

ILLINOIS POLLUTION CONTROL BOARD  
May 9, 1991

IN THE MATTER OF: )  
 )  
AMENDMENTS TO 35 ILL. ADM. CODE 501 ) R90-7  
AGRICULTURE-RELATED POLLUTION ) (Rulemaking)  
(MANAGEMENT OF LIVESTOCK WASTES) )

Proposed Rule                      Second Notice

OPINION AND ORDER OF THE BOARD (by R.C. Flemal):

This matter comes before the Board upon a regulatory proposal filed on January 29, 1990 by the Illinois Environmental Protection Agency ("Agency"). The Agency's proposal contains certain recommended amendments to the Board's regulations for livestock waste management and handling facilities found at 35 Ill. Adm. Code 501.

The Board has previously set the agency proposal (with some modifications based on the record developed before the Board) for First Notice. Today the Board sends the proposal to Second Notice, with some modifications based on the additional record developed during the First Notice Period.

PROCEDURAL HISTORY

Today's proposed amendments to the Board's livestock waste management regulations date back to at least November, 1986, when, after a midcourse review of livestock waste management program policies and procedures, the Agency sent an initial draft proposal to various interested groups and organizations. Continuing through 1988 and 1989, the Agency met with agricultural, environmental, and producer groups and further developed the proposal. In March and April, 1989, the Agency conducted public information meetings on a third draft of the proposal. Subsequent to these meetings, the Agency made additional modifications to the proposed amendments, then submitted the proposal to the Board (Agency Statement of Reasons at 2-4.)

Shortly after the Agency proposal was filed with the Board, the Illinois Farm Bureau ("IFB") and the Agricultural Committee of the Jo Daviess County Board requested that the Board hold hearings on the proposal at various times and locations around the State designed to best accommodate the working farmer. In compliance with this request, the Board during August 1990 held hearings in DeKalb, Stockton, Effingham, Carterville, Jacksonville, and Galesburg. The hearings were well attended and

testimony was received from representatives of the Agency, various farm organizations, and many members of the public. In addition, 41 post-hearing public comments ("PC") were received during the post-hearing comment period.

Based upon this record, the Board on February 7, 1991 adopted a modified version of the Agency's proposal for First Notice. First Notice publication occurred in the Illinois Register at 15 Ill. Reg. 3141 on March 1, 1991. The 45-day First Notice comment period expired April 15, 1991.

Seventy-five (75) additional public comments have been filed during the First Notice comment period. Among First Notice comments filed by organizations and agencies are comments of: Horsemen's Council of Illinois ("HCI" PCs #43, 118), Illinois Pork Producers Association ("IPPA" PC #50), Illinois Farm Bureau ("IFB" PC #56), Equine Trail Riders ("ETR" PC #72), Illinois Beef Association ("IBA" PC #73), Rock Island County Farm Bureau ("Rock Island CFB" PC #86), Illinois Environmental Protection Agency ("Agency" PC #89), Monroe-Randolph Bi-County Health Department ("MRBHD" PC #102), Illinois Department of Conservation, Division of Fisheries ("IDOC" PC #110), and the Henry County Beef Association ("HCBA" PC #117). Also, the Board received comments from many individuals, too many to mention individually, who wrote in favor of a general exemption for facilities allowed by local zoning (e.g., PCs #42, 48, 49, 74, 85, 87), and who wrote in favor of the Horsemen's Council of Illinois' suggested language changes (30 individual PCs). Other persons wrote general comments expressing current problems with odor from neighboring livestock facilities (PCs #53, 88). Still others wrote in general disagreement with the proposed amendments (PCs #44, 45). Among procedural comments are PC #46, which consists of the comments of the Code Division of the Secretary of State on filing requirements, and PC #114, which is the impact analysis filed by the Department of Commerce and Community Affairs. PC #118 is a late-filed comment by HCI allowed in the record by leave of the Hearing Officer. A few comments were filed after the 45-day First Notice comment deadline expired, accompanied by no motions to file instanter and allowing for mail delays. These are not included in the record and are not considered by the Board.

#### OVERVIEW OF TODAY'S PROPOSED AMENDMENTS

If adopted, today's proposal would amend existing Board regulations pertaining to Agriculture Related Pollution found at 35 Ill. Adm. Code: Subtitle E, Part 501. The proposed amendments have four major provisions.

The first major provision would add a clarifying statement to the Policy Statement in the Board's regulations regarding Agricultural Related Pollution, found at 35 Ill. Adm. Code

501.102 (see following Section-by Section discussion and attached Order). In particular, this provision would clarify the relationship between livestock odors and air pollution.

The second major provision would amend existing regulations dealing with the siting of new livestock management facilities and livestock waste-handling facilities. Specifically, new livestock management facilities and waste-handling facilities would be prohibited from locating within 1/2 mile of a populated area or within 1/4 mile of a non-farm residence, unless located within a designated Agricultural Area, unless the operation has been at the location for at least one year and the operator seeks to expand, or unless the use of the facility is allowed by local zoning ordinances. Where new sitings are not prohibited, they would be required to locate at the "maximum feasible distance" from residences or populated areas. The principal proposed amendments that would effectuate this provision occur at current 35 Ill. Adm. Code Section 501.402 (see following Section-by Section discussion and attached Order).

The third major provision of today's proposal would provide for expanded use of vegetative filter strips for the treatment of livestock waste generated by 300 animal units or less. Also included are amendments pertaining to small farm projects, such as 4-H, that handle 50 or fewer animal units. These changes would be principally effectuated by additions to existing Section 501.404 (see following Section-by Section discussion and attached Order).

The fourth major provision of today's proposal would require operators to practice field application procedures in such manner as to not cause air pollution. This provision would be principally effectuated by amendments of the regulations currently found at Section 501.405 (see following Section-by Section discussion and attached Order).

In addition to these major provisions, today's proposal also includes amendments or additions to several other Sections of the Board's livestock regulations. These consist of the addition of an Incorporations by Reference Section and various definitions which support the major provisions (see following Section-by Section discussion and attached Order).

#### DISCUSSION OF PROPOSED AMENDMENTS

The Board next turns to a Section-by-Section discussion of today's proposal. Much of the text of this portion of today's Second Notice Opinion remains the same as in the First Notice Opinion of February 7, 1991. Exceptions occur where the comments received in response to the First Notice proposal prompt the Board to modify today its proposal. All such modifications are duly noted in the following.

Section 501.102      Policy Statement

The proposed amendment to Section 501.102 consists of an additional policy statement to be added as subsection (d). This new subsection specifies that livestock waste odor is a potential source of air pollution, but that the mere detection of odor does not constitute air pollution per se.

No commenters discussed this proposed Section and no changes are today made relative to the language proposed at First Notice.

Section 501.200      Incorporations by Reference

Section 501.200 is a new Section proposed due to the need to incorporate references to American Society of Agricultural Engineers ("ASAE") documents made in Section 501.405. The Section is structured in such manner as to accommodate any future new incorporations by reference.

The Illinois Beef Association ("IBA") has expressed concern that citation of the ASAE document "Control of Manure Odors" would "open the door" for use of this material in contexts not today intended (IBA PC #73). However, the Board believes that this incorporation remains necessary since the document is required to support the proposed amendments to Section 501.405 (see following discussion). To the extent that it may allay the IBA's concern, the Board does emphasize that any expanded authority given to any of the documents incorporated herein would have to be specifically accomplished through a rulemaking proceeding such as this one. Moreover, any future amendments to Subtitle E, Agriculture Related Pollution, including the Incorporations by Reference Section, or citations thereto, would require hearing and opportunity for comment pursuant to the rulemaking requirements of both the Illinois Environmental Protection Act and Illinois Administrative Procedure Act. Thus no expanded use may occur without opportunity for detailed scrutiny by all interested persons.

