ILLINOIS POLLUTION CONTROL BOARD
August 31, 1989

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| IN THE MATTER OF: | ) | |
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| GROUNDWATER PROTECTION: REGULATIONS FOR EXISTING AND NEW ACTIVITIES WITHIN SET-BACK ZONES AND REGULATED RECHARGE AREAS (35 ILL. ADM. CODE 601, 615, 616 AND 617) | ) | R89-5 |

PROPOSED REGULATIONS FIRST NOTICE

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

This matter comes before the Board upon a regulatory proposal filed March 13, 1989 by the Illinois Environmental Protection Agency ("Agency") pursuant to Sections 14.4(b) and 14.4(d) of the Illinois Environmental Protection Act (Ill. Rev. Stat. 1987, ch. 111½, par. 1001 et seq.) ("Act"). Section 14.4 was enacted by the Illinois General Assembly as part of the Illinois Groundwater Protection Act ("IGPA"), P.A. 85-863[1], effective September 24, 1987.

Sections 14.4(b) and 14.4(d) mandate inter alia that the Agency propose and the Board promulgate regulations prescribing standards and requirements for certain activities within setback zones and regulated recharge areas, as these terms are defined in the IGPA. The set of affected activities includes, in general, those activities which offer significant potential for producing groundwater contamination, and which are not otherwise currently subject to regulations which limit or eliminate their potential for producing groundwater contamination.

The Board today adopts a proposal for First Notice. Additionally, in today's Opinion the Board presents its perspective on the merits of the proposal based on the record as it currently stands. The Board emphasizes, however, that among

[1] P.A. 85-863 consists of sixteen sections, the first nine of which constitute a free-standing body of statute found at Ill. Rev. Stat. 1987, ch. 111½, par. 7451 et seq.. Of the remaining sections, all but the last (effective date provision) provide amendments to various pre-existing statutes. Amendments to the Environmental Protection Act occur in Section 14 of P.A. 85-863. The term "Groundwater Protection Act" is commonly used to refer to both the free-standing first nine sections, and to the full sixteen sections of P.A. 85-863. Unless otherwise specified, the latter senso lato usage is employed herein.

other matters, an Economic Impact Study ("EcIS") of the instant proposal is under preparation by the Illinois Department of Energy and Natural Resources (see Procedural History, following). The Board anticipates that the EcIS and EcIS hearings will substantially augment the existing record. The Board believes that taking First Notice action now will assist the EcIS process and ultimately expedite identification of the merits of this proposal.

For this same reason, the Board at this time does not contemplate that it will take any further formal action in this docket until after the EcIS process is completed. Accordingly, as well, the comment period in this matter will remain open until an appropriate time after completion of the EcIS process, as will be specified in a future Hearing Officer order.

Although today's proposal is unchanged in overall intent from that originally proposed by the Agency, the Board has made certain changes[2] in outline and content. The substantive changes among these are identified in the following discussion.

## PROCEDURAL HISTORY

The Agency filed its proposal in the instant matter, accompanied by a Statement of Reasons, on March 13, 1989.

On April 1, 1989 the Illinois Department of Energy and Natural Resources ("DENR") filed a Public Comment ("PC") pursuant to Section 27(a) of the Act requesting that the Board determine that an EcIS be prepared for the instant proposal. By Order of April 27, 1989 the Board issued its finding that an EcIS should be prepared.

Merit hearings were held on May 16 and 17, 1989 in Springfield, Illinois, and on June 1 and 2, 1989 in Chicago, Illinois. The Springfield hearings were devoted to the Agency's presentation of the proposal and to the public's and Board's questioning of the Agency regarding the rationale and operations of the proposal. Questioning of the Agency continued at the Chicago hearings. Additionally, testimony on behalf of the McHenry County Defenders, Citizens for a Better Environment, the Great Lakes Chapter of the Sierra Club, and the Illinois Steel Group was received at the Chicago hearings.

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[2] Hereinafter, whenever it is indicated that changes or modifications have been made to the proposal, the reference is with respect to the Agency's proposal of March 13, 1989.

By Hearing Officer Order of June 15, 1989 a post-hearing comment period was set through August 1, 1989. Six additional comments were received during this period: PC #5 filed by the Illinois Environmental Regulatory Group ("IERG"), PC #6 and #7 filed on behalf of the Illinois Fertilizer and Chemical Association, Inc. ("IFCA"), PC #8 filed by Waste Management of Illinois, Inc., PC #9 filed by the Agency, and PC. #10 filed by McHenry County Defenders, Citizens for a Better Environment, and the Great Lakes Chapter of the Sierra Club (hereinafter "Defenders")[3].

## STATUTORY FRAMEWORK

The IGPA was enacted by the Illinois General Assembly as the outgrowth of a long-standing concern by the General Assembly and the citizenry of the State for protection of the State's rich and valued groundwater resources. The IGPA is a multi-faceted policy and program statement designed to assure the continued viability of the State's groundwater resources. The policy statement is found at Ill. Rev. Stat. 1987, ch. 111½, par. 7452(b):

> ... it is the policy of the State of Illinois to restore, protect, and enhance the groundwaters of the State, as a natural and public resource. The State recognizes the essential and pervasive role of groundwater in the social and economic well-being of the people of Illinois, and its vital importance to the general health, safety, and welfare. It is further recognized as consistent with this policy that the groundwater resources of the State be utilized for beneficial and legitimate purposes; that waste and degradation of the resources be prevented; and that the underground water resources be managed to allow for maximum benefit of the people of the State of Illinois.

### Section 14.4

The particular program statement which is pertinent to the instant proceeding occurs within Section 14.4 of the Act. Section 14.4 prescribes in its entirety:

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[3] Board Note: Although Public Comments #9 and #10 were timely received at the Board's DeKalb office, simultaneously mailed copies were not received at the Board's Chicago office until August 7, 1989 due to apparent difficulties with mail delivery. The Board thereby considers these comments to have been timely filed.

a. No later than January 1, 1989, the Agency, after consultation with the Interagency Coordinating Committee on Groundwater and the Groundwater Advisory Council, shall propose regulations to the Board prescribing standards and requirements for the following activities:

1. landfilling, land treating, surface impounding or piling of special waste and other wastes which could cause contamination of groundwater and which are generated on the site, other than hazardous, livestock and landscape waste, and construction and demolition debris;

2. storage of special waste in an underground storage tank for which federal regulatory requirements for the protection of groundwater are not applicable;

3. storage and related handling of pesticides and fertilizers at a facility for the purpose of commercial application;

4. storage and related handling of road oils and de-icing agents at a central location; and

5. storage and related handling of pesticides and fertilizers at a central location for the purpose of distribution to retail sales outlets.

In preparing such regulation, the Agency shall provide as it deems necessary for more stringent provisions for those activities enumerated in this subsection which are not already in existence. Any activity for which such standards and requirements are proposed may be referred to as a new activity.

b. Within 2 years after the date upon which the Agency files the proposed regulations pursuant to subsection (a) of this Section, the Board shall promulgate appropriate regulations for existing activities. In promulgating these regulations, the Board shall, in addition to the factors set forth in Title VII of this Act, consider the following:

1. appropriate programs for water quality monitoring;

2. reporting, recordkeeping and remedial response measures;

3. appropriate technology-based measures for pollution control; and

4. requirements for closure or discontinuance of operations.

Such regulations as are promulgated pursuant to this subsection shall be for the express purpose of protecting groundwaters. The applicability of such regulations shall be limited to any existing activity which is located:

A. within a setback zone regulated by this Act, other than an activity located on the same site as a non-community water system well and for which the owner is the same for both the activity and the well; or

B. within a regulated recharge area as delineated by Board regulation, provided that:

i. the boundary of the lateral area of influence of a community water supply well located within the recharge area includes such activity therein;

ii. the distance from the wellhead of the community water supply to the activity does not exceed 2500 feet; and

iii. the community water supply well was in existence prior to January 1, 1988.

