

ILLINOIS POLLUTION CONTROL BOARD
October 1, 1998

IN THE MATTER OF:)
)
AMENDMENTS TO REQUIREMENTS FOR) R97-29
LANDSCAPE WASTE COMPOST) (Rulemaking - Land)
FACILITIES, 35 ILL. ADM. CODE)
830.203(c), 831.107, AND 831.109(b)(3))

Proposed Rule. Second Notice.

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

In this proceeding, two citizens, Dr. Renuka Desai and Susan Garrett (proponents), asked the Board to require composting areas at certain landscape waste compost facilities to be located at least 1/2 mile from the property line of a hospital, school, athletic field, or public park. Proponents also asked the Board to require existing composting areas located within that setback distance to relocate. Proponents stated that the amendments were necessary because compost facilities release spores that pose risks to human health, particularly spores of the fungus *Aspergillus fumigatus* (*A. fumigatus*).

On June 17, 1998, the Board adopted a modified version of proponents' proposal for first notice. In the first-notice opinion and order, the Board acknowledged that responsible composting is environmentally beneficial and that composting has not been shown to increase risks to the general public. Furthermore, the fungus *A. fumigatus* is ubiquitous, and the concentration of *A. fumigatus* spores at approximately 500 feet from composting areas generally is not higher than its background concentration.

However, spores of *A. fumigatus* do pose a potential health threat to very young children and persons with asthma, cystic fibrosis, immunocompromised or immunosuppressed conditions, or bioaerosol allergies. *A. fumigatus* can cause allergic asthma, allergic bronchopulmonary aspergillosis, extrinsic allergic alveolitis, and invasive aspergillosis.

Therefore, as a precaution, and consistent with the recommendations of public health experts, the Board proposed to extend the 1/8 mile setback from residences that currently applies to composting areas to health care facilities, preschool and child care facilities, and primary and secondary school facilities. The Board proposed that this modified proposal apply only to facilities developed or expanded after January 1, 1999. The Board also proposed corresponding changes to requirements for permit applications.

As further explained below, the Board held a public hearing and received public comment on the first-notice proposal. The Board has reviewed those comments and concludes first, that the Board has the power to adopt the proposed rules; second, that the proposed rules are technically feasible and economically reasonable; and third, that the proposed rules should not be applied to existing compost facilities. The Board also has revised the first-notice

proposal on the basis of testimony and comment as follows: (1) the Board has added a provision clarifying when and how the proposed setbacks are to be measured; (2) the Board has deleted “health care facilities” from the regulation and substituted a more narrow description of the types of health care facilities covered by the regulation; (3) the Board has deleted “child care facilities” and substituted a more precise term; (4) the Board has deleted “associated recreational areas” and substituted a more precise term.

Today, the Board adopts this revised proposal for second notice and directs the Clerk of the Board to forward this second-notice opinion and order to the Joint Committee on Administrative Rules (JCAR) for its consideration.

This opinion is organized as follows: first, the Board summarizes the rulemaking proceedings to date and addresses several procedural matters; second, the Board discusses the current composting setback requirements, proponents’ proposal, and the proposal set forth in the Board’s first-notice opinion and order; third, the Board summarizes its findings at first notice; and fourth, the Board discusses the issues raised at the hearing and in the public comments following first notice. The opinion is followed by the Board’s order, which sets forth the amendments proposed for second notice.

PROCEDURAL MATTERS

Proponents filed their proposal with the Board on May 6, 1997. On June 19, 1997, the Board accepted this proposal for hearing. Before first notice, the Board held two public hearings in this matter: the first, in Chicago, on September 8, 1997; and the second, in Springfield, on October 7, 1997. At the first hearing, the following witnesses testified: Susan Garrett, a resident of the City of Lake Forest and one of the proponents; Steven Handler, a resident of the City of Lake Forest; Gloria Loukas, a resident of the City of Lake Forest; Dr. Renuka Desai, a resident of the City of Lake Forest and one of the proponents; Jack Darin of the Sierra Club; William Holleman of the Illinois Citizen Action Public Education Committee; Earl Johnson of the Illinois Citizen Action Public Education Committee; Cheryl Doros, a resident of the City of Lake Forest; Peter Mueller, a resident of the City of Lake Forest; Edward Grskovich, a resident of the City of Lake Forest; Jacob Dumelle of the American Lung Association of Metropolitan Chicago; Mary Matthews, a resident of the City of Lake Forest; Scott Garrett, a resident of the City of Lake Forest; Joyce Munie of the Illinois Environmental Protection Agency; Elizabeth Harvey on behalf of Land and Lakes Company; Thomas Naatz, Director of Parks, Forestry, and Public Works for the City of Lake Forest; and Charles Pick of Organics Management Company.

At the second hearing, the following witnesses testified: Dr. Karen Strauss, on behalf of the City of Lake Forest; Dr. Shirley Baer, Joyce Munie, and Edwin Bakowski of the Illinois Environmental Protection Agency; Clyde Wakefield, Director of Public Works and Engineering for the City of Crystal Lake; Dr. Paul Walker of Illinois State University; and Andrew Quigley of the Solid Waste Agency of Lake County.

Following the publication of the first-notice opinion and order, the Board held a public hearing in Chicago, Illinois on August 7, 1998.¹ At the hearing, the following witnesses testified: Susan Garrett, a resident of Lake Forest and one of the proponents; Edwin Bakowski and Joyce Munie of the Illinois Environmental Protection Agency; Joy Hinz of Will County; Charles Pick of Organics Management Company; Dr. Renuka Desai, a resident of Lake Forest and one of the proponents; Jeffrey Geiss of CDT Landfill in Joliet, Illinois; and Susan Franzetti of Gardner, Carton & Douglas on behalf of the City of Lake Forest.

Following the publication of the first-notice opinion and order, the Board received nine public comments. Complete lists of exhibits entered into the record, and public comments filed with the Board, are attached to this opinion and order as Attachment 1 and Attachment 2, respectively.

BACKGROUND AND PROPOSAL

Proponents proposed that the Board amend the location standards for compost facilities that the Board adopted in 1994,² specifically 35 Ill. Adm. Code 830.203(c). Section 830.203(c) implements Section 39(m) of the Illinois Environmental Protection Act (Act), 415 ILCS 5/39(m) (1996), and currently provides as follows:

With the exception of on-farm landscape waste operations, all landscape waste compost facilities subject to this Part shall comply with the following:

* * *

- 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)*. (Note: italicized language is from Section 39(m).)

The legislature defined “landscape waste,” “compost,” and “composting” in the Act, and the Board incorporated the same definitions into its rules. “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. 415 ILCS 5/3.20 (1996).

“Compost” means:

¹ The transcript of the August 7, 1998, hearing is cited as “Tr.3 at ___.”

² See Regulation of Landscape Waste Compost Facilities 35 Ill. Adm. Code 830-832 (November 3, 1994), R93-29.

the humus-like product of the process of composting waste, which may be used as a soil conditioner. 415 ILCS 5/3.69 (1996).

“Composting” means:

the biological treatment process by which microorganisms decompose the organic fraction of the waste, producing compost. 415 ILCS 5/3.70 (1996).

The location standards that the Board adopted in 1994 apply to the “composting areas” of “on-site facilities,” “on-site commercial facilities,” and permitted “landscape waste compost facilities.” They do not apply to “garden compost operations”³ or “on-farm landscape waste compost facilities.” See 35 Ill. Adm. Code 830.102 (definitions), 830.104(a) (exemption for garden compost operations), and 830.201 (scope and applicability of Part 830).