Additional comments pertaining to the use of specific documents incorporated at Section 501.200 are included in the discussion of Section 501.405 (see following). As with the incorporation of the ASAE "Control of Manure Odors" document, the Board believes all of today's proposed incorporations are necessary to support the proposed amendments to other Sections. Accordingly, Section 501.200 is today proposed without modification from First Notice.

Section 501.246      "Expansion" Definition

Section 501.246 defines the term "expansion" as used within today's overall proposal, and specifically with respect to the

use of the term "expanded facility" found at Section 501.402. No changes to this proposed Section are made today.

As the Agency notes, the concept employed in this definition of expansion is derived from the definition of a "new potential secondary source" found at Section 3.60 of the Illinois Environmental Protection Act (Ill. Rev. Stat. 1989 Ch. 111 1/2, par. 1003.6). The Agency further notes:

Defining expansion as such covers those situations where a facility undergoes such enormous growth that it has an effect on the surrounding population comparable to that of an entirely new facility. This [definition] attempts to strike a balance between the rights of the producer to pursue the growth of his business and the rights of an established population to be free from unreasonable additional air pollution. (R. at 36-7).

The IBA also commented on this proposed Section. The comments are directed to limitations on expansion regarding the siting of facilities in Section 501.402, rather than the definition of the term "expansion", and accordingly is best discussed below in the part of this Opinion pertaining to Section 501.402.

<u>Section 501.248</u>	<u>"Farm Residence" Definition</u>
<u>Section 501.342</u>	<u>"Non-Farm Residence" Definition</u>
<u>Section 501.356</u>	<u>"Populated Area" Definition</u>

Sections 501.248, 501.342, and 501.356 each present new definitions relating to type of occupancy. Their general purpose is to identify types of residences and areas to which different types of livestock waste regulations are intended to apply. In the present set of proposed amendments, the types of residences defined in these Sections are only used in conjunction with the setback distances of Section 501.402. The definitions are today proposed in the same form as at First Notice, except for one addition suggested by the Illinois Pork Producers Association ("IPPA").

Under the system proposed at First Notice, a new facility may not be located within 1/4 mile of a non-farm residence or 1/2 mile of a populated area. The rationale that the Agency offered for the distinction between farm and non-farm residence for the purpose of facility location, is that such setback would protect the rights of persons not engaged in farming activities while at the same time "allow farmers to farm in farming territory". The Agency also contends that inhabitants of farm residences are generally more tolerant of farm generated odors, since their livelihoods may create similar odors (R. at 37). Many witnesses and post-hearing commenters also expressed this view (e.g., R. at 235-9, 367-8). Some comments received during First Notice indicate that the distinction between farm and non-farm

residences is necessary and should be maintained (e.g., IBA PC #73; Rock Island CFB PC #86; MRBHD PC #102), especially in light of situations where farm land is abutted by non-farm residents (IPPA PC #50). This territorial aspect was emphasized in the IFB comment which states "We feel this is an issue of the degree to which we will allow an appropriate economic activity to take place in an area where it should be expected to take place" (IFB PC #56).

The Board continues to believe that there may be some instances where it is not appropriate to distinguish between farm and non-farm residences for the purposes of the restrictions on the siting of new livestock facilities of Section 501.402. The reasons for this continue to be those pointed out at First Notice, as indicated in the record. That is, that some farmers at least do consider that the operation of neighboring farms generates unacceptable odors (e.g., R. at 645, 719-20, 764; PC #25). It is to be further noted that "An Assessment of Separation Distances as a Tool for Reducing Farm/Neighbor Conflict" (Exh. 26), a study conducted in British Columbia, indicated no distinction between farm and non-farm residents in assessing neighbors' perceptions of certain farms as nuisances. The study indicated that the actual determining factors were the distance from the neighboring residence and whether the farm could be seen from the neighboring residence (Id.) Again, on this issue, the IFB and Rock Island CFB (PCs #56 and #86) emphasized their belief that these distinctions are necessary, not so much due to differences in perception of odor, but because of the placing of restrictions on farming operations where such operations should legitimately take place.

The Board accepts that the types of residences and distinctions indicated in the definitions are necessary as a general rule. The Board therefore continues to include these definitions and their use in Section 501.402 in today's action.

The IPPA expressed the need to clarify the definition of farm residence to include those situations where a farmer or producer owns a farm residence that is rented to a non-farm resident (IPPA PC #50). The Board believes that incorporating this suggested change would further clarify the definition and includes changes in these proposed amendments. The clarification can be easily accomplished by inserting the words "owned or" before the word "occupied". Therefore, the definition would apply to any farm residence owned or occupied by the farm owners, operators, or seasonal workers. The definition would apply regardless of whether the farmer owner rents the residence to a person not associated with farming. The Board believes that a person who rents a farm residence would and should be aware of the consequences of living on a farm the same as a farmer, whether or not that person also engages in farming.

The Agency submitted documents that indicate that the definition of populated area was discussed with farm organizations, and believes that the numbers are a reasonable compromise, especially considering how subdivisions in rural areas are usually established (See R. at 39). The definitions of populated area and non-farm residence are not changed from that submitted at First Notice.

Section 501.274            "Liquid Livestock Waste" Definition  
Section 501.372            "Supernatant" Definition

Sections 501.274 and 501.372 introduce new definitions necessary to support the amendments proposed at Section 501.405 (see following). The terms are the same as proposed at First Notice.

Section 501.317            "Maximum Feasible Location" Definition

Section 501.317 proposes a definition for the term "maximum feasible location" as this term is used in proposed Section 501.402(e) and (f). At First Notice, the definition was modified from that originally proposed by the Agency, in accord with the Agency's revised recommendation (PC #29, p. 4-5). The Agency's revised recommendation is based on discussion at hearing indicating that there was some confusion regarding this Section as originally proposed by the Agency, especially regarding the siting of a facility in relation to an operator's own residence.

The Board agrees that the concept contained in this definition and Section 501.402(e) is useful. This is discussed more fully below in the discussion of subsections 501.402(e) and (f). The only changes made to the First Notice language are the insertion of the terms "farm or non-farm" before residence, when discussing a neighboring residence, and the insertion of "kept or" before the word "raised". Since farm and non-farm residences are defined, the Board believes it is best to use these terms rather than the generic "residence", to avoid confusion and for consistency. The Board adds "kept or" to be consistent with Section 501.402(d)(3).

Section 501.330            Amendment to "New Facility" Definition

Section 501.330 is an existing Section which contains the definition of new livestock management facility and new livestock waste-handling facility ("new facility"). The definition was adopted along with other rules effective January 1, 1978, and reads as follows:

Any livestock management facility or livestock waste-handling facility the construction or modification of which is commenced on or after the effective date of this Chapter.

In the Agency's original proposal to the Board, the Agency recommended the addition of the term "expansion" to this definition. At First Notice the Board noted that this could lead to retrospective application of the limitations on location of expanded facilities contained in proposed Section 501.402, a result not in accord with the Agency's intent. As an additional matter noted at First Notice, the Board inserted the actual effective date (January 1, 1978) for the language "the effective date of this Chapter". Then the Board added the term expansion to the definition with an effective date of July 1, 1991, to amend the Section as follows:

Any livestock management facility or livestock waste-handling facility the construction or modification of which is commenced on or after ~~the effective date of this Chapter~~ January 1, 1978, or any expansion which occurs on or after July 1, 1991.

