUBPART AND SECTION

##### Part 830: Operational Standards for Compost Facilities and Standards for End-Product Compost

Part 830 of the proposed regulations establishes testing procedures and quality standards for all end-product compost offered by a facility for sale or use in Illinois, and establishes operational standards for landscape waste compost facilities. (35 Ill. Adm. Code 830.101(a)). As discussed below, these regulations apply to all composting facilities not specifically exempted. The exemptions are summarized at 35 Ill. Adm. Code 830.104. The applicability of specific sections, as discussed above, is set forth at 35 Ill. Adm. Code 830.201.

##### Subpart A: General Provisions

Subpart A contains eight sections. The most general are Section 830.101: Purpose, Scope and Applicability; Section 830.103: Incorporations by Reference; Section 830.107: Compliance Timeframe; and Section 830.108: Severability. The sections more specific to this rulemaking are those containing the definitions at Section 830.102 and the exemptions to the rules and permit requirements. These are found at Sections 830.104, 830.105 and 830.106.

Section 830.102 sets forth the definitions of terms used in Parts 830 - 832. Several definitions are taken directly from the statute, while others were developed by the Agency in negotiations with the CQSTAC. Still others were modified during the hearing process in order to clarify the regulations. Some of the more critical definitions are those defining the different classes of landscape waste compost facilities and the garden compost operation. They are particularly important in the context of the applicability of these rules which is set forth at Section 830.104.

Section 830.104 contains three exemptions from the requirements of the proposed regulations. The first exemption provides that the regulations contained in Part 830 are not applicable to garden compost operations. A garden compost operation is defined as an operation which has no more than 25 cubic yards of yard waste, composting material, or end-product compost on-site at one time, and which does not engage in commercial activity. This type of operation is also excluded from the definition of landscape waste compost facility found at Section 830.102. Thus, this small landscape compost operation is the only such operation totally excluded from all of the

regulations proposed today.

Section 830.104 also sets forth the statutory exemption from the testing requirements of Subpart E for end-product compost used as a daily cover or vegetative amendment in the final layer of a landfill. Section 22.33 of the Act exempts end-product compost from landscape waste facilities used for this purpose from such testing requirements. A separate subsection is also included to clarify that landfills are prohibited from using end-product compost as daily cover or vegetative amendment in the final layer of a landfill without prior Agency approval in its permit. Throughout its proposal, the Agency proposed this requirement as a Board note only. Since it contains a prohibition, a Board note is insufficient. To be enforceable, this requirement is proposed as a rule. Furthermore, so doing eliminates the need to restate the Board note several times throughout the proposed rules, as suggested by the Agency.

Section 830.105 sets forth the three classes of facilities which, by statute, are permit-exempt, and one activity which is, by statute, permit-exempt. The Agency did not propose separately listing these facilities and this activity as permit-exempt. The Board, however, believes that such a section will better serve to identify the exemptions for the regulated community.

The first class of permit-exempt facility is the on-farm operation which meets all of the criteria set out at Section 21(q)(3) of the Act and is adopted almost verbatim at Section 830.106. The exemption for the other two classes of facilities is combined at Section 830.105(b) because their exemption is statutorily combined at Section 21(q)(1). All on-site operations are exempt from the requirement to have a permit regardless as to whether the end-product is offered for off-site sale or use. Finally, the activity which is statutorily permit-exempt is the application of landscape waste or composted landscape waste at agronomic rates. This exemption and the definition of agronomic rates are found at Section 21(q)(2) of the Act. The definition of agronomic rates is restated at Section 830.102 of the proposed rules.

Lastly, Section 830.106 contains the location and operating criteria for on-farm operations. These criteria are statutorily prescribed in detail. If the farm composting operation satisfies all the criteria, the operation is exempt from the permit requirement. Of course, the owner or operator could choose to operate otherwise. If the operational criteria are not met, the operation might then become subject to the permit requirements of the Act. Furthermore, the location, and the applicable performance, and recordkeeping requirements of Sections 830.204 et seq. may also become applicable. Owners and operators of on-farm operations must register the site with the Agency each year, obtain an Illinois Inventory Identification Number, and file a

report certifying that the facility is operated in accordance with the requirements for an on-farm facility set forth in Section 21(q) of the Act, all of which are restated in this section. The on-farm facility is also subject to Section 830.202, which contains the minimum performance standards and is discussed in greater detail below.

#### Subpart B: Standards for Owners and Operators of Regulated Facilities

Subpart B of Part 830 sets forth the operating standards for landscape waste compost facilities. It contains thirteen sections. Please note that following Subpart B, Sections 830.300 et seq. and 830.400 et seq. have been left vacant to accommodate operational standards for organic waste and mixed municipal waste compost facilities, respectively, when such regulations are proposed by the Agency. The Agency has indicated that these proposals will be set forth in Subparts C and D, and therefore the current proposal reserves by omission these subparts. (See Agency Statement of Reasons at 14.)

The standards established in Subpart B are applicable to all landscape waste compost facilities. They consist of location standards, minimum performance standards, and the more detailed performance standards in Sections 830.204 through 830.213. Most importantly, Section 830.201 contains the "road map" which helps the regulated facilities to determine which requirements apply to the various classes of facilities. As described above, the applicability depends on the type of facility and in some instances its size -- but not whether it is required to have a permit.

#### Section 830.201 Scope and Applicability

Pursuant to subsection (a) of Section 830.201, the minimum performance standards set forth in Section 830.202 are applicable to all landscape waste compost facilities, except on-site facilities; the Act precludes the application of performance standards to that type of facility. Thus all permitted facilities and all on-site/off-site facilities are subject to these minimum performance and reporting requirements contained therein. (415 ILCS 5/22.33(c).) The on-site farm operation should note that this exception may be available to it if all composting material is generated on-site. However, unless the report required from on-farm operations certifies that no off-site material has been or will be received by it, Section 830.202 is applicable.

Pursuant to subsection (b), the location standards at Section 830.203 are applicable to all landscape waste compost facilities, except any on-site facility which composts less than 100 cubic yards of material per year. This exemption includes



both on-site and on-site/off-site facilities, so long as the facility meets the 100 cubic yard per year limitation. Subsection (b) also contains an exemption for on-farm operations which satisfy the criteria at Section 830.106. Since that criteria parallels the detailed statutory criteria, there is no environmental need to subject the on-farm operations to the location requirements of Section 830.203.

Finally, pursuant to subsection (c), the more stringent performance criteria set forth at Sections 830.204 through 830.213 are applicable to all permitted facilities and to on-site/off-site facilities which compost over 100 cubic yards of landscape waste per year. (Those on-site/off-site operations composting less than 100 cubic yards are subject to the minimum standards in Section 830.202.) The Agency proposed applying these regulations only to permitted facilities, but we find no distinction between the environmental risk posed based on a facility's requirement to have a permit. As indicated at hearing, the risk to be regulated is dependent on the size of the operation, not whether the landscape waste to be composted originated on or off-site.

#### Section 830.202      Minimum Performance Standards and Reporting Requirements

Section 830.202 establishes operating standards and recordkeeping requirements applicable to landscape waste compost facilities (except on-site facilities), whether permitted or permit-exempt. These generally applicable requirements include: a prohibition on composting domestic sewage, sewage sludge or septage; specific measures to control odor; surface water management; recordkeeping for facilities composting over 100 cubic yards of landscape waste per year; and closure requirements. These requirements are discussed in detail below.

Other requirements include: development of a contingency plan for end-product compost which does not meet the general use compost standards at subsection (c); that all landscape waste be processed within 5 days of receipt into windrows or piles, with the exception of leaves, brush, or woody landscape waste being stored for use as a carbon source and bulking agent at subsection (d); housekeeping practices at subsection (f); and quality standards for end-product compost at subsection (g).

Pursuant to Section 830.202(a), facilities that utilize domestic sewage, sewage sludge or septage in their composting processes are regulated under 35 Ill. Adm. Code 391 and 40 CFR Part 503. These regulations impose substantial monitoring and testing requirements on the generator, and reporting requirements on both the generator and the end-user. At the suggestion of Jeff Hutton of the Agency's Bureau of Water and John Colletti of the United States Environmental Protection Agency (USEPA), the

Agency's proposal excluded landscape waste facilities that utilize these wastes in their composting process, in order to avoid subjecting them to additional requirements. (Baer at 12.) The Board agrees that, since these facilities are already adequately regulated, subjecting them to additional, potentially confusing requirements is unnecessary.

Section 830.202(b) requires adequate control of odors and other nuisances. Odor control, dust control and noise control are often the main issues of concern to neighbors of composting facilities. (Cima at 4.) These sources of potential nuisance violations must be controlled so as to avoid violating Board nuisance standards. Standards for odor and dust emissions are codified at 35 Ill. Adm. Code 201.141 and 212.301. Noise standards can be found at 35 Ill. Adm. Code 400.

Odor problems often arise when there is too little oxygen inside a compost pile, leading to anaerobic conditions. Therefore, at hearing, the Board questioned whether the Agency would consider setting a minimum oxygen level so as to avoid these problems. (Tr. 1 at 101-102.) Additionally, the McHenry County Department of Health indicated that it was concerned about odors generated from leaves stockpiled for use as a bulking agent. (Public Comment #1.)

The Agency responded that, due to the variation in composting processes, it would not be possible to set a minimum oxygen level that applies to all facilities. (Baer at 24-25; Tr. 1 at 102-107.) To do so would unnecessarily restrict the options available to compost facility operators. The Agency indicated that it could properly control odors through permit conditions. (Id.) The Agency also clarified Section 830.202(b) by indicating specific measures an operator should take to control odor. (Tr. 1 at 72-76.)

The DENR had originally proposed that the regulations include a five percent oxygen limit in the definition of aerobic composting. This was discussed at the July 12, 1993 CQSTAC meeting, and several members of the CQSTAC objected to setting an oxygen limit, stating that a five percent limit would be virtually impossible to meet. Mr. DeGarmo of the Composting Council explained that after a rainfall, the oxygen level generally drops below five percent in windrows. The Agency ultimately decided not to include such a requirement in its proposal, finding that it did not allow the flexibility necessary to accommodate a variety of operating conditions and processes. (Baer at 25.)

In a related issue, at the April 15, 1994 hearing Mr. David Albert questioned whether the minimum setback requirements from the nearest residence specified in Section 830.203(c) should be

applied to commercial operations as well. (Tr. 1 at 50-69.) Mr. Albert indicated that odors from composting operations could affect persons at commercial establishments, and could adversely affect businesses.

The Agency first pointed out that the Act itself specifies that the 200-foot setback applies to residences. (Tr. 1 at 59.) However, the Agency indicated that it could impose additional operating standards as permit requirements where necessary. The Agency takes into consideration the proximity of potential receptors when establishing permit conditions, and persons at commercial establishments would be considered potential receptors.

The Agency also addressed the setback requirements as a legal issue in a supplemental pleading. (See Agency Response to Board Questions Raising Legal Issues of April 22, 1994.) In this response the Agency indicated that it believed that expanding the scope of the setback requirements to include a setback from commercial establishments would be beyond the statutory grant of power, since the statute itself specifies a setback from residences. The Agency also observed that the statute does not include authority to establish setbacks from commercial operations which would be applicable to all composting facilities.

This dialogue raises two issues of concern to the Board. First, how the Agency could impose additional requirements in a permit to address the concerns of potential receptors if the facility is permit-exempt. Secondly, the Board requests further information as to why the Agency believes that since the Act is silent, a setback from commercial facilities is illegal although such may be necessary to protect health and the environment. As already mentioned, the applicability of setbacks to commercial operations is one of the topics reserved for the merit hearing during first notice.

Section 830.202(e) establishes a performance standard for management of surface water. Excess water retained in composting windrows can lead to anaerobic conditions and odor problems, and can transport suspended solids off-site. (Cima at 5-6.) Therefore, the regulations specify that all facilities must be constructed so that run-on is diverted around the composting area. The surface water controls must be capable of handling all run-off from precipitation less than or equal to the 10-year, 24-hour precipitation event. Typical surface water controls to accomplish these requirements include berms or perimeter ditches, retention basins or vegetative filters. (Cima at 6.) Owners and operators are reminded that any discharge of water that has come in contact with landscape waste material from a point source must have an NPDES permit pursuant to 35 Ill. Adm. Code 309.

Section 830.202(h) establishes recordkeeping requirements applicable to landscape waste compost facilities composting more than 100 cubic yards per year. Different requirements are established for each type of facility. Permitted facilities must submit a written annual statement to the Agency by April 1st of each year, estimating the amounts of material received and the amount of material disposed of during the previous year.

Permit-exempt facilities composting over 100 cubic yards of landscape waste per year must also file an annual report by April 1st, which includes an estimate of the amount of material received for composting, and the total amount of material still on site, used, or sold during the previous year. The Agency indicated that facilities of this size are large enough to warrant tracking. (Cima at 7.)

Section 830.202(i) sets forth the minimum closure requirements applicable to landscape waste compost facilities. It specifies that all landscape waste, composting material, end-product compost and additives must be removed from the facility within 180 days following the beginning of closure. The 180-day time frame was established to enable the operator to complete composting of the last material received, and to market or dispose of all end-product compost. (Cima at 8.) The Board requests the Agency and any other interested party comment about whether 180 days is sufficient given that maturation of compost is climate dependent.

Facilities must be closed in a manner which minimizes the need for further maintenance, and which controls, minimizes or eliminates the release of landscape waste and constituents to groundwater or surface waters. These standards are drawn from the performance standards for waste management facilities, codified at 35 Ill. Adm. Code 807.503. (Cima at 8.) Closure typically involves ceasing to accept waste, composting of all remaining material, removing all materials and processing equipment from the site, and site restoration. (Cima at 8.) Finally, the operator must file a report by April 1st of the year following completion of closure, verifying that closure was completed in accordance with these requirements in the previous calendar year.

#### Section 830.203 Location Standards for Most Facilities

Section 830.203 sets forth location standards for most landscape waste compost facilities. The only facilities exempted are garden compost operations, on-farm operations, and on-site facilities which compost less than 100 cubic yards per year. Several of the proposed location requirements are mandated by Section 39(m) of the Act, while additional requirements are based on the location standards for landfills set forth at 35 Ill. Adm. Code 811.102. (Cima at 9.) These location requirements are

designed to reduce or eliminate any adverse environmental impact through advance planning and imposition of protective measures.

This section includes several groundwater protection measures mandated by Section 39(m) of the Act. Section 830.203(a) requires a setback of 200 feet from the nearest potable water supply well, while Section 830.203(c) mandates a setback of 200 feet from any residence. Furthermore, pursuant to Section 830.203(d), no composting material may be placed within five feet of the water table, and any landscape waste leachate must be collected and managed. The depth to groundwater can be established either through reliance on published data, or through actual measurement through field methods. Additionally, the composting area must be outside the boundary of the 10-year floodplain or the site must be floodproofed (Section 830.203(b)), and regulated facilities must not restrict the flow of a 100-year flood (Section 830.203(f)).

For facilities developed or expanded after November 17, 1991, the composting area must be at least 1/8 mile from the nearest residence. Pursuant to 830.205(a)(1)(B), the Agency may require that landscape waste received be processed by the end of the operating day, if necessary considering population density, prevailing winds, facility size, proposed capacity and topography.

Finally, Sections 830.203(e), (g)-(h) require that these regulated facilities comply with federal and state historic and environmental preservation statutes. For example, the operation of these facilities must be compatible with the requirements of the Wild and Scenic Rivers Act, the National Historic Preservation Act, and the Illinois Historic Preservation Act.

#### Section 830.204          Additional Stormwater and Landscape Waste Leachate Controls

In addition to meeting the stormwater control requirement in Section 830.202(e), which is applicable to most facilities, on-site/off-site facilities that process more than 100 cubic yards of compost per year and permitted facilities (hereinafter often referred to as "regulated facilities") must meet additional standards imposed by 830.204. Section 830.204(a) specifies that stormwater which comes into contact with landscape waste or which mixes with landscape waste leachate is considered landscape waste leachate, and must be managed to prevent any environmental impact. This section is intended to inform facility operators that they must comply with water pollution control regulation. (Cima at 13.)

Stormwater runoff from a landscape waste compost facility may contain solids, nutrients, salts and organic acids. (Cima at 13.) Treatment by retention and settling, or use of a vegetative

filter, may be necessary to meet discharge limits. (Cima at 13-14.) Alternatively, the facility may use landscape waste leachate as a source of water to be added to the composting process or for on-site maintenance such as dust control. (Cima at 14.) If the facility discharges landscape waste leachate from a point source it must obtain a National Pollution Discharge Elimination System (NPDES) permit in accordance with the requirements of 35 Ill. Adm. Code 309.

Section 830.204(b) requires these facilities to manage landscape waste leachate to prevent ponding. Leachate ponding has been a source of odor problems at Illinois facilities. (Cima at 14.) Finally, Section 830.204(c) requires operators to allow periodic drying of the composting surface. This practice controls leachate migration into the soil, promotes aerobic conditions in the subsoil, and enhances microbial degradation of leachate in the surface soil layer. (Cima at 14.)