Proponents proposed that the Board amend the location standards of 35 Ill. Adm. Code 830.203(c) by adding the language underlined below:

With the exception of on-farm landscape waste operations, all landscape waste compost facilities subject to this Part shall comply with the following:

* * *

- 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), and a minimum of 1/2 mile from the property line of a hospital, school, an athletic field and a public park. Existing composting operations that are located within 1/2 mile of the above-mentioned facilities shall be relocated to more than 1/2 mile within six months of the effective date of this regulation.*

Proponents maintained that these amendments are necessary because landscape waste compost facilities release spores into the air that pose risks to human health. The spores that cause proponents greatest concern are spores of the fungus *A. fumigatus*.

At first notice, the Board proposed to extend the existing 1/8 mile setback from residences to health care facilities, preschool and child care facilities, and primary and secondary school facilities, so that Section 803.203(c) would read as follows:

³ “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.” 35 Ill. Adm. Code 830.102.

- 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.) In addition, in the case of a facility that is developed or the permitted composting area of which is expanded after January 1, 1999, the composting area shall be located at least 1/8 mile from each of the following:
- 1) health care facilities;
 - 2) primary and secondary schools and their associated recreational areas; and
 - 3) pre-school and child care facilities and their associated recreational areas.

The Board also proposed corresponding changes to requirements for permit applications. Amendments to Requirements for Landscape Waste Compost Facilities, 35 Ill. Adm. Code 830.203(c), 831.107, and 831.109(b)(3) (June 17, 1998), R97-27, slip op. at 45-46.

SUMMARY OF BOARD FINDINGS AT FIRST NOTICE

At first notice, the Board extensively reviewed the record and made the following findings:

1. The fungus *A. fumigatus* is ubiquitous. While responsible composting is environmentally beneficial, composting generates elevated levels of *A. fumigatus*. Airborne *A. fumigatus* spores from compost facilities may occur at levels above background in nearby, downwind off-site areas.
2. *A. fumigatus* spores pose little, if any, health threat to healthy individuals in the general public. No relationship between exposure to certain levels of *A. fumigatus* spores and adverse health effects (*i.e.*, a “dose-response relationship”) has been demonstrated. However, spores of *A. fumigatus* do pose a potential health threat to persons with asthma, cystic fibrosis, immunocompromised or immunosuppressed conditions, or bioaerosol allergies. Very young children are also potentially at greater risk because their immune systems are immature. In these sensitive groups, *A. fumigatus* can cause allergic asthma, allergic bronchopulmonary aspergillosis, extrinsic allergic alveolitis, and invasive aspergillosis.
3. While operating standards can minimize the off-site distribution of *A. fumigatus* spores, it appears that even good management practices at compost

facilities do not necessarily prevent downwind *A. fumigatus* spore concentrations from being above background levels in nearby off-site areas.

4. As a precaution, and consistent with the recommendations of public health experts, compost facilities sited in the future should be set back from the following facilities: (a) health care facilities; (b) primary and secondary schools and their associated recreational areas; and (c) preschool and child care facilities and their associated recreational areas.
5. Generally, the concentration of *A. fumigatus* spores falls to background within approximately 500 feet of a composting area. The Board found that the current 1/8 mile (660 feet) setback applied for residences should be extended to these other facilities. The Board proposed corresponding changes to requirements for permit applications.
6. Since the additional setback requirements would be imposed as a matter of prudence in the face of a potential health threat, and in light of the potential economic costs of relocating or closing existing compost facilities, the Board proposed to apply the new setback requirements prospectively. The first-notice order provided that the new setbacks would apply only to composting areas developed or expanded after January 1, 1999.

DISCUSSION

At the public hearing and in the public comments filed after first-notice publication, participants in this rulemaking raised several issues. These issues are: the Board's authority to adopt the proposed rules; general comments on the proposed rules; technical feasibility and economic reasonableness of the proposed rules; application of the proposed rules to existing compost facilities; application of the proposed rules; and protected facilities. The Board discusses each in turn.

Board's Authority to Adopt the Proposed Rules

The National Solid Waste Management Association (NSWMA) and Waste Management filed comments arguing that the Board did not have authority to adopt the proposed rules. See PC 34; PC 36. These participants first argued that the proposed rules were not within the Board's general rulemaking authority. They also argued that by specifying certain setbacks in Section 39(m) of the Act, the legislature precluded the Board from adopting any additional setbacks. The Board addresses each argument below.

The Board's Rulemaking Authority

NSWMA argued that the Act does not grant the Board authority to adopt the proposed rules:

The proposed amendment to Section 803.203 is not the implementation of an environmental control standard. Nor is it a proposal establishing emission standards, discharge limitations, or pollution control abatement requirements, which are the subject of the statutory references cited by the Board as authority to promulgate the proposed rule. See 415 ILCS 5/8, 5/10, and 5/27(a). Indeed, the proposed rule implements a land use ban. PC 34 at 4.

The NSWMA further argues that the Board has no greater powers than those conferred upon it by the legislature, and that the courts would void the proposed rules because it exceeds the Board's authority. PC 34 at 4, citing Village of Lombard v. Pollution Control Board, 66 Ill. 2d 503, 363 N.E.2d 814 (1977). Waste Management submitted a similar comment. See PC 36 at 1.

The Board has carefully considered these comments and concludes that several provisions of the Act grant the Board authority to adopt the proposed rules. First, Section 5 of the Act grants the Board broad rulemaking authority. Under that section, the Board "shall determine, define and implement the environmental control standards applicable in the State of Illinois and may adopt rules and regulations in accordance with Title VII of the Act." 415 ILCS 5/5(b) (1996).

Sections 8 and 10 of the Act also authorize the Board to adopt the proposed rules. Section 10 provides:

The Board . . . may adopt regulations to promote the purposes of this Title. Without limiting the generality of this authority, such regulations may among other things prescribe: [air quality standards, emissions standards, etc.]
415 ILCS 5/10(a) (1996).

The "Title" to which Section 10 refers is Title II: Air Pollution. Section 8 sets forth the purposes of Title II as follows:

It is the purpose of this Title to restore, maintain, and enhance the purity of the air of this State in order to protect health, welfare, property, and the quality of life and to assure that no air contaminants are discharged into the atmosphere without being given the degree of treatment or control necessary to prevent pollution. 415 ILCS 5/8 (1996).

The proposed rules are well within the authority that these provisions of the Act grant to the Board. As Professor David Currie, one of the drafters of the Act and the first chairman of the Board, explained:

The basic plan of the statute is to leave the formulation of substantive standards to the Board, not to enshrine them in the statute itself. The reason for this choice was the expectation that specialized administrators working full time on pollution problems would be in a better position than legislators burdened by

innumerable other concerns to make reasonable judgments based upon masses of relevant technical information. The heart of the statute, therefore, is a series of grants of authority to make whatever regulations may be necessary to accomplish the explicit purposes set forth by the General Assembly Extensive lists of particular categories of permissible regulations -- air and water quality standards, emission and effluent standards, permit and monitoring requirements, and so forth -- are intended only to provide illustrations and to avoid any possibility of exclusion through narrow construction, “without limiting the generality” of the basic grant of authority. D. P. Currie, Rulemaking Under the Illinois Pollution Law, 42 Univ. of Chicago Law Review 457, 458-59 (1975).

The proposed rules are well within the basic grant of authority that the Act grants to the Board. The proposed rules are designed to protect “the purity of the air” near landscape waste compost facilities, as well as “health, welfare, property, and the quality of life” in the vicinity of these facilities. It is based on the Board’s findings, among others, (1) that *A. fumigatus* poses a potential health threat to very young children and to persons with asthma, cystic fibrosis, immunocompromised or immunosuppressed conditions, or bioaerosol allergies, and (2) that airborne *A. fumigatus* spores may occur at levels above background in nearby, downwind off-site areas. Landscape Waste Compost Facilities, R97-29, slip op. at 5. Because the proposed rules serve the aims of Section 8, Section 10 of the Act authorizes the Board to adopt the proposed rules. See also 415 ILCS 5/2(c) (1996) (“The terms and provisions of this Act shall be liberally construed so as to effectuate the purposes of this Act.”).