In addition, the Board shall ensure that the promulgated regulations are consistent with and not pre-emptive of the certification system provided by Section 14.5.

c. Concurrently with the action mandated by subsection (a), the Agency shall evaluate, with respect to the protection of groundwater, the adequacy of existing federal and State regulations regarding the disposal of hazardous

waste and the offsite disposal of special and municipal wastes. The Agency shall then propose, as it deems necessary, additional regulations for such new disposal activities as may be necessary to achieve a level of groundwater protection that is consistent with the regulations proposed under subsection (a) of this Section.

d. Following receipt of proposed regulations submitted by the Agency pursuant to subsection (a) of this Section, the Board shall promulgate appropriate regulations for new activities. In promulgating these regulations, the Board shall, in addition to the factors set forth in Title VII of this Act, consider the following:

1. appropriate programs for water quality monitoring, including, where appropriate, notification limitations to trigger preventive response activities;

2. design practices and technology-based measures appropriate for minimizing the potential for groundwater contamination;

3. reporting, recordkeeping and remedial response measures; and

4. requirements for closure or discontinuance of operations.

Such regulations as are promulgated pursuant to this subsection shall be for the express purpose of protecting groundwaters. The applicability of such regulations shall be limited to any new activity which is to be located within a setback zone regulated by this Act, or which is to be located within a regulated recharge area as delineated by Board regulation. In addition, the Board shall ensure that the promulgated regulations are consistent with and not pre-emptive of the certification system provided by Section 14.5.

e. Nothing in this Section shall be construed as prohibiting any person for whom regulations are promulgated by the Board pursuant to subsection (b) or (c) of this Section, from proposing and obtaining, concurrently with the regulations proposed by the Agency pursuant to subsection (a) of this Section, a rule specific to individual persons or sites pursuant to Title VII of this

Act which codifies alternative groundwater protection methods that provide substantially equivalent protection for community water supplies.

f. Nothing in this Section shall be construed as limiting the power of any county or municipality to adopt ordinances, which are consistent with but not more stringent than the regulations adopted by the Board pursuant to this Section, for application of standards and requirements within such setback zones as are provided by this Act.

g. The Agency shall prepare a groundwater protection regulatory agenda for submittal to the Interagency Coordinating Committee on Groundwater and the Groundwater Advisory Council. In preparing this agenda, the Agency shall consider situations where gaps may exist in federal or State regulatory protection for groundwater, or where further refinements could be necessary to achieve adequate protection of groundwater.

h. Nothing in this Section shall be construed as limiting the general authority of the Board to promulgate regulations pursuant to Title VII of this Act.

Although the instant proposal is being entertained pursuant to the mandate of Section 14.4, Section 14.4 sufficiently interweaves with other portions of the IGPA that it is necessary to briefly discuss these related portions.

Sources and Routes

In general usage, a "source" of groundwater contamination is any activity, facility, etc. from which a contaminant finds its way into groundwater. However, the IGPA does not define the term "source" in isolation, but rather defines "potential sources" of various types. Moreover, the definitions include only very specific activities and activity levels, such that the definition of "potential source" as used in the IGPA and herein is substantially more circumscribed than it is in general usage.

The IGPA identifies two basic types of potential sources, potential primary source at Section 3.59 of the Act and potential secondary source at Section 3.60 of the Act. In each case a potential source is initially identified as "any unit at a facility or site not currently subject to a removal or remedial

action"[4]. Additionally, a potential primary source is a potential source which:

1. is utilized for the treatment, storage, or disposal of any hazardous or special waste not generated at the site; or

2. is utilized for the disposal of municipal waste not generated at the site, other than landscape waste and construction and demolition debris; or

3. is utilized for the landfilling, land treating, surface impounding or piling of any hazardous or special waste that is generated on the site or at other sites owned, controlled or operated by the same person; or

4. stores or accumulates at any time more than 75,000 pounds above ground, or more than 7,500 pounds below ground, of any hazardous substances.

(Act, Section 3.59)

Conversely, a potential secondary source is any unit at a facility or site not subject to a removal or remedial action, which is not a potential primary source, and which:

1. is utilized for the landfilling, land treating, or surface impounding or waste that is generated on the site or at other sites owned, controlled or operated by the same person, other than livestock and landscape waste, and construction and demolition debris; or

2. stores or accumulates at any time more than 25,000 but not more than 75,000 pounds above ground, or more than 2,500 but not more than 7,500 pounds below ground, of any hazardous substances; or

3. stores or accumulates at any time more than 25,000 gallons above ground, or more than 500 gallons below ground, of petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance; or

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[4] The terms "site" and "unit" as used in the statutory definitions of potential primary source and potential secondary source are themselves statutorily defined at Sections 3.43 and 3.62 of the Act.

4. stores or accumulates pesticides, fertilizers, or road oils for purposes of commercial application or for distribution to retail sales outlets; or

5. stores or accumulates at any time more than 50,000 pounds of any de-icing agent; or

6. is utilized for handling livestock waste or for treating domestic wastewaters other than private sewage disposal systems as defined in the "Private Sewage Disposal Licensing Act".

(Act, Section 3.60)

In general usage, a "route" of groundwater contamination is any conduit through which a contaminant is transferred from its source to groundwater. As is the case with "potential source", the definition of "potential route" is statutorily circumscribed in the IGPA to include only specific types of routes, as follows:

> "Potential Route" means abandoned and improperly plugged wells of all kinds, drainage wells, all injection wells, including closed loop heat pump wells, and any excavation for the discovery, development or production of stone, sand or gravel. (Act, Section 3.58)

Setback Zones

Setback zone is defined at Section 3.61 of the Act as:

> "Setback Zone" means a geographic area, designated pursuant to this Act, containing a potable water supply well or a potential source or potential route, having a continuous boundary, and within which certain prohibitions or regulations are applicable in order to protect groundwaters[5].

The nature of and various restrictions applied to setback zones are expanded upon in Sections 14.1, 14.2, and 14.3 of the Act. Section 14.1 establishes a general prohibition against the

[5] The term "potable" used in this definition is itself statutorily defined at Section 3.65 of the Act.

siting of any new community water supply well[6] within 200 feet of any potential primary or potential secondary source or any potential route. This prohibition is extended pursuant to subsection (b) to 400 feet for a new community water supply well "deriving water from fractured or highly permeable bedrock or from an unconsolidated and unconfined sand and gravel formation". Section 14.1 thus, among other matters, establishes a minimum setback zone of 200 or 400 feet around potential groundwater contamination sources, within which the siting of new community wells is prohibited[7].

Minimum setback zones for potable water supply wells and prohibitions against new sitings within them are established in Section 14.2. Like the setback zones established for potential sources and potential routes in Section 14.1, the basic minimum setback zones for potable water supply wells are 200 and 400 feet, depending on the nature of the bedrock or sand and gravel formation from which the water is derived. The prohibitions against new sitings apply to new potential routes and new potential primary or secondary sources. In these elements, Section 14.2 is then essentially the mirror image of Section 14.1, the former establishing setbacks around the water wells, and the latter establishing setbacks around potential contamination sources/routes.

Section 14.2, however, is substantially more expansive than Section 14.1 with regard to the number of wells covered and to special conditions and exceptions. As regards coverage, the 200-foot setback under Section 14.2 initially applies to all potable water supply wells, not just community water supply wells; the 400-foot provision remains applicable only to community water

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[6] Community and non-community water supply systems are the two varieties of public water supply systems, pursuant to Section 3.28 of the Act. A community water supply by definition at Section 3.05 of the Act "serves or is intended to serve at least 15 service connections used by residents or regularly serves at least 25 residents"; a non-community water supply system is a public system which is not a community system. Pursuant to Section 3.05 non-community water supplies are not subject to the provisions of the Act.