#### Section 830.205 Additional Operating Standards

Section 830.205 establishes operating standards in addition to those set forth at Sections 830.202 and 830.204. Section 830.205(a)(1)(A) requires these facilities to process all landscape waste received within 24 hours of receipt. This is intended to serve as an odor prevention measure, since bagged, compressed landscape waste quickly becomes anaerobic. (Cima at 14.) Leaves, brush, or woody landscape waste may alternatively be stored to be used as a carbon source or bulking agent, if this is provided for in a facility permit. If the facility is permit-exempt, this must be provided as part of the operating plan required at Section 830.206.

Section 830.205(a)(1)(B) applies to facilities which are operating in close proximity to residences. Because of the higher potential for odor problems at these sites, these facilities must process all waste received by the end of the operating day. (Cima at 15-16.) For the same reason, Section 830.205(a)(1)(C) specifies that the operator of all facilities using aerobic composting methods must adjust the oxygen level as necessary to promote aerobic composting, and to meet the needs of the particular process employed. The oxygen level is adjusted by shredding, turning, and/or mixing the material. (Cima at 16.) Similarly, Section 830.205(a)(1)(D) requires operators to take measures to adjust the moisture level so it remains within the range of forty to sixty percent on a dry weight basis, in order to promote aerobic composting. The moisture level is adjusted by watering or mixing materials of various moisture levels. (Cima at 16.)

Section 830.205(a)(1)(E) specifies that the staging area must be of adequate size and design to facilitate unloading of landscape material, and must be designed to allow unobstructed

movement of vehicles and equipment. The staging area is used for load checking, initial mixing or blending, and odor control. (Cima at 16-17.) It must be operable during inclement weather when waste is received, and must allow safe traffic flow. These requirements are designed to minimize delays in inspecting and processing incoming waste. (Cima at 17.)

Section 830.205(a)(1)(F) prohibits mixing landscape waste or composting material with end-product compost which is sold or offered for use. This practice can introduce pathogens and viable weed seeds into end-product compost. (Cima at 17.) This restriction does not apply to the use of end-product compost as an amendment to composting material.

Section 830.205(a)(1)(G) requires facility operators to have sufficient equipment and personnel to process incoming waste in accordance with the facility's operating plan.

Section 830.205(a)(1)(H) requires facility operators to obtain Agency authorization for any additive other than water prior to its use. Unless authorized by the Agency, and by permit where applicable, all additives other than water may not exceed ten percent by volume of the composting material. In deciding whether to approve the use of an additive, the Agency will evaluate the ability of the proposed additives to enhance the composting process without degrading the quality of the end-product compost. (Cima at 18.) This will allow operators to use a variety of additives, while allowing the Agency to protect against the use of improper additives. (Id.)

Section 830.205(a)(2) requires turning of windrows or piles for all facilities using an open composting process. Windrows or piles must be turned at least four times per year, and not less than once every six months. These requirements are intended to aerate the material for odor and leachate control, to break down the material, to distribute moisture, and to inoculate the material to promote rapid composting. (Cima at 19.)

Section 830.205(a)(3) requires that landscape waste compost facilities using contained processes implement mechanisms to control moisture content, air flow, and air emissions. Since contained processes tend to concentrate odors, there is a greater potential for odor problems. Control of air flow is typically accomplished by maintaining negative air pressure within the containment building and treating all exhaust air. (Cima at 20.) Control of air emissions is generally accomplished through the use of scrubbers or filters. (Id.)

Section 830.205(a)(4) specifies that the Agency may require (by permit condition where applicable) a facility to use thermal processing in order to reduce pathogens in the facility's composting material. These thermal processing requirements are

taken from the federal sludge regulations at 40 CFR 503. (See Exhibit 1-39.) Separate methods are prescribed for windrow processing, aerated static pile processing, and in-vessel processing. The Agency only intends to require thermal processing if a facility proposes the use of an additive which may contain pathogens. If imposed, the Agency will enforce a thermal processing requirement through recordkeeping and monitoring requirements. (Cima at 21.)

Impermeability of Soil Surface/Groundwater Specialist.

Because landscape waste leachate can contain certain chemicals which can impact groundwater, Section 830.205(b) requires that the composting surface meet certain requirements designed to protect against groundwater contamination. Section 830.205(b) requires that the composting area be located on relatively impermeable soils, or located on a base with resistance to saturated flow equal to the resistance of relatively impermeable soils. Alternatively, the facility can choose to establish an early detection and groundwater monitoring program pursuant to 830.205(b)(1)(A)(iii). Furthermore, the composting surface must be constructed and maintained to allow the diversion of runoff away from the landscape waste and compost, management of runoff and landscape waste leachate, and facility operation during all weather conditions. The surface of the landscape waste composting surface must be sloped at two percent or greater unless an alternative water management system is approved in a permit.

Relatively impermeable soils are defined at proposed Section 830.102 as soils having a hydraulic conductivity no greater than  $1 \times 10^{-5}$  centimeters per second for a thickness of at least one foot. The permeability of the soils must be demonstrated by actual measurement. At hearing, the Board questioned whether relatively impermeable soils were sufficient to protect groundwater. (Tr. 1 at 37, 92.) The Agency indicated that it believed that, given the constituents contained in landscape waste, there would be sufficient dilution, attenuation, and dispersion with a base of this hydraulic conductivity to adequately protect groundwater. (Tr. 1 at 94-95; Cima at 25-25.)

Mr. Cima testified that under the proposed conditions the rate of travel of leachate would be approximately 10 inches per month. (Tr. 1 at 38). After travel through the relatively impermeable layer, the rate of travel would be dependent on the hydraulic conductivity of the surrounding media. Mr. Cima testified that attenuation, dispersion, and degradation take place as the leachate moves through the soil environment. The soil thus treats, exchanges, and dilutes the compost leachate (Tr. 1 at 40). Mr. Cima further testified that soils can effectively treat the level of constituents in landscape waste compost leachate when the specified factors are present,



including the 1-foot thick relatively impermeable layer and the 5-foot depth to groundwater. (Tr. 1 at 40-41). Mr. Cima also testified that support for the proposed hydraulic conductivity is found in Dr. Cole's comments contained in Exhibits 1-28 and 1-108, and the Illinois Department of Energy and Natural Resources' analysis of compost in Illinois, in Exhibit 1-72. Furthermore, Mr. Cima testified that this is a standard which can be met throughout most of the State, while setting a more stringent standard would require retrofitting many existing facilities. (Cima at 43-44.) The Board accepts the Agency's justification, and incorporates the relatively impermeable standard into the proposed regulations.

In addition to actual measurement, the Agency proposed that a facility be allowed to demonstrate the relative impermeability of the soil by certification by a "qualified groundwater specialist". The Board questioned the adequacy of such a certification towards assuring that the soil types meet the required criteria. (Tr. 1 at 125.) The first concern was whether certification by a qualified groundwater specialist was truly equivalent to actual sampling. The second concern was that the regulations did not specify how the qualified groundwater specialist would determine whether the soils met the required standards, and that such determinations would ultimately be too subjective.

The Agency indicated that the two methods were equivalent to the extent practicable. (Tr. 1 at 109-110, 125-144.) The Agency believed that while direct sampling may ultimately give a more accurate reading, certification gives a reliable indication that the soils meet the necessary criteria, and is much less economically burdensome than direct sampling. (Tr. 1 at 110.) In response to the Board's concerns that certification may be too subjective, the Agency proposed that an Appendix C be added which set forth the methods to be followed by a qualified groundwater specialist in investigating soils. (Ex. 14.)

The Board is not persuaded, and does not accept the Agency's justification to allow certification by a groundwater specialist to constitute a sufficient demonstration that the facility is located on relatively impermeable soils. Despite the proposed Appendix C, such a certification is not equivalent to demonstration by actual testing that the soils have a resistance to flow equal to  $1 \times 10^{-5}$  cm per second.

Furthermore, the Board does not believe that estimates based on field investigation techniques are sufficiently reliable. The Agency's Proposed Appendix C, which prescribes methods to be followed by certified groundwater specialists, relies on the 1984 Illinois Geological Survey Circular entitled "Potential for Contamination of Shallow Aquifers in Illinois, by Richard C.

Berg, which itself states that independent sampling must be done to verify that the soils at a particular site meet the listed criteria. Also, the Agency's proposed definition of a qualified groundwater specialist is far too vague to give us confidence that such an estimate is reliable. Therefore, we find that it is not appropriate to adopt certification as an alternative.

Additionally, we believe that the costs of actual sampling are not sufficiently high to warrant the use of a less reliable technique. An estimate prepared by Kevin Rogers of EMI consulting indicated that the cost of sampling is approximately \$400 per bore hole. (Tr. 2 at 22; Ex. 108.) Mr. Rogers' total estimate for performing six borings at a 20 acre site was approximately \$5,000, which included mobilization and related expenses, drilling and sampling, backfilling and sealing bore holes, laboratory services, and technical supervision. (Tr. 2 at 22-23, Ex. 108.) Since such sampling must be conducted only one time and can be amortized over the life of the facility, it represents a small capital investment.

**Contained Composting Systems.** Regulations for contained landscape waste composting systems are set forth at Section 830.205(b)(2), as well as Section 830.205(a)(2). There is no such system known to be operating in the State at this time. The rules are anticipatory should such system exist or be built at a future date. Contained composting systems are more technologically advanced than open composting processes and are also generally more costly. They are usually used for organic waste and mixed municipal waste composting. (Cima at 20.) The additional requirements applicable to these facilities are designed to address the problems that may be caused by concentration of odors in a closed process. (Id.)

The regulations specify that where composting material or leachate comes into contact with an open surface as part of a contained composting process, the surface must meet the same relatively impermeable standard applied to open composting processes in 830.205(b)(1). Section 830.205(b)(2)(B) specifies that the surface must be capable of supporting all necessary structures and equipment.

Sections 830.205(c) through (i) contain the regulations pertaining to nuisances and fire protection. Subsection (i) requires that all utilities necessary for safe operation, including lights, power, water supply, and communication equipment be available and working. The regulations at subsections (e) through (l) set forth limitations and requirements for open burning, dust control, noise control, vector control, fire protection, litter control, management of non-compostable wastes, and mud tracking.

Section 830.205(m) sets forth operator monitoring

requirements for the facilities: the temperature of each batch; windrow; or pile on a weekly basis; the moisture level in each batch windrow or pile on a bi-weekly basis; and for aerobic composting, the oxygen level of each batch, windrow, or pile on a weekly basis. Monitoring these factors is intended to enable the operator to determine which adjustments are necessary, and provide documentation of compliance with other requirements pursuant to the regulations and facility permit.

Section 830.205(m)(2) sets forth alternative requirements for in-vessel continuous feed systems. Temperature, moisture level, and oxygen level (for aerobic processes) must be monitored daily due to the faster composting rate of these types of systems. (Cima at 31.)

#### Section 830.206 Operating Plan

Section 830.206 requires the regulated facility to have an operating plan which details the methods by which the operator will meet the requirements of Section 830.205. The Agency explained that the operating plan allows each facility to explain its individual approach, and allows a wide variety of methods to be used. (Cima at 32-33.) This information must include a description of how the facility will produce general use compost while minimizing nuisance conditions. (Cima at 32.) If the facility is not permit-exempt, this information is incorporated by reference into the facility's permit.

#### Sections 830.207 through 830.213

These rules contain operating and recordkeeping requirements for permitted and on-site/off-site facilities. These requirements are specific concerning salvaging, access control, load checking, and personnel training. These facilities must maintain contingency plans, closure plan and other records. If the facility is permitted, it must keep a copy of its permit at a definite site specified in that permit. If it is permit-exempt, the records must be available for inspection by the Agency during normal business hours and must be kept for a period of three years minimum.

#### Subpart E: Quality of End-Product Compost

This Subpart establishes standards for end-product compost which are designed to ensure that the compost is mature, of consistent quality and free of hazardous materials. Testing requirements are also set forth to ensure those goals are met so that the end-product compost can compete effectively with other forms of soil amendments.

Section 830.502 establishes a classification scheme for end-product compost. The two main categories are: 1) general use

compost, which is compost that meets the requirements set forth in 830.503, and 2) designated use compost, which is compost that fails to meet those requirements. This classification scheme follows the model drafted by the Composting Council. (Baer at 50.) General use compost is deemed to meet standards that protect the public health, safety and environment, and is, therefore, suitable for distribution and use as a soil amendment. (Baer at 50.) Designated use compost is that which fails to meet the criteria set forth in Section 830.503, and its use is therefore restricted to use as daily cover or vegetative amendment in the final layer of a landfill. Alternative uses for designated use compost are possible, but a permit for such use must be obtained from the Agency. Section 830.501(a) restates the statutory exemption from the testing requirements and quality standards for end-product compost used as daily cover or in the final layer of a landfill.

Section 830.503 imposes performance standards on general use compost which are designed to ensure that the compost does not pose a threat to human health and the environment when used as a soil amendment. General use compost must meet the standards discussed below, which the Board proposes to adopt without change from those proposed by the Agency.

The Agency and CQSTAC agreed that the regulations should include a performance standard for potentially injurious materials. (Baer at 49.) The standard set forth in Section 830.503(a) does not specify what constitutes a hazard, since the Agency believed that it is the responsibility of operators to recognize and remove any material which constitutes a hazard. (Baer at 49.) Similar performance standards have been established in Florida, New Hampshire and California. (Baer at 49.)

Section 830.503(b) states that end-product compost cannot contain man-made materials over 4 millimeters in size in excess of one percent of the volume of the end-product compost. This standard was proposed by the Composting Council. (Baer at 50; see also Ex. 1-15.) These man-made materials lower the quality of the end-product compost, can affect soil drainage, and can pose a hazard to small animals through direct ingestion. (Baer at 50.) They are also a source of litter where end-product compost is unloaded or land-applied. (Baer at 50.) A consensus of the CQSTAC agreed that the volume of these materials in end-product compost should be limited to one percent in order to protect the environment. (Baer at 51.) Further restrictions to meet the needs of consumers are left to the marketplace forces.

Section 830.503(c) states that general use compost must have a pH between 6.5 and 8.5. The pH of the end-product compost can affect the physical properties of the soil, the availability of certain minerals for use by plants, and the biological activity

in the soil. (Baer at 51-52.) The desired pH for end-product compost can vary based on the application, therefore a range is necessary to allow for this variation. (Baer at 52.) End-product compost with a pH of 5.5 can still be immature compost, while compost with a pH of 8.5 or greater could cause problems in neutralizing calcium and magnesium ions. Therefore, the Agency proposed a pH range between 6.5 and 8.5. (Baer at 52.)

Section 830.503(d) states that end-product compost must be stabilized, as demonstrated by one of the methods set forth in Section 830. Appendix B (discussed below). Stability is defined as a stage in the composting process characterized by nearly complete utilization of energy-bearing carbon compounds in the original waste and no inhibition of seed germination or plant growth. (Baer at 53.) It is characterized by low microbiological activity and low oxygen usage. (Baer at 53.) Compost which has not reached stability may cause problems by inducing high microbial activity and resultant oxygen deficiency in soils, and may indirectly cause toxicity to roots by removing nutrients or introducing pathogens. (Baer at 53.)

Section 830.503(e) states that general use compost shall not contain fecal coliform populations in excess of 1000 MPN per gram of total solids on a dry weight basis, or Salmonella species populations in excess of 3 MPN per 4 grams of total solids on a dry weight basis. This pathogen standard was derived from the USEPA pathogen reduction standard for sewage sludge. (Baer at 60.) USEPA has determined that this standard adequately reduces any risks to public health and the environment. (Ex. 1-39.)

Finally, Section 830.503(f) requires that all general use compost meet the standards for concentrations of inorganic constituents set forth in 830. Table A. Table A sets forth limits for inorganic constituents found in compost. The Board questioned whether the levels established were sufficiently protective of human health and the environment. (Tr. 1 at 207, 210.) In particular, the Board was concerned about whether the standards would protect against groundwater degradation. Similarly, Joanna Hoelscher of CBE questioned whether the levels set would be protective of human health and the environment. Although Ms. Hoelscher's primary concern was with mixed municipal waste, she raised the issue at this time since the standard for end-product compost may apply to compost generated at all compost facilities, not just landscape waste compost facilities. (Tr. 2 at 84-87.)

The Agency explained that the basis for the inorganic standards is a study conducted by the USEPA and the United States Department of Agriculture which formed the basis for the federal sludge standards. (Tr. 1 at 209; Baer at 62.) As the Agency pointed out, this was the largest risk assessment ever conducted by the USEPA. (Baer at 62.) The standards proposed by the

Agency set limits for organics at the Alternate Pollution Limits (APLs) set by USEPA for sewage sludge. The APLs establish contaminant levels considered safe for general distribution, with no long-term adverse effects when used on croplands. (Baer at 63.) The Agency further explained that this study demonstrated that applying compost with the levels of inorganics set in the regulations would not cause soil degradation regardless of the loading rate. (Tr. 1 at 207-208.)

#### Section 830.504 Testing Requirements

Operators must do testing to demonstrate compliance with these standards as set forth in Appendix B, unless an alternative method is approved in writing by the Agency. Testing to demonstrate compliance with the man-made materials, pH, and stability standards must be conducted every 5,000 cubic yards or annually, if less than 5,000 cubic yards is transported off-site annually.