In addition, the proposed rules are an environmental control standard and a pollution control abatement measure and therefore expressly authorized under Sections 5, 8, and 10 of the Act. The proposed rules require landscape waste compost facilities to be set back a certain distance from certain facilities in order to ensure that the concentration of *A. fumigatus* spores that compost facilities emit falls to background. It is similar to other regulations that the Board has previously adopted. See, e.g., 35 Ill. Adm. Code 811.302(d) (requiring that certain landfill units be set back 500 feet from occupied dwellings, schools, and hospitals); 35 Ill. Adm. Code 817.309(e) (requiring that steel and foundry industry potentially usable waste landfills be set back 500 feet from occupied dwellings, schools, and hospitals); 35 Ill. Adm. Code 302.102(a) (establishing “mixing zones” as part of the Board’s water quality regulations).⁴

Finally, Village of Lombard does not preclude the Board from adopting the proposed rules. In that case, the Board adopted a regulation dividing DuPage County into nine water-treatment regions. The regulations required the regions to cooperate in sewage and water treatment. The Illinois Supreme Court confirmed that the Act empowers the Board to regulate by establishing standards: “The statute in question expresses a general policy to protect the

⁴ The Illinois Supreme Court upheld the mixing zone regulations (among other regulations) in Granite City v. Pollution Control Board, 155 Ill. 2d 149, 613 N.E.2d 402 (1993).

State from pollution and creates a board of experts to implement that policy through regulation.” Village of Lombard, 66 Ill. 2d at 507, 363 N.E.2d at 816. The court struck down the regulations at issue, however, finding that “the General Assembly has not empowered the Pollution Control Board to coordinate sewage treatment through regional water-treatment plans in the State of Illinois.” Village of Lombard, 66 Ill. 2d at 509, 363 N.E.2d at 816. Here, the proposed rules do not attempt to establish a new governmental agency, as did the rules that the court struck down in Village of Lombard. Instead, the proposed rules establish a standard to prevent air pollution. The proposed rules are therefore in keeping with the Board’s powers and duties under the Act.

Consistency of the Proposed Rules with Section 39(m) of the Act

The NSWMA notes that although Section 803.203 currently includes setback provisions, it includes only those specifically authorized in Section 39(m) of the Act. PC 34 at 4. The NSWMA argues that the Board may not adopt any setbacks other than those set forth in Section 39(m) of the Act. PC 34 at 4-5.

The Board disagrees. While Section 39(m) of the Act expressly provides that compost facilities must be set back from certain facilities, it does not prohibit the Board, either directly or by implication, from adopting other setbacks. It provides in relevant part as follows:

The Agency shall issue permits for such facilities upon receipt of an application that includes . . . documentation that:

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 shall 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);
- * * *
6. the operation will be conducted in accordance with any applicable rules adopted by the Board. 415 ILCS 5/39(m) (1996).

The requirement that compost facilities be located “so as to minimize incompatibility with the character of the surrounding area, *including at least*. . .” certain setbacks for residences, indicates that the General Assembly recognized that location standards in addition to those expressly set forth in the statute may be necessary. *Id.* Indeed, when the Board first adopted standards for compost facilities, it adopted several location standards not set forth in the

statute. Those standards were not challenged. The current proposal is therefore consistent with the statute and the Board's prior practice.

For these reasons, the Board concludes that it has authority to adopt the proposed rules.

General Comments on the Rules Proposed at First Notice

Several participants generally expressed support for the rules that the Board proposed at first notice. Some participants stated that they did not object to the rules on the grounds that it would apply only to new or expanded compost facilities. A few participants objected to the proposed rules generally. The Board notes that even those expressing support for, or not objecting to, the proposed rules had suggestions for improving the proposed rules. The Board discusses those suggestions at pages 15-21.

Among those expressing support for the proposed rules were the proponents, Susan Garrett and Dr. Desai. Susan Garrett testified: "While the final proposal does not go as far as we asked, it is certainly a very significant step in controlling the siting of compost operations throughout the state." Tr.3 at 12. Dr. Desai agreed. Tr.3 at 58-59.

Dr. Paul Walker of Illinois State University, who had testified at one of the Board's pre-first-notice public hearings, also supports the proposed rules. In a letter to the Illinois Composting Committee, he summarized the proposed rules and stated: "It is my opinion, as currently written, that the PCB proposal is a viable option and has been drafted in 'good faith.'" PC 28 at 3.

The municipalities that commented on the proposed rules either supported it or did not object to it so long as it was not revised to apply to existing compost facilities. Stephen N. Van Winkle, Director of Public Works, City of Peoria, filed a comment supporting the proposed rules. He stated that the City of Peoria opposed proponents' proposal because it could negatively impact the City of Peoria/County of Peoria Landscape Waste Processing Facility. He noted that proponents' proposal could have limited the potential re-use of its closed landfill, which is located adjacent to its Landscape Waste Processing Facility, for recreational purposes. PC 30 at 1. The proposed rules would not do so.

The City of Elgin and the City of Crystal Lake, both of which operate landscape waste compost facilities, submitted comments stating that the proposed rules would not impact their currently operating facilities. PC 29 at 1 (City of Elgin); PC 30 at 1 (City of Crystal Lake). The City of Elgin stated that if it needed to expand its facility after January 1, 1999, it would have to do so to the north to meet setback requirements; however, the City of Elgin did not state that the requirements would preclude it from expanding. The City of Elgin also stated that "Should we be forced to relocate the compost site at a later date, the 1/8 mile (660 feet) set-back is much more reasonable as compared with the original 1/2 mile set-back." PC 29 at 1. The City of Crystal Lake similarly stated "based upon the present land uses, the city would not be forced to relocate our compost facility either now, or at the time of renewal or on-site expansion." PC 31 at 1.

The City of Lake Forest filed a public comment in which it stated: “Lake Forest understands, as stated during the August 7 hearing before the Board, that the setback requirements of the proposed rules are to be applied prospectively only to a composting area developed or expanded after January 1, 1999. Solely on that basis, which will allow the Lake Forest Compost Facility to continue operating, Lake Forest does not argue here against the proposed rule.” PC 33 at 1 (citation omitted).

Several landfill company operators expressed limited support for the proposed rules. Land and Lakes Company (LALC) filed a comment stating that: “LALC believes that the rule proposed by the Board is an improvement over the rule proposed by the original proponents of additional setbacks. LALC concurs that additional setbacks should not be applied to existing facilities, and that public parks should not be included among the protected uses.” PC 35 at 1. See also Tr.3 at 47 (Charles Pick, Vice President of Organics Management Company, testified that “the first notice recommendation by the [B]oard to apply the setback requirements to new or expanded facilities I think is entirely reasonable.”)

As noted earlier, some participants oppose the proposed rules. The Illinois Environmental Protection Agency (Agency) does not agree that there is a need for the rules; however, the Agency does not object to the rules. Tr.3 at 23, 29-30. A representative of Will County, Joy Hinz, testified that “there appears to be no imminent public health threat to require a one-eighth mile setback.” Tr.3 at 45. Jeffery Geiss of CDT Landfill testified that the proposed rules could “increase illegal dumping of yard waste in areas where the compost facilities would be affected.” Tr.3 at 60. However, he also testified that the proposed rules would not affect the CDT Landfill. Tr.3 at 61.

The Board has carefully considered the comments opposing the rules. The Board continues to believe that the proposed rules (as modified below) are a prudent means of minimizing the potential health threat that compost facilities pose to certain subgroups in the population (*i.e.*, (1) persons with asthma, cystic fibrosis, immunocompromised or immunosuppressed conditions, and bioaerosol allergies, and (2) very young children). None of the participants since first notice has submitted any evidence to the contrary. Even if this potential threat is not “imminent,” the Board need not wait until a threat has reached that level before acting. The Board emphasizes that the proposed rules are consistent with the recommendations of public health experts, including the Illinois Department of Public Health.