In response to this matter, the IFB points out that the problem of retrospective application of the amendments not only exists for incorporation of the concept of "expansion" into Section 501.330, but also could happen for all new facilities (IFB PC #56). Others express the need for further clarification of the Section (e.g., IPPA PC #50; IBA PC #73; Rock Island CFB PC #86). The Agency adds that retrospective application of the definition in Section 501.402 could lead to constitutional problems (Agency PC #89). The IPPA advocated striking the January 1, 1978 effective date in the current definition of new facility (IPPA PC #50). However, this is not possible because the present definition is used in other Sections that have been effective since January 1978. Deleting or changing the January 1, 1978 date to a current date would cause the definition of new facility to be inapplicable from 1978 to the present, and disturb its use for existing rules.

To resolve this problem, the Board deletes its First Notice changes from the definition of new facility, except for the insertion of the actual effective date of the Chapter. Using the actual effective date of the Chapter rather than the phrase "the effective date of this Chapter", will provide greater clarity for existing rules and complies with current Administrative Code Division drafting requirements. The Board includes an effective date within Section 501.402 (to coincide with the actual effective date of these amendments) to assure that Section 501.402 will not have retrospective application. The changes to Section 501.402 are discussed more fully in the following part of the Opinion pertaining to that Section.

Section 501.402

Location of New Livestock Management  
Facilities and New Livestock Waste-Handling  
Facilities

The proposed amendment to Section 501.402 addresses one of the principal goals of today's action. That goal is to provide greater specificity to the existing prohibition against siting of new livestock management facilities "in close proximity to populated areas so as to cause air pollution". Today's proposal achieves this goal by providing a quantified limitation to the siting of new and expanded facilities "within 1/2 mile of a populated area or within 1/4 mile of a non-farm residence". The proposal also contains a series of exceptions to the 1/4-mile and 1/2-mile setback distances. The separate aspects of this provision, the setback limitations and the exceptions thereto, plus their economic impact, are discussed as follows.

Setback Limitations. Subsection (c)(1) contains the 1/4-mile and 1/2-mile setback requirements. An effective date of July 15, 1991 has been added to this subsection<sup>1</sup>. The term "expanded facility" has already been added at appropriate places. These changes make it clear that these setbacks are not intended to apply before the effective date for either new or expanded facilities.

One of the issues most commonly addressed during the Board hearings involved the reasonableness of the 1/2 mile and 1/4 mile setback distances of this Section. In support of its choice of the setback distances the Agency points to ASAE Engineering Practice which states:

Locate a livestock operation at a reasonable distance from residential areas, places of employment, institutions, and other areas frequented by persons other than the operators of the animal enterprise. Although distances have not been established beyond which complaints are invalid, it is desirable to locate the livestock or poultry feeding facility 1600 m (1 mile) from housing developments and 400-800 m (1/4 to 1/2 mile) from neighboring residences. Wind direction and velocity, humidity, topography, temperature, and unique meteorological conditions (such as inversions) affect odor transport and detection. (Exh. 14)

The Agency also presented Midwest Plan Service's "Livestock Waste Facilities Handbook MWPS-18", which states:

First, select a site where odors will create fewest problems. Locate at least 1/2 mile away from

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<sup>1</sup> This date will also coincide with the effective date of the entirety of the amendments made in this proceeding. The Board changes the date from July 1, 1991 (the date proposed at First Notice in the definition of new facility) to July 15, 1991. This is done to give enough time for completion of the rulemaking process before the amendments are effective.

neighboring houses and at least 500 feet away from the farm residence; locate larger operations even farther away. (Exh. 17)

Also cited is the Pork Industry Handbook fact sheet PIH-33 "Controlling Odors from Swine Buildings":

There is a general relationship between the perception of odor nuisance, separation distance, and size of swine production facility. For facilities of 1,000 or fewer animals the incidence of odor complaints is noticeably reduced beyond one-quarter mile. For larger units, separation distances of approximately a half mile are necessary for adequate protection. (Exh. 18)

In evaluating these recommended distances, the Agency has consistently advocated the 1/2 mile and 1/4 mile distances recommended by ASAE (see Exh. 14). Although some may have recommended greater setback distances, the Agency believes that due to the density of inhabited residences in Illinois, compliance with greater distances would not be feasible for facility siting (R. at 47; See also Exh. 29).

The record discloses that a few participants recommended lesser setback distances, or no setbacks at all. At hearing management practices for facilities which would obviate the need for setback distances were also discussed (R. at 468, 478-80). The Agency concluded that management practices which were discussed previously with the Agency were not practical or feasible in most situations (R. at 481).

At First Notice the Board included the 1/4-mile and 1/2-mile setbacks for facility siting, and encouraged further comment on the issue. A few commenters addressed this issue, stating that they preferred 1/8-mile and 1/4-mile distances, but would accept the 1/4-mile and 1/2-mile distances with the exemptions contained in the proposed rule (e.g., IFB PC #56; IBA PC #73; Rock Island CFB PC #86;). The IBA also expressed concern over limits on expansion, especially in a situation where an existing facility is encroached upon by urban growth (IBA PC #73).

The Board notes that the Monroe-Randolph Bi-County Health Department suggested that a section on the siting of livestock management and waste-handling facilities in "sinkhole" or karst areas be included in these amendments (MRBHD PC #102). The Board points to existing subsection 501.402(d) that covers the siting of facilities in areas where livestock waste is likely to cause groundwater pollution (this subsection is proposed to be renumbered to 501.402(g) to accommodate changes made in this proceeding).

Exceptions. Section 501.402(c)(2) allows for facilities operating under certain circumstances that would otherwise be

considered new or expanded facilities to be exempted from that status, and hence from the setback requirements of Section 501.402(c)(1). This exemption applies to those facilities that are reopened though they may have been idle for as many as ten years (subsection (c)(2)(A)). At First Notice, the Board noted that the Agency had deleted from its proposal the requirement that a facility be operated for "four consecutive months" during the 10-year period to qualify for this exemption. The Agency in its comments stated that the deletion of the "four consecutive month clause" from its suggested language at hearing was inadvertent (Agency PC #89)<sup>2</sup>. As the Agency points out, the discussion in the record leading to their suggested changes did not pertain to the "four consecutive months" clause, but rather to the status of the structures. The record states:

A question was presented to the Agency after filing of the instant proposal as to whether a parcel where portable housing units once stood, but were removed, would be considered an existing facility if livestock were brought back to the site prior to the lapse of a ten year period. This is not a situation which the Agency wants to promote or endorse. (R. at 48)

To address this problem, the Agency advocates the addition of the clause "which has a livestock shelter(s) left intact" after the term "idle facility". The Board believes the change would clarify the situation the Agency is concerned about, in contrast to deletion of the "four-consecutive months" clause. The Board agrees to add the Agency's suggestion with minor wording changes to accommodate Administrative Code requirements. However, with the addition of this qualification, the Board sees a situation could arise, where, due to natural causes (e.g., tornado, fire, earthquake), portable housing units would not remain intact. Therefore, the Board also today adds new subsection (c)(2)(B) in which it is provided that rebuilding after such natural disaster would not cause the facility to be considered a new or expanded facility.

The proposed amendments also provide for exemptions to the 1/4-mile and 1/2-mile setback distances for facilities located within an Agricultural Area as that term is defined in the Agricultural Areas Conservation and Protection Act, and for facilities that have priority of location with respect to non-farm residences or populated areas (subsections (d)(1) and (2)). These provisions are presented today without modification from First Notice.