[7] Section 13 of the IGPA establishes a similar prohibition against the siting of new non-community, semi-private, or private water wells within 200 feet of any potential primary or potential secondary source or any potential route. Certain exceptions may apply for private wells where the owner of the new well is the same as the owner of the potential source or route. Section 13 of the IGPA is codified at Rev. Stat. 1987, ch. 111½, par. 116.116a ("Illinois Water Well Construction Code").

supply wells[8]. Because community water supply wells are only a small subset of all potable water supply wells, the number of wells governed by the provisions of Section 14.2 is substantially larger than those addressed by Section 14.1.

Among the special conditions and exceptions provided for in Section 14.2 is provision at subsection (b) for the owner of a potable water supply well other than a community well to waive the prohibition against siting of new potential sources/routes. A special provision at 14.4(b) also establishes that in the circumstance where a potable water supply is part of a private water system and the owner of such well will also be the owner of a new potential secondary source or new potential route, the prohibition against siting a new potential secondary source or new potential route extends to only 75 feet. Subsection (c) further allows the Board to grant exception to the prohibition against new sitings for certain types of sitings.

Whereas Section 14.2 establishes minimum setback zones around water supply wells, Section 14.3 establishes provisions whereby setback zones may be expanded to a maximum zone not to exceed 1000 feet. The provision is applicable only to community water supply wells and requires affirmative action on the part of the well owner and/or the Agency. The prohibitions for new siting within maximum setback zones differ from the prohibitions within minimum setback zones in that only new potential primary sources are prohibited in the former. As of June 1, 1989 only one application to establish a maximum setback zone had been received by the Agency (R. at 316).

Regulated Recharge Areas

Regulated recharge area is defined at Section 3.67 of the Act:

> "Regulated Recharge Area" means a compact geographic area, as determined by the Board, the geology of which renders a potable resource groundwater particularly susceptible to contamination.

The procedures and conditions under which promulgation of a regulated recharge area may be undertaken are specified at Sections 17.3 and 17.4 of the Act. Such promulgation is specified as proceeding according to the provisions for rulemakings found at Section 28 of the Act.

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[8] Section 14.2(d) requires the Agency to maintain a list of community water supply wells to which the 400-foot setback is applicable. This list has been admitted into the instant record as Exhibit 11.

The instant proposal sets up a separate Part, Part 617, into which adopted regulated recharge areas are to be eventually placed; to date, no proposals for promulgation of a regulated recharge area have been received by the Board.

Certification of Minimal Hazard

Section 14.5 provides for a "certification of minimal hazard" system whereby the owner of any site otherwise covered by the 400 foot minimum setback provision of Section 14.2(d) or any of the provisions of Section 14.4 or regulations adopted thereunder is exempted from the requirements of these two pieces of statute. This has particular import to the instant proposal, since the existence of certification totally exempts that owner from all of the provisions proposed herein.

Section 14.5 establishes that the certification process is initiated by the owner and is approved as to completeness and adequacy by the Agency or the Agency's delegate. Section 14.5 does not directly address the matter of appeal processes where an Agency finding on completeness and adequacy is adverse. However, in response to this matter the Agency notes:

> Under Section 14.5(c) of the Act, Agency action under Section 14.5(c)(1) and (2) is a final determination. Under Section 5(d) of the Act, "[t]he Board has the authority to conduct hearings ... upon other petitions for review of final determinations which are made pursuant to the Act or Board rule and which involve a subject which the Board is authorized to regulate ... (emphasis added)." Therefore it can be argued that Section 5(d) of the Act authorizes the Board to consider petitions for review of Agency final determinations under Section 14.5. (PC #9 at para. 10).

Water Quality Standards for Groundwater

In addition to the mandate of Section 14.4, the IGPA also contains a mandate for the promulgation of water quality standards as found at Ill. Rev. Stat. 1987, ch. 111½, par. 7458. The groundwater standards proposal was to be submitted to the Board by July 1, 1989 and groundwater standards are to be promulgated by the Board within two years of receipt of the Agency proposal. Given the current schedule of matters, it is anticipated that promulgation of the instant regulations will precede promulgation of the groundwater standards. Nevertheless, certain facets of the instant proposal, particularly related to groundwater monitoring, may ultimately depend upon the nature of the groundwater quality standards which are promulgated. The Board is thus aware that adoption of the new groundwater

standards could require some modification of the language proposed herein.

## PROPOSAL OVERVIEW

Due to the complex nature of the instant proposal, the Board will first present an overview of the salient elements of the proposal. This overview is then followed by discussion of individual Parts and Subparts of the proposal.

### Refinement of the Terms "Activity" and "Activities"

A principal change in the instant proposal is replacement of the word "activity" or "activities" as used in the Agency's proposal with the terms "owner or operator" and "unit" (or, in certain instances, "site" or "facility"), as is necessary to accomplish the intended meaning. This is done for several reasons, one of which follows because the word "activity" denotes an action (e.g, landfilling, surface impounding), which in turn connotes the existence of both a person carrying out the action (e.g, an owner or operator) and an object to which the action is directed (e.g., landfills, surface impoundments). Indeed, the regulations as proposed by the Agency, and herein, impose requirements on both such persons and such objects. However, use of the single word "activity" to refer to both persons and objects leads to a plethora of awkward and often grammatically inconsistent constructions. These constructions are not only best avoided, but are likely also to be unacceptable to the Administrative Code Unit.

Additionally, the change is made to provide unity between the instant regulations and other federal and Board regulations. In all other similar regulations the operative words are "owner", "operator", "site", "facility", and "unit"[9]. Accordingly, these are terms which are generally well understood by both the regulated community and the regulating agencies. Moreover, they have a proven record of utility. To now replace these by the less-definite word "activity" would seem to be at the expense of this common understanding and utility, and to invite unnecessary present and future confusion.

[9] Definitions of "owner", "operator", "site", "facility", and "unit" are provided in Section 615.102 of the proposal. These definitions are identical to the definitions found at 35 Ill. Adm. Code 745.102, 35 Ill. Adm. Code 720.103, Section 3.43 of the Act, 35 Ill. Adm. Code 720.102, and Section 3.62 of the Act, respectively.

The Board is aware that Section 14.4 of the Act itself most often uses the word "activity" to identify both who and what is to be regulated within the instant rulemaking. However, the Board notes that the Act and the IGPA also uses the terms "site", "facility", or "unit" in identifying the specific objects to which groundwater protection is directed (e.g., Sections 3.59 and 3.60, and thereby Sections 14.1, 14.2, 14.3, and 14.5, of the Act). The Board therefore finds that the replacement used herein is consistent with the usage of the Act.

Thus, while the term "activity" remains useful for describing the general direction of the proposed regulations, it is not apt for constructions within the regulations themselves. Accordingly, as used herein, the person responsible for compliance is identified as the "owner or operator". Similarly, the basic object subject to regulation is the "unit". Thus, for example, the prohibition against use or operation found at Section 615.402 is directed toward the owner or operator of a landfill unit.

Regulated Activities

The proposed regulations apply only to a limited set of the number of possible activities within setback zones and regulated recharge areas. This limited set consists of the activities listed at Section 14.4(a)(1-5) of the Act. The activities which are included are (1) on-site[10] landfilling, on-site land treating, on-site surface impounding, and on-site waste piling, (2) storing in underground tanks, (3) storing and related handling of pesticides or fertilizers, (4) storing and related handling of road oils, and (5) storing and related handling of de-icing agents. The units affected by the regulations are further limited by exempting from this particular regulation certain subclasses of units, such as most on-site units that are solely for the treatment, storage, and disposal of hazardous waste, livestock waste, landscape waste, and/or construction and demolition debris.

Aside from guidance provided by the list at Section 14.4(a), controlling factors in determining which activities would be regulated under the instant proposal are (1) whether the activity constitutes a potential source of groundwater contamination and (2) whether the activity is already controlled under existing State or Federal regulations or laws.