The Board also finds that the concern that the proposed rules may increase illegal dumping of yard waste does not override the benefits that the proposed rules may offer. While an increase in illegal dumping is possible, other provisions of the Act and Board regulations already exist to address illegal dumping. Furthermore, the Board believes that the incidence of increased illegal dumping is likely to be minimal given the relatively minor impact of the rules on existing compost facilities, as the comments of municipalities confirm.

Technical Feasibility and Economic Reasonableness of the Proposed Rules

In adopting rules, the Board must take into account the technical feasibility and economic reasonableness of the proposed rules. See 415 ILCS 5/27(a) (1996). In addition, before adopting or amending a regulation, the Board must determine whether it “has any adverse economic impact on the people of the State of Illinois.” See 415 ILCS 5/27(b) (1996). The Board requested comment on these issues in the first-notice opinion and order. See Landscape Waste Compost Facilities, R97-29, slip op. at 7.

The Agency provided some testimony on these issues. The Agency stated that while it could not comment on the economic reasonableness of the proposed rules because it lacks access to the business and financial information of permittees, it did believe the rules to be technically feasible:

[T]he Illinois EPA is confident that within the state of Illinois there is ample area to find parcels of land that can meet the proposed setbacks. It is probable that facilities would find more suitable parcels in more remote areas, and therefore, transportation costs will be higher as they are farther away from populated areas where there are the more concentrated markets for both generators and users of the landscape waste and subsequent composts. Tr.3 at 16.

The Agency further testified that the proposed rules would not impact the administrative costs that the Agency incurs to review applications for new facilities. Tr.3 at 24. The Agency sent a mailing to existing compost facility owners or operators, asking them to comment on these issues to the Board. See Exh. 46, 47; Tr.3 at 17-21.

Charles Pick, Vice President of Organics Management Company, testified that the proposed rules would have a minimal economic impact. He testified:

I think what you are more likely to see is larger, more remote facilities because the more stringent the setback requirements, the harder it is to site these facilities. But again, the owner or developer of a facility that would be new or expanded would not undertake that investment unless they felt it warranted. So I think it's -- I don't see any net impact on the industry as a result of it or on cost. Tr.3 at 57-58.

Based on the record, the Board finds that the proposed rules are technically feasible and economically reasonable. The proposed rules may increase transportation costs for new compost facilities if they must be located in more remote areas in order to meet the proposed rules' setback requirements. However, given that the proposed rules do not affect existing compost facilities and that the evidence of this potential effect was not conclusive, the Board does not find that that the proposed rules would have an adverse economic impact on the people of the State of Illinois.

Application of Proposed Rules to Existing Compost Facilities

In the first-notice opinion and order, the Board did not propose to apply the proposed rules to existing compost facilities. Instead, the Board proposed that the rules would apply only to compost facilities developed or expanded after January 1, 1999. The Board stated that it did so because “the additional setbacks would be imposed as a matter of prudence in the face of a potential health threat, and in light of the potential economic costs of relocating or closing existing compost facilities” Landscape Waste Compost Facilities (June 17, 1998), R97-29, slip op. at 39.

However, proponents had originally requested that the rules be applied to existing compost facilities, and the Board did not foreclose that option. Accordingly, the Board requested comment on the impact of applying the proposed rules to existing compost facilities. See Landscape Waste Compost Facilities (June 17, 1998), R97-29, slip op. at 7, 39. In particular, the Board requested comment on: (1) the technical feasibility and economic reasonableness of the proposed setbacks in this first-notice order if applied to existing facilities; (2) if the setbacks proposed in this first-notice order were applied to existing compost facilities, should they apply immediately or after some period of time expires; (3) if the setbacks proposed in this first-notice order were applied to existing compost facilities, would that render the regulation an invalid retroactive regulation; (4) if the setbacks proposed in this first-notice order were applied to existing compost facilities, how many existing compost facilities would have to close or relocate; and (5) of those facilities identified in item (4), how long would it take to amortize the respective investments in those facilities. *Id.* The Board received comment on these issues, as described below.

Impact on Existing Compost Facilities; Technical Feasibility and Economic Reasonableness

As noted, the Board asked for comment on how many compost facilities would be affected if the proposed rules were applied to existing compost facilities, and for those facilities, how long it would take to amortize the investments in those facilities. Landscape Waste Compost Facilities, R97-29, slip op. at 7. The Board also asked for comment on the technical feasibility and economic reasonableness of applying the proposed rules to existing compost facilities.

The Agency testified that it did not know how many compost facilities would be affected if the proposed rules were applied to existing compost facilities. Tr.3 at 17.

The City of Lake Forest filed a public comment stating that the application of the proposed rules to existing compost facilities would require the Lake Forest compost facility to close. PC 33 at 2. Lake Forest would lose its \$120,000 investment in its facility, and Lake Forest would not be able to relocate the facility within Lake Forest. *Id.* Lake Forest would incur additional costs of at least \$100,000 per year to handle its landscape waste. PC 33 at 2. Lake Forest also notes that none of the participants now contend that the rules should be applied to existing facilities. PC 33 at 4.

LALC also argues that the proposed rules should not be applied to existing compost facilities. PC 35 at 2. One of its compost facilities would close if the rules were applied to

existing compost facilities. PC 35 at 3. LALC also argues that the application of the proposed rules to existing compost facilities is not technically feasible or economically reasonable because it will force facilities to close. PC 35 at 1-2.

Mr. Pick, Vice President of Organics Management Company, testified that it would be difficult for closed compost facilities to relocate near urban areas. Tr.3 at 50-51. Many of the existing compost facilities might become transfer stations, and the net result would be larger, more remote compost facilities, and higher transportation costs to and from those facilities. Tr.3 at 53. These costs would ultimately be borne by homeowners. Tr.3 at 54.

Effective Date of Regulation

The Board also asked whether the proposed setbacks should be applied immediately or after some time expired (assuming the setbacks would be applied to existing compost facilities). Landscape Waste Compost Facilities, R97-29, slip op. at 7. The Agency testified that if the proposed rules were applied to existing compost facilities, it would recommend that it be phased in with the compliance deadline for each existing compost facility falling on its current permit's expiration date. That would allow the Agency to spread its expected additional administrative costs of \$525,000 to \$700,000 over a longer period of time. Tr.3 at 24.

Mr. Pick testified that applying the proposed rules to compost facilities as their permits expire "would at least give an operator the opportunity to minimize the loss of investment by having some ability to plan for that date when their permit expires . . . although site improvement costs generally are completely lost when a facility is closed simply because you can't sell those improvements typically to a new property purchaser." Tr. 3 at 49. Lake Forest did not believe the costs would be substantially different if the proposed rules were applied to existing compost facilities immediately or later. PC 33 at 3.

Whether the Proposed Rules Could be Considered an Invalid Retroactive Regulation if Applied to Existing Compost Facilities

Finally, the Board asked for comment on whether applying the setbacks in the proposed rules to existing compost facilities would render the regulation an invalid retroactive regulation. Landscape Waste Compost Facilities, R97-29, slip op. at 7.

Lake Forest argues that the application of the rules to existing compost facilities would be arbitrary and therefore invalid. Lake Forest notes that the Board stated that the proposed rules established only a siting requirement and would not be violated if a residence, health care facility, or school located near a compost facility after the compost facility was sited. Landscape Waste Compost Facilities, R97-29, slip op. at 37, n.28. Lake Forest concluded:

Therefore once sited, the "precautionary" purpose on which the proposed rule is based is not deemed sufficient to cause an existing facility to be closed. It can continue to operate indefinitely in less than 1/8 mile proximity to the facilities

of concern addressed in the setback requirements. In stark contrast, however, an existing facility would be ordered closed where a health care facility is currently located within 1/8 mile – the very same location situation described in the prospective example offered by the Board Such result is a distinction without any difference. PC 33 at 3-4.