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<sup>2</sup> The Board, in its First Notice Opinion, stated that it incorporated this deletion of the "four consecutive month" clause. The Board inadvertently failed to incorporate the change into the Order. Apparently this caused some confusion (HCB PC #117).

The Board believes that the exception for facilities located within Agricultural Areas found at Section 501.402(d)(1) is consistent with the policy statements contained in the Agricultural Areas Conservation and Protection Act to the degree that Act makes it a policy for "all state agencies to encourage the maintenance of viable farming in agricultural areas and their administrative regulations and procedures shall be modified to this end", so long as the modifications would be consistent with public health and safety and with federal statutes and regulations (Ill. Rev. Stat. 1989, ch. 5, par. 1019.; Exh. 32).

The Board also believes subsection (d)(2), which provides exemption for priority of location for expanding facilities, is meritorious because it protects expanding operations from nuisance actions where residential areas are encroaching upon the operation. The requirement that the facility be in operation for at least one year prior to expansion was questioned at hearing (R. at 471). However, the Board believes the one-year period is reasonable to indicate actual establishment of the particular type of farming operation. Furthermore, the one-year period is also consistent with language included in what the Agency referred to as the "Illinois Right to Farm Law" (R. at 473). That act, also entitled "Protection of Farming Operations From Nuisance Suits", states in part:

Changed conditions - Negligent operation

No farm or any of its appurtenances shall be or become a private or public nuisance because of any changed conditions in the surrounding area occurring *after the farm has been in operation for more than one year*, when such farm was not a nuisance at the time it began operation, provided, that the provisions of this Section shall not apply whenever a nuisance results from the negligent or improper operation of any farm or its appurtenances. (Exh. 33, emphasis added)

In its post-hearing comments (PC #29), the Agency also advocated addition of subsection (d)(3), a third exemption for areas where local zoning has been established and agricultural facilities have been approved (Id. p. 3). This type of exemption, which allows for local zoning approval of livestock management and waste handling facilities, was also advocated at hearing by the Champaign County Farm Bureau (R. at 487-94) and by the Horsemen's Council of Illinois ("HCI") (R. at 254).

At hearing, HCI also presented the alternative that horses should not be considered livestock and thereby be exempt from regulation (R. at 250-3). However, this alternative would not be feasible because, as the Agency points out, the definition of livestock management facility includes animal feeding operations, which term was amended to be consistent with the federal National Pollutant Discharge Elimination System ("NPDES") (PC #29 p. 3).

At First Notice the Board retained the Agency's proposed subsection (d)(3), because it believed an exemption for local zoning which allows livestock management facilities is meritorious. However, the Board questioned whether the language as suggested by the Agency would exempt the "recreational or backyard horse owner" (See R. at 254 and PC #41) as intended. The Board requested comment on the issue.

During First Notice, the Board received many comments that pertain to this matter. The Agency states that its intent was to allow individuals to construct a livestock management facility (e.g., horse stable) at their residence or collectively within their subdivision and operate such facility for non-commercial purposes. The Agency then offered suggested language, in addition to that which it offered prior to First Notice, as an alternative:

The facility complies with local zoning requirements and animals are kept or raised solely for non-commercial purposes by the owner(s) of the facility.  
(Agency PC #89)

Many individuals wrote in favor of the language suggested by HCI. That language reads:

The facility is located in a village, city, township or county specifically zoned for this use and conforms to ordinances provided for the health and safety of the residents of said village, city, township or county."  
(PC #41 and HCI PC #118)

Mr. Timothy J. McAloon of the Equine Trail Riders ("ETR") also offered alternative changes that are essentially the same as those proposed by the Board for First Notice, with the addition of an exemption for horse management facilities used for boarding and recreational use of horses that comply with local zoning (ETR PC #72). It appears that riding and boarding stables would be covered under such exemption.

The Board believes that the language as proposed at First Notice does not accomplish the result that the Agency intended, and appears to cover only certain circumstances such as planned developments with equine facilities. Not all recreational horse owners live in developments planned for livestock use. Some areas are specifically zoned for such use, or the use is allowed by municipal ordinance, irrespective of the planned development of the area.

The Agency's language as proposed in its First Notice comments (Agency PC #89), allows for recognition of local zoning, but adds an additional stricture: that the exception not apply if the animals are kept or raised there for commercial purposes.

The language offered by HCI also would exempt those facilities that are specifically allowed pursuant to zoning regulations.

Regarding this proposed amendment which only pertains to the siting of facilities, the Board believes that if a community designates an area through zoning or municipal ordinance for the use of livestock, then it makes no difference whether the livestock are kept for commercial or non-commercial purposes. The Board believes that the HCI's concept is meritorious, and therefore adopts it, although with changes in format due to drafting requirements for codification of regulations. In addition, to handle those situations where livestock are kept for non-commercial purposes (such as the recreational horse owner situation), and where no zoning or municipal ordinances exist, the Board adds language that would exempt these operators in addition to those subject to local zoning, as these persons would be similarly situated. It is important to note that riding and boarding stables that are not locally zoned would not be exempt, as these are generally commercial activities, and would be considered the same as other commercial livestock operations. Note also that the Board adds language that describes commercial activity, rather than using the term "commercial". This description is consistent with the definition for "commercial" contained in the Board's regulations at 35 Ill. Adm. Code 228.103.

Subsection (e) states that new livestock management or waste-handling facilities that locate within 1/4 mile of a neighboring<sup>3</sup> farm residence must locate that facility at the maximum feasible location from that residence. Maximum feasible location is defined in Section 501.317 and discussed above. Likewise, subsection (f) provides that a new facility that locates within the setback zones pursuant to one of the exemptions of subsection (d) shall locate at the maximum feasible location from the residence or populated area. The purpose of subsections (e) and (f) is to assure that producers consider the interests of neighbors, especially when allowed to locate within the 1/4 to 1/2 mile setbacks. A further advantage would be to allow for minimization of odor transport to neighboring residences, and therefore decrease the likelihood of odor complaints even where facilities are located outside the setbacks. Therefore, farmers would have greater assurance that neighbors would be minimally affected and therefore less likely to have cause for a nuisance action.

Another prospective exemption discussed at hearing was the possibility of a cut-off number of animals being established below which only general prohibitions against pollution would

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<sup>3</sup> The Board adds the term "neighboring" to make this subsection consistent with Section 501.317, Maximum Feasible Location, which also uses neighboring.

apply (R. at 513). In comments, the Agency points out that their 1985-1989 records indicate 41% of odor pollution problems encountered by Agency personnel which were related to feedlot location were attributable to small feedlot operations, and 64% of manure stack odor problems were associated with small facilities (Agency PC #29; See also, Exh. 28). The Board declines to add an exemption based on number of animals at this time.

In summary, in today's action the exceptions have been restructured to accommodate changes in response to comments, to add the term "expanded facility", and to clarify the language of the amendments.

Economic Impact. A potential adverse economic impact exists for the proposed amendments to Section 501.402 because the number of locations where a new facility could be sited would be limited. However, the exceptions to the siting requirements lessen the potential economic impact, as also does the option of locating the facility in a different place. For existing facilities, only those that are located within 1/4-mile of a non-farm residence or 1/2-mile from a populated area and did not operate for at least one year prior to the existence of the residence or populated area would have a potential adverse economic impact in that expansion would be limited. However, expansion only would be limited with respect to the rate of expansion and with no absolute cap on the size of the facility. The potential economic impact on non-farm residences would be positive since the amendments would prohibit the location of the livestock management or waste-handling facility within 1/4 mile of the residence, hence value of the property may be protected. (See Agency testimony, R. at 54-6.)