Appendix B contains two methods for demonstrating that end-product compost has reached stability. The first is a self-heating test in a Dewar flask. This method has been used since 1977 for demonstrating stability of end-product compost. (Baer at 58.) The second method is a seed germination test. (Baer at 78.) No testing need be done to demonstrate compliance with the inorganic standards, unless required by the Agency in a permit condition. Again, compost which fails to meet the standards for general use compost must be further managed as landscape waste or as designated use compost. (See Section 830.508, Off-Specification Compost.)

#### Section 830.507 Sampling Methods

Section 830.507 sets forth two alternative sampling methods to be followed for obtaining a composite sampling for testing compost. Section 830.507(a) sets forth a method which uses twelve grab samples. Section 830. Table B specifies the sample holding times, sample container types, and minimal collection volumes to be used with this method. Alternatively, sampling can be done following the Test Methods for Evaluating Soil Waste, Physical/Chemical Methods (SW-846), which has been incorporated by reference into the regulations in Section 830.103.

#### Pesticide Residues

In its proposal, the Agency declined to recommend standards for pesticide levels in end-product compost. Such standards had originally been proposed by DENR, based on the U.S.D.A.'s tolerances for pesticide chemicals in or on hay crops. (Baer at 69-70.) Furthermore, Ms. Hoelscher argued that testing should be

required for pesticides and their metabolites until research supports the removal of such a requirement. (Tr. 2 at 66.) In her testimony, Ms. Hoelscher cited a report by Hegberg, Hallenbeck, Brenniman and Wadden of the Office of Technology Transfer, University of Illinois Center for Solid Waste Management Research, School of Public Health, which states that, "little published data exists" (Tr. 2 at 62), and a study by Kovacic, Bicki and Cahill of the Institute for Environmental Studies at the University of Illinois, which indicates that pesticides may persist in end-product compost (Tr. 2 at 64). Dr. William Hallenbeck also expressed concern about pesticide levels. (Public Comment #3.)

The Agency based its decision not to require pesticide testing on a statewide study of the pesticide levels in end-product compost published by DENR in August 1992. (Ex. 1-72.) In this study, DENR collected 44 samples from 11 compost facilities throughout the state in both urban and rural areas. (Baer at 70.) The study found that the average levels of pesticides detected in end-product compost were well below the allowable levels specified by U.S.D.A. Only one sample exceeded the USDA limits, and this exceedence was for the pesticide atrazine. The Agency disputed the validity of this exceedence since the DENR did not use a standardized sampling method. Thus, the sample with the atrazine exceedence could have been from compost that had not completely stabilized, and the pesticide would therefore have been subject to further degradation. (Baer at 72.)

Furthermore, the Agency indicated that the costs of testing for pesticides could be prohibitive. The tests originally proposed by DENR would cost around \$1,000. (Baer at 74; see Ex. 1-33.) The Agency also noted that no other state or foreign country has established pesticide standards for end-product compost. (Baer at 75.) For these reasons, the Board will not adopt pesticide levels for end-product compost or testing requirements for pesticides at this time.

#### Subpart F: Financial Assurance

This Subpart applies to permitted facilities only. The owner or operator of such facility is required to develop and have at the facility a financial assurance plan. This requirement is based on Section 22.33(a)(5), which states that the performance standards for landscape waste facilities must include "a financial assurance plan necessary to restore the site as specified in [an] Agency permit." (Taylor at 2.)

The Agency has interpreted this section as requiring only a showing of compliance with a permit approved plan to restore the site, not as requiring binding financial commitments. (Taylor at 2.) The regulations specify that the plan must contain, at a

minimum, the following: a written cost estimate covering the maximum cost of premature final closure; and the financial mechanism chosen by the operator to maintain financial assurance equal to or greater than the amount provided as a written cost estimate in the financial assurance plan. The operator may utilize a cash reserve fund or self-insurance.

An operator is not required to comply with the requirements of this part if the operator demonstrates that closure and post closure plans filed will result in closure of the facility in accordance with the requirements of this Part, and the operator has provided financial assurance adequate to provide for such closure.

#### Part 831: Information to be Submitted in a Permit Application

This Part sets forth the information that must be included in a permit application for all facilities required to have a permit. This Part was submitted by the Agency in an effort to codify permitting procedures that are currently in use by the Agency. The Board proposes to adopt to it unmodified.

Section 831.101 specifies that all facilities required to have permits pursuant to Section 21(d) of the Act must follow the procedures outlined in this Section in submitting a permit application. Some of the remaining regulations contain standard requirements about what must be contained in a permit application. For example, the standard requirements address signatures required, permit fees, identification numbers, permit modification requirements, closure plans, and permit renewal requirements.

Other sections are more specific as to landscape waste compost facilities. For example, Section 831.107 requires owners and operators to submit a site location map as part of the permit application, detailing information necessary to demonstrate compliance with the Act and Board regulations. For example, the site location map must include, among other things, the permitted area and all adjacent property within a 1/2 mile; the prevailing wind direction; and the limits of 10-year floodplains. Similarly, Section 831.109 requires a narrative description of the facility, with supporting documentation describing the procedures and plans that will be used at the facility, demonstrating compliance with the Act and these regulations. Section 831.110 requires a legal description of the facility boundaries.

#### Part 832: Procedural Requirements for Permitting Compost Facilities

This Part sets forth the procedural rules the Agency will follow in processing permit applications. As with Part 831, this



Part was submitted by the Agency in an effort to codify permitting procedures that are currently in use by the Agency. The Board proposes to adopt it unmodified.

For the most part the requirements for processing permits for landscape waste compost facilities tracks the rules in place for permitting other land-based facilities. For example, Section 832.104 sets forth notifications required of a permit applicant, which is largely a restatement of the applicable language in the Act and in the Illinois Notice by Publication Act. (Bakowski at 9.) The Agency shall not issue a development or construction permit for any composting facility unless the applicant has given notice thereof to: members of the General Assembly from the legislative district in which the facility is to be located; the owner of all real property within 250 feet of the site of the proposed facility; and the general public by publication in a newspaper of general circulation in the county in which the facility is to be located.

Section 832.105 sets forth the Agency's decision deadlines, which are 90 days after the application is filed, and 180 days if a public hearing is required. Section 832.105(b) states that a permit application shall not be deemed complete until the Agency has received all required information and documentation. However, if the Agency fails to notify the applicant within 30 days that the application is incomplete, then the application shall be deemed to have been complete on the date it was filed. Furthermore, the applicant may deem a notification that the application is incomplete as a denial of the application for the purposes of a permit appeal. The remainder of Section 832.105(c) addresses the applicant's appeal rights. Section 832.105(e) states that final decisions shall be deemed to have taken place on the date that they are signed. This rule differs from the landfill rules which states that such decisions are effective as of the date postmarked. (Bakowski at 9.)

The remaining six sections address the standards for issuing and denying a permit, the right to appeal under Section 40 of the Act and the term and transfer of a permit.

Subpart B contains the additional procedures for modifying a permit, and Subpart C contains the additional procedures for renewing permits. The Agency is allowed in specific situations to initiate modifications to an approved permit. Agency-initiated modifications shall not become effective until 45 days after receipt by the operator, unless enforcement is stayed during the pendency of an appeal. The proposed rule pertaining to permit renewal cross-references the requirements and time schedules for permit applications.

#### CONCLUSION

The regulations proposed today are intended to provide the regulated community with clearly defined terms of applicability, location and operating requirements for all types of landscape waste compost facilities, and rules governing the permitting of the same. Collectively, these regulations are intended to allow for the competitive operation of landscape waste compost facilities which do not impact or threaten to adversely impact health or the environment in the State of Illinois. We welcome comment by all interested persons during first notice.

#### ORDER

The Board hereby proposes the following regulations, to be codified at 35 Ill. Adm. Code Parts 830-832. The Board directs the Clerk to cause publication of these regulations in the Illinois Register for first notice.

TITLE 35: ENVIRONMENTAL PROTECTION  
 SUBTITLE G: WASTE DISPOSAL  
 CHAPTER I: POLLUTION CONTROL BOARD  
 SUBCHAPTER i: SOLID WASTE AND SPECIAL WASTE HAULING

PART 830  
 STANDARDS FOR COMPOST FACILITIES

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 WASTE COMPOST FACILITIES

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- Section
- 830.601 Scope and Applicability
- 830.602 Financial Assurance Plan
- 830.603 Written Cost Estimate
- 830.604 Financial Assurance Fund
- 830.605 Financial Assurance Mechanism
- 830.606 Financial Assurance Certification
- 830.TABLE A Inorganic Concentration Limits for General Use Compost
- 830.TABLE B Sampling and Handling Requirements
- 830.APPENDIX A Early Detection and Groundwater Monitoring Program

AUTHORITY: Implementing Sections 5, 21, 22.33, 22.34, 22.35 and 39 and authorized by Section 27 of the Environmental Protection Act. (415 ILCS 5/5, 21, 22.33, 22.34, 22.35, 27 and 38)

SOURCE: Adopted at \_\_\_\_ Ill. Reg. \_\_\_\_, effective \_\_\_\_.

NOTE: Capitalization denotes statutory language.

#### SUBPART A: GENERAL PROVISIONS

Section 830.101 Purpose, Scope and Applicability

a) The purpose of this Part is to establish:

- 1) Performance standards for landscape waste compost facilities operating in the State of Illinois; and

- 2) Testing procedures and standards for end-product compost offered, by a facility, for sale or for use in the State of Illinois.
- b) General applicability.
- 1) The provisions of this Part apply to all landscape waste compost facilities operating in the State of Illinois, except those expressly exempted pursuant to Section 830.104, and those regulated pursuant to 35 Ill. Adm. Code 391 and 40 CFR Part 503.
  - 2) Facilities regulated pursuant to this Part are not subject to 35 Ill. Adm. Code 807 or 810 through 815, except that any accumulation of materials meeting the 35 Ill. Adm. Code 810 definition of a waste pile shall be subject to 35 Ill. Adm. Code 810 through 815.
- c) Specific applicability.
- 1) The provisions of this Subpart apply to all facilities subject to this Part; the definitions set forth in Section 830.102 apply for purposes of this Part, 35 Ill. Adm. Code 831, and 35 Ill. Adm. Code 832.
  - 2) The performance standards set forth in Subpart B are applicable to landscape waste composting facilities subject to this Part.
  - 3) The performance standards set forth in Subpart E are applicable to all general use compost offered for sale or for use in Illinois; the testing requirements set forth in Subpart E are applicable to facilities offering general use compost for sale or for use in Illinois.
  - 4) The financial assurance requirements set forth in Subpart F are applicable to all facilities subject to this Part that are required to have a permit pursuant to 35 Ill. Adm. Code 831.

## Section 830.102 Definitions

Except as stated in this Section, the definition of each word or term used in this Part, 35 Ill. Adm. Code 831 and 35 Ill. Adm. Code 832 shall be the same as that applied to the same word or term in the Environmental Protection Act ("Act") (415 ILCS 5/1 et seq.)

"Act" means the Environmental Protection Act, (415 ILCS 5/1 et. seq).

"Additive," means components, other than landscape waste, added to composting material to maximize the decomposition process by adjusting any of the following: moisture, temperature, oxygen transfer, pH, carbon to nitrogen ratio, biology or biochemistry of the composting material.

"Aerated static pile" means a composting system that uses a series of perforated pipes or equivalent air distribution systems running underneath a compost pile and connected to a blower that either draws or blows air through the piles. Little or no pile agitation or turning is performed.

"Aerobic composting" means a process managed and maintained to promote maturation of organic materials by microbial action in the presence of free oxygen contained within the gas in the composting material.

"Aerobic" means done in the presence of free oxygen.

"Agency" means the Illinois Environmental Protection Agency.

"AGRONOMIC RATES" MEANS THE APPLICATION OF NOT MORE THAN 20 TONS PER ACRE PER YEAR, EXCEPT THAT THE AGENCY MAY ALLOW A HIGHER RATE FOR INDIVIDUAL SITES WHERE THE OWNER OR OPERATOR HAS DEMONSTRATED TO THE AGENCY THAT THE SITE'S SOIL CHARACTERISTICS OR CROP NEEDS REQUIRE A HIGHER RATE. (Section 21(q) of the Act.)

"Anaerobic composting" means a process managed and maintained to promote maturation of organic materials by microbial action in the absence of free oxygen within the gas in the composting material.

"Bad Load" means a load of material that would, if accepted, cause or contribute to a violation of the Act, even if managed in accordance with these regulations and any facility permit conditions.

"Batch" means material used to fill the vessel of a contained composting system.

"Board" means the Illinois Pollution Control Board.

"Bulking agent" means a material used to increase porosity, to improve aeration, or to absorb moisture from decomposing waste.

"Closure" means the process of terminating composting facility operations pursuant to applicable Sections in this Part, 35 Ill. Adm. Code 831 and 35 Ill. Adm. Code 832, beginning upon permit expiration without filing for renewal, intentional cessation of waste acceptance or cessation of waste acceptance for greater than 180 consecutive days, unless an alternative time frame is approved in a closure plan.

"Commercial activity" means any activity involving the transfer of money.

"COMPOST" MEANS THE HUMUS-LIKE PRODUCT OF THE PROCESS OF COMPOSTING WASTE, WHICH MAY BE USED AS A SOIL CONDITIONER. (Section 3.70 of the Act.)

"COMPOSTING" MEANS THE BIOLOGICAL TREATMENT PROCESS BY WHICH MICROORGANISMS DECOMPOSE THE ORGANIC FRACTION OF THE WASTE, PRODUCING COMPOST. (Section 3.70 of the Act.) Land application is not composting.

"Composting area" means the area of a composting facility in which waste, composting material or undistributed end-product compost is unloaded, stored, staged, stockpiled, treated or otherwise managed.

"Composting material" means solid wastes that are in the process of being composted.

"Composting operation" means an enterprise engaged in the production and distribution of end-product compost.

"Contained composting process" means a method of producing compost in which the composting material is confined or contained in a vessel or structure which both protects the material from the elements and controls the moisture and air flow.

"Designated use compost" means end-product compost which does not meet the standards set forth in Section 830.503 of this Part.

"Dewar flask" means an insulated container used especially to store liquefied gases, having a double wall, an evacuated space between the walls and silvered surfaces.

"Domestic sewage" means waste water derived principally from dwellings, business or office buildings, institutions, food service establishments, and similar facilities.

"End-product compost" means organic material that has been processed to maturity and classified as general use compost or designated use compost in accordance with this Part.

"Facility" means any landscape waste compost facility.

"GARBAGE" IS WASTE RESULTING FROM THE HANDLING, PROCESSING, PREPARATION, COOKING, AND CONSUMPTION OF FOOD, AND WASTES FROM THE HANDLING, PROCESSING, STORAGE, AND SALE OF PRODUCE (Section 3.11 of the Act.)

"Garden compost operation" means an operation which (1) has no more than 25 cubic yards of landscape waste, composting material or end-product compost on-site at any one time and (2) is not engaging in commercial activity.

"General use compost" means end-product compost which meets the standards set forth in Section 830.503 of this Part.

"GROUNDWATER" MEANS UNDERGROUND WATER WHICH OCCURS WITHIN THE SATURATED ZONE AND GEOLOGIC MATERIALS WHERE THE FLUID PRESSURE IN THE PORE SPACE IS EQUAL TO OR GREATER THAN ATMOSPHERIC PRESSURE. (Section 3(b) of the Groundwater Protection Act (415 ILCS 55/1 et seq.))

"In-vessel composting" means a diverse group of composting methods in which composting materials are contained in a building, reactor, or vessel.

"In-vessel continuous feed system" means a method of producing composting in which the raw composting material is delivered on a continuous basis to a reactor.

"Insulating material" means material used for the purpose of preventing the passage of heat out of a windrow or other pile. Insulating material includes, but is not limited to, end-product compost, foam, or soil. Insulating material does not include composting material that has not reached maturity.

"Land Application" means the spreading of waste, at an agronomic rate, as a soil amendment to improve soil structure and crop productivity.

"LANDSCAPE WASTE" MEANS ALL ACCUMULATIONS OF GRASS OR SHRUBBERY CUTTINGS, LEAVES, TREE LIMBS AND OTHER MATERIALS ACCUMULATED AS THE RESULT OF THE CARE OF LAWNS, SHRUBBERY, VINES AND TREES (Section 3.20 of the

Act).

"Landscape waste compost facility" means an entire landscape waste composting operation, with the exception of a garden compost operation.

"Landscape waste leachate" means a liquid containing any of the following: waste constituents originating in landscape waste; landscape waste composting material; additives; and end-product compost.

"Maturity" means a state which is characteristically: generally dark in color; humus-like; crumbly in texture; not objectionable in odor; resembling rich topsoil; and bearing little resemblance in physical form to the waste from which derived.

"Modification" means a permit revision authorizing either an extension of the current permit term or a physical or operational change at a composting facility which involves different or additional processes, increases the capacity of the operation, requires construction, or alters a requirement set forth as a special condition in the existing permit.

"MPN" means most probable number, a mathematical inference of the viable count from the fraction of cultures that fail to show growth in a series of tubes containing a suitable medium.

"Nearest Residence" means an occupied dwelling and adjacent property commonly used by inhabitants of the dwelling.

"Non-compostable material" means items not subject to microbial decomposition under conditions used to compost waste.

"Off-site" means not on-site.

"On-farm compost operation" means a landscape compost facility which satisfies all of the criteria set forth in section 830.106.