LALC also believes that the proposed rules would be an invalid retroactive regulation if they were applied to existing compost facilities, even with an amortization period:

The government may enact an “amortization” regulation gradually eliminating existing facilities only where the public interest clearly requires it. As the Board stated, “the additional setback requirements would be imposed as a matter of prudence in light of a potential health threat.” A regulation adopted “as a matter of prudence” to address a “potential health threat” does not equate to a regulation clearly required by the public interest. Thus, the application of the additional setbacks to existing facilities, whether immediately or after some period of time, would be an invalid retroactive regulation. PC 35 at 2-3.

Board Conclusion on the Application of the Proposed Rules to Existing Compost Facilities

For several reasons, the Board concludes that the proposed rules should not be applied to existing compost facilities. First, it would cause some compost facilities to close, causing owners and operators of those facilities to lose their investments in those facilities. It does not appear that phasing in the proposed rules over a period of time – for example, as existing permits expire – would substantially lessen the economic impact on existing compost facilities. The Board notes that existing compost facilities are already prohibited from creating air pollution (see 415 ILCS 5/9(a) (1996)), and that in light of that prohibition, and the excessive costs that existing compost facilities would incur to comply with the proposed rules, the proposed rules should only be applied to compost facilities that are developed or expanded after January 1, 1999. The Board need not reach, and does not decide, whether the proposed rules would be an invalid retroactive regulation if applied to existing compost facilities.

Application of Proposed Rules

Participants raised several questions on how the proposed rules were to be applied. First, participants questioned whether a compost facility sited in compliance with the proposed rules would be forced to relocate if, at some later date, a health care facility, school, or child care facility was sited within 1/8 mile of the compost facility. In addition, participants questioned when the setbacks were to be measured. Second, participants asked how the setbacks were to be measured. The Board addresses these issues in turn.

Effect of Later-Sited Protected Facilities; When to Measure Setbacks

In the first-notice opinion, the Board addressed the effect of later-sited protected facilities (*e.g.*, primary and secondary schools) as follows:

The City of Lake Forest argues that proponents' proposal is ambiguous because it is unclear whether a compost facility that "complies with the location standard at the time the facility is permitted will be in violation of the standard once a school or hospital is subsequently constructed within the 1/2 mile setback." PC 26 at 17. To clarify, the proposed first notice amendments to 35 Ill. Adm. Code 830.203(c) are siting requirements. A compost facility sited in compliance with these requirements would not violate them because a health care facility, for example, is thereafter constructed within 1/8 mile. Landscape Waste Compost Facilities, R97-29, slip op. at 37, n.28.

Several participants commented that the Board should include this interpretation in the proposed rules themselves. For example, the NSWMA commented: "To fully implement the Board's intent that this rule operate prospectively, NSWMA submits that the rule be clarified to allow a compost facility to continue operations if a residence, health care facility, or child care facility locates within 1/8 mile of the compost facility after such facility has been permitted." PC 34 at 5-6. Waste Management, the City of Crystal Lake, CDT Landfill, and LALC expressed a similar concern. See PC 31 at 1 (City of Crystal Lake), PC 36 at 2 (Waste Management), PC 35 at 3-4 (LALC), and Tr.3 at 62 (CDT Landfill). LALC suggested that the Board clarify its interpretation in the proposed rules themselves or in a Board note. PC 35 at 3-4.

On a related issue, the Agency provided testimony and comment on when compliance with the setbacks in the proposed rules should be measured. See Tr.3 at 16-17, 35-37; PC 32 at 3. In its public comment, the Agency summarized its position as follows:

For permitted facilities, it should be the date that a complete application for development is received by the Agency. This would be consistent with current Agency practice in determining compliance with the compost facility setback from residences. For nonpermitted facilities, it should be the date when construction begins. PC 32 at 3.

The Agency also proposed that setbacks would not be revisited when a permit came up for renewal. Tr.3 at 41.

The Board notes that the concern about later-sited facilities, and when to determine compliance with setbacks, is not unique to the proposed rules. Section 803.203 already contains numerous location standards without addressing the effect of later-sited facilities on a compost facilities' compliance with the location standards or when compliance with setbacks is to be determined. See Tr.3 at 32-37. None of the participants suggested that these omissions have caused a problem in the past, and the Agency appears to have developed internal policies to address these issues. See Tr.3 at 32-37. Now that these issues have been raised, however, the Board concludes that it is advisable to confirm that the location standards are siting standards, and are only to be applied when a compost facility is sited. As a consequence, a

compost facility's compliance with this provision will not be affected by conditions that change after a facility is sited.

To address these issues, the Board has revised and renumbered Section 803.203, and added a new subsection (b) to Section 803.203 that provides as follows:

- b) A facility's compliance with the location standards set forth in subsection (a) of this section shall be determined at the time described below:
 - 1) for a facility that is required to obtain a permit under Section 21(d) of the Act, at the time that a complete permit application for a new or expanded facility is filed with the Agency under 35 Ill. Adm. Code 832; or
 - 2) for a facility that is not required to obtain a permit under Section 21(d) of the Act, at the time that construction of the new or expanded facility begins.

Requiring compliance with setbacks to be determined at siting will serve several important purposes. First, it will provide certainty to those seeking to develop or expand compost facilities. They can proceed without the fear that a later development will cause them to lose their investment. Second, once a compost facility has been developed or expanded, those seeking to site protected facilities near them will be on notice that the compost facility exists. At that point, the Board believes it appropriate for those seeking to site protected facilities near compost facilities to make their own determination about whether it is appropriate to locate near a compost facility. While the record shows that the potential health threat that compost facilities pose is the same for all protected facilities within 1/8 mile, regardless of when they were constructed, these practical concerns require that setbacks be applied only at the time that a compost facility is developed or expanded.

Point from which to Measure Setbacks

The Agency asked the Board to specify the point from which setbacks should be measured:

From where is the measurement to the composting area made? In the case of a health care facility, would measurement be made to the building or to the property line? Are buildings that are used for support such as maintenance buildings at health care facilities included in the setback? Tr.3 at 26-27.

In the public comment that the Agency filed following the public hearing, the Agency suggested a solution to the questions it posed: "The Agency further suggests that the Board clarify in its order that the setback from a school would be from the school property boundary rather than from the school building." PC 32 at 3. This recommendation is consistent with the Agency's current practice regarding the existing setbacks for residences; generally, the

Agency measures the distance between the edge of the composting area and the residential property line to determine compliance with the setback . See Tr.3 at 37-39.

No one else commented on this issue. The Board believes it appropriate to address this issue by adding the phrase “the property line of” before listing the facilities that the proposed rules would protect.

Protected Facilities

Several participants suggested that the categories of facilities protected by the proposed rules were overbroad or not clear. The Board addresses these concerns below.

Health Care Facilities

At the public hearing, the Agency asked the Board to identify the facilities encompassed in the term “health care facility”:

There are many types of facilities that could arguably be included. Is a nursing home a health care facility? Does a doctor’s office fit into this definition? Is a psychiatrist’s office included? Is a mental health hospital included? Tr.3 at 26.

The NSWMA and Waste Management also urged the Board to further define this term. See PC 34 at 6 (NSWMA) and PC 36 at 2 (Waste Management).