Based on this record, the Board concludes that the 1/4 mile and 1/2 mile setbacks for facility siting seem reasonable and technically feasible as a standard for control of odor, especially considering the exceptions today specified. Additionally, the Board perceives the potential economic impact to be minimal for new and existing facilities.

Section 501.404            Handling and Storage of Livestock Waste

The proposed amendments to Section 501.404 address two concerns regarding handling of livestock: use of vegetative filter strips and consideration of small projects. The first concern is addressed by the proposed addition of subsection (d), which allows the use of vegetative filters for livestock management facilities with fewer than 300 animal units<sup>4</sup>. The

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<sup>4</sup> "Animal unit" is defined in Section 501.230 of the existing Board regulations as: A unit of measurement for any animal feeding operation calculated by adding the following animal numbers:

vegetative filters would be operated according to Agency's "Design and Maintenance Criteria Regarding Runoff Field Application Systems" found at 35 Ill. Adm. Code 570. The second concern is addressed at subsection (e) by exempting facilities with 50 or fewer animal units from the handling and storage requirements imposed on larger facilities in Section 501.404(a) through (c), provided that the smaller facilities can prevent actual and threatened discharges of livestock waste to waters of the State. These two provisions are discussed separately as follows.

Runoff Field Application Systems/Vegetative Filters. The Agency's reason for including the subsection (d) amendments is in recognition that runoff field application systems, specifically vegetative filters, if properly designed and operated, can effectively treat waste produced by smaller facilities and can be less expensive to build and maintain than other treatment methods (R. at 50).

At hearing, a question was raised whether an operator who handled more than 300 animal units could use a vegetative filter on part of the operation, if the operator used the vegetative filter for less than 300 animal units. As was discussed, the design criteria for vegetative filters recommend less than 300 animal units (R. at 656-9; 35 Ill. Adm. Code 570). The Board notes that at hearing Mr. A. G. Taylor, Agricultural Advisor for the Agency, stated that he did not see any reason why an operator who used a vegetative filter system for less than 300 animal units, but used other systems for additional animal units, should not be allowed to do so (R. at 659). At First Notice, the Board included the amendments as proposed by the Agency, but requested comment on the possibility of applying the 300 animal unit limitation to the treatment of wastes from the animals, rather than to a single facility, and offered language on how such an amendment could be drafted. The Board further requested comment

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- a) Brood cows and slaughter and feeder cattle multiplied by 1.0
  - b) Milking dairy cows multiplied by 1.4
  - c) Young dairy stock multiplied by 0.6
  - d) Swine weighing over 55 pounds multiplied by 0.4
  - e) Swine weighing under 55 pounds multiplied by 0.03
  - f) Sheep, lambs or goats multiplied by 0.1
  - g) Horses multiplied by 2.0
  - h) Turkeys multiplied by 0.02
  - i) Laying hens or broilers multiplied by 0.02 (if the facility has continuous overflow watering)
  - j) Laying hens or broilers multiplied by 0.03 (if the facility has a liquid manure handling system)
  - k) Ducks multiplied by 0.02.

on the consistency of such language with the design criteria of Section 501.570 [sic]<sup>5</sup>.

The IFB, IBA, and Rock Island CFB commented in favor of the Board's alternative language (IFB PC #56; IBA PC #73; Rock Island CFB PC #86). The Agency also supports the Board's alternative language (Agency PC #89) and the Illinois Department of Conservation ("IDOC") comments that it does not object to the alternative language (IDOC PC #110). On the other hand, the Henry County Beef Association ("HCBA") expresses concern over the 300 animal unit limitation, arguing that flexibility is needed for varying types of operation (HCBA PC #117).

The Board finds that many of the concerns expressed by the HCBA pertain to the design criteria of 35 Ill. Adm. Code 570. Furthermore, the Agency points out that the design criteria of 35 Ill. Adm. Code 570 allows for use of runoff field application systems where greater than 300 animals are confined on a feedlot, but that in order to preclude a conflict with federal NPDES requirements, systems should only treat wastes from fewer than 300 animal units<sup>6</sup>. It is worth noting that an NPDES permit would be required for a facility that treated wastes from 300 or more animal units when utilizing a vegetative filter system, pursuant to existing Section 502.104(b) which states:

Pollutants are discharged into navigable waters through man-made ditch, flushing system or other similar man-made device; (emphasis added)

Since zero discharges are required under the NPDES system, facilities required to obtain an NPDES permit would not be able to use vegetative filter systems.

These proposed amendments would have a potential positive economic effect on those who can use vegetative filters since these systems are effective for treatment while much less expensive to construct and operate than some other methods (see Agency testimony, R. at 56.).

Based upon the above considerations, the Board deletes the language proposed at First Notice and replaces it with the alternative language suggested in the Board's First Notice opinion. No other changes are today made.

Small Farm Projects. The Agency included the subsection (e) amendment in their proposal because:

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<sup>5</sup> The Section citation should have read 570.101.

<sup>6</sup> The State NPDES program requirements must be the same as federal requirements for approval of the State program.

... in the course of developing the proposed amendments, the agricultural interest groups requested that this provision be included in order to allow Future Farmers of America (FFA) and 4-H type projects to be conducted without having to implement expensive pollution control measures. The agricultural interest groups' estimate of the number of livestock involved in such projects was 50 animal units or less. (R. at 51)

The IDOC commented in favor of this proposed amendment as affording protection to waters of the State (IDOC PC #110). The amendment also would have a positive economic effect on these smaller facilities, since qualifying facilities would not have to install costly waste storage and runoff controls (see Agency testimony, R. at 56). Based upon these considerations, no modification of the First Notice proposal is today proposed.

Section 501.405            Field Application of Livestock Waste

The proposed amendments to Section 501.405 are intended to regulate the field application of livestock waste in such manner as to reduce the potential for odor problems. Finding quite the correct way to achieve this end has, however, been most vexing, as is well witnessed by the extensive discussion and debate generated by this topic at hearing (e.g., R. at 195-241, 303-421, 482-6, 493-523, 579-605, 641-683, 750-771) and subsequent comments. In part the problems stem from the fact that the practice of field application of livestock wastes is in most instances economically and environmentally sound, and often even essential, at one and the same time that the odors it causes may be objectionable and even constitute valid grounds for basing a nuisance action.

The Board continues to believe, as it did at First Notice, that a regulation which offers assistance to farmers in making determinations in their individual situations offers the best prospect of addressing the dilemma. The Board is pleased that almost all persons who have addressed this issue have found favor with the direction taken by the Board. Accordingly, the method by which we today attempt to address this situation remains the same as the method proposed at First Notice<sup>7</sup>.

The essence of today's proposal consists of a general requirement to use odor control methods during the course of field application so as not to cause air pollution (Section 501.405(b)). This general statement is then followed by a list of odor control methods intended to provide guidance to the farm

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<sup>7</sup> The First Notice Opinion of February 1, 1991 contains at pages 11-13 a fairly extensive discussion of the alternatives which the Board rejected prior to First Notice. The interested person is directed to the First Notice Opinion for that discussion.

operator. The general requirement to use odor control methods is tied to the policy statement on the operation of livestock management facilities is discussed in Section 501.102. The reference to Section 501.102 is included to ensure that the policy statement will be considered in application of this Section 501.405(b), since the policy statement recognizes that waste-handling can cause odors that can cause air pollution, but that detection of odor does not per se constitute air pollution.