"On-site" means on the same or geographically contiguous property which may be divided by public or private right-of-way, provided the entrance and exit between the properties is at a crossroads intersection and access is by crossing as opposed to going along the right-of-way. Noncontiguous properties owned by the same person but connected by a right-of-way which the owner controls and to which the public does not have



access are also considered on-site property.

"On-site facility" means a landscape waste compost facility at which the landscape waste composted is generated only on-site and the end-product is not offered for off-site sale or use.

"On-site/off-site facility" means a landscape waste compost facility at which the landscape waste composted is generated only on-site and the end-product is offered for off-site sale or use.

"Open composting process" means a method of producing compost without protecting the compost from weather conditions.

"Operator" means the individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, political subdivision, state agency, or any other legal entity that is responsible for the operation of the facility. The property owner, if different from the operator, shall be deemed the operator in the event that the operator abandons the facility.

"Origin" means the legal entity from which a substance has been obtained.

"Processing into windrows or other piles" means placement of waste materials into windrows or other piles of a size, structure, and mixture adequate to begin the composting process.

"Property owner" means the owner of the land on which the composting operation is located or proposed to be located, except that if the operator has obtained a lease for at least the duration of the proposed facility permit plus one year, then "property owner" shall mean the operator of the composting operation.

"Registered professional engineer" means a person registered under the Illinois Professional Engineering Practice Act (225 ILCS 325/1 et seq. (1993)).

"Relatively impermeable soil" means a soil located above the water table that has a hydraulic conductivity no greater than  $1 \times 10^{-5}$  centimeters per second for a thickness of at least one foot.

"Runoff" means water resulting from precipitation that flows overland before it enters a defined stream

channel, excluding any portion of such overland flow that infiltrates into the ground before it reaches the stream channel, and any precipitation that falls directly into a stream channel.

"Runon" means any rainwater, leachate or other liquid that drains over land onto any part of a facility.

"Salvaging" means the return of waste materials to beneficial use.

"Salvaging operations" means those activities that recover waste for beneficial use, so long as the activity is done under the supervision of the compost facility's operator, does not interfere with or otherwise delay the operations of the compost facility, and results in the removal of all materials for salvaging from the compost facility daily or separation by type and storage in a manner that does not create a nuisance, harbor vectors, or cause an unsightly appearance.

"SITE" MEANS ANY LOCATION, PLACE, TRACT OF LAND, AND FACILITIES, INCLUDING BUT NOT LIMITED TO BUILDINGS, AND IMPROVEMENTS USED FOR PURPOSES SUBJECT TO REGULATION OR CONTROL BY THIS ACT OR REGULATIONS THEREUNDER. (Section 3.43 of the Act.)

"Septage" means the liquid portions and sludge residues removed from septic tanks.

"Sewage" means water-carried human and related waste from any source.

"SLUDGE" MEANS ANY SOLID, SEMISOLID, OR LIQUID WASTE GENERATED FROM A MUNICIPAL, COMMERCIAL, OR INDUSTRIAL WASTEWATER TREATMENT PLANT, WATER SUPPLY TREATMENT PLANT, OR AIR POLLUTION CONTROL FACILITY, OR ANY OTHER SUCH WASTE HAVING SIMILAR CHARACTERISTICS AND EFFECTS. (Section 3.44 of the Act.)

"SPECIAL WASTE" MEANS ANY INDUSTRIAL PROCESS WASTE, POLLUTION CONTROL WASTE OR HAZARDOUS WASTE, EXCEPT AS DETERMINED PURSUANT TO SECTION 22.9 OF THE ACT and 35 Ill. Adm. Code 808. (Section 3.45 of the Act.)

"Stability" means a state in which the compost decomposes slowly even under conditions favorable for microbial activity.

"Staging area" means an area within a facility where

raw material for composting is processed, temporarily stored in accordance with the standards set forth in 830.205(a)(1)(A), loaded or unloaded.

"Surface water" means all tributary streams and drainage basins, including natural lakes and artificial reservoirs, which may affect a specific water supply above the point of water supply intake. Such term does not include treatment works (such as a retention basin).

"Ten (10) year, 24 hour precipitation event" means a precipitation event of 24 hour duration with a probable recurrence interval of once in 10 years.

"20-20-20 NPK" means a fertilizer containing 20 percent total nitrogen (N), 20 percent available phosphoric acid ( $P_2O_5$ ) and 20 percent soluble potash ( $K_2O$ ).

"Unacceptable load" means a load containing waste a facility is not authorized to accept.

"Underground water" means all water beneath the land surface.

"Vector" means any living agent, other than human, capable of transmitting, directly or indirectly, an infectious disease.

"Water table" means the boundary between the unsaturated and saturated zones of geologic materials or the surface on which the fluid pressure in the pores of a porous medium is exactly at atmospheric pressure.

"Windrow" means an elongated pile of solid waste or composting material constructed to promote composting.

"Woody landscape waste" means plant material greater than two inches in diameter.

#### Section 830.103      Incorporations by Reference

The Board incorporates the following material by reference. These incorporations include no later amendments or editions.

- a) American Public Health Association et al., 1015 Fifteenth Street, N.W., Washington, D.C. 20005, "Standard Methods for the Examination of Water and Wastewater," 18th Edition, 1992.

- b) "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," (Third Edition, September, 1986, as amended by Revision I (December, 1987), Final Update I (November, 1992) and Proposed Update II (July, 1992)), United States Environmental Protection Agency, Washington, D.C., EPA Publication Number SW-846.
- c) North Dakota Agricultural Experiment Station, North Dakota State University, Fargo, North Dakota 58105, "Recommended Chemical Soil Test Procedures for the North Central Region," North Central Regional Publication No. 221 (Revised), Bulletin No.499 (Revised), October 1988.

#### Section 830.104 Exempt Operations and Activities

- a) The requirements of this Part shall not apply to a garden compost operation as defined at Section 830.102.
- b) The testing requirements set forth in Subpart E of this Part SHALL NOT APPLY TO END-PRODUCT COMPOST USED AS A DAILY COVER OR VEGETATIVE AMENDMENT IN THE FINAL LAYER of a landfill. (Section 22.33(c) of the Act.)
- c) Notwithstanding subsection (b) of this Section, end-product compost shall not be used as daily cover or vegetative amendments in the final layer of a landfill unless such use is approved in the landfill's permit.

#### Section 830.105 Permit-Exempt Facilities & Activities

The following types of facilities or activities are not required to have a permit pursuant to this Part:

- a) A LANDSCAPE WASTE COMPOSTING OPERATION FOR LANDSCAPE WASTES GENERATED BY SUCH facility's OWN ACTIVITIES WHICH ARE STORED, TREATED OR DISPOSED OF WITHIN THE SITE WHERE SUCH WASTES ARE GENERATED (Section 21(q)(1) of the Act); OR
- b) APPLYING LANDSCAPE WASTE OR COMPOSTED LANDSCAPE WASTE AT AGRONOMIC RATES (Section 21(q)(2) of the Act); OR
- c) A LANDSCAPE WASTE COMPOSTING FACILITY ON A FARM WHICH MEETS ALL OF the criteria set forth at Section 830.106. (Section 21(q)(3) of the Act.)

#### Section 830.106 On-Farm Compost Operation

A landscape compost operation on a farm must satisfy all of the following criteria:

- a) THE COMPOSTING FACILITY IS OPERATED BY THE FARMER ON PROPERTY ON WHICH THE COMPOSTING MATERIAL IS UTILIZED, AND THE COMPOSTING FACILITY CONSTITUTES NO MORE THAN 2% OF THE PROPERTY'S TOTAL ACREAGE, EXCEPT THAT THE AGENCY MAY ALLOW A HIGHER PERCENTAGE FOR INDIVIDUAL SITES WHERE THE OWNER OR OPERATOR HAS DEMONSTRATED TO THE AGENCY THAT THE SITE'S SOIL CHARACTERISTICS OR CROP NEEDS REQUIRE A HIGHER RATE;
- b) THE PROPERTY ON WHICH THE COMPOSTING FACILITY IS LOCATED, AND ANY ASSOCIATED PROPERTY ON WHICH THE COMPOST IS USED, IS PRINCIPALLY AND DILIGENTLY DEVOTED TO THE PRODUCTION OF AGRICULTURAL CROPS AND IS NOT OWNED, LEASED OR OTHERWISE CONTROLLED BY ANY WASTE HAULER OR GENERATOR OF NONAGRICULTURAL COMPOST MATERIALS, AND THE OPERATOR OF THE COMPOSTING FACILITY IS NOT AN EMPLOYEE, PARTNER, SHAREHOLDER, OR IN ANY WAY CONNECTED WITH OR CONTROLLED BY ANY SUCH WASTE HAULER OR GENERATOR;
- c) ALL COMPOST GENERATED BY THE COMPOSTING FACILITY IS APPLIED AT AGRONOMIC RATES AND USED AS MULCH, FERTILIZER OR SOIL CONDITIONER ON LAND ACTUALLY FARMED BY THE PERSON OPERATING THE COMPOSTING FACILITY, AND THE FINISHED COMPOST IS NOT STORED AT THE COMPOSTING SITE FOR A PERIOD LONGER THAN 18 MONTHS PRIOR TO ITS APPLICATION AS MULCH, FERTILIZER, OR SOIL CONDITIONER; and
- d) ALL COMPOSTING MATERIAL WAS PLACED MORE THAN 200 FEET FROM THE NEAREST POTABLE WATER SUPPLY WELL, WAS PLACED OUTSIDE THE BOUNDARY OF THE 10-YEAR FLOODPLAIN OR ON A PART OF THE SITE THAT IS FLOODPROOFED, WAS PLACED AT LEAST 1/4 MILE FROM THE NEAREST RESIDENCE (OTHER THAN A RESIDENCE LOCATED ON THE SAME PROPERTY AS THE FACILITY) AND THERE ARE NOT MORE THAN 10 OCCUPIED NON-FARM RESIDENCES WITHIN 1/2 MILE OF THE BOUNDARIES OF THE SITE ON THE DATE OF APPLICATION, AND WAS PLACED MORE THAN 5 FEET ABOVE THE WATER TABLE.
- e) THE OWNER OR OPERATOR, BY JANUARY 1, 1991 (OR THE JANUARY 1 FOLLOWING COMMENCEMENT OF OPERATION, WHICHEVER IS LATER) AND JANUARY 1 OF EACH YEAR THEREAFTER shall:
  - 1) REGISTER THE SITE WITH THE AGENCY, by obtaining an Illinois Inventory Identification Number from the Agency;
  - 2) File a report with the Agency, on a form provided by the Agency, certifying at a minimum:

- A) THE VOLUME OF COMPOSTING MATERIAL RECEIVED AND USED AT THE SITE during the previous calendar year; and
- B) The volume of compost produced during the previous calendar year.

(Section 21(q) of the Act.)

Section 830.107 Compliance Date

- a) All operators of existing facilities shall comply with the applicable minimum performance standards and recordkeeping requirements set forth in Section 830.202 of this Part by the effective date of these regulations.
- b) Within one year of the effective date of these regulations, all operators of existing facilities shall certify compliance with the applicable provisions set forth in Sections 830.206, 830.210, 830.211, 830.504 and 830.507. Certification of compliance with Sections 830.206, 830.210, 830.211, 830.504 and 830.507 shall be done by completing and filing with the Agency a form provided by the Agency.
- c) Within one year of the effective date of these regulations, all operators of existing permitted facilities shall certify compliance with Subpart F of this Part. Such certification of compliance shall be done as specified in Section 830.606.
- d) Each existing permitted facility shall, in addition, remain in compliance with all conditions set forth in its current facility permit, pending permit expiration or modification authorizing construction, resulting in an increase in capacity, transferring ownership or extending the current permit term.
- e) Upon application either for permit renewal or for modification authorizing construction, resulting in an increase in capacity, extending the current permit term or initiated by the Agency pursuant to 35 Ill. Adm. Code 832.201, an existing permitted facility shall demonstrate, as part of the permit application, compliance with all provisions of this Part applicable to permitted facilities.

Section 830.108 Severability

If any provision of these regulations is adjudged invalid, or if the application thereof to any person or in any circumstance is

adjudged invalid, such invalidity shall not affect the validity of either this Part as a whole or any Subpart, Section, Subsection, sentence or clause thereof not adjudged invalid.

**SUBPART B: STANDARDS FOR OWNERS AND OPERATORS OF LANDSCAPE WASTE COMPOST FACILITIES**

**Section 830.201 Scope and Applicability**

- a) Section 830.202 is applicable to all landscape waste compost facilities subject to this Part, except any on-site landscape waste compost facility.
- b) Section 830.203 is applicable to all landscape waste compost facilities subject to this Part, except:
  - 1) any on-farm compost operation;
  - 2) any on-site landscape waste facility which composts less than 100 cubic yards of landscape waste per year.
- c) Sections 830.204 through 830.213 are applicable to all landscape waste compost facilities that:
  - 1) are required to have a permit; or
  - 2) offer end-product compost for off-site sale or use and compost 100 cubic yards or more of landscape waste per year.

**Section 830.202 Minimum Performance Standards and Reporting Requirements**

Except as otherwise provided at Section 830.201(a), any operator of a landscape waste compost facility subject to this Part shall comply with the following requirements:

- a) The composting material shall not contain any domestic sewage, sewage sludge or septage.
- b) The operator shall take specific measures to control odors and other sources of nuisance so as not to cause or contribute to a violation of the Act. Specific measures an operator should take to control odor and other sources of nuisance during composting include but are not limited to: timely processing of incoming material; maintenance of optimum temperature and moisture in the composting material; preventative measures to control dust and noise generated from truck or equipment operation; and preventative measures to

control odor during turning, by taking into consideration the time of day, the wind direction, and the moisture level, estimated odor potential, and degree of maturity of the composting material.

- c) The operator shall have available for inspection a plan for the intended use of end-product compost and a contingency plan for handling end-product compost and composting material that does not meet the general use compost standards set forth in Section 830.503 of this Part. Such a plan may include, but is not limited to, consideration of the following: on-site usage; identification of potential buyers including but not limited to gardeners, landscapers, vegetable farmers, turf growers, operators of golf courses, and ornamental crop growers; advertising and labeling; management of inventory to provide a reliable supply; establishing markets and matching the product to customers' desires and needs; maintaining consistent product quality for such factors as stability, color, texture, odor, pH, and man-made inerts; competitive pricing with other composts and soil amendments, such as topsoil and peat moss; transportation costs; bagging versus bulk sales; and removal of end-product compost that cannot be used in the expected manner because it does not meet the general use compost standards due to changes in market conditions.
- d) Landscape waste shall be processed within five days of receipt into windrows or other piles which promote proper conditions for composting. Incoming leaves, brush or woody landscape waste may be stored in designated areas for use as a carbon source and bulking agent, rather than being processed into windrows or other piles.
- e) The facility shall be designed and constructed so that runoff is diverted around the composting area. The runoff from the facility resulting from precipitation less than or equal to the 10 year, 24 hour precipitation event shall be controlled so as not to cause or contribute to a violation of the Act.
- f) The facility shall be constructed and maintained to have an accessible clear space between windrows or other piles, suitable for housekeeping operations, visual inspection of piling areas and fire fighting operations.
- g) General use compost, if offered for sale or use, must meet the performance standards set forth in Section 830.503.



h) Reporting Requirements.

- 1) The operator of any facility required, pursuant to 35 Ill. Adm. Code 831, to have a permit SHALL SUBMIT A WRITTEN ANNUAL STATEMENT TO THE AGENCY, on a form provided by the Agency, ON OR BEFORE APRIL 1 OF EACH YEAR THAT INCLUDES:
  - A) AN ESTIMATE OF THE AMOUNT OF MATERIAL, IN TONS, RECEIVED FOR COMPOSTING in the previous calendar year (Section 39(m) of the Act); and
  - B) An estimate of the amount and disposition of compost material (i.e., end-product compost, chipped/shredded brush) in the previous calendar year.
- 2) For any permit-exempt facility composting over 100 cubic yards of landscape waste per year, a report shall be filed by April 1st of each year with the Agency, on a form provided by the Agency, stating, at a minimum, the facility location, an estimate of the amount of material, in cubic yards or tons, received for composting in the previous calendar year, and the total amount of end-product compost still on-site, used or sold during the previous calendar year.

i) Closure.

- 1) Unless otherwise authorized in a facility permit, all landscape waste, composting material, end-product compost, and additives shall be removed from the facility within 180 days following the beginning of closure.
- 2) An operator of a facility regulated under this Subpart shall close the facility in a manner which:
  - A) Minimizes the need for further maintenance; and
  - B) Controls, minimizes or eliminates the release of landscape waste, landscape waste constituents, landscape waste leachate, and composting constituents to the groundwater or surface waters or to the atmosphere to the extent necessary to prevent threats to human health or the environment.

- 3) By April 1 of the year following completion of closure, the operator of a facility required to report pursuant to subsection (h)(2) of this Section shall file a report with the Agency verifying that closure was completed in accordance with this Section in the previous calendar year.