At hearing, Board Member Hennessey noted that the Board has used the term “health care facility” in other regulations without definition, citing the Tiered Approach to Corrective Action (TACO) regulations at 35 Ill. Adm. Code Part 742, and questioned whether the Agency’s experience with that regulation would assist the Agency in applying the term as used in the proposed rules. In its public comment, the Agency responded that it would not be appropriate for the Agency to use TACO as a guideline. PC 32 at 1. The Agency noted that as used in TACO, the phrase “health care facility” is qualified by the phrase “where children have the opportunity for exposure to contaminants through soil ingestion or inhalation . . . ,” and that no such qualifying language is provided in the proposed rules. PC 32 at 1. The Agency further stated that in TACO, the Agency interprets “health care facility” very broadly, relying on the qualifying phrase to determine if children have an opportunity for exposure. PC 32 at 1-2. The Agency argued that the use of “health care facility” in the proposed rules “could lead to confusion as to the meaning of the term in TACO.” PC 32 at 2.

The Agency noted that the consequences of the meaning of the term “health care facility” are much more severe under the proposed rules than they are under TACO. “A property under TACO needs only to reevaluate its compliance [*i.e.*, the level of cleanup required] if it falls within the scope of the term ‘health care facility.’ But under the proposed amendments . . . the validity of a facility’s location is at issue.” PC 32 at 2.

Instead of the term “health care facility,” the Agency suggests that the Board use the following phrase: “facilities the primary function of which is treatment of immunosuppressed individuals, such as cancer or AIDS patients.” PC 32 at 2.

The Board is persuaded that the term “health care facilities” is too vague, and that the TACO regulations will not help the Agency interpret the term. However, the Agency’s suggested language, which focuses only on immunosuppressed individuals, is too narrow. While those individuals may be infected by *A. fumigatus* spores, the record shows that *A. fumigatus* spores also may cause problems for persons with asthma, cystic fibrosis, or bioaerosol allergies, as well as very young children.

Accordingly, the Board will accept, but expand upon, the language that the Agency has suggested. In lieu of “health care facilities,” the Board will substitute the phrase “facilities that primarily serve to house or treat people that are immunocompromised or immunosuppressed, such as cancer or AIDS patients; people with asthma, cystic fibrosis, or bioaerosol allergies; or children under the age of one year.”

The Board notes that one of the reasons it originally selected the term “health care facilities” was to relieve those building compost facilities of the task of trying to investigate the nature of surrounding facilities. The regulation that the Board now proposes will require that investigation, but the Board concludes that this more narrowly-tailored restriction will better serve the aims of the proposed rules.

Primary and Secondary Schools; Preschool and Child-Care Facilities

At hearing, the Agency stated that it assumed that “primary and secondary schools” encompassed kindergarten through 12th grade and could include public and private schools. Tr.3 at 26. Although at hearing the Agency asked the Board to clarify whether the term included homes where children are home-schooled (Tr.3 at 26), the Agency did not request any further clarification of this term in its final public comment. See PC 32 at 2 (“The Agency agrees with the Board’s assertion at the August 7, 1998, hearing that the term ‘primary and secondary schools’ is easily understood and therefore need not be defined.”) The NSWMA, however, requested further clarification of this term in its public comment. See PC 34 at 6.

The Board agrees with the Agency that this term has a commonly understood meaning and, as used in the proposed regulation, should be understood to have its ordinary meaning. As the Agency suggested, “primary and secondary schools” are those schools that include any grade from kindergarten through 12th grade, and include both private and public schools. That term, as it is ordinarily understood, would not include homes at which children are home-schooled. However, those homes obviously are residences that, like primary and secondary schools, are protected by the 1/8 mile setback.

In addition, the Agency questioned the meaning of “preschool and child-care facilities” at the hearing. In its final comment, however, the Agency concluded that these terms are

understood well enough to be implemented. PC 32 at 3. The NSWMA, however, requested clarification of these terms. See PC 34 at 6. Waste Management suggested that the Board “consider language which will define these facilities as licensed by the State of Illinois and define the number of enrollments required to qualify as a ‘facility.’” PC 36 at 2.

The Board agrees that there may not be complete agreement on the meaning of the term “child care facility.” To further define this term, the Board has looked to the Child Care Act of 1969, 225 ILCS 10/1 *et seq.* (1996), which generally requires anyone operating or conducting any “facility for child care” (a defined term) to obtain a license from the Illinois Department of Children and Family Services (DCFS). See 225 ILCS 10/3(a) (1996). To address the concerns that Waste Management raised, the Board therefore will delete “child care facilities” and substitute “any facility for child care licensed under Section 3 of the Child Care Act of 1969, 225 ILCS 10/3.”

The Board notes that this definition will not include “facilities for child care” that should, but do not, have a license from DCFS. The Board does not think it reasonable to require those building or expanding compost facilities to determine who is violating the Child Care Act of 1969; those building or expanding compost facilities should be able to rely on the records of DCFS to determine compliance with the setbacks. The proposed rules will allow them to do so.

The Board has retained the reference to preschools because it appears that the Child Care Act of 1969 may not cover all preschools. The Board agrees with the Agency that this term need not be further defined.

“Associated Recreational Areas”

The proposed rules at first notice extend the setbacks to “primary and secondary schools and their associated recreational areas” and “preschool and child care facilities and their associated recreational areas.”

Several participants argued that the phrase “associated recreational areas” was vague. At hearing, the Agency asked, “[A]re the associated recreational areas to schools only the contiguous areas? Are arenas or fields not owned by the schools but leased or used for recreational activities included?” Tr.3 at 26. In its final public comment, the Agency suggests that the Board delete the phrase. PC 32 at 3.

Waste Management and NSWMA also commented on this phrase. NSWMA suggested that the Board define it to specify that the recreational area must be adjacent to the facility itself. PC 34 at 6. Waste Management commented: “Associated recreational areas should be limited to adjacent property, which is currently developed for recreational activities of the school.” PC 36 at 2.

The Board agrees that the term “associated recreational areas” may be difficult to interpret, especially in those cases in which a school uses an arena or field that it does not own

or is not adjacent to the school. Accordingly, the Board has deleted the phrase “associated recreational areas” and, taking up the suggestion of Waste Management and NSWMA, has substituted the phrase “and adjacent areas that [the facility] uses for recreation.” These changes are reflected in the attached order.

CONCLUSION

The Board approves the proposed rules, as revised, for second notice. Additions from first notice are double-underlined; deletions from first notice are stricken through. The Board directs that the proposed rules be forwarded to JCAR for its consideration.

ORDER

The Board proposes for second notice the following amendments to 35 Ill. Adm. Code 830.203, 831.107, and 831.109(b)(3). The Clerk of the Board is directed to file these proposed rules with JCAR.

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

SUBPART A: GENERAL PROVISIONS

Section	
830.101	Purpose, Scope and Applicability
830.102	Definitions
830.103	Incorporations by Reference
830.104	Exempt Operations and Activities
830.105	Permit-Exempt Facilities and Activities
830.106	On-Farm Landscape Waste Compost Facility
830.107	Compliance Dates
830.108	Severability

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

Section	
830.201	Scope and Applicability
830.202	Minimum Performance Standards and Reporting Requirements for

	Landscape Waste Compost Facilities
830.203	Location Standards for Landscape Waste Compost Facilities
830.204	Additional Stormwater and Landscape Waste Leachate Controls at Permitted Landscape Waste Compost Facilities
830.205	Additional Operating Standards for Permitted Landscape Waste Compost Facilities
830.206	Operating Plan for Permitted Landscape Waste Compost Facilities
830.207	Salvaging at Permitted Landscape Waste Compost Facilities
830.208	Access Control at Permitted Landscape Waste Compost Facilities
830.209	Load Checking at Permitted Landscape Waste Compost Facilities
830.210	Personnel Training for Permitted Landscape Waste Compost Facilities
830.211	Recordkeeping for Permitted Landscape Waste Compost Facilities
830.212	Contingency Plan for Permitted Landscape Waste Compost Facilities
830.213	Closure Plan for Permitted Landscape Waste Compost Facilities

SUBPART E: QUALITY OF END-PRODUCT COMPOST

Section	
830.501	Scope and Applicability
830.502	Compost Classes
830.503	Performance Standards for General Use Compost
830.504	Testing Requirements for End-Product Compost Derived from Landscape Waste
830.507	Sampling Methods
830.508	Off-Specification Compost

SUBPART F: FINANCIAL ASSURANCE

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
Appendix A	Early Detection and Groundwater Monitoring Program
Appendix B	Performance Test Methods
Table A	Inorganic Concentration Limits for General Use Compost
Table B	Sampling and Handling Requirements
Table C	Seed Germination Record Sheet

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 39].