Today's proposal further recognizes that there are a number of options available to the farm operator, used alone or in combination, by which odor control can be achieved. These include simple methods, such as recognizing when adverse weather conditions may exacerbate odors or odor distribution, to more involved methods, such as incorporation of the waste into the soil where possible. A longer list of methods is presented by the ASAE, and cited at Section 501.405(b)(4):

4.1.10 Land application is the primary method of animal waste management and is an integral part of nearly every manure handling system. Odors can be reduced by using the following land application procedures for liquid or solid manure:

4.1.10.1 Spread or apply manure within 4 days of excretion if possible to reduce time in anaerobic storage.

4.1.10.2 Avoid spreading when the wind would blow odors toward populated areas or nearby residences or businesses.

4.1.10.3 Avoid spreading or applying manure immediately before weekends and holidays when people are likely to be engaged in nearby outdoor and recreational activities.

4.1.10.4 Avoid spreading near heavily traveled highways.

4.1.10.5 Spread or apply manure in morning when air is warming and rising rather than in the late afternoon.

4.1.10.6 Use available weather information to best advantage. Turbulent breezes will dissipate and dilute odors. Rain will remove the odors from the atmosphere.

4.1.10.7 If possible, incorporate manure into the soil during or immediately after application. This can be done by 1) soil injection or 2) plowing or disking the soil during or after

application. These practices not only minimize the spreading of odor but also preserve nutrients and reduce water pollution potential.

4.1.10.8 Apply manure uniformly and in a layer thin enough to insure drying in less than 5 days or less and to prevent fly propagation in warm weather. (Exh. 14)

During the First Notice comment period, the IPPA, IFB, and IBA expressed concern over the incorporation by reference of the ASAE material, particularly to paragraph 4.1.10.1. The concern stems from a belief that the language might be applied as or changed to an absolute requirement; i.e., "you shall spread manure within 4 days of excretion" (IPPA PC #50; IFB PC #56; IBA PC #73). The Board believes that this concern can be assuaged because the document can be given this force only through regulatory change, and no changes can be made without a rulemaking proceeding similar to the one pertaining to these amendments, with full opportunity for hearing and comment. Moreover, the incorporation by reference contains a proviso that the material incorporated is exactly as stated in these documents presented in the record, with no later editions or amendments to the material included (subsection 501.200(b)). The language of the incorporation cannot be changed or deleted as that is what the document says. Though it may be possible to limit the incorporation in some way in the rule, such as, incorporating all material except paragraph 4.1.10.1, the Board declines to do so. The issue is similar to the discussion of incorporation of wastes into the soil. Just as not all farmers will be able to control odor by incorporation of wastes, not all farmers will be able to control odor by spreading waste within four days of excretion. The writers of the ASAE material apparently recognized this circumstance when they included "if possible" in points pertaining to both these methods of waste distribution and odor control.

The Agency suggests an additional change to the Board's proposed Section 501.405(b). This change would delete the "1/4 mile from an inhabited residence" phrase that the Board added at First Notice and replace it with language that would require odor control methods to be practiced wherever a neighboring inhabited residence<sup>8</sup> or populated area is affected by air pollution caused by the odor. However, the Board changes the word "inhabited" in

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<sup>8</sup> At First Notice the Board inadvertently left out of the rule the word "neighboring", modifying an inhabited residence. This change was suggested by the IFB at hearing (R. at 203-5), and the Agency in its post-hearing comments (Agency PC #29). The Board intended to insert this word and includes it in the rule at Second Notice, and deletes the term "inhabited" as discussed in the Opinion above.

favor of using "farm or non-farm" as these are defined in the proposed amendments. It is assumed that any neighboring inhabited residence would also be a neighboring farm or non-farm residence.

The 1/4 mile limit was not designed to be an exception from the Act's requirement not to cause air pollution, where the air pollution originates at distances greater than 1/4-mile. Therefore, the Board believes that the Agency's suggested change has merit as it would further clarify the rule, affording protection from air pollution while at the same time allow flexibility for farming operations when practicing odor control. Therefore, the Board includes this change in the amendments in today's Second Notice.

In conclusion, the Board believes the proposed amendments to Section 501.405 are technically feasible and economically reasonable. The proposed amendments are drafted in a manner that would require the use of odor control methods, while allowing operators the most flexibility in choosing which odor control method suits the individual situation. Where no odor problem is likely to exist, minimal odor control could be practiced. Where a definite odor problem may exist, an operator could determine which odor control method is best, and may end up using incorporation as offering the most control. As was noted in the record, many operators wish to be "good neighbors", and are already practicing odor control methods (see R. at 330-331, 578-9). The Board believes that this type of rule, rather than a series of exceptions to a requirement of incorporation of wastes, would best serve rural residents, farm and non-farm alike.

This proposed Opinion supports the following Order and proposed amendments. The Board now proceeds to Second Notice, which consists of a 45-day time period to allow for review of these proposed amendments by the Joint Committee on Administrative Rules of the Illinois Legislature pursuant to the Administrative Procedure Act (Ill. Rev. Stat. 1989, ch. 127, par. 1005.01(b)).

ORDER

The Board hereby directs that Second Notice of the following proposed amendments be submitted to the Joint Committee on Administrative Rules.

TITLE 35: ENVIRONMENTAL PROTECTION

SUBTITLE E: AGRICULTURE RELATED POLLUTION

PART 501  
GENERAL PROVISIONS

SUBPART A: AUTHORITY AND POLICY

Section  
501.101 Authority  
501.102 Policy

SUBPART B: DEFINITIONS AND INCORPORATIONS

Section  
501.200 Incorporations by Reference  
501.201 Definitions  
501.205 Act  
501.210 Administrator  
501.215 Air Pollution  
501.220 Agency  
501.230 Animal Unit  
501.235 Board  
501.240 Construction  
501.241 CWA  
501.245 Existing Livestock Management Facility and Livestock  
Waste-Handling Facility  
501.246 Expansion  
501.248 Farm Residence  
501.250 Feedlot Runoff  
501.260 Impermeable  
501.265 Lagoon  
501.270 Leachate  
501.274 Liquid Livestock Waste  
501.275 Liquid Manure-Holding Tank  
501.280 Livestock  
501.285 Livestock Management Facility  
501.290 Livestock Shelter  
501.295 Livestock Waste  
501.300 Livestock Waste-Handling Facility  
501.305 Man-made  
501.310 Man-made Ditch  
501.315 Manure Storage Structure  
501.317 Maximum Feasible Location  
501.320 Modification  
501.325 Navigable Waters

- 501.330 New Livestock Management Facility and New Livestock Waste-Handling Facility
- 501.335 NPDES
- 501.340 NPDES Permit
- 501.342 Non-farm Residence
- 501.345 Owner or Operator
- 501.350 Person
- 501.355 Pollutant
- 501.356 Populated Area
- 501.365 Settling Basin
- 501.370 Standard of Performance
- 501.372 Supernatant
- 501.375 Temporary Manure Stack
- 501.380 Water Pollution

SUBPART C: OPERATIONAL RULES

Section

- 501.401 General Criteria
- 501.402 Location of New Livestock Management Facilities and New Livestock Waste-Handling Facilities
- 501.403 Protection of Livestock Management Facilities and Livestock Waste-Handling Facilities
- 501.404 Handling and Storage of Livestock Waste
- 501.405 Field Application of Livestock Waste
- 501.406 Inspections and Disease Prevention

Appendix A: References to Previous Rules

AUTHORITY: Implementing and authorized by Sections 9, 12, 18, 21, 22, and 27 of the Environmental Protection Act (Ill. Rev. Stat. 1989, ch. 111 1/2, pars. 1009, 1012, 1013, 1021, 1022 and 1027).