[10] "On-site" is defined in Section 615.102 of the proposal. The definition is identical to that found at 35 Ill. Adm. Code 702.110.

It should be noted that Section 14.4(c) of the Act contains a specific mandate to the Agency to propose additional regulations, beyond those proposed herein, for control of the disposal of hazardous wastes and the off-site disposal of special and municipal wastes if, after required evaluation, existing State and Federal regulations are found to be insufficient to achieve groundwater protection consistent with Section 14.4(a). In this context, the instant regulations may be viewed as plugging a legislatively-identified regulatory gap, with additional regulations to follow as may be identified by additional Agency analysis. Moreover, they may be viewed a "first-cut" effort directed toward just those activities legislatively-identified as requiring immediate attention.

Section 14.4 makes distinction between new and existing activities[11] located within setback zones and regulated recharge areas. It also provides separate mandates for, and factors to be considered in, promulgation of regulations for the two classes of activities (cf, subsections (b) and (d)). Additionally, at subsection (a) explicit allowance is made for "more stringent provisions for those activities ... which are not already in existence".

The fundamental distinction between new and existing activities is recognized in the organization of the proposal into two separate Parts, with Part 615 treating existing activities and Part 616 treating new activities. Although the internal arrangement and many of the specific provisions of the two Parts are similar, they differ in detail reflective of the distinction between new and existing activities.

Regulation of Pesticide and Fertilizer Facilities

In Public Comment #7 the IFCA argues that regulation of pesticide and fertilizers facilities is not necessary, in part because proposed and existing Illinois Department of Agriculture ("IDOA") are sufficient. While the Board believes that IDOA regulations constitute a necessary element in assuring environmental protection from pesticides and fertilizer facilities, it is not convinced that they constitute a sufficient program. Moreover, the Act itself requires that the Board adopt appropriate regulations pursuant to Section 14.4; the Board

[11] Definitions for new and existing activities are found at 615.102 of the proposed regulations. The distinguishing element between the two types of activities is based upon the effective date of the instant regulations, establishment of a regulated recharge area, or an ordinance setting a maximum setback zone. These definitions are intended to apply only to the instant proposal.

cannot legally delegate this authority to IDOA. IDOA itself apparently recognizes this circumstance, as is witnessed by the Interagency Agreement between IDOA and the Agency (PC #7, Exh. B).

The interrelated responsibilities of IDOA and the Agency-Board nevertheless do present some possible difficulties associated with crafting the instant regulations. Attention is particularly called to the discussion of Part 616.Subpart H, following.

Affected Facilities

The number of affected facilities at which regulated units exist is uncertain at this time. However, a rough estimate is available based on an Agency survey of setback areas around 1059 wells representing 371 communities served by public water supplies. Tabulation of the number of possible regulated activities within minimum setback zones and within possible maximum setback zones shows the following (PC #10, Attachment):

| | Percent of Setback Zones Containing Facilities | |
|---|---|---|
| | Minimum Zones | Maximum Zones |
| Landfills | .75 | .75 |
| Ag-Chem Sites | .85 | 9.4 |
| Salt Piles | .85 | 1.3 |
| Petroleum Storage including Road Oils[12] | 3.8 | 6.2 |

These figures cannot be directly extrapolated to the full population of affected wells because the survey is biased towards wells located in urban areas. However, they do imply that, given the large number of affected wells (see below), there are likely to be hundreds of affected facilities.

Affected Wells and Lands

The number of affected wells is estimated to be in excess of 400,000 (R. at 29). Most of these are private wells serving an owner-occupied single family dwellings. Of the public wells, over 7,100 are non-community wells and approximately 3,649 are

[12] Not all of these facilities would necessarily be subject to the instant regulations. Similarly, the Agency survey shows that the largest single class of "possible problems" for wellhead protection consists of underground gas storage tanks, which occur in 12.2% of the surveyed minimum setback zones and 39.8% of the possible maximum setback zones (Id.). Underground gas storage tanks are not regulated under the instant regulations.

community wells (Id.). The community wells are approximately evenly split between those to which the 200-foot and 400-foot minimum setback zones apply (Id.).

Based on these figures, the Agency estimates that approximately 1.2 million acres (approximately 1/30 of the land area of the State) are located within minimum setback areas (R. at 29), largely associated with private wells.

The Agency further estimates that if all of the areas of the State which can reasonably be assumed to qualify for regulated recharge area status are in fact so designated, that approximately one-half of the State would be involved (R. at 317-8).

Prescribed Control Measures

Subsections 14.4(b) and 14.4(d) prescribes the control factors which the Board must consider in the instant proposal. In their general outline, these subsections require the Board to consider groundwater monitoring programs, recordkeeping and reporting, remedial and response measures, technical standards for pollution control, and requirements for closure and discontinuance of operations. The proposal closely tracks these several factors.

Absence of Permits

A salient feature of the instant proposal is that it is by design implemented entirely without permits (see PC #9 at para. 12). This is in part because many of the activities covered by the proposed regulations are specifically exempted from permit requirements by Section 21(d) of the Act. Moreover, since most of the remaining activities covered by the instant proposal are also conducted outside of existing permit programs, requiring permits to regulate these activities would by necessity require the establishment of new permit programs. However, the Agency has intentionally not proposed any new permit programs in the instant proceeding. The Agency notes that Section 14.4 is silent on the matter of permits, which it views as purposeful. Moreover, the large number and variety of affected setback zones and activities, the permitting of which would impose an impractically large public and administrative burden. This would by necessity require the shifting of substantial resources away from other environmental programs to their detriment.

The Defenders contend that the Board does have authority under the Act to implement the instant regulations via a permit system (PC #10 at 17-9). Whether this contention is correct or not, however, is not the immediate issue. The immediate issue is whether it is prudent to implement the instant regulations via a permit system. The Board agrees with the Agency that, at least

at this time, it would be imprudent to build a permitting process into the instant regulations.

The absence of permitting, however, presents some practical concerns. Among these are potential problems that arise because owners or operators, in the absence of a permit system, are required to make independent decisions[13] which would otherwise be subject to direct Agency oversight and approval. This, in turn, would seem to demand a greater degree of guidance and specificity in the regulations than might otherwise be needed. It might further require protection against prosecution for owners and operators who, in good faith, make decisions which are later subject to challenge. And it would also seem to demand a mechanism (hopefully simple) whereby an inappropriate decision made by an owner or operator could be reversed.

In spite of some substantial additions made to the instant proposal intended to give greater guidance to affected persons, the Board is not convinced that the proposal yet sufficiently addresses this matter and related matters of review of decisions. The Board therefore particularly welcomes comment on these matters during the First Notice comment period.

Required Cessations and Closures

The instant proposal would prohibit the continued use or operation of certain existing units within certain setback zones and regulated recharge areas. The prohibitions are:

1. Within a minimum set-back zone: all on-site units for landfilling or land treating or surface impounding of special and non-special waste, and all units for the storage and handling or road oils containing wastes or consisting of petroleum residuum or petroleum distillates; cessation to be effective two years after promulgation of Part 615 and closure to be completed three years after promulgation. (Proposed Sections 615.402, 615.422, 615.442, and 615.702).

2. Within a maximum set-back zone: all on-site units for landfilling or land treating or surface impounding of special waste; cessation to be effective two years after the effective date of the ordinance or regulation establishing the maximum setback zone and closure to be completed

[13] Examples include determining the sufficient number of monitoring wells pursuant to 615.204(a) and the specific pesticides to be monitored pursuant to 615.206(b).

three years after the effective date of the ordinance or regulation. (Proposed Sections 615.403, 615.423, and 615.443).

3. Within a regulated recharge area: all on-site units for landfilling of special waste where the distance between the landfill and wellhead is less than 2500 feet[14]; cessation to be effective four years after promulgation of the regulated recharge area and closure to be completed five years after promulgation. (Proposed Section 615.404).