SOURCE: Adopted at 18 Ill. Reg. 17017, effective November 15, 1994; amended in R97-29 at 22 Ill. Reg. _____, effective _____.

BOARD NOTE: This Part implements the Illinois Environmental Protection Act as of July 1, 1994.

NOTE: In this Part, unless the context clearly indicates otherwise, superscript numbers or letters are denoted by parentheses; subscript are denoted by brackets.

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

Section 830.203 Location Standards for Landscape Waste Compost Facilities

- a) With the exception of on-farm landscape waste operations, all landscape waste compost facilities subject to this Part shall comply with the following:
- 1a) 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-)
- 2b) 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-)
- 3e) 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-) In addition, in the case of a facility that is developed or the permitted composting area of which is expanded after January 1, 1999, the composting area shall be located at least 1/8 mile from the property line of each of the following:
- A1) Facilities that primarily serve to house or treat people that are immunocompromised or immunosuppressed, such as cancer or AIDS patients; people with asthma, cystic fibrosis, or bioaerosol

allergies; or children under the age of one year health care facilities;

B2) ~~P~~primary and secondary schools and adjacent areas that the school uses for recreation; ~~their associated recreational areas;~~ and

C3) Any facility for child care licensed under Section 3 of the Child Care Act of 1969, 225 ILCS 10/3; ~~preschools; pre-school and child care facilities~~ and adjacent areas that the facility or preschool uses for recreation ~~their associated recreational areas.~~

4d) 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, in order to minimize incompatibility with the character of the surrounding area, landscape waste must 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.

5e) 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:

A1) Using published water table maps or other published documentation to establish the location of the water table in relation to site elevation; or

B2) Actual measuring of the water table elevation at least once per month for three consecutive months.

6f) The facility must meet all requirements under the Wild and Scenic Rivers Act (16 USC U.S.C. 1271 et seq.).

7g) 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.

8h) The facility must not be located in any area where it may pose a threat of harm or destruction to the features for which:

A1) An irreplaceable historic or archaeological site has been listed pursuant to the National Historic Preservation Act (16 ~~USCU.S.C.~~ 470 et seq.) or the Illinois Historic Preservation Act [20 ILCS 3410];

B2) A natural landmark has been designated by the National Park Service or the Illinois State Historic Preservation Office; or

C3) A natural area has been designated as a Dedicated Illinois Nature Preserve pursuant to the Illinois Natural Areas Preservation Act [525 ILCS 30].

9i) 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 ~~USCU.S.C.~~ 1531 et. seq.); or the Illinois Endangered Species Protection Act [520 ILCS 10].

b) A facility's compliance with the location standards set forth in subsection (a) of this section shall be determined at the time described below:

1) For a facility that is required to obtain a permit under Section 21(d) of the Act, at the time that a complete permit application for a new or expanded facility is filed with the Agency under 35 Ill. Adm. Code 832;
or

2) For a facility that is not required to obtain a permit under Section 21(d) of the Act, at the time that construction of the new or expanded facility begins.

(Source: Amended at 22 Ill. Reg. _____, effective _____)

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 COMPOST FACILITY PERMIT
APPLICATION

SUBPART A: GENERAL INFORMATION REQUIRED FOR ALL COMPOST FACILITIES

Section	
831.101	Scope and Applicability
831.102	Severability
831.103	Certification by Professional Engineer
831.104	Application Fees
831.105	Required Signatures
831.106	Site Identification
831.107	Site Location Map
831.108	Site Plan Map
831.109	Narrative Description of the Facility
831.110	Legal Description
831.111	Proof of Land Ownership and Certification
831.112	Closure Plan
831.113	Financial Assurance
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 39].

BOARD NOTE: This Part implements the Illinois Environmental Protection Act as of July 1, 1994.

SOURCE: Adopted at 18 Ill. Reg. 16942, effective November 30, 1994; amended in R97-29 at 22 Ill. Reg. _____, effective _____.

SUBPART A: GENERAL INFORMATION REQUIRED FOR ALL COMPOST FACILITIES

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 scale 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 USC.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 USC.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 USC.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 must include any zoning classifications of these properties and the location (and function) of all buildings within 1/2 mile of the facility; and;
- l) In the case of a facility that is developed or the permitted composting area of which is expanded after January 1, 1999, all of the following, the property line of which is within 1/8 mile of the nearest edge of the composting area:
 - 1) Facilities that primarily serve to house or treat people that are immunocompromised or immunosuppressed, such as cancer or AIDS

patients; people with asthma, cystic fibrosis, or bioaerosol allergies; or children under the age of one year health care facilities;

- 2) Primary and secondary schools and adjacent areas that the school uses for recreation; their associated recreational areas; and
- 3) Any facility for child care licensed under Section 3 of the Child Care Act of 1969, 225 ILCS 10/3; preschools; pre school and child care facilities and adjacent areas that the facility or preschool uses for recreation their associated recreational areas.

(Source: Amended at 22 Ill. Reg. _____, effective _____)

Section 831.109 Narrative Description of the Facility

The permit application must 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 must 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). In addition, in the case of a facility that is developed or the permitted composting area of which is expanded after January 1, 1999, the composting area is located at least 1/8 mile from the property line of each of the following:*
 - A) Facilities that primarily serve to house or treat people that are immunocompromised or immunosuppressed, such as cancer or

AIDS patients; people with asthma, cystic fibrosis, or bioaerosol allergies; or children under the age of one year health care facilities;

B) Primary and secondary schools and adjacent areas that the school uses for recreation; their associated recreational areas; and

C) Any facility for child care licensed under Section 3 of the Child Care Act of 1969, 225 ILCS 10/3; preschools; pre-school and child care facilities and adjacent areas that the facility or preschool uses for recreation; and their associated recreational areas.

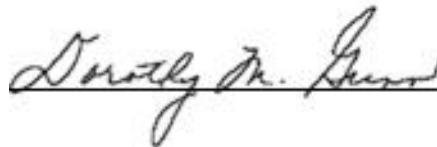
4) *The design of the facility will prevent any compost material from being placed within 5 feet of the water table, will adequately control runoff from the site, and will collect and manage any leachate that is generated on the site* (Section 39(m) of the Act);

- 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.Appendix A, if required pursuant to 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.

(Source: Amended at 22 Ill. Reg. _____, effective _____)

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 1st day of October 1998 by a vote of 7-0.

A handwritten signature in cursive script, reading "Dorothy M. Gunn", written in black ink. The signature is positioned above a solid horizontal line.

Dorothy M. Gunn, Clerk
Illinois Pollution Control Board

ATTACHMENT 1

EXHIBITS R97-29

Exh. 1: Prefiled testimony of Susan Garrett.

Exh. 2: Additional testimony of Susan Garrett.

Exh. 3: Prefiled testimony of Steven Handler.

Exh. 4: Additional testimony of Steven Handler.

Exh. 5: Prefiled testimony of Gloria Loukas.

Exh. 6: Prefiled testimony of Renuka Desai.

Exh. 7: Prefiled testimony of Jack Darin of the Sierra Club.

Exh. 8: Prefiled testimony of William Holleman of the Illinois Citizen Action Public Education Committee.

Exh. 9: Prefiled testimony of Earl Johnson of the Illinois Citizen Action Public Education Committee.