SOURCE: Filed and effective January 1, 1978; amended 2 Ill. Reg. 44, p. 137, effective October 30, 1978; codified at 7 Ill. Reg. 10592; amended at \_\_\_\_\_ Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

SUBPART A: AUTHORITY AND POLICY

Section 501.102 Policy

- a) It is the purpose of the General Assembly in adopting the Environmental Protection Act to restore, maintain and enhance the purity of the air and waters of Illinois in order to protect health, welfare, property and the quality of life. An adequate supply of healthy livestock is essential to the well-being of Illinois citizens and the nation. They provide the daily source of meat, milk, and eggs. Their efficient, economic production must be the concern of both producers and consumers if we are to have a continued abundance of high quality, wholesome food and of other livestock products at reasonable prices. The policy shall be to establish regulations that will provide a balance between a wholesome environment and the efficient production of adequate livestock products.
- b) Livestock produce wastes which, when properly used, supply nutrients and organic matter to soils. The mere presence of livestock waste in a given location does not denote pollution, but may, when improperly stored, transported or disposed of, undesirably affect the environment.
- c) It is hereby determined that the construction, establishment and operation of certain livestock management facilities and livestock waste-handling facilities without environmental planning and safeguards or the use of certain livestock wastes for agricultural purposes causes, threatens or allows the discharge of contaminants into the air-~~or~~ waters of Illinois so as to cause or threaten to cause pollution or to render such waters harmful to public health, safety or welfare or to domestic, commercial, industrial, agricultural and recreational uses or to man, livestock, wild animals, birds or fish or other aquatic life.
- d) It is hereby determined that the construction, establishment and operation of livestock management facilities and livestock waste-handling facilities without environmental planning and safeguards or the use of livestock wastes for agricultural purposes causes, threatens or allows air pollution, THE DISCHARGE OF CONTAMINANTS INTO THE AIR OF ILLINOIS IN SUFFICIENT QUANTITIES AND OF SUCH CHARACTERISTICS AND DURATION AS TO BE INJURIOUS TO HUMAN, PLANT OR ANIMAL LIFE, TO HEALTH, OR TO PROPERTY, OR TO UNREASONABLY INTERFERE WITH THE ENJOYMENT OF LIFE OR PROPERTY. (Ill. Rev. Stat. ch. 111 1/2 par. 1003.2) It is recognized

that the presence of odor is an inherent characteristic of livestock management facilities and livestock waste-handling facilities, and that the detection of such odor does not per se constitute air pollution.

- d)e) It is the purpose of this Chapter to prevent pollution of the air and waters of Illinois caused by failure to plan with regard to proper environmental safeguards the construction, location and operation of certain livestock management facilities and livestock waste-handling facilities. A permit system is established to ensure that such activities take account of environmental considerations and to meet the requirements for federal approval, as established by the CWA. It is also the purpose of these regulations to prevent pollution from the numerous point and non-point discharges, both continuous and fluctuating, which are present in certain livestock management facilities or livestock waste-handling facilities. To this end, procedural safeguards are required, in addition to compliance with the CWA, NPDES filing requirements and the feedlot category of point source effluent guidelines.

(Source: Amended at \_\_\_\_\_ Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_).

SUBPART B: DEFINITIONS AND INCORPORATIONS

Section 501.200

- a) The Board incorporates the following material by reference:

ASAE. Available from American Society of Agricultural Engineers, 2950 Niles Road, St. Joseph, MI 49085-9659 (616-429-0300).

"Control of Manure Odors," ASAE EP379.1 (December 1986).

"Design of Anaerobic Lagoons for Animal Waste Management," ASAE EP403.1 (March 1990).

- b) This Section incorporates no later editions or amendments.

(Source: Added at \_\_\_\_\_ Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_).

Section 501.246            Expansion

Commencement of construction at a livestock management facility or livestock waste-handling facility where the fixed capital cost of the new components constructed within a 2-year period exceeds

50% of the fixed capital cost of a comparable entirely new facility.

(Source: Added at \_\_\_\_ Ill. Reg. \_\_\_\_, effective \_\_\_\_).

Section 501.248 Farm Residence

Any residence on a farm owned or occupied by the farm owners, operators, tenants or seasonal or year-round hired workers. For purposes of this definition, a "farm" is the land, buildings, and machinery used in the commercial production of farm products, and "farm products" are those plants and animals and their products which are produced or raised for commercial purposes and include but are not limited to forages and sod crops, grains and feed crops, dairy and dairy products, poultry and poultry products, livestock, fruits, vegetables, flowers, seeds, grasses, trees, fish, honey and other similar products, or any other plant, animal, or plant or animal product which supplies people with food, feed, fiber, or fur.

(Source: Added at \_\_\_\_ Ill. Reg. \_\_\_\_, effective \_\_\_\_).

Section 501.274 Liquid Livestock Waste

Livestock waste which can be spread with a conventional liquid manure spreader. This includes pit manures, lagoon manures, holding pond or tank manures, and any other livestock waste consisting of less than 20% solids concentration.

(Source: Added at \_\_\_\_ Ill. Reg. \_\_\_\_, effective \_\_\_\_).

Section 501.317 Maximum Feasible Location

Any location for the establishment of a new livestock management facility or new livestock waste-handling facility where one of the following conditions exist:

- a) The site is located closer to the livestock owner's or operator's residence than to a neighboring farm or non-farm residence or populated area; or
- b) The site is adjacent to an existing livestock management facility or livestock waste-handling facility, or is farther away from a neighboring farm or non-farm residence or populated area than the existing livestock management facility or livestock waste-handling facility, when the livestock owner or operator does not reside on the farm where the livestock are to be kept or raised; or
- c) The site is accessible to roads, water and electricity and is at the farthest location from a neighboring farm or non-farm residence or populated area; there is no

existing livestock management facility or livestock waste-handling facility on the site, and the livestock owner or operator does not reside on the farm where the livestock are to be kept or raised.

(Source: Added at \_\_\_\_ Ill. Reg. \_\_\_\_, effective \_\_\_\_).

Section 501.330      New Livestock Management Facility and New  
Livestock Waste-Handling Facility

Any livestock management facility or livestock waste-handling facility the construction or modification of which is commenced on or after ~~the effective date of this Chapter~~ January 1, 1978.

(Source: Amended at \_\_\_\_ Ill. Reg. \_\_\_\_, effective \_\_\_\_).

Section 501.342      Non-farm Residence

Any residence which is not a farm residence.

(Source: Added at \_\_\_\_ Ill. Reg. \_\_\_\_, effective \_\_\_\_).

Section 501.356      Populated Area

Any area where at least ten (10) inhabited non-farm residences or at least fifty (50) persons frequenting a common place of assembly or a non-farm business at least once per week.

(Source: Added at \_\_\_\_ Ill. Reg. \_\_\_\_, effective \_\_\_\_).

Section 501.372      Supernatant

The liquid portion of the livestock waste that overlies deposited or settled solids that are stored in a tank or lagoon.

(Source: Added at \_\_\_\_ Ill. Reg. \_\_\_\_, effective \_\_\_\_).