All of these required cessations and closures are subject to exception via the adjusted standard procedure of Section 28.1 of the Act and the minimal hazard certification provisions of Section 14.5 of the Act. In the case of regulated recharge areas, the requirement may also be set aside as part of the regulation adopting the regulated recharge area.

The justification for each of the added prohibitions is similar. In each case, the activity in question is deemed to present a substantial threat to groundwater quality and use. Additionally, in each case the prohibition is against the similar activity for which there is a statutory prohibition against new sitings pursuant to Sections 14.2 and 14.3 of the Act. The intent, thus, is to eventually assure safe setback of all on-site landfilling, land treating, and surface impounding, irrespective of whether the activity in question is a new or existing activity.

The Defenders contend that all facilities subject to Part 615 should be phased out of minimum setback zones (PC #10 at 4-6). This would include all waste piles and facilities for the storage and handling of pesticides, fertilizers, and de-icing agents. The Board does not believe that the record, at this time, supports required closures of this sweeping nature.

The Board notes that Part 616 sets out an exception procedure for new facilities which is not explicitly included in Part 615 as an exception procedure for existing facilities. This is the exception procedure which flows from Section 14.2(c) of the Act and which allows the Board to exempt certain new facilities from the prohibition against siting with setback zones (see following discussion of Section 616.105). If this provision were fully paralleled in Part 615, it would provide that certain existing facilities which would otherwise be required to close

[14] Board Note: The 2500-foot distance is statutorily identified at Section 14.4(b) of the Act.

could be exempted from closure pursuant to Board findings on the factors listed in 14.2(c). The Board believes that equitable treatment of existing and new facilities requires such exemption possibility. However, the Board also believes that the adjusted standard process may already serve this purpose, and hence that specific adaptation of 14.2(c) into Part 615 would be duplicative. The Board requests comment on this matter.

Patterning After Existing Regulations

Wherever possible, the proposed regulations are modeled after existing regulations applicable to activities of a similar nature. The purpose is to provide consistency of regulations between currently regulated facilities and facilities which would be brought under regulation for the first time under the instant proposal. In general the model used is the Board regulations for hazardous waste facilities found at 35 Ill. Adm. Code 724, which most closely parallel the intent of and types of facility covered by the instant regulations.

Re-evaluation of Regulations

IERG in Public Comment #5 requests that the Board affirmatively note that the "rules will be re-evaluated for any particular regulated recharge area as well as for any particular groundwater quality standard at the request of any party to such proceedings" (p. 2). This the Board will not do. As the Agency properly points out (PC #9 at para. 52), regulations cannot be required to be rejustified each time a collateral proceeding is opened. However, the Board does note that the owner or operator of a facility which is located in a proposed regulated recharge area may, as part of the proceeding in which establishment of the regulated reacharge area is considered, request that the facility be subject to modified requirements, or no special requirements at all if it can be demonstrated that the facility poses no significant hazard to a community water supply well or other potable water supply well.

Interface with Pending Regulations

The instant regulations have potential interfaces with several other pending regulations. These include the subject matter of the proceedings: In the Matter of: Development, Operating and Reporting Requirements for Non-Hazardous Waste Landfills, R88-7, also commonly known as the "Chapter 7 and 9 Proceeding"; In the Matter of: IDENR Special Waste Categorization Study, R89-13(A) and (B); and the Illinois Department of Agriculture's proposal of 8 Ill. Adm. Code 255 (see discussion of 615.Subpart I, following). The Board has reviewed the instant proposal for possible conflicts between this proposal and the other pending regulations. However, due both to the tentative nature of the various proposals and the large number of possible

interactions, the Board requests that the interested persons advise the Board of any potential conflicts that are identified.

## DISCUSSION OF PART 601

Today the Board proposes to make an amendment to 35 Ill. Adm. Code: Part 601[15]. The intent is to conform the definition of groundwater found there with the definition found in the IGPA. This intent was originally noted by the Board in an earlier proceeding, R86-8, A Plan for Protecting Illinois Groundwater (Report of the Board, August 28, 1986). There the Board noted the inconsistency between the Part 601 definition and other definitions of the same term. In response the Board noted (p. I-4):

> The ... definition is not only inconsistent with the conventional definition of groundwater, but also appears to be inconsistent with use and definitions found elsewhere within Illinois statutes [Ill. Rev. Stat. ch. 111½, par. 1003] and the Board's regulations [34 Ill. Adm. Code 301.420]. In particular, the Section 601.105 definition appears to establish an identity between "ground water" and "underground water", whereas conventional use considers groundwater to be a subset of underground water (R. at 1531). Since these differences in definition appear to be the source of some confusion, the Board will propose to amend these definitions in the earliest possible regulatory proceeding.

The Board also notes that throughout the Public Water Supplies (Subtitle F) portion of the Board's rules and regulations the term "ground water" is spelled as two words. In contrast, within the Environmental Protection Act and most other state statutes, as well as elsewhere within the Board's rules and regulations, the spelling is in the more commonly encountered form of a single word, "groundwater". Given that both spellings occur in technical literature, and that it is commonly understood that there is no distinction between the two terms other than in the spelling, the Board does not believe that changing the spelling within Subtitle F is justified.

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[15] The Board notes that addition of the amendment to Part 601 occasions the inclusion of this Part in the caption to this proceeding.

## DISCUSSION OF PART 615

Part 615 sets forth standards for "Existing Activities in a Setback Zone or Regulated Recharge Area", pursuant to the mandate of Section 14.4(b) of the Act.

### Part 615, Subpart A: General

Subpart A sets forth the general provisions applicable to the entire Part.

Section 615.101 sets out the general purpose of the Part. The phrase "wholly or partially" has been added in the instant proposal to the better identify what constitutes being "located within a setback zone or regulated recharge area". Given the relatively sharp boundary of most setback zones (or even regulated recharge areas), the Board believes that it may be common that an otherwise affected unit will lie partly within and partly outside of the setback zone (e.g., the unit extends from less than 200 feet to more than 200 feet away from a well which establishes a minimum setback zone). The Board believes that the intent of the IGPA is clearly to regulate such "split" units.

At the same time, however, the Board does not believe that the IGPA intends that the regulations apply to the entirety of a facility or site which contains multiple units, and for which the only otherwise affected units are located outside of the setback zone or regulated recharge area[16]. Thus the emphasis in the applicability statement is on the unit(s) which are located wholly or partially within the setback zone (or regulated recharge area). Similarly, the Board would not find it inconsistent with the IGPA or the instant proposal if an owner or operator of a multiple-unit facility or site complied with the current rules only for those units located wholly or partially within the relevant setback zone or regulated recharge area.

Section 615.102 contains definitions applicable to the Part. These have been added to and modified. The intent is to bring into the Part all those definitions which are required for a reading of the Part, and thus to allow the Part to stand on its own as much as is possible. Many of the definitions have been borrowed from other Board regulations, particularly from 35 Ill. Adm. Code 720 and 724.

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[16] The Agency also intends that the regulations apply only to "that portion [of an activity] which is actually located within a setback zone or regulated recharge area" (PC #9 at par. 3, emphasis added). The Board believes that this position is equivalent to that herein proposed by the Board.

Section 615.103 sets forth incorporations by reference. This Section has been modified by the deletion of incorporation by reference of 40 CFR 280 (underground storage tanks rules) to reflect the recent promulgation of these rules as Board regulations (see In the Matter of: UST Update, USEPA Regulations, R88-27, April 27, 1989).

Section 615.105 sets forth the various general exceptions to the applicability of Part 615. The first of these exceptions is that the Part does not apply if an otherwise regulated facility or unit possesses a minimum hazard certification pursuant to Section 14.5 of the Act. This provision is included in the instant proposal based on the directive at Section 14.4(b) of the Act that "... the Board shall ensure that the promulgated regulations are ... not pre-emptive of the certification system provided by Section 14.5" of the Act.