Section 830.203            Location Standards for Landscape Waste  
Compost Facilities

Except as otherwise provided at Section 830.201(b), the landscape waste compost facility shall comply with the following:

- a) The composting area of the facility must include A SETBACK OF AT LEAST 200 FEET FROM THE NEAREST POTABLE WATER SUPPLY WELL. (Section 39(m) of the Act.)
- b) The composting area of the facility must be LOCATED OUTSIDE THE BOUNDARY OF THE 10-YEAR FLOODPLAIN OR THE SITE SHALL BE FLOODPROOFED. (Section 39(m) of the Act.)
- c) The composting area of the facility must be LOCATED SO AS TO MINIMIZE INCOMPATIBILITY WITH THE CHARACTER OF THE SURROUNDING AREA, INCLUDING AT LEAST A 200 FOOT SETBACK FROM ANY RESIDENCE, AND IN THE CASE OF A FACILITY THAT IS DEVELOPED OR THE PERMITTED COMPOSTING AREA OF WHICH IS EXPANDED AFTER NOVEMBER 17, 1991, THE COMPOSTING AREA shall be LOCATED AT LEAST 1/8 MILE FROM THE NEAREST RESIDENCE (OTHER THAN A RESIDENCE LOCATED ON THE SAME PROPERTY AS THE FACILITY). (Section 39(m) of the Act.) If, at the time the facility permit application is deemed complete by the Agency pursuant to 35 Ill. Adm. Code 832, the composting area of the facility is located within 1/4 mile of the nearest off-site residence or within 1/2 mile of the nearest platted subdivision containing a residence, or if more than 10 residences are located within 1/2 mile of the boundaries of the facility, an additional standard, set forth in Section 830.205(a)(2)(B), shall apply to help minimize incompatibility with the character of the surrounding area. The Agency may determine that the additional standards of 830.205(a)(2)(B) apply to composting areas of other facilities considering population density, prevailing winds, facility size, proposed capacity, and topography.
- d) The composting area of the facility must be designed to PREVENT ANY COMPOST MATERIAL FROM BEING PLACED WITHIN 5 FEET OF THE WATER TABLE, to ADEQUATELY CONTROL RUNOFF FROM THE SITE, AND to COLLECT AND MANAGE ANY landscape

waste LEACHATE THAT IS GENERATED ON THE SITE. (Section 39(m) of the Act.) Compliance with the water table distance requirement may be demonstrated by either of the following means:

- 1) Using published water table maps or other published documentation to establish the location of the water table in relation to site elevation; or
  - 2) Actual measuring of the water table elevation at least once per month for three consecutive months.
- e) The facility must meet all requirements under the Wild and Scenic Rivers Act (16 U.S.C. 1271 et seq.).
- f) The facility must not restrict the flow of a 100-year flood, result in washout of landscape waste from a 100-year flood, or reduce the temporary water storage capacity of the 100-year floodplain, unless measures are undertaken to provide alternative storage capacity, such as lagoons, holding tanks, or provision of drainage around structures at the facility.
- g) The facility must not be located in any area where it may pose a threat of harm or destruction to the features for which:
- 1) An irreplaceable historic or archaeological site has been listed pursuant to the National Historic Preservation Act (16 U.S.C. 470 et seq.) or the Illinois Historic Preservation Act (20 ILCS 3410);
  - 2) A natural landmark has been designated by the National Park Service or the Illinois State Historic Preservation Office; or
  - 3) A natural area has been designated as a Dedicated Illinois Nature Preserve pursuant to the Illinois Natural Areas Preservation Act (525 ILCS 30).
- h) The facility must not be located in any area where it may jeopardize the continued existence of any designated endangered species, result in the destruction or adverse modification of the critical habitat for such species, or cause or contribute to the taking of any endangered or threatened species of plant, fish or wildlife listed pursuant to the Endangered Species Act (16 U.S.C. 1531 et. seq.), or the Illinois Endangered Species Protection Act (520 ILCS 10).

Section 830.204      Additional Stormwater and Landscape Waste  
Leachate Controls at Landscape Waste Compost  
Facilities

In addition to the leachate control requirement set forth in Section 830.202(e), landscape waste compost facilities must comply with the following:

- a)    Stormwater or other water which comes into contact with landscape waste received, stored, processed or composted, or which mixes with landscape waste leachate, must be considered landscape waste leachate and must be collected and reused in the process, properly disposed of off-site, or treated as necessary prior to discharge off-site to meet applicable standards of 35 Ill. Adm. Code Subtitle C.
- b)    Ponding of landscape waste leachate within the facility shall be prevented, except to the extent done by design and approved in writing by the Agency or facility permit.
- c)    Soil surfaces used for composting must be allowed to dry periodically in order to promote aerobic conditions in the soil subsurface.

Section 830.205      Additional Operating Standards for Landscape  
Waste Compost Facilities

Landscape waste compost facilities must comply with the following operating standards, in addition to those set forth in Sections 830.202 and 830.204:

- a)    Composting Process
  - 1)    Landscape waste compost facilities shall meet the following composting process standards:
    - A)    Landscape waste shall be processed within 24 hours of receipt at the facility into windrows, other piles or a contained composting system providing proper conditions for composting. Incoming leaves, and brush or woody landscape waste, may be stored in designated areas for use as a carbon source and bulking agent, if so provided as a permit condition, rather than being processed in windrows or other piles.
    - B)    If the location of the facility is such that additional standards are required, pursuant to Section 830.203(c), to help minimize

incompatibility with the character of the surrounding area, then landscape waste shall be processed by the end of the operating day on which the landscape waste is received into windrows, other piles or a contained composting system providing proper conditions for composting.

- C) Unless the facility is designed for anaerobic composting, the operator shall take measures to adjust the oxygen level, as necessary, to promote aerobic composting. Aeration intensity shall be altered to suit the varying oxygen requirements that different landscape wastes may have.
  - D) The operator shall take measures to maintain the moisture level of the composting material within a range of 40% to 60% on a dry weight basis.
  - E) The staging area shall be adequate in size and design to facilitate the unloading of landscape waste from delivery vehicles and the unobstructed maneuvering of vehicles and other equipment.
  - F) Neither landscape waste nor composting material shall be mixed with end-product compost ready to be sold or offered for use. This prohibition shall not apply to the use of end-product compost as an amendment to composting material.
  - G) The facility shall have sufficient equipment and personnel to process incoming volumes of landscape waste accepted within the time frames required in this Section, and sufficient capacity to handle projected incoming volumes of landscape waste.
  - H) The operator shall obtain written authorization from the Agency to use any additive, other than water, prior to its use. Unless otherwise authorized any additive, or combination of additives, other than water, must not exceed 10%, by volume, of the composting material.
- 2) An operator of a landscape waste compost facility using an open composting process shall turn each windrow or other pile at least four times per year

and not less than once every six months. This provision does not apply to composting systems designed for anaerobic conditions.

- 3) An operator of a landscape waste compost facility using a contained composting process shall have mechanisms to control moisture, air flow and air emissions. These mechanisms shall be operated and maintained throughout the landscape waste composting process as specified in any permit required pursuant to 35 Ill. Adm. Code 831.
- 4) Operators of facilities required to process composting material to further reduce pathogens shall comply with the applicable thermal processing requirement among the following:
  - A) If the facility uses a windrow composting process, during a 15 consecutive day period the temperature throughout each windrow shall be maintained at 55°C or greater and, during the same period, each windrow shall be turned a minimum of 5 times;
  - B) If the facility uses an aerated static pile composting process, the composting material shall be covered with 6 to 12 inches of insulating material, and the temperature throughout each pile material shall be maintained at 55°C or greater for 3 consecutive days; and
  - C) If the facility uses an in-vessel composting process, the temperature of the composting material throughout the mixture shall be maintained at 55°C or greater for 3 consecutive days.

b) Composting Surface

1) Open Composting Processes

- A) Composting areas shall be located on relatively impermeable soils, as demonstrated either by actual measurement or subject to an early detection and groundwater monitoring program, pursuant to subsection (m)(4) of this Section.

- B) The composting surface shall be constructed and maintained to allow:
  - i) Diversion of runoff waters away from the landscape waste and compost;
  - ii) Management of runoff waters and landscape waste leachate in accordance with Section 830.204; and
  - iii) Facility operation during all weather conditions.
- C) The surface of the landscape waste composting area of the facility shall be sloped at two percent or greater unless an alternative water management system to promote drainage and to prevent surface water ponding is approved in the facility permit, or authorized in writing by the Agency.

2) Contained Composting Processes

- A) Composting areas at facilities at which composting material or leachate comes into contact with an open surface shall be:
  - i) Located on relatively impermeable soils, as demonstrated by actual measurement; or
  - ii) Subject to an early detection and groundwater monitoring program, pursuant to subsection (m)(4) of this Section.
- B) The composting surface must support all structures and equipment.
- c) Utilities. All utilities necessary for safe operation in compliance with the requirements of this Part, including, but not limited to, lights, power, water supply and communications equipment, must be available at the facility at all times.
- d) Maintenance. The operator shall maintain and operate all systems and related appurtenances and structures in a manner that facilitates proper operations in compliance with the requirements of this Part. If a breakdown of equipment occurs, standby equipment shall be used or additional equipment brought on site as necessary to comply with the requirements of this Part

and any pertinent permit conditions.

- e) Open Burning. Open burning is prohibited except in accordance with 35 Ill. Adm. Code 200 through 245.
- f) Dust Control. The operator shall implement methods for controlling dust in accordance with Subparts B and K of 35 Ill. Adm. Code 212.
- g) Noise Control. The facility shall be designed, constructed, operated and maintained so as not to cause or contribute to a violation of 35 Ill. Adm. Code 900 through 905 or of Section 24 of the Act.
- h) Vector Control. Insects, rodents, and other vectors shall be controlled so as not to cause or contribute to a violation of the Act.
- i) Fire Protection. The operator shall institute fire protection measures including, but not limited to, maintaining a supply of water and radio or telephone access to the nearest fire department. Fire extinguishers shall be provided at two separate locations within the facility.
- j) Litter Control. The operator shall control litter at the facility. At a minimum:
  - 1) The operator shall patrol the facility daily to check for litter accumulation. All litter shall be collected in a secure container for later disposal; and
  - 2) Litter shall be confined to the property on which the facility is located. At the conclusion of each day of operation, any litter strewn beyond the confines of the facility shall be collected and disposed of at a facility approved to receive such waste in accordance with the applicable Board regulations.
- k) Management of Non-compostable Wastes. The operator shall develop management procedures for collection, containment and disposal of non-compostable wastes received at the facility. Disposal shall be at a facility approved to receive such waste in accordance with applicable Board regulations at 35 Ill. Adm. Code 810 through 815.
- l) Mud Tracking. The operator shall implement measures, such as the use of wheel washing units or rumble strips, to prevent tracking of mud by delivery vehicles



onto public roadways.

m) Monitoring

1) For batch, windrow and pile systems:

- A) The temperature of each batch, windrow or pile of composting material shall be monitored on a weekly basis;
- B) The moisture level in each batch, windrow or pile of composting material shall be monitored once every two weeks; and
- C) For aerobic composting, the oxygen level of each batch, windrow or pile of composting material shall be monitored weekly.

2) For in-vessel continuous feed systems:

- A) The temperature of the composting material shall be monitored daily;
- B) The moisture of the composting material shall be monitored daily, unless otherwise authorized by the Agency in a facility permit; and
- C) For aerobic composting by means of an in-vessel continuous feed system, the oxygen level of the composting material shall be monitored daily.

3) Early detection and groundwater monitoring, if required pursuant to Section 830.205(b)(1)(A) or Section 830.205(b)(2)(A), shall be done in accordance with 35 Ill. Adm. Code 830.Appendix A.

Section 830.206      Operating Plan for Landscape Waste Compost Facilities

All activities associated with composting must be conducted in accordance with an operating plan containing, at a minimum, the following information:

- a) Designation of personnel, by title, responsible for operation, control and maintenance of facility;
- b) A description of the anticipated quantity and variation

throughout the year of waste to be received;

- c) Methods for measuring incoming waste;
- d) Methods to control the types of waste received, in accordance with Section 830.209, and methods for removing, recovering and disposing of non-compostables, in accordance with Sections 830.205(k), 830.207 and 830.209;
- e) Methods to control traffic and to expedite unloading in accordance with Section 830.205(a)(1)(E);
- f) Management procedures that will be used in composting, which must include:
  - 1) A description of any treatment the wastes will receive prior to windrowing (e.g., chipping, shredding) and the maximum length of time required to process each day's receipt of waste into windrows;
  - 2) The specifications to which the windrows will be constructed (width, height, and length) and calculation of the capacity of the facility;
  - 3) A list of additives, including the type, amount and origin, that will be used to adjust moisture, temperature, oxygen transfer, pH, carbon to nitrogen ratio, or biological characteristics of the composting material, and rates and methods of application of such additives; and
  - 4) An estimate of the length of time necessary to complete the composting process.
- g) Methods to minimize odors. The operating plan must include:
  - 1) A management plan for bad loads;
  - 2) Specification of a readily-available supply of bulking agents, additives or odor control agents;
  - 3) A demonstration that the processing and management of anticipated quantities of landscape waste can be accomplished during all weather conditions;
  - 4) Procedures for receiving and recording odor complaints, investigating immediately in response to any odor complaints to determine the cause of odor emissions, and remedying promptly any odor

problem at the facility;

- 5) Procedures for avoiding delay in processing grass clippings and other succulent material;
- 6) Methods for taking into consideration the following factors prior to turning or moving composting material:
  - A) Time of day;
  - B) Wind direction;
  - C) Percent moisture;
  - D) Estimated odor potential; and
  - E) Degree of maturity.
- 7) Additional odor-minimizing measures, which may include the following:
  - A) Avoidance of anaerobic conditions in the composting material;
  - B) Use of mixing for favorable composting conditions;
  - C) Formation of windrow or other pile into a size and shape favorable to minimizing odors; and
  - D) Use of end-product compost as cover to act as a filter during early stages of composting.
- h) Methods to control stormwater and landscape waste leachate, in accordance with Section 830.204;
- i) Methods to control noise, vectors and litter, in accordance with Section 830.205;
- j) Methods to control dust emissions, in accordance with Section 830.205(f), which must include:
  - 1) Consideration of the following factors prior to turning or moving the composting material:
    - A) Time of day;
    - B) Wind direction;
    - C) Percent moisture;

- D) Estimated emission potential; and
- E) Degree of Maturity; and
- 2) Maintenance of roads, wetting of roads, use of dust control agents, or any combination of these methods;
- k) Methods for monitoring temperature, oxygen level and moisture level of the composting material, in accordance with Section 830.205(m);
- l) Methods for adjusting temperature, oxygen level and moisture level of the composting material, in accordance with Section 830.205(a);
- m) Recordkeeping and reporting procedures required pursuant to Section 830.211;
- n) Methods to obtain composite samples and test end-product compost to demonstrate compliance with Subpart E of this Part; and
- o) PLANS FOR INTENDED PURPOSES OF END-product compost (Section 22.33(a)(4) of the Act).

Section 830.207      Salvaging at Landscape Waste Compost Facilities

- a) Salvaging operations must not interfere with the operation of the landscape waste facility or result in a violation of any standard in this Part.
- b) All salvaging operations shall be performed in a safe and sanitary manner in compliance with the requirements of this Part.
- c) Salvageable materials:
  - 1) May be accumulated on-site by the operator, provided they are managed so as not to create a nuisance, harbor vectors, cause malodors, or create an unsightly appearance; and
  - 2) Shall not be accumulated in a manner meeting the definition of a waste pile.

Section 803.208      Access Control at Landscape Waste Compost Facilities

- a) The operator shall implement controls to limit

unauthorized access, in order to prevent random dumping and to ensure safety at the facility.

- b) The facility must have a permanent sign posted at the entrance specifying:
  - 1) The name and mailing address of the operation;
  - 2) The operating hours;
  - 3) The name and telephone number of the operator; and
  - 4) Materials which can be accepted.

Section 830.209            Load Checking at Landscape Waste Compost Facilities

- a) Each load shall be inspected, upon receipt, for its acceptability at the facility and shall be visually checked, prior to processing, for noncompostable waste.
- b) The facility shall reject unacceptable loads.

Section 830.210           Personnel Training for Landscape Waste Compost Facilities

- a) The operator shall provide training to all personnel prior to initial operation of a composting facility. In addition, annual personnel training shall be provided, which must include, at a minimum, a thorough explanation of the operating procedures for both normal and emergency situations.
- b) New employees shall be trained, prior to participating in operations at the facility, in facility operations, maintenance procedures, and safety and emergency procedures relevant to their employment.
- c) The operator shall have personnel sign an acknowledgement stating that they have received the training required pursuant to this Section.
- d) The facility operating plan required pursuant to Section 830.206 shall be made available and explained to all employees.