Exh. 10: Prefiled testimony of Cheryl Doros.

Exh. 11: Prefiled testimony of Peter Mueller.

Exh. 12: Prefiled testimony of Edward Grskovich.

Exh. 13: Prefiled testimony of Jacob Dumelle of the American Lung Association of Metropolitan Chicago.

Exh. 14: Prefiled testimony of Mary Matthews and two lung diagrams.

Exh. 15: Prefiled testimony of Scott Garrett.

Exh. 16: NIOSH Alert, "Request for Assistance in Preventing Organic Dust Toxic Syndrome."

Exh. 17: *Curriculum Vitae* of Stephen Charles Edberg.

Exh. 18: Proponents' binder of miscellaneous materials forwarded to various persons and responses received from various persons, including persons in the health field.

Exh. 19-A: National Institute of Allergy and Infectious Disease, "Asthma and Allergy Statistics," February 1996.

Exh. 19-B: "Data Watch, The case for managing asthma care."

Exh. 19-C: "An Economic Evaluation of Asthma in the United States," Weiss, Gergen, and Hodgson, March 26, 1992.

Exh. 20: Letter of August 30, 1994, from Rita Messing of the Minnesota Department of Health to Jerry Johnson.

Exh. 21-A: Letter of August 7, 1997, from John Lumpkin of the Illinois Department of Public Health to Susan Garrett and Renuka Desai.

Exh. 21-B: Letter of July 8, 1997, from Clinton Mudgett of the Illinois Department of Public Health to Renuka Desai.

Exh. 22: Letter of July 25, 1997, from Colin Thacker of the Lake County Health Department to Renuka Desai.

Exh. 23: "Allergic Bronchopulmonary Aspergillosis from a Contaminated Dump Site," Kramer, Kurup, and Fink.

Exh. 24: "Locally invasive pulmonary aspergillosis occurring in a gardener: an occupational hazard?," Zuk, King, Zakhour, and Delaney, 1989.

Exh. 25-A: "Hypersensitivity pneumonitis from residential composting: residential composter's lung," Brown, Masood, Couser, and Patterson, January 1995.

Exh. 25-B: "Hypersensitivity pneumonitis due to *Aspergillus fumigatus* in compost," Vincken and Roels.

Exh. 26-A: "Comparisons of Organic Dust Exposures in Agricultural Occupations and Waste Processing Industries," Clark, 1986.

Exh. 26-B: "Organic Dust Exposure From Compost Handling: Response of an Animal Model," Frazer, Jones, Petsonk, Kullman, Barger, Afshari, Jones, and Castranova, 1993.

Exh. 26-C: "Organic Dust Exposures From Compost Handling: Case Presentation and Respiratory Exposure Assessment," Weber, Kullman, Petsonk, Jones, Olenchock, Sorenson, Parker, Marcelo-Baciu, Frazer, and Castranova, 1993.

Exh. 27: “Respiratory pathophysiologic responses, Effect of environmental molds on risk of death from asthma during the pollen season,” Targonski, Persky, and Ramekrishnan.

Exh. 28: “Medical Issues related to Municipal Waste Composting,” Johanning, Olmsted, and Yang.

Exh. 29 reserved by hearing officer.

Exh. 30: Prefiled testimony of Joyce Munie of the Illinois Environmental Protection Agency.

Exh. 31: Prefiled testimony of Elizabeth Harvey on behalf of Land and Lakes Company.

Exh. 32: Prefiled testimony of Thomas Naatz and two color maps (one map entitled “Aspergillosis Cases by Zip Code Primary or Secondary Diagnosis 1993 Cases per 100,000 Population” and the other map entitled “Allergic Alveolitis Cases by Zip Code Primary or Secondary Diagnosis 1993 Cases per 100,000 Population”) from a report entitled “Environmental Characterization of Bio-Aerosol Emissions from the DK Recycling Systems, Inc. Composting Facility in Lake Forest, Illinois,” dated April 15, 1996, which is included with Mr. Naatz’s prefiled testimony.

Exh. 33: Prefiled testimony of Charles Pick.

Exh. 34: Prefiled testimony of Karen Strauss.

Exh. 35: *Curriculum Vitae* of Karen Strauss.

Exh. 36: Prefiled testimony of Shirley Baer of the Illinois Environmental Protection Agency.

Exh. 37: “Asthma Mortality and Hospitalization Among Children and Young Adults—United States, 1980-1993,” May 22/29, 1996.

Exh. 38: “Environmental Risk Factors of Childhood Asthma in Urban Centers,” Malveaux and Fletcher-Vincent, September 1995.

Exh. 39: “Observations on Asthma,” Bates, September 1995.

Exh. 40: “Guidelines for the Diagnosis and Management of Asthma, National Heart, Lung, and Blood Institute, National Asthma Education Program, Expert Panel Report,” September 1991.

Exh. 41: Illinois Environmental Protection Agency’s “Comparison of Landscape Waste Standards.”

Exh. 42: Comments of the City of Crystal Lake.

Exh. 43: Comments of Paul Walker and Timothy Kelley of Illinois State University.

Exh. 44 reserved by hearing officer.

Exh. 45: Comments of Andrew Quigley of the Solid Waste Agency of Lake County, Illinois.

Exh. 46: July 30, 1998 letter from Edwin C. Bakowski of the Illinois Environmental Protection Agency requesting public comment in R97-29 and attached the June 30, 1998 hearing officer order in R97-29 and the Board's June 17, 1998 first-notice opinion and order in R97-29.

Exh. 47: List of addresses to which the Illinois Environmental Protection Agency mailed the documents that comprise Exh. 46 (see above) in R97-29.

ATTACHMENT 2PUBLIC COMMENTS R97-29

- PC 1 Comments of Robert Gillespie of DK Recycling Systems, Inc.
- PC 2 Comments of the City of Lake Forest
- PC 3 Comments of Lauren Beth Gash, State Representative
- PC 4 Comments of the City of Crystal Lake
- PC 5 Comments of the Chicago Recycling Coalition
- PC 6 Comments of the Lake County Conservation Alliance
- PC 7 Comments of the City of Evanston
- PC 8 Comments of Lois Grimm
- PC 9 Comments of Waste Management
- PC 10 Comments of the City of Elgin
- PC 11 Comments of Mark Teegen
- PC 12 Comments of Proponents
- PC 13 Comments of Proponents
- PC 14 Comments of Eliot Epstein, Ph.D., of E&A Environmental Consultants, Inc.
- PC 15 Comments of the Town of Normal
- PC 16 Comments of Cathy Mueller
- PC 17 Comments of Franklin Pease
- PC 18 Comments of Barbara Zimmerman
- PC 19 Comments of Carolyn Schaper
- PC 20 Comments of Keith and Libby Leman
- PC 21 Comments of the Illinois Composting Council
- PC 22 Comments of Gloria Loukas
- PC 23 Comments of Will County Land Use Department, Waste Services Division
- PC 24 Comments of the National Solid Wastes Management Association, Illinois Chapter
- PC 25 Comments of Land and Lakes Company
- PC 26 Comments of the City of Lake Forest with Karen Strauss' Supplemental Information
- PC 27 Comments of the Illinois Environmental Protection Agency
- PC 28 Comments of Dr. Paul Walker to the Illinois Composting Council
- PC 29 Comments of the City of Elgin
- PC 30 Comments of the City of Peoria
- PC 31 Comments of the City of Crystal Lake
- PC 32 Comments of the Illinois Environmental Protection Agency
- PC 33 City of Lake Forest's Comments on the Proposed Rule (First Notice)
- PC 34 Supplemental Comments of the National Solid Wastes Management Association (NSWMA), Illinois Chapter
- PC 35 Public Comments of Land and Lakes Company
- PC 36 Comments of Waste Management, Inc.