Subsections 615.105(b) and 615.105(c) set forth exceptions that may flow as the result of an adjusted standards proceeding or a regulated recharge area proceeding.

Subsections 615.105(d) and 615.105(e) set forth exceptions which flow from Sections 14.4(b)(A) and (B) of the Act. The language used in the proposal is the language of the Act, except that negation is used in 615.105(e) to conform the language to the structure of Section 615.105.

Part 615, Subpart B: Groundwater Monitoring

Subpart B establishes groundwater monitoring and associated requirements, including a corrective action program. The Subpart is broadly modeled after 35 Ill. Adm. Code 724.Subpart F, which establishes similar requirements for hazardous waste facilities. Among the principal differences is that Subpart B is not implemented via permit (see preceding discussion), whereas the provisions of 35 Ill. Adm. Code 724.Subpart F are.

Subpart B has been broadly rearranged to better lay out its principal provisions. Additionally, various changes have been made to conform the Subpart to Administrative Code Unit practices.

Among the substantive changes made is a prescription that monitoring and compliance be undertaken and demonstrated with respect to the "uppermost aquifer". In the Agency version no locus of monitoring or compliance is identified, with the result that the Agency proposal could be read to require monitoring of aquifers isolated from possible contamination from the affected facility. The Board believes that such reading would be unwarranted and inconsistent with monitoring requirements imposed on other types of facilities which could have similar effect on groundwater. Adoption of the concept of "uppermost aquifer" is accordingly made from 35 Ill. Adm. Code 720.

The Board notes that the Agency has registered objection to use of the "uppermost aquifer" concept (PC #9 at par. 16), as has the Defenders (PC #10 at 14). The Board wishes to gain further perspective on the position it proposes today, and accordingly specially solicits comments on this matter. The Board does call attention to the fact that the definition of "uppermost aquifer" does include any "lower aquifers that are hydraulically interconnected with [the aquifer nearest the ground surface] within the facility boundary" (see Section 615.102). This inclusion may allay concerns that contamination from an affected facility could move downward below the uppermost aquifer and thus not be detected (e.g., R at 303-5; PC #10 at 14).

Section 615.201 identifies the facilities or units for which groundwater monitoring is required. These are on-site landfills, on-site surface impoundments, and facilities or units for the storage and handling of pesticides, fertilizers, road oils, and de-icing agents. The groundwater monitoring requirement is specifically not required for on-site waste piles and underground storage tanks. Additionally, the otherwise affected facilities or units may be exempted pursuant to an adjusted standard or regulated recharge area rule.

Section 615.201 is redundant to the extent that it repeats applicability statements found in Subparts D, F, I, J, K, and L. However, it is believed that this repetition has value in guiding persons through the instant rules.

Section 615.202 prescribes that the required monitoring period consists of the active life of the activity, including its closure and post-closure care period. It further specifies that the post-closure care period is five years for all units subject to the instant Part, except for landfill units for which the period is 15 years or such longer period as may be set by Board regulations. Additionally, post-closure care is to be continued beyond the five or 15 years until such time as any required corrective action is completed (see Section 615.211).

The Defenders request that the post-closure care period for surface impoundments also be 15 years (PC #10 at 22). However, the time periods involved in post-closure care as here proposed are consistent with the required term of post-closure care in other Board regulations and the Act. The Board does not believe that sufficient justification for an exceptional period of care for the type of surface impoundments herein under consideration has been presented so far in this record.

An addition to Section 615.202 is a provision that the active life of a facility subject to this Subpart is considered to begin no earlier than one year after the effective date of the Part. The intent is to allow all affected facilities a maximum

of one year within which to take the steps necessary to comply with the requirements of the Subpart. This is deemed necessary since requirements such as siting and developing monitoring wells will require lead time.

This definition of active life also has some effect on those units which are subject to required closure. Under the Agency version the intent was to not require monitoring during the operational phase of any of the units which have required closures, but rather to require monitoring only during the closure and post-closure care periods of such units (PC #9 at par. 15). Under the instant proposal, monitoring would be required to begin after one year, irrespective of whether that unit is still in operation or had proceeded to closure. The Board at this time sees no significant reason to postpone groundwater monitoring for any affected units beyond the one year grace period, but welcomes comment which would allow the opposite conclusion.

Section 615.203 specifies that the owner or operator of any unit subject to Subpart B must comply with groundwater standards adopted by the Board. Pursuant to the definitions at 615.102 these standards are currently the Board's General Use Water Quality Standards found at 35 Ill. Adm. Code 302. Subsequent to adoption of the groundwater-specific standards mandated in the IGPA (see preceding discussion), these new standards will supersede the General Use Standards.

Section 615.203 further specifies that compliance with the groundwater standards is to be for the full compliance period and that compliance is to be measured at the compliance point or points. The latter term is defined at 615.102, along with a related definition of "facility boundary". The facility boundary is the perimeter of the area at the surface of the land on, above or below which an affected facility is located. A compliance point is any of those points which exist directly beneath the facility boundary at a hydraulically downgradient point of groundwater flow. If the groundwater flow beneath a facility is in different directions at different depths or at different times, there could be more than one compliance point and compliance points could be other than vertically arrayed.

The definitions of "facility boundary" and "compliance point" as proposed today differ from the definitions in the Agency's original proposal, reflective of concerns of the Board and others regarding the clarity of the original definitions (R. at 92-3, 217-9, 261-4; PC. #10 at 12-4).

To the extent that "facility boundary" and "compliance point" are intended to define monitoring requirements and the need for corrective action, the definitions are designed under the premises that contamination must be identified as close to

its source as is practicable (for example, it is generally infeasible to monitor directly beneath an affected unit) and that contamination must be contained and addressed, when it is found, as close to its source as possible.

Section 615.204 prescribes groundwater monitoring system requirements. Its main provisions are directed to the sufficiency of the monitoring network and well design and construction.

A monitoring network is sufficient if it allows sampling of the background groundwater quality and the quality of groundwater passing the compliance point or points. Under certain circumstances, as specified in subsection (b), an owner or operator may use a well other than a community water supply well as the sole monitoring well. This provision is allowed to provide economy where circumstances warrant. The standards for well design and construction follow accepted practice (R. at 54; Exh. 78, Attachment B).

Under the Agency's version of the proposal, as here presented, determination of the sufficiency of the number and location of monitoring wells is to be made by the owner or operator. As regards this matter, the Board directs attention to the foregoing discussion under "Absence of Permits", page 17 herein.

Among the suggestions made during the post-hearing comment period is the recommendation of the Defenders that a person having professional hydrogeologic training be required to prepare the groundwater monitoring program for each affected facility, and that such person submit a report to the Agency detailing the program (PC #10 at 16-9). This report is recommended to contain the following items:

1. A description of hydrogeological characteristics of the site on which the regulated activity is located, including a characterization of the three dimensional groundwater flow system underlying the facility;

2. A description of the rationale for the groundwater monitoring system design, including the number and placement of groundwater monitoring wells;

3. The academic and professional qualifications of the person who designed the groundwater monitoring system;

4. The reasons for choice of the five pesticides which are to be monitored at pesticide storage facilities pursuant to Sections 615.206(b) or 616.207(a)(2);

5. A description of the protocol employed in drawing groundwater samples for laboratory analysis; and

6. The data and information used to develop the report.

Additionally, the Defenders recommend that a professional hydrogeologist prepare any alternate non-compliance response pursuant to Section 615.210.

The Board is not proposing these recommendations of the Defenders today because it believes that the recommendation has not had sufficient airing to properly judge its merits. However, the Board does specifically request that interested persons address this matter in future comments.