Section 830.211           Recordkeeping for Landscape Waste Compost Facilities

- a) Copies of the facility permit, if required, design plans, operating plan, and any required reports shall be kept at the facility, or at a definite location

specified in the operating plan or permit if required as applicable, so as to be available during inspection of the facility.

b) The operator shall record the following information:

- 1) The quantity of each load of landscape waste received;
- 2) The origin, type and quantity of any additive accepted, when received at the facility;
- 3) The type and quantity of any additive used in the composting process (water added during composting need not be quantified), as quantified based on a monthly review of additives remaining;
- 4) The dates of turning of each windrow or other pile;
- 5) All monitoring data required pursuant to a facility permit;
- 6) Conditions evaluated pursuant to Section 830.206;
- 7) For any odor complaint received, the date and time received, the name of complainant, the address and phone number of complainant, if volunteered upon request, and name of personnel receiving the complaint;
- 8) The date, time, and nature of any action taken in response to an odor complaint;
- 9) Details of all incidents that require implementation of the facility's contingency plan, in accordance with Section 830.212, and methods used to resolve them;
- 10) Records pertaining to sampling and testing, as follows:
  - A) Locations in the composting area from which samples are obtained;
  - B) Number of samples taken;
  - C) Volume of each sample taken;
  - D) Date and time of collection of samples;

- E) Name and signature of person responsible for sampling;
  - F) Name and address of laboratory receiving samples, if applicable; and
  - G) Signature of person responsible for sample analysis.
- 11) The daily quantity of each type of end-product compost removed from the facility, according to end-product compost classification provided in Subpart E of this Part; and
  - 12) Verification that requisite personnel training has been done, in accordance with Section 830.210.
- c) The operator shall keep dated copies of the end-product compost analyses required pursuant to Section 830.504.
  - d) The records required pursuant to this Section shall be made available during normal business hours for inspection and photocopying by the Agency. Such records shall be kept for a period of three years, subject to extension upon written request by the Agency and automatic extension during the course of any enforcement action relating to the facility. Records shall be sent to the Agency upon request.

Section 830.212      Contingency Plan for Landscape Waste Compost Facilities

- a) A contingency plan shall be established, addressing the contingencies set forth in Section 830.202(c) and the following additional contingencies:
  - 1) Equipment breakdown;
  - 2) Odors;
  - 3) Unacceptable waste delivered to the facility;
  - 4) Groundwater contamination;
  - 5) Any accidental release of special waste; and
  - 6) Conditions such as fires, dust, noise, vectors, power outages and unusual traffic conditions.
- b) The facility contingency plan must be available on-site and implemented as necessary.

Section 830.213      Closure Plan for Landscape Waste Compost  
Facilities

- a) A written closure plan shall be developed which contains, at a minimum, the following:
  - 1) Steps necessary for the premature final closure of the facility under circumstances during its intended operating permit term when the cost of closure would be the greatest;
  - 2) Steps necessary for, and a schedule for the completion of, the routine final closure of the facility at the end of its intended operating life; and
  - 3) Steps necessary to prevent damage to the environment during temporary suspension of landscape waste acceptance if the operating plan or, for permitted facilities, the facility permit allows temporary suspension of landscape waste acceptance at the facility without initiating final closure.
- b) Until completion of closure has been certified, the operator shall maintain a copy of the closure plan at the facility or at a definite location, specified in the operating plan, or for permitted facilities, in the facility permit, so as to be available during inspection of the facility.
- c) An operator of a facility shall develop and file a revised closure plan upon modification of the operations of the facility which affect the cost of closure of the facility or any portion thereof, which include, but are not limited to:
  - 1) A temporary suspension of landscape waste acceptance at the facility; or
  - 2) An increase in the design capacity at the facility to process landscape waste.
- d) The operator shall initiate implementation of the closure plan within 30 days following the beginning of closure.
- e) Not later than 30 days following the beginning of closure, the operator shall post signs, easily visible at all access gates leading into the facility. The text of such signs must read, in letters not less than three inches high: "This facility is closed for all



composting activities and all receipt of landscape waste materials. No dumping allowed. Violators will be prosecuted." Such signs shall be maintained in legible condition until certification of completion of closure is issued for the facility by the Agency.

- f) Notice of Closure. The operator shall send notice of closure to the Agency within 30 days following the beginning of closure. A compost closure report shall be submitted to the Agency, on a form provided by the Agency, which shall cover the time elapsed since the end of the last annual report period.
- g) Certificate of Completion of Closure.
  - 1) Upon completion of closure, the operator shall prepare and submit to the Agency an affidavit, on a form provided by the Agency, stating that the facility has been closed in accordance with the closure plan.
  - 2) Upon finding that the facility has been closed in accordance with the closure plan, the Agency shall issue a certificate of completion of closure and shall terminate the facility permit.
- h) The operator shall maintain financial assurance as provided in Subpart F.

#### SUBPART E: QUALITY OF END-PRODUCT COMPOST

##### Section 830.501 Scope and Applicability

- a) END-PRODUCT COMPOST USED AS DAILY COVER OR VEGETATIVE AMENDMENT IN THE FINAL LAYER of a landfill is exempt from the requirements set forth in this Subpart (Section 22.33(c), of the Act).
- b) The provisions set forth in Sections 830.502, 830.503, and 830.507 of this Subpart apply to all end-product compost subject to this Part.
- c) In addition, the provisions set forth in Sections 830.504 and 830.508 apply to all end-product compost derived from landscape waste and subject to this Part.

##### Section 830.502 Compost Classes

For the purpose of this Part, end-product compost shall be classified in the following manner:

- a) General Use Compost: End-product compost which meets

the standards set forth in Section 830.503.

- b) Designated Use Compost: End-product compost which does not qualify as general use end-product compost. Designated use compost shall be used only AS DAILY COVER OR VEGETATIVE AMENDMENT IN THE FINAL LAYER at a landfill (Section 22.33(c), of the Act).

Section 830.503 Performance Standards for General Use Compost

General-use compost:

- a) Must be free of any materials which pose a definite hazard to human health due to physical characteristics, such as glass or metal shards;
- b) Must not contain man-made materials larger than four millimeters in size exceeding 1% of the end-product compost, on a dry weight basis;
- c) Must have a pH between 6.5 and 8.5;
- d) Must have reached stability, as demonstrated by one of the methods prescribed in Section 830.Appendix B;
- e) Must not contain fecal coliform populations that exceed 1000 MPN per gram of total solids (dry weight basis), or Salmonella species populations that exceed 3 MPN per 4 grams of total solids (dry weight basis); and
- f) Must not exceed, on a dry weight basis, the inorganic concentrations set forth in Section 830.Table A.

Section 830.504 Testing Requirements for End-Product Compost Derived from Landscape Waste

- a) Operators shall perform testing to demonstrate compliance with the standards set forth in subsections (b) - (d) of Section 830.503. Such testing shall be done in accordance with the methods set forth in Section 830.Appendix B, except that an alternative method or methods may be used to demonstrate compliance with any of these standards, if approved in writing by the Agency.
- b) Operators of facilities which are authorized to use an additive pursuant to Section 830.205(a)(1)(H) which may cause an exceedence of Section 830.203(e) shall test for pathogens using the method set forth in Section 830.Appendix B, except that an alternative method or methods may be used to demonstrate compliance with any of these standards, if approved in writing by the

Agency.

- c) No testing need be done to demonstrate compliance with the inorganics standards set forth in Section 830. Table A for general use compost derived from landscape waste, except as provided in subsection (e) of this Section.
- d) End-product compost derived from landscape waste must be tested for the parameters set forth in Section 830.503 at a frequency of:
  - 1) Once every 5,000 cubic yards of end-product compost transported off-site; or
  - 2) Once per year, if less than 5,000 cubic yards of end-product compost are transported off-site per year.

#### Section 830.507      Sampling Methods

Sample collection, preservation, and analysis must be done in a manner which assures valid and representative results. A composite sample shall be prepared by one of the following methods:

- a) Twelve grab samples, each 550 milliliters in size, shall be taken from the end-product compost at the facility, in the following manner:
  - 1) Four grab samples from points both equidistant throughout the length and at the center of the windrow or other pile, at a depth not less than one meter from the surface of the windrow or other pile;
  - 2) Four grab samples from points both equidistant throughout the length and one quarter the width of windrow or other pile, at a depth not less than half the distance between the surface and the bottom of the windrow or other pile; and
  - 3) Four grab samples from points both equidistant throughout the length and one eighth the width of the windrow or other pile, at a depth not less than half the distance between the surface and the bottom of the windrow or other pile.

The twelve grab samples shall be thoroughly mixed to form a homogenous composite sample. Analyses shall be of a representative subsample. The sample holding times, sample container types and minimum collection volumes listed in Section 830. Table B

shall apply; or

- b) Sampling methods set forth in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846), incorporated by reference at 35 Ill. Adm. Code 830.103.

#### Section 830.508 Off-Specification Compost

End-product compost derived from landscape waste which does not meet the standards for general use compost set forth in this Subpart must be further managed as landscape waste or as designated use compost.

### SUBPART F: FINANCIAL ASSURANCE

#### Section 830.601 Scope and Applicability

- a) This Subpart provides procedures by which the operator of any composting facility required, pursuant to 35 Ill. Adm. Code 831, to have a permit shall demonstrate compliance with the financial assurance plan requirement set forth in Sections 22.33, 22.34 and 22.35 of the Act.
- b) The operator is not required to comply with the provisions of this Subpart if the operator demonstrates that:
  - 1) Closure and post-closure care plans filed pursuant to 35 Ill. Adm. Code 724, 725, 807 or 811 will result in closure of the facility in accordance with the requirements of this Part; and
  - 2) The operator has provided financial assurance adequate to provide for such closure and post-closure care pursuant to 35 Ill. Adm. Code 724, 725, 807 or 811.

#### Section 830.602 Financial Assurance Plan

The operator shall develop and have at the facility, and submit to the Agency in accordance with 35 Ill. Adm. Code 831.212, a financial assurance plan containing, at a minimum, the following information:

- a) A written cost estimate, determined pursuant to Section 830.603, covering the maximum cost of premature final closure; and

- b) The financial mechanism chosen by the operator to comply with the requirement set forth in Section 830.604(a).

Section 830.603      Written Cost Estimate

- a) The written cost estimate required pursuant to Section 830.602(a) must be based on the steps necessary to complete closure in accordance with Section 830.213, and must include an itemization of the cost to complete each step.
- b) The operator shall revise the current cost estimate whenever a change in the closure plan increases the cost estimate.

Section 830.604      Financial Assurance Fund

- a) The operator shall maintain financial assurance equal to or greater than the amount provided as a written cost estimate in the financial assurance plan.
- b) The funds comprising financial assurance shall be used to cover the cost of closure.
- c) Upon certification of completion of closure, any financial assurance funds remaining shall be made available for unrestricted use.

Section 830.605      Financial Assurance Mechanism

- a) The operator may utilize either of the following mechanisms to comply with Section 830.604:
  - 1) A cash reserve fund; or
  - 2) Self-insurance.
- b) An operator choosing to use a cash reserve account as the mechanism by which to comply with Section 830.604 shall:
  - 1) Fully fund the account within one year of the initial receipt of waste, except that facilities in operation on the effective date of this Part shall fully fund the account within one year of the effective date; and
  - 2) Thereafter maintain full funding pending the expenditure of such funds to cover the costs of closure.

- c) An operator choosing to use self-insurance as the mechanism by which to comply with subsection (a) of this Section shall have:
  - 1) Net working capital and tangible net worth each at least six times the current cost estimate;
  - 2) Tangible net worth of at least \$10 million;
  - 3) Assets in the United States amounting to at least 90 percent of the operator's total assets and at least six times the current cost estimate; and
  - 4) Either:
    - A) Two of the following three ratios: a ratio of total liabilities to net worth of less than 2.0; a ratio of the sum of net income plus depreciation, depletion and amortization to total liabilities of greater than 0.1; or a ratio of current assets to current liabilities of greater than 1.5; or
    - B) A current rating of AAA, AA, A or BBB for its most recent bond issuance, as issued by Standard and Poor, or a rating of Aaa, Aa, A or Bbb, as issued by Moody.

#### Section 830.606 Financial Assurance Certification

The operator shall submit to the Agency, one year from the effective date of this Part and thereafter as part of the annual report, a Composting Facility Financial Assurance Plan Compliance Certification, so titled, which contains the following information:

- a) Operator name;
- b) Illinois Inventory Identification Number and Permit Number assigned by the Agency;
- c) Facility name;
- d) Address and county in which the facility is located; and
- e) A statement certifying compliance with the provisions of this Subpart.

#### Section 830. Table A: Inorganic Concentration Limits for General Use Compost

|            | Maximum<br>Concentration Limit<br>(mg/kg dry weight basis) | Test Method<br>(SW-846) |
|------------|------------------------------------------------------------|-------------------------|
| Arsenic    | 41                                                         | 7060 or 7061            |
| Cadmium    | 21                                                         | 7130 or 7131 or 6010    |
| Chromium   | 1,200                                                      | 7190 or 7191 or 6010    |
| Copper     | 1,500                                                      | 7210 or 7211 or 6010    |
| Lead       | 300                                                        | 7420 or 7421 or 6010    |
| Mercury    | 17                                                         | 7471                    |
| Molybdenum | 50                                                         | 7480 or 7481 or 6010    |
| Nickel     | 420                                                        | 7520 or 6010            |
| Selenium   | 36                                                         | 7740 or 7741            |
| Zinc       | 2,800                                                      | 7950 or 7951 or 6010    |

Section 830. Table B: Sampling and Handling Requirements

| Parameter          | Container<br>Type | Minimum<br>Sample<br>Size<br>(ml) | Preservation        | Maximum<br>Storage<br>Time |
|--------------------|-------------------|-----------------------------------|---------------------|----------------------------|
| Man-made materials | P, G              | 1,000                             | Do not freeze       | 28 days                    |
| pH                 | P, G              | 50                                | Analyze immediately |                            |
| Seed               |                   |                                   |                     |                            |
| Germination        | P, G              | 1,000                             | Analyze immediately |                            |
| Self-heating       | P, G              | 4,000                             | Analyze immediately |                            |
| Pathogens          | P, G              | 500                               | Cool to 4° C        | 2 weeks                    |
| Inorganic          | P(A), G(A)        | 500                               | Cool to 4° C        | 6 months                   |

P = plastic; G = glass; G(A), P(A) = rinsed with acid cleaning solution (1 part water to 1 part concentrated HNO<sub>3</sub>)

## Section 830. Table C: Seed Germination Record Sheet

Date Test Initiated:

Date Test Read:

Person responsible for test:

## % Germination

| <u>Blend</u> | <u>Pot ID</u>  | <u>Number of<br/>Annual Ryegrass Seedlings</u> | <u>Number of<br/>Radish Seedlings</u> |
|--------------|----------------|------------------------------------------------|---------------------------------------|
| A            | A <sub>1</sub> |                                                |                                       |
| A            | A <sub>2</sub> |                                                |                                       |
| A            | A <sub>3</sub> |                                                |                                       |
| A            | A <sub>4</sub> |                                                |                                       |
| B            | B <sub>1</sub> |                                                |                                       |
| B            | B <sub>2</sub> |                                                |                                       |
| B            | B <sub>3</sub> |                                                |                                       |
| B            | B <sub>4</sub> |                                                |                                       |
| C            | C <sub>1</sub> |                                                |                                       |
| C            | C <sub>2</sub> |                                                |                                       |
| C            | C <sub>3</sub> |                                                |                                       |
| C            | C <sub>4</sub> |                                                |                                       |

## Annual Ryegrass

$$\text{Blend A} = \frac{(A_1 + A_2 + A_3 + A_4) / 4}{(C_1 + C_2 + C_3 + C_4) / 4} \times 100\% = \text{_____} \% \text{ Germination}$$

$$\text{Blend B} = \frac{(B_1 + B_2 + B_3 + B_4) / 4}{(C_1 + C_2 + C_3 + C_4) / 4} \times 100\% = \text{_____} \% \text{ Germination}$$

## Radish

$$\text{Blend A} = \frac{(A_1 + A_2 + A_3 + A_4) / 4}{(C_1 + C_2 + C_3 + C_4) / 4} \times 100\% = \text{_____} \% \text{ Germination}$$

$$\text{Blend B} = \frac{(B_1 + B_2 + B_3 + B_4) / 4}{(C_1 + C_2 + C_3 + C_4) / 4} \times 100\% = \text{_____} \% \text{ Germination}$$



**General Plant Conditions****BLEND A**  
**Condition**

| <u>Pots</u>                     | <u>Seedling</u> | <u>Parameter</u> | <u>None</u> | <u>Slight</u> | <u>Moderate</u> | <u>High</u> |
|---------------------------------|-----------------|------------------|-------------|---------------|-----------------|-------------|
| A <sub>1</sub> - A <sub>4</sub> | Ryegrass        | Wilting          |             |               |                 |             |
| A <sub>1</sub> - A <sub>4</sub> | Ryegrass        | Chlorosis        |             |               |                 |             |
| A <sub>1</sub> - A <sub>4</sub> | Ryegrass        | Discoloration    |             |               |                 |             |
| A <sub>1</sub> - A <sub>4</sub> | Ryegrass        | Malodorous       |             |               |                 |             |
| A <sub>1</sub> - A <sub>4</sub> | Ryegrass        | Fungal Growth    |             |               |                 |             |

Other Comments:

**BLEND B**  
**Condition**

| <u>Pots</u>                     | <u>Seedling</u> | <u>Parameter</u> | <u>None</u> | <u>Slight</u> | <u>Moderate</u> | <u>High</u> |
|---------------------------------|-----------------|------------------|-------------|---------------|-----------------|-------------|
| B <sub>1</sub> - B <sub>4</sub> | Ryegrass        | Wilting          |             |               |                 |             |
| B <sub>1</sub> - B <sub>4</sub> | Ryegrass        | Chlorosis        |             |               |                 |             |
| B <sub>1</sub> - B <sub>4</sub> | Ryegrass        | Discoloration    |             |               |                 |             |
| B <sub>1</sub> - B <sub>4</sub> | Ryegrass        | Malodorous       |             |               |                 |             |
| B <sub>1</sub> - B <sub>4</sub> | Ryegrass        | Fungal Growth    |             |               |                 |             |

Other Comments:

**BLEND C**  
**Condition**

| <u>Pots</u>                     | <u>Seedling</u> | <u>Parameter</u> | <u>None</u> | <u>Slight</u> | <u>Moderate</u> | <u>High</u> |
|---------------------------------|-----------------|------------------|-------------|---------------|-----------------|-------------|
| C <sub>1</sub> - C <sub>4</sub> | Ryegrass        | Wilting          |             |               |                 |             |
| C <sub>1</sub> - C <sub>4</sub> | Ryegrass        | Chlorosis        |             |               |                 |             |
| C <sub>1</sub> - C <sub>4</sub> | Ryegrass        | Discoloration    |             |               |                 |             |
| C <sub>1</sub> - C <sub>4</sub> | Ryegrass        | Malodorous       |             |               |                 |             |
| C <sub>1</sub> - C <sub>4</sub> | Ryegrass        | Fungal Growth    |             |               |                 |             |

Other Comments:

General Conclusion on the Stability of the Compost tested:

Section 830. Appendix A: EARLY DETECTION AND GROUNDWATER  
MONITORING PROGRAM

The operator of a compost facility subject to the monitoring requirements of 35 Ill. Adm. Code 830.205(b)(1)(A) or 35 Ill. Adm. Code 830.205(b)(2)(A) shall implement an Agency-approved monitoring program using, at a minimum, the procedures and standards set forth in this Appendix.

a) Program.