SUBPART C: OPERATIONAL RULES

Section 501.402      Location of New Livestock Management  
Facilities and New Livestock Waste-Handling  
Facilities

- a) No new livestock management facility or new livestock waste-handling facility shall contain within its boundaries any stream or other surface waters except small temporary accumulations of water occurring as a direct result of precipitation.
- b) New livestock management facilities and new livestock waste-handling facilities located within a 10-year flood height as recorded by the United States Geological Survey or as officially estimated by the

Illinois State Water Survey shall be protected against such flood.

- c)
  - 1) Upon July 15, 1991, new or expanded livestock management facilities and new or expanded livestock waste-handling facilities shall not be located in close proximity to populated areas so as to cause air pollution within 1/2 mile of a populated area or within 1/4 mile of a non-farm residence.
  - 2) For purposes of this subsection (c), the following shall not be considered location of a new or expanded livestock management or waste handling facility:
    - A) Commencement of operations at an idle facility which has livestock shelters left intact, and which has been operated as a livestock management facility or livestock waste-handling facility for four consecutive months at any time within the ten (10) previous years;
    - B) Commencement of operations at a facility reconstructed after partial or total destruction due to natural causes, i.e., tornado, fire, or earthquake.
  - 3) Adequate odor control methods and technology shall be practiced by operators of new and existing livestock management facilities and livestock waste-handling facilities so as not to cause air pollution.
- d) The setback requirements of subsection (c) shall not apply to any livestock management facility or livestock waste-handling facility which meets any of the following conditions:
  - 1) The facility is located in an Agricultural Area, designated as such pursuant to the Agricultural Areas Conservation and Protection Act, Ill. Rev. Stat. 1989, ch. 5, para. 1001 et seq.;
  - 2) The facility undergoes expansion, and the owner of the facility certifies and notifies the Agency in writing as such that the facility was operating as a livestock management facility or livestock waste-handling facility for at least one year prior to the existence of any non-farm residence within 1/4 mile of the facility or of a populated area within 1/2 mile of the facility; or

- 3) The use of the facility as a livestock management or livestock waste handling facility is allowed by local zoning or municipal ordinance. If no local zoning or municipal ordinance exists that covers such use, the facility shall be exempt if the livestock are not raised or kept at the facility primarily for hire or the raising or keeping of livestock at the facility does not have financial profit as a primary aim.
- e) A new livestock management facility or new livestock waste-handling facility which locates within 1/4 mile of a neighboring farm residence shall locate at the maximum feasible location from such residence.
- f) A new livestock management facility or new livestock waste-handling facility which locates within 1/4 mile of a non-farm residence or within 1/2 mile of a populated area, pursuant to subsection (d), shall locate at the maximum feasible location from such residence or populated area.
- d)g) New livestock management facilities or new livestock waste-handling facilities located on soil types or geological formations where the deposition of livestock waste is likely to cause groundwater pollution shall be constructed in such a way that pollution will be prevented, or supplementary measures shall be adopted which will prevent pollution.

(Source: Amended at \_\_\_\_\_ Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_).

Section 501.404 Handling and Storage of Livestock Waste

- a) Any livestock waste stored in excess of six months shall be contained in a manure storage structure.
- b) Temporary Manure Stacks
  - 1) Temporary manure stacks shall be constructed or established and maintained in a manner to prevent runoff and leachate from entering surface or groundwaters.
  - 2) No temporary manure stack shall be constructed within 100 feet of a water well.
- c) Livestock Waste-Holding Facilities
  - 1) Liquid manure-holding tanks shall be impermeable and capable of withstanding pressures and loadings to which such a tank may be subjected.

- 2) Holding ponds and lagoons shall be impermeable or so sealed as to prevent groundwater or surface water pollution.
- 3) The contents of livestock waste-handling facilities shall be kept at levels such that there is adequate storage capacity so that an overflow does not occur except in the case of precipitation in excess of a 25-year 24-hour storm.
- 4) Liquid Livestock Waste
  - A) Existing livestock management facilities which handle the waste in a liquid form shall have adequate storage capacity in a liquid manure-holding tank, lagoon, holding pond, or any combination thereof so as not to cause air or water pollution as defined in the Act or applicable regulations. If inadequate storage time causes or threatens to cause a violation of the Act or applicable regulations, the Agency may require that additional storage time be provided. In such cases, interim pollution prevention measures may be required by the Agency.
  - B) New livestock waste-handling facilities which handle the waste in a liquid form shall provide a minimum of 120-day storage with a liquid manure-holding tank, lagoon, holding pond, or any combination thereof unless the operator has justifiable reasons substantiating that a lesser storage volume is adequate. If inadequate storage volumes cause or threaten to cause a violation of the Act or applicable regulations, the Agency may require corrective measures.

d) Runoff Field Application Systems

Any livestock management facility may construct and operate a runoff field application system for the treatment of livestock waste from fewer than 300 animal units, meeting the requirements of 35 Ill. Adm. Code 570, in lieu of utilizing liquid manure-holding tanks, holding ponds, or lagoons in compliance with subsection (c), or other livestock waste-handling systems which would assure compliance with the Act and 35 Ill. Adm. Code.Subtitle E.

- e) Subsections (a) through (d) shall not apply to livestock management facilities with fifty (50) or

fewer animal units, provided that the following conditions exist:

- 1) The location of the facility relative to waters of the State is such that there is no discharge of livestock waste into waters of the State, in violation of Section 12 of the Act (Ill. Rev. Stat. 1989, ch. 111 1/2, par. 1012);
- 2) There is no discharge of livestock waste into waters of the State by means of a man-made ditch, flushing system or other similar man-made device, in violation of Section 12 of the Act (Ill. Rev. Stat. 1989, ch. 111 1/2, par. 1012); and
- 3) The facility is managed so that livestock waste is not allowed to accumulate to an extent which threatens to cause a discharge to waters of the State, in violation of Section 12 of the Act (Ill. Rev. Stat. 1989, ch. 111 1/2, par. 1012).

(Source: Amended at \_\_\_\_\_ Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_).

Section 501.405      Field Application of Livestock Waste

- a) The quantity of livestock waste applied on soils shall not exceed a practical limit as determined by soil type, especially its permeability, the condition (frozen or unfrozen) of the soil, the percent slope of the land, cover mulch, proximity to surface waters and likelihood of reaching groundwater, and other relevant considerations. These livestock waste application guidelines will be adopted pursuant to Section 502.305, unless otherwise provided for by Board regulations.
- b) Operators of livestock waste handling facilities shall practice odor control methods during the course of manure removal and field application so as not to affect a neighboring farm or non-farm residence or populated area by causing air pollution as described in Section 501.102(d). Odor control methods include, but are not limited to,
  - 1) Soil injection or other methods of incorporation of waste into the soil including disking or plowing;
  - 2) Consideration of climatic conditions including wind direction and inversions;
  - 3) For liquid livestock waste: whether supernatant which is used for irrigation purposes has been stored in a livestock waste lagoon system which is

designed and operated in accordance with "Design of Anaerobic Lagoons for Animal Waste Management", as incorporated by reference at Section 501.200.

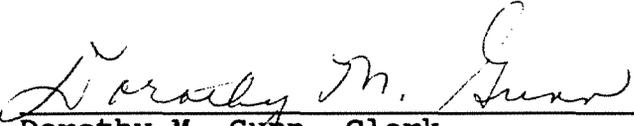
- 4) Other methods as described in "Control of Manure Odors", as incorporated by reference at Section 501.200.

(Source: Amended at \_\_\_\_\_ Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_).

IT IS SO ORDERED.

Board Member Joan G. Anderson concurred.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 9<sup>th</sup> day of May, 1991, by a vote of 7-0.

  
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Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board