Section 615.205 prescribes protocols for groundwater sampling. The intent is to have established a consistent sampling protocol to assure that sample results may be compared from event to event. There are also specific requirements that the groundwater surface elevation be determined for each sample and that groundwater flow rate and direction be determined at least annually. The latter provisions are intended to assure that movement of contaminants may be readily addressed.

Section 615.206 prescribes the parameters which are to be sampled. For most facilities these parameters are those contaminants which are present at the facility and for which the Board has adopted a groundwater standard.

Sampling of special parameters are specified for two activities: handling and storage of pesticides and fertilizers. Pesticide activities are required to sample for five specific pesticides or five groups of chemically-similar pesticides which are handled or stored at the facility, which are most likely to enter the groundwater, and which are the most toxic. A list of five criteria, including volume stored or handled, leachability, toxicity, spillage history, and existence of groundwater standards, are presented as guides to the owner or operator for selection of the pesticides to be monitored. This selection constitutes another of the owner or operator determinations previously discussed (see "Absence of Permits", page 17 herein).

An activity involving handling or storage of fertilizers requires monitoring of five specific parameters: pH, total organic carbon, nitrates as nitrogen, ammonia nitrogen, and specific conductance. The Agency believes that these parameters constitute a sufficient list to determine whether spillage or leakage of fertilizers has occurred, and hence are sufficient for routine monitoring. More extensive monitoring may be required if corrective action must be undertaken pursuant to Sections 615.209 through 615.211.

Section 615.207 sets out required sampling frequencies. For all affected facilities sampling is required quarterly, except for facilities for the storage and handling of road oils and de-icing agents for which sampling is required annually. The quarterly monitoring requirement is premised on the Ageny's proposed language. At the present time, the Agency has not presented a technical justification for quarterly monitoring. Factors such as seasonal variation in groundwater flow and the need to rapidly detect changes in groundwater quality may support such monitoring. The Agency is encouraged to provide a technical rationale for quarterly monitoring.

Section 615.208 specifies that the results of monitoring must be reported to the Agency on a regular basis.

Section 615.209 sets out procedures to be followed when monitoring shows that a groundwater standard has been exceeded. The Agency must be notified of such exceedences. Additionally, the owner or operator must accelerate the sampling frequency and, in some cases, expand the list of sampled parameters. For most facilities it is required that the groundwater be resampled within three days. For pesticide facilities it is also required that the resampling address each of the pesticides previously and presently handled at the facility.

Section 615.209 further requires that an owner or operator start a corrective action program if the accelerated sampling confirms that groundwater standards are exceeded. The requirement is waived if the owner or operator can demonstrate pursuant to Section 615.210 that a source other than the regulated activity is the cause of the exceedence or that the monitoring results were spurious due to error in sampling, analysis, or evaluation.

It is to be noted that there is a difference between the triggering mechanism for corrective action here and that found at 35 Ill. Adm. Code 724.Subpart F. There corrective action is necessary if an increase above the background concentration is detected in any monitoring well, even if the increase does not violate a groundwater standard. However, under Section 615.209 corrective action is necessary only if a groundwater standard is exceeded at any monitoring well. It is to be noted that this trigger applies only to the existing activities of Part 615. The trigger in the parallel Part for new activities, Part 616, remains the detection of a significant increase.

Section 615.210 sets out the requirements for making an alternate non-compliance response. The principle is that if the standard is caused to be exceeded by other than activities at the affected facility, the owner or operator need not assume responsiblity for corrective action. Similarly, if the

exceedence of the standard is only apparent due to error in sampling, analysis, or evaluation, the owner or operator need not undertake corrective action.

One significant difference in the instant proposal is that it specifies that the facility which is being monitored is presumed to be responsible for the standard being exceeded, and that it is the responsibility of the owner or operator who elects this alternative non-compliance response to overcome this presumption. This change is being offered on the well-taken suggestion of the Defenders that the affected owner or operator should bear the burden of proving that the contamination originated from some other source or was due to error in the sampling required of the owner or operator (PC #10 at 16).

Section 615.211 prescribes the corrective action program which must be undertaken by an owner or operator when a groundwater standard is found to be exceeded. The end result of the corrective action program is compliance with the standards. Accordingly, the corrective action program must be continued until it is demonstrated that the standards are no longer exceeded.

Part 615, Subpart C: General Closure and Post-Closure Requirements

Subpart C establishes general closure and post-closure requirements applicable to existing on-site landfills, on-site surface impoundments, and facilities for the storage and related handling of pesticides and fertilizers. Additional closure requirements specific to these individual facilities or units are contained in following Subparts which pertain to the individual types of facilities or units. It is to be noted that some of the facilities or units otherwise affected by this Part, including surface piles, underground storage tanks, and storage and handling of road oils and de-icing salts, are not subject to the requirements of Subpart C.

In general, the proposed closure and post-closure requirements are modeled after similar requirements applicable to hazardous waste facilities as found at 35 Ill. Adm. Code 724. The Agency believes, and the Board concurs, that it is not appropriate to establish closure/post-closure procedures for facilities subject to the instant rules that are different from the requirements placed on facilities that are subject to the permitting requirements of Part 724.

Section 615.302 establishes the closure performance standard. The standard is patterned after and similar to the closure standard of 35 Ill. Adm. Code 724.211 for hazardous waste facilities.

Section 615.303 requires that a certificate of closure must be signed by a registered professional engineer, as defined at 615.102. This certification is intended to help assure that an affected unit is closed in accordance with Board standards. Section 615.203 is patterned after and similar to the certificate of closure provision of 35 Ill. Adm. Code 724.215 for hazardous waste facilities.

The instant proposal retains the requirement of the Agency's draft that the registered professional engineer not be an in-house engineer (i.e., that the engineer be "independent"). The Board requests comment on whether this requirement is necessary.

Section 615.304 requires that a survey plat must be filed with the appropriate local zoning authority for units that dispose of waste (e.g., landfills) or facilities for the storage and handling of pesticides or fertilizers. This requirement is patterned after and similar to the survey plat requirement of 35 Ill. Adm. Code 724.216 for hazardous waste facilities.

Section 615.305 requires owners and operators of affected waste disposal units to file with the Agency, County Recorder, and local zoning authoritiy within 60 days after the closure of a unit a record of the type, location, and quantity of waste disposed at the unit. This regulation is patterned after and similar to the post-closure notice requirement of 35 Ill. Adm. Code 724.619(a) for hazardous waste facilities.

Section 615.306 provides that a certificate of completion of post-closure case, signed by an independent (see discussion of Section 615.303) registered engineer, must be filed with the Agency. This regulation is patterned after and similar to the post-closure certification requirement of 35 Ill. Adm. Code 724.220 for hazardous waste facilities.

Part 615, Subpart D: Landfills

Subpart D establishes special requirements applicable to landfill units. For the Subpart to apply, several tests must be met, as specified at Section 615.401. These are:

1) The unit is an existing unit pursuant to the definition of "existing" at 615.102.

2) The unit is located wholly or partially within either a setback zone of a potable water supply well or within a regulated recharge area.

3) The waste contained within the unit is generated on-site, pursuant to the definition of "on-site" at 615.102.

4) The unit contains waste other than hazardous waste, livestock waste, landscape waste, or construction and demolition debris.

5) The unit is not exempt from Part 615 pursuant to any of the exemptions identified at 615.105.

These tests are for the most part based upon the prescriptions of Section 14.4(a) of the Act, which sets out the scope of activities intended to be regulated under the instant rulemaking.

Sections 615.402, 615.403, and 615.404 prescribe the conditions under which an existing regulated landfill unit is required to cease operations and close. For a discussion of this provision see page 18 herein. Subsection (b) of each Section also lays out the provision by which exception to required closure may be achieved as part of an adjusted standards or regulated recharge area proceeding.

These three sections had previously been organized as a single section. In the instant proposal they are offered as separate sections commensurate with their significance.