- 1) The operator shall perform a hydrogeologic site investigation pursuant to subsection (b) of this Section to characterize the subsurface and determine the location and quality of groundwater beneath the facility.
- 2) An appropriate monitoring system shall be designed, capable of determining the compost facility's impact or potential impact on the quality of groundwater beneath the facility.
- 3) If the water table is located greater than ten (10) feet below ground surface and the soil has been classified as a soil exhibiting moderate or poor drainage by the U.S. Department of Agriculture's Soil Conservation Service on a published county soil survey map, the owner of operator shall install either an early detection system, pursuant to subsection (d)(1) of this Section, or a groundwater monitoring system, pursuant to subsection (d)(2) of this Section. Otherwise, a groundwater monitoring system shall be installed, pursuant to subsection (d)(2) of this Section.
- 4) If either early detection monitoring or groundwater monitoring indicates an impact on underground water beneath the facility, a site evaluation shall be performed, using the procedures set forth in subsection (e) of this Section, and remedial action implemented, if appropriate.
- 5) The results of the hydrogeologic site investigation and the proposed monitoring system design shall be submitted to the Agency as part of an application for a facility permit.

- b) Hydrogeologic Site Investigation. The operator shall conduct a hydrogeologic site investigation to obtain the following information:
- 1) The regional hydrogeologic setting of the facility, using material available from Illinois scientific surveys, state and federal organizations, water well drilling logs and previous investigations. A complete list of references and any well logs utilized shall be submitted to the Agency with the results of the hydrogeologic site investigation;
  - 2) The site-specific hydrogeologic setting of the facility, using continuously sampled borings of the site and information collected from on-site piezometers or monitoring wells. At a minimum, borings must be to a depth of ten (10) feet;
  - 3) Soil characteristics, including soil types and physical properties of the underlying strata, including the potential pathways for contaminant migration. Any confining unit relative to waste constituents expected to be present shall be identified;
  - 4) Water-bearing sediments or geologic units beneath the facility, their classification pursuant to 35 Ill. Adm. Code 620 and the direction and rate of groundwater flow. Also, regional and local areas of groundwater discharge and recharge affecting groundwater at the facility shall be identified; and
  - 5) Water quality beneath the facility, including any potential impact on groundwater. The groundwater quality analysis must take into account the type of compost facility and its expected leachate constituents.
- c) All drill holes, including exploration borings that are not converted into monitoring wells, monitoring wells that are no longer necessary to the operation of the facility, and other holes that may cause or facilitate contamination of groundwater, shall be sealed in accordance with the standards of 35 Ill. Adm. Code 811.316.
- d) Monitoring System
- 1) Early Detection System
    - A) Monitoring device(s) shall be installed:
      - i) Hydraulically upgradient from the facility or at sufficient distance from the composting

area so as not to be affected by it, to establish representative background water quality in the waters beneath (or near) the facility; and

- ii) Beneath and around the composting area, sufficient to enable early detection of the downward migration of constituents related to the composting activities at the facility.
- B) The parameters monitored shall be those expected to be in the leachate, taking into consideration the type of compost facility.
- C) If lysimeters are utilized, the following requirements shall be used in designing an adequate monitoring system;
  - i) Lysimeters shall be located, when possible, in a depression in the path of site runoff in each direction of flow and topographically low areas associated with the unit(s).
  - ii) At a minimum, each lysimeter shall be sampled within 48 hours of each rain event exceeding 0.5 inches, provided that the rain event is not within two weeks after the date previous samples were successfully collected.
  - iii) Any lysimeter placed around the perimeter shall be installed at an angle so that the cup of the lysimeter is beneath the unit(s).

## 2) Groundwater Monitoring System

- A) Monitoring well(s) shall be installed:
  - i) Hydraulically upgradient from the facility, to establish representative background water quality in the groundwater beneath (or near) the facility; and
  - ii) Hydraulically downgradient (i.e., in the direction of decreasing static head) from the compost facility. Locations and depths of monitoring wells must ensure detection of waste constituents that migrate from the waste management unit to the groundwater.
- B) The parameters monitored shall be those expected to be in the leachate, taking into consideration the type of compost facility.

- C) The groundwater monitoring system shall be installed at the closest practicable distance from the composting area boundary, or at an alternative distance specified by permit.
  - 3) Approval of any early detection monitoring system or groundwater monitoring system shall be obtained from the Agency prior to operation.
- e) Evaluation
- 1) Further evaluation of an impact to underground water shall be required if:
    - A) An exceedence of the appropriate standard as stated in 35 Ill. Adm. Code 620 is confirmed;
    - B) A progressive increase in measured parameters other than pH is observed over two consecutive sampling events; or
    - C) Where groundwater monitoring wells are used, a statistical increase over background or upgradient concentrations, calculated in accordance with 35 Ill. Adm. Code 811.320(e), is observed.
  - 2) An impact as described in subsection (e)(1)(A) or (e)(1)(C) of this Section shall be confirmed by resampling the underground water within 30 days of the date on which the first sample analyses are received. The operator shall provide notification to the Agency of the results of the resampling analysis within 30 days of the date on which the sample analyses are received, but no later than 90 days after the first samples were taken.
  - 3) Within 60 days of the confirmation of impact but no later than 120 days after the date on which the first sample was taken, the operator shall propose as a permit modification a plan to address the impact, which may include further evaluation of data, including the use of appropriate statistical methods, groundwater monitoring or remedial action.

## Section 830.APPENDIX B: Performance Test Methods

## a) Man-made materials

- 1) Take four 250 gram samples.
- 2) Dry samples at 70° C for 24 hours. Let sample cool to room temperature (20 to 25° C).
- 3) Weigh each sample and pass through a four millimeter screen. Inspect material remaining on the screen, and separate and weigh man-made materials. Calculate percent man-made materials relative to the total dry weight of the sample prior to screening.

## b) Pathogens

The end product compost shall be tested to demonstrate compliance with one of the pathogen reduction standards set forth in Section 830.503(e). Such testing shall be done in accordance with Standard Methods for the Examination of Water and Wastewater Part 9221 E or Part 9222 D, incorporated by reference at 35 Ill. Adm. Code 830.103, for fecal coliform, and Standard Methods for the Examination of Water and Wastewaters Part 9260 D incorporated by reference at 35 Ill. Adm. Code 830.103, for Salmonella sp. bacteria.

## c) pH

The following protocol shall be used to determine the pH of the compost:

North Central Regional Publication 221, Method 14; or EPA Method 9045 in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846), both incorporated by reference at 35 Ill. Adm. Code 830.103.

## d) Stability

The operator shall demonstrate that the composite sample has reached stability by showing either:

- 1) That the compost does not reheat, upon standing, to greater than 20° C above room temperature (20 to 25° C). The degree of reheating shall be measured using the following method:
  - A) Take 4 liters of composite sample and adjust the moisture of the end-product compost so it falls within the range of 45 to 55% water on a dry weight basis;

- B) Fill a 2 liter Dewar flask (100 millimeters, inside diameter) loosely with sample within acceptable moisture range and gently tap to simulate natural settling. Keep at room temperature (20 to 25° C).
- C) Insert thermometer into Dewar flask to a point 5 centimeters from bottom of flask. Do not push thermometer against bottom of flask.
- D) Record time and temperature each day for 15 days to determine when the highest point is reached. After each reading, shake down the thermometer; or
- 2) That the end-product compost supports a germination rate of 70% for annual ryegrass and radish using the following protocol:
- A) Mix 4 liters vermiculite with 4 grams of air-dried soil.
- B) Take 1 liter of the composite sample with a moisture level within the range of 45 to 55 percent, on a dry weight basis; if necessary, adjust the moisture level until within such range.
- C) In three 2-liter containers, combine the vermiculite-soil mix with the compost sample at the following ratios:
- | Blend                   | Vermiculite-Soil Mix<br>(45 to 55% moisture)<br>(dry weight basis)<br>(grams) | Compost<br><br>(grams) |
|-------------------------|-------------------------------------------------------------------------------|------------------------|
| A<br>(75% compost, w/w) | 960                                                                           | 320                    |
| B<br>(50% compost, w/w) | 640                                                                           | 640                    |
| C<br>(Control)          | 1,280                                                                         | 0                      |
- D) Break up lumps of compost with a spatula or trowel. Moisten the blend with water.
- E) Cover each container with plastic wrap and mix well by inverting each container 20 times.

- F) Transfer each blend into four 4-inch pots. Fill the pots to the brim and firm the surface by pressing down with the bottom of another 4-inch pot. Leave about 2 to 5 centimeters of space between surface of the blend and the top of the pot.
- G) Add approximately 50 milliliters of water soluble fertilizer (e.g., 20-20-20 NPK, fish emulsion) diluted to half-strength to each pot.
- H) Place 10 seeds of annual ryegrass and 10 radish seeds onto the surface of the moistened blend. Cover the seeds with about 1 centimeter dry vermiculite.
- I) Set the pots in a tray of warm water and let them remain there until capillary action has drawn water up and moistened the surface of the blend. Remove the pots from the tray when moisture from the bottom-watering is observed.
- J) Put pots in an environment suitable for plant growth (e.g., 8 to 12 hours of light daily, 30 to 60% humidity, 20 to 25° C). Check pots daily to determine if watering is needed. Blends should be kept evenly moist. If necessary, cover each pot with plastic wrap until the seedlings emerge. Remove plastic wrap at the first sign of emergence.
- K) Seven days after planting the seeds, count emergent seedlings in each pot and record visual observations of relative plant conditions identified in Section 830. Table C.
- L) Calculate the percent germination of plants in each blend relative to the control pot, using the formula set forth in Section 830. Table C.



TITLE 35: ENVIRONMENTAL PROTECTION  
 SUBTITLE G: WASTE DISPOSAL  
 CHAPTER I: POLLUTION CONTROL BOARD  
 SUBCHAPTER i: SOLID WASTE AND SPECIAL WASTE HAULING

PART 831  
 INFORMATION TO BE SUBMITTED IN A PERMIT APPLICATION

SUBPART A: GENERAL INFORMATION REQUIRED FOR  
 ALL COMPOST FACILITIES

| Section |                                                       |
|---------|-------------------------------------------------------|
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| 831.102 | Severability                                          |
| 831.103 | Certification by Professional Engineer                |
| 831.104 | Application Fees                                      |
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| 831.114 | Operator-Initiated Modification of an Approved Permit |
| 831.115 | Modification to Obtain Operating Authorization        |
| 831.116 | Permit Renewal                                        |

AUTHORITY: Implementing Sections 5, 21, 22.33, 22.34, 22.35 and 39 and authorized by Section 27 of the Environmental Protection Act. (415 ILCS 5/5, 21, 22.33, 22.34, 22.35, 27 and 38)

SOURCE: Adopted at \_\_\_ Ill. Register\_\_\_\_\_, effective \_\_\_\_\_.

NOTE: Capitalization denotes statutory language.

**SUBPART A: GENERAL INFORMATION REQUIRED FOR  
ALL COMPOST FACILITIES**

**Section 831.101      Scope and Applicability**

This Part contains the procedures to be followed by all applicants in applying for permits required pursuant to Section 21(d) of the Act. The definitions set forth in 35 Ill. Adm. Code 830.102 apply to this Part.

**Section 831.102      Severability**

If any provision of these regulations is adjudged invalid, or if the application thereof to any person or in any circumstance is adjudged invalid, such invalidity shall not affect the validity of either this Part as a whole or any Subpart, Section, Subsection, sentence or clause thereof not adjudged invalid.

**Section 831.103      Certification by Professional Engineer**

All designs presented in the application must be prepared by, or under the supervision of, a professional engineer if required by the Illinois Professional Engineering Practice Act. Ill. Rev. Stat. 1991, ch. 111, par. 5201. [225 ILCS 325/1 et seq.]. The professional engineer shall affix the name of the engineer, date of preparation, registration number, a statement attesting to the accuracy of the information and design and a professional seal to all designs.

**Section 831.104      Application Fees**

The permit application must be accompanied by all filing fees required pursuant to Section 5(f) of the Act.

**Section 831.105      Required Signatures**

- a) All permit applications shall contain the full legal name, address and telephone number of the operator, the property owner, if different from the operator, and any duly authorized agent(s) of the operator or property owner to whom all inquiries and correspondence shall be addressed.
- b) All permit applications must be signed by the operator and the property owner, if different from the operator, or the duly authorized agent(s) of the operator or property owner, accompanied by an oath or affidavit attesting to the agent's authority to sign the application, if applicable, and notarized. The following persons are considered duly authorized agents of the operator and the property owner:

- 1) For corporations, a principal executive officer of at least the level of vice president;
- 2) For a sole proprietorship or partnership, the proprietor or a general partner, respectively; and
- 3) For a municipality, state, federal or other public agency, the head of the agency or ranking elected official.

#### Section 831.106 Site Identification

For existing permitted sites, the site name and the Illinois Inventory Identification Number previously assigned by the Agency shall be used in correspondence with the Agency regarding the facility. Permit applications for new facilities shall include the proposed facility name, the latitude and longitude of the site, if available, the legal description of the site, if available, and the physical location, including at a minimum the city or township, county, state and zip code. An Illinois Inventory Identification Number will be assigned by the Agency.

#### Section 831.107 Site Location Map

All permit applications shall contain a site location map on the most recent United States Geological Survey ("USGS") quadrangle of the area from the 7 1/2 minute series (topographic), or on such other map whose scape clearly shows the following information:

- a) The permit area and all adjacent property, extending at least 1/2 mile beyond the boundary of the facility;
- b) The prevailing wind direction;
- c) All rivers designated for protection under the Wild and Scenic Rivers Act (16 U.S.C. 127 et seq.);
- d) The limits of all 10-year floodplains;
- e) All natural areas designated as a Dedicated Illinois Nature Preserve pursuant to the Illinois Natural Areas Preservation Act (525 ILCS 30);
- f) All historic and archaeological sites designated by the National Historic Preservation Act (16 U.S.C. 470 et seq.) and the Illinois Historic Preservation Act (20 ILCS 3410);

- g) All areas identified as a critical habitat pursuant to the Endangered Species Act (16 U.S.C. 1531 et seq.) and the Illinois Endangered Species Protection Act (520 ILCS 10);
- h) All main service corridors, transportation routes, and access roads to the facility;
- i) All residences and areas in which people congregate within 1/2 mile of the facility boundaries.
- j) The locations of all on-site potable water supply wells and all potable water supply wells within 1/8 mile of the boundaries of the facility; and
- k) The types of land use for the properties immediately adjacent to the facility (i.e., residential, commercial, industrial, agricultural, etc.). This shall include any zoning classifications of these properties and the location (and function) of all buildings within 1/2 mile of the facility.

#### Section' 831.108      Site Plan Map

The application shall contain maps or plan sheets showing the location of the facility, on a scale no smaller than one inch equals 200 feet, containing five-foot contour intervals where the relief exceeds 20 feet and a two-foot contour interval where the relief is 20 feet or less, and referenced to a USGS datum. The following information shall be provided:

- a) The boundaries of the facility;
- b) The boundaries of the composting area(s);
- c) The property boundaries, if different;
- d) The location of all buildings on the property and any other pertinent location data with respect to the operation of the proposed facility (i.e., utilities, water supply, fencing, access roads, paved areas etc.);
- e) The location of all staging and stockpiling areas for landscape waste, end-product compost, windrow bulking agents or additives;
- f) The drainage patterns of the composting facility and surrounding areas. At a minimum, the direction of both on-site and off-site drainage, as well as the location of any ditches, swales, berms or other structures that exist or will be constructed to

control runoff and leachate generated by the facility's operation shall be identified; and

- g) Proof that all authorizations, permits, and approvals required from each Bureau of the Agency have been applied for or obtained.

#### Section 831.109          Narrative Description of the Facility

The permit application shall contain a written description of the facility with supporting documentation describing the procedures and plans that will be used at the facility to comply with the requirements of this Part and any other applicable Parts of 35 Ill. Adm. Code: Chapter I. Such description shall include, but not be limited to, the following information:

- a) An estimate of the maximum annual volume and peak daily volume of landscape waste the facility will be able to process;
- b) Proof of the following:
  - 1. THE FACILITY INCLUDES A SETBACK OF AT LEAST 200 FEET FROM THE NEAREST POTABLE WATER SUPPLY WELL;
  - 2. THE FACILITY IS LOCATED OUTSIDE THE BOUNDARY OF THE 10-YEAR FLOODPLAIN OR THE SITE WILL BE FLOODPROOFED;
  - 3. THE FACILITY IS LOCATED SO AS TO MINIMIZE INCOMPATIBILITY WITH THE CHARACTER OF THE SURROUNDING AREA, INCLUDING AT LEAST A 200 FOOT SETBACK FROM ANY RESIDENCE AND IN THE CASE OF A FACILITY THAT IS DEVELOPED OR THE PERMITTED COMPOSTING AREA OF WHICH IS EXPANDED AFTER NOVEMBER 17, 1991 THE COMPOSTING AREA IS LOCATED AT LEAST 1/8 MILE FROM THE NEAREST RESIDENCE (OTHER THAN A RESIDENCE LOCATED ON THE SAME PROPERTY AS THE FACILITY).
  - 4. THE DESIGN OF THE FACILITY WILL PREVENT ANY COMPOST MATERIAL FROM BEING PLACED WITHIN 5 FEET OF THE WATER TABLE, WILL ADEQUATELY CONTROL RUNOFF FROM THE SITE, AND WILL COLLECT AND MANAGE ANY LEACHATE THAT IS GENERATED ON THE SITE (Section 39(m) of the Act);
- c) An operating plan, satisfying the requirements set forth in 35 Ill. Adm. Code 830.206;

- d) An early detection or groundwater monitoring system design, in accordance with 35 Ill. Adm. Code 830.205(b)(1)(A)(iii) or 830.205(b)(2)(A)(iii).
- e) A contingency plan, satisfying the requirements set forth in 35 Ill. Adm. Code 830.212;
- f) Specification of the operating hours of the facility;
- g) The types of landscape waste that are proposed to be received by the facility;
- h) Descriptions of the storage areas (including their capacities) that will be used to stage the waste before windrowing, to store bulking agent(s) or additives and to store the end-product compost; and
- i) Description of personnel training procedures, satisfying the requirements of 35 Ill. Adm. Code 830.210.

#### Section 831.110      Legal Description

The permit application shall contain a legal description of the facility boundary. Data supplied by any registered land surveyor contained in the permit application must bear the signature or seal of that registered land surveyor. References are to be included when such data are obtained from published sources.

#### Section 831.111      Proof of Land Ownership and Certification

The permit application must contain a certificate of ownership of the land on which the facility is located or a copy of the lease and its duration. The lease must clearly specify that the property owner authorizes the construction of a composting facility on the leased premises. The operator or property owner shall certify that the Agency will be notified 30 days prior to any changes in property ownership or conditions in the lease affecting the permit area.

#### Section 831.112      Closure Plan

The permit application shall contain a written closure plan which contains a description of methods for compliance with all closure requirements in 35 Ill. Adm. Code 830.

**Section 831.113          Financial Assurance**

The permit application shall contain methods to ensure financial assurance satisfying the requirements in 35 Ill. Adm. Code 830. Subpart F.

**Section 831.114          Operator-Initiated Modification of an Approved Permit**

- a) To initiate a permit modification authorizing construction, resulting in an increase in capacity or extending the term of the existing permit, the operator shall file a complete permit application, on a form provided by the Agency, demonstrating compliance with all applicable requirements set forth in 35 Ill. Adm. Code 830.
- b) To initiate any other permit modification, the operator shall submit, on a form provided by the Agency, a request for the desired modification. The applicant shall submit all information required pursuant to this Part which pertains to the desired modification.

**Section 831.115          Modification to Obtain Operating Authorization**

Unless otherwise authorized in the facility permit, prior to placing into service any structure constructed at a facility, the applicant shall obtain an operating authorization as a permit condition. In order to obtain such an operating authorization, the operator shall submit a report documenting that construction has been completed in accordance with the engineering design.

**Section 831.116          Permit Renewal**

- a) The operator shall submit only that information required pursuant to this Part that has changed since the last permit review by the Agency.
- b) The operator shall update any groundwater impact assessment, in accordance with 35 Ill. Adm. Code 830. Appendix A.
- c) The operator shall provide a new cost estimate for closure pursuant to 35 Ill. Adm. Code 830.213 and 35 Ill. Adm. Code 830. Subpart F, based upon the maximum cost of premature final closure in the next permit term.

TITLE 35: ENVIRONMENTAL PROTECTION  
SUBTITLE G: WASTE DISPOSAL  
CHAPTER I: POLLUTION CONTROL BOARD  
SUBCHAPTER i: SOLID WASTE AND SPECIAL WASTE HAULING

PART 832  
PROCEDURAL REQUIREMENTS FOR PERMITTING COMPOST FACILITIES

SUBPART A: GENERAL PROVISIONS

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SUBPART B: ADDITIONAL PROCEDURES FOR MODIFICATION OF PERMITS

|         |                                                     |
|---------|-----------------------------------------------------|
| Section |                                                     |
| 832.201 | Agency-Initiated Modification of an Approved Permit |
| 832.202 | Procedures for a Modification of an Approved Permit |

SUBPART C: ADDITIONAL PROCEDURES FOR THE RENEWAL OF PERMITS

|         |                               |
|---------|-------------------------------|
| Section |                               |
| 832.301 | Time of Filing                |
| 832.302 | Effect of Timely Filing       |
| 832.303 | Procedures for Permit Renewal |

AUTHORITY: Implementing Sections 5, 21, 22.26, 22.33, 22.34, 22.35, 39, 39.2 and 40 and authorized by Section 27 of the Environmental Protection Act. (415 ILCS 5/5, 21, 22.33, 22.34, 22.35, 27 and 38)

SOURCE: Adopted at \_\_\_ Ill. Register \_\_\_, effective \_\_\_\_.

NOTE: Capitalization denotes statutory language.



## SUBPART A: GENERAL PROVISIONS

## Section 832.101 Scope and Applicability

This Part contains the procedures to be followed by the Agency in processing permits required pursuant to Section 21(d) of the Act and 35 Ill. Adm. Code 831. The definitions set forth in 35 Ill. Adm. Code in 830.102 apply to this Part.

## Section 832.102 Severability

If any provision of these regulations is adjudged invalid, or if the application thereof to any person or in any circumstance is adjudged invalid, such invalidity shall not affect the validity of either this Part as a whole or any Subpart, Section, Subsection, sentence or clause thereof not adjudged invalid.

## Section 832.103 Form and Delivery of Permit Application

All permit applications shall be made on forms prescribed by the Agency, and shall be mailed or delivered to the address designated by the Agency on the forms. The Agency shall provide a dated, signed receipt upon request. The Agency's record of the date of filing shall be deemed conclusive unless a contrary date is proved by a dated, signed receipt. Permit applications which are hand-delivered must be delivered during the Agency's normal business hours.

## Section 832.104 Required Notifications

THE AGENCY SHALL NOT ISSUE A DEVELOPMENT OR CONSTRUCTION PERMIT AFTER DECEMBER 31, 1990 FOR ANY COMPOSTING FACILITY, UNLESS THE APPLICANT HAS GIVEN NOTICE THEREOF:

- a) IN PERSON OR BY MAIL TO THE MEMBERS OF THE GENERAL ASSEMBLY FROM THE LEGISLATIVE DISTRICT IN WHICH THE PROPOSED FACILITY IS TO BE LOCATED;
- b) BY REGISTERED OR CERTIFIED MAIL TO THE OWNERS OF ALL REAL PROPERTY LOCATED WITHIN 250 FEET OF THE SITE OF THE PROPOSED FACILITY (DETERMINED AS PROVIDED IN SUBSECTION (b) OF SECTION 39.2), AND
- c) TO THE GENERAL PUBLIC BY PUBLICATION IN A NEWSPAPER OF GENERAL CIRCULATION IN THE COUNTY IN WHICH THE PROPOSED FACILITY IS TO BE LOCATED. (Section 22.26 of the Act.)
  - 1) At a minimum, the newspaper notification must meet the following requirements:

- A) Publication in the legal notice section of a daily newspaper in circulation within the city or area in which the facility is proposed to be located;
  - B) Published once a week for three successive weeks, pursuant to the Section 3 of the Illinois Notice by Publication Act (715 ILCS 5/3 (1992)).
- 2) The newspaper notification should contain:
- A) A description of the type of facility being proposed;
  - B) The location of the proposed facility;
  - C) The name of the person or corporation proposing the facility with a contact person and phone number; and
  - D) Instructions to direct comments to the Agency in writing within twenty-one (21) days of the date of last publication. The Agency address and the phone number(s) of the bureau(s) and section(s) reviewing the permit shall be provided.
- 3) The notification shall not be published more than 3 months before filing the application and shall commence no later than the filing date. Copies of the newspaper notification shall either accompany the application or be sent to the Agency within 30 days of filing the application.

#### Section 832.105      Agency Decision Deadlines

- a) IF THERE IS NO FINAL ACTION BY THE AGENCY WITHIN 90 DAYS AFTER THE FILING OF THE APPLICATION FOR PERMIT, THE APPLICANT MAY DEEM THE PERMIT ISSUED; EXCEPT THAT THIS TIME PERIOD SHALL BE EXTENDED TO 180 DAYS WHEN NOTICE AND OPPORTUNITY FOR PUBLIC HEARING ARE REQUIRED BY STATE OR FEDERAL LAW OR REGULATION. (Section 39(a) of the Act.)
- b) An application for permit pursuant to this Part shall not be deemed filed until the Agency has received all information and documentation in the form and with the content required pursuant to this Part, 35 Ill. Adm. Code 830 and 35 Ill. Adm. Code 831. However, if, pursuant to the standards for the

denial of a permit, the Agency fails to notify the applicant within 30 days following the filing of a purported application that the application is incomplete and the reason the Agency deems it incomplete, the application shall be deemed to have been filed as of the date of such purported filing as calculated pursuant to Section 832.103. The applicant may treat the Agency's notification that an application is incomplete as a denial of the application for the purpose of permit appeal.

- c) The applicant may waive the right to a final decision within the decision deadline. Such waiver shall be submitted in writing to the Agency prior to the applicable deadline in subsection (a) of this Section.
- d) The applicant may modify a permit application at any time prior to the Agency decision deadline date. Any modification of a permit application shall constitute a new application for the purposes of calculating the Agency decision deadline date.
- e) Final action shall be deemed to have taken place on the date that such final action is signed.
- f) The Agency shall mail all notices of final action by registered or certified mail, postmarked with a date stamp and accompanied by a return receipt request.

**Section 832.106          Standards for Issuance of a Permit**

- a) WHEN THE BOARD HAS BY REGULATION REQUIRED A PERMIT FOR THE CONSTRUCTION, INSTALLATION, OR OPERATION OF ANY TYPE OF FACILITY, EQUIPMENT, VEHICLE, VESSEL, OR AIRCRAFT, THE APPLICANT SHALL APPLY TO THE AGENCY FOR SUCH PERMIT AND IT SHALL BE THE DUTY OF THE AGENCY TO ISSUE SUCH PERMIT UPON PROOF BY THE APPLICANT THAT THE FACILITY, EQUIPMENT, VEHICLE, VESSEL, OR AIRCRAFT WILL NOT CAUSE A VIOLATION OF the ACT OR OF REGULATIONS set forth in 35 Ill. Adm. Code: Chapter I.
- b) IN GRANTING PERMITS, THE AGENCY MAY IMPOSE SUCH CONDITIONS AS MAY BE NECESSARY TO ACCOMPLISH THE PURPOSES OF the ACT, AND AS ARE NOT INCONSISTENT WITH THE REGULATIONS PROMULGATED BY THE BOARD.
- c) NO PERMIT SHALL BE ISSUED BY THE AGENCY UNDER the ACT FOR CONSTRUCTION OR OPERATION OF ANY FACILITY OR SITE LOCATED WITHIN THE BOUNDARIES OF ANY SETBACK ZONE ESTABLISHED PURSUANT TO the ACT, WHERE SUCH

CONSTRUCTION OR OPERATION IS PROHIBITED. (Section 39 of the Act.)

#### Section 832.107 Standards for Denial of a Permit

IF THE AGENCY DENIES ANY PERMIT PURSUANT TO THIS Section, THE AGENCY SHALL TRANSMIT TO THE APPLICANT, WITHIN THE TIME LIMITATIONS for Agency decision deadlines, SPECIFIC, DETAILED STATEMENTS AS TO THE REASONS THE PERMIT APPLICATION WAS DENIED. SUCH STATEMENTS SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:

- a) THE SECTIONS OF the ACT THAT MAY BE VIOLATED IF THE PERMIT WERE GRANTED;
- b) THE PROVISION OF THE REGULATIONS set forth in 35 Ill. Adm. Code: Chapter I, PROMULGATED PURSUANT TO the ACT, THAT MAY BE VIOLATED IF THE PERMIT WERE GRANTED;
- c) THE SPECIFIC INFORMATION, IF ANY, THE AGENCY DEEMS THE APPLICANT DID NOT PROVIDE IN ITS APPLICATION TO THE AGENCY; AND
- d) A STATEMENT OF SPECIFIC REASONS WHY THE ACT AND THE REGULATIONS set forth in 35 Ill. Adm. Code: Chapter I MIGHT BE VIOLATED IF THE PERMIT WERE GRANTED. (Section 39(m) of the Act.)

#### Section 832.108 Permit Appeals

IF THE AGENCY REFUSES TO GRANT OR GRANTS WITH CONDITIONS A PERMIT UNDER SECTION 39 OF the ACT, THE APPLICANT MAY, WITHIN 35 DAYS, PETITION FOR A HEARING BEFORE THE BOARD TO CONTEST THE DECISION OF THE AGENCY. (Section 40(a)(1) of the Act) The petition shall be filed, and the proceeding conducted, pursuant to the procedures of Section 40 of the Act and 35 Ill. Adm. Code 101 and 105.

#### Section 832.109 Permit No Defense

The issuance and possession of a permit shall not constitute a defense to a violation of the Act or any Board regulations, except for the development and operation of a facility without a permit.

#### Section 832.110 Term of Permit

No permit issued pursuant to this part shall have a term of more than 10 years.

### Section 832.111            Transfer of Permits

A permit may be transferred to a new operator only upon permit modification, pursuant to this Part, to identify the new permittee and incorporate other requirements necessary under the Act. The application shall be signed by the existing owner or duly authorized agent of the owner and the new owner and operator or duly authorized agents. The new operator to whom the permit is transferred shall comply with all terms and conditions specified in such permit.

### SUBPART B:    ADDITIONAL PROCEDURES FOR MODIFICATION OF PERMITS

#### Section 832.201            Agency-Initiated Modification of an Approved Permit

- a)    The Agency may modify a permit under the following circumstances:
  - 1)    Discovery of a typographical, administrative, or calculation error;
  - 2)    Discovery that a determination or condition was based upon false or misleading information;
  - 3)    An order of the Board issued in an action brought pursuant to Title VII, IX or X of the Act; or
  - 4)    Promulgation of new statutes or regulations affecting the permit.
- b)    Modifications initiated by the Agency shall not become effective until 45 days after receipt by the operator, unless stayed during the pendency of an appeal to the Board. The operator may request that the Agency reconsider the modification, or may file a petition for hearing with the Board pursuant to Section 832.108. All other time periods and procedures in 832.202 shall apply.

#### Section 832.202            Procedures for a Modification of an Approved Permit

Application for modification of an approved permit shall be subject to all requirements and time schedules set forth in this Part.

SUBPART C: ADDITIONAL PROCEDURES FOR THE RENEWAL OF PERMITS

Section 832.301 Time of Filing

An application for renewal of a permit shall be filed with the Agency at least 90 days prior to the expiration date of the existing permit.

Section 832.302 Effect of Timely Filing

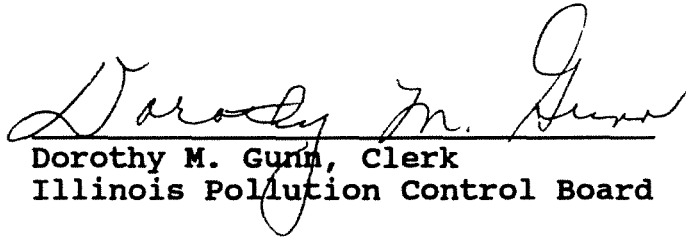
When a permittee has made timely and sufficient application for the renewal of a permit, the existing permit shall continue in full force and effect until the final Agency decision on the application and any final Board decision on any appeal pursuant to section 40 have been made, unless a later date is fixed by order of a reviewing court.

Section 832.303 Procedures for Permit Renewal

Applications for permit renewal are be subject to the requirements and time schedules set forth in Subpart A of this Part.

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above opinion and order was adopted on the 30<sup>th</sup> day of June, 1994, by a vote of 6-0.

  
Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board