Section 615.405 prescribes that the owner or operator of any landfill unit subject to Subpart D shall comply with the groundwater monitoring requirements and program of Subpart B.

Section 615.406 establishes several operating requirements applicable to affected landfill units. These are all in the nature of prohibitions against the landfilling of wastes deemed to be particularly susceptible to causing groundwater pollution. The Section is patterned after and similar to 35 Ill. Adm. Code 724.413 through 724.415. Section 615.406 has been modified to bring together these prohibitions under a single section heading.

Section 615.407 establishes standards for closure and post-closure care of affected landfill units. This Section is patterned after and similar to 35 Ill. Adm. Code 724.410.

Part 615, Subpart E: Land Treatment Units

Subpart D establishes special requirements for affected land treatment units. For a land treatment unit to be subject to the Subpart, it must meet the same tests that a landfill needs to meet to be subject to Subpart D (see above).

The principal provision of Subpart E is the required closure of certain land treatment units, as specified in Sections 615.422 and 615.423. The closure requirements are identical to those contained in Subpart D pertaining to landfills, except that land treatment units located in a regulated recharge area are not

required to close. For a general discussion of the required closure provision, see page 18 herein.

The only additional provision of Subpart E is the requirement that closure and post-closure care of affected land treatment units is subject to the general closure and post-closure requirements of Subpart C.

Part 615, Subpart F: Surface Impoundments

Subpart F establishes special requirements for affected surface impoundment units. For a surface impoundment unit to be subject to the Subpart, it must meet the same tests that a landfill needs to meet to be subject to Subpart D (see above).

A principal provision of Subpart F is the required closure of certain surface impoundment units. For a general discussion of the required closure provision, see page 18 herein.

Section 615.444 prescribes that the owner or operator of any surface impoundment unit subject to Subpart F shall comply with the groundwater monitoring requirements and program of Subpart B.

Section 615.445 has been added at the Agency's request (PC #9 at par. 4). It requires that operating surface impoundments be inspected weekly and after storms for the purpose of detecting any malfunctions of the impoundment which could lead to releases to groundwater.

Section 615.446 establishes several operating requirements applicable to affected surface impoundment units. These include a prohibition against placing incompatible materials in a surface impoundment unit, patterned after 35 Ill. Adm. Code 724.413, and requirements to be met if the surface impoundment is discovered to leak, patterned after 35 Ill. Adm. Code 724.327. Section 615.446 has been modified to bring together these operating requirements under a single section heading.

Section 615.447 establishes standards for closure and post-closure care of affected surface impoundment units. Three pathways are specified, depending upon whether the closure is by complete removal, partial removal, or no removal. The Section is patterned after and similar to 35 Ill. Adm. Code 724.328.

The Defenders request that all affected surface impoundments which do not have liners must be closed by removal (PC #10 at 22). The Board does not believe that the present record demonstrates that this is a necessary requirement for the types of surface impoundments regulated herein.

Part 615, Subpart G: Waste Piles

Subpart G establishes special requirements for affected waste piles. For a waste pile to be subject to the Subpart, it must meet the same tests that a landfill needs to meet to be subject to Subpart D (see above).

Unlike affected landfill, land treatment, and surface impoundment units, there is no provision for required closure of existing affected waste piles. This distinction is made based on the Agency's determination, with which the Board concurs, that if operated in accordance with the requirements of Subpart G, waste piles do not pose the same degree of risk to groundwater as do landfills, land treatment activities, and surface impoundments (Statement of Reasons, p. 16). Therefore, the principal provisions of Subpart G consist of design, operation, and closure standards.

Section 615.462 establishes the design and operating requirements. The goal of these requirements is to minimize the possiblity of escape of leachate, runoff, and wind-blown debris from the waste piles. The principal provision is a requirement that an affected waste pile be covered to protect it from precipitation. Other provisions include a prohibition against placing free liquids in a waste pile, required protection against surface water run-on, required protection against wind dispersal, and required control of infiltration. Owners or operators of regulated waste piles are given six months from the effective date of Part 615 to comply with these design and operating requirements.

Section 615.463 establishes that the sole method of allowable closure of a regulated waste pile is closure by removal and disposal of the waste and of any containment system components which may have been used.

Part 615, Subpart H: Underground Storage Tanks

Subpart H establishes special requirements for existing underground storage tanks which contain special waste. Its principal provision is that affected storage tanks which are located within setback zones or regulated recharge areas must comply with the requirements of 35 Ill. Adm. Code 731 even if any of the exemptions of 35 Ill. Adm. Code 731.101(b) would otherwise apply. 35 Ill. Adm. Code 731 was recently adopted by the Board in R88-21, In the Matter of: UST Update, USEPA Regulations, April 27, 1989, and is identical in substance to 40 CFR 280.

A definition of underground storage tank has been added at Section 615.102, referencing the definition at 35 Ill. Adm. Code 731.101(f). The Agency is requested to comment on whether use of this definition is consistent with its intentions for Subpart H.

Part 615, Subpart I: Pesticide Storage and Handling Units

Subpart I establishes special requirements for facilities and units for the storage and handling of pesticides. For the Subpart to apply, several tests must be met. These are:

1) The facility or unit is an existing facility or unit pursuant to the definition of "existing" at 615.102.

2) The facility or unit is located wholly or partially within either a setback zone of a potable water well or within a regulated recharge area.

3) The facility or unit:

   a) is operated for the purpose of commercial application; or

   b) stores or accumulates pesticides prior to distribution to retail sales outlets, including but not limited to units which are warehouses or bulk terminals.

In the Agency's original proposal as well as Section 14.4(a)(5) of the Act reference is made to the applicability of the Subpart to pesticide facilities located at a "central location". In response to a query of the definition of "central location" (R. at 408), the Agency has responded that it intended this term to be defined as in (3)(b), above (PC # 3 at par. 32). Since this definition is unique to this Subpart and its companion Subpart J, the Board believes that clarity is to be gained by simply using the wording of the definition and excluding the phrase "central location".

Subpart I is similar to Subpart G in that it does not require closure of the affected facilities or units, but rather specifies design and operating requirements which must be met by the owner or operator.

The principal provision of Subpart I is that the owner or operator of an existing facility or unit for the storage or related handling of pesticides must comply with the Illinois Department of Agriculture's regulations found at 8 Ill. Adm. Code 255. The subjects and issues involved in 8 Ill. Adm. Code 255 are summarized at 13 Ill. Reg. 2571-2, March 3, 1989:

> These rules were developed by the Illinois Department of Agriculture and the Illinois Environmental Protection Agency with valuable input from the Secondary Containment Rules Committee, which was made up of industry and academia.

The purpose of these rules is to protect the environment by prevention of point source contamination by agrichemicals and these rules will be referenced by the Illinois Environmental Protection Agency in their setback rules which are to be filed with the Pollution Control Board as mandated by the Illinois Groundwater Protection Act.

These rules regulate agriculture facilities and non-commercial agrichemical facilities. An agrichemical facility is a site used for commercial purposes, where bulk pesticides are stored in a single container in excess of 300 gallons of liquid pesticide or 300 pounds of dry pesticide for more than 30 days per year or where more than 300 gallons of liquid pesticide or 300 pounds of dry pesticide are being mixed, repackaged or transferred from one container to another within a 30-day period or a site where bulk fertilizers are stored, mixed, repackaged or transferred from one container or another. Non-commercial agrichemical facility is a site where storing pesticides or fertilizer for more than 45 consecutive days in a single container holding in excess of 300 gallons bulk liquid pesticides,or 300 pounds bulk dry pesticides, or 5000 gallons bulk liquid commercial fertilizer or 50,000 pounds bulk dry commercial fertilizer; or the loading and mixing, including bulk repackaging, of pesticides or fertilizer at a permanent site for more than a 45 day period in quantities in excess of the amounts established; or the non-commercial application of pesticides or fertilizer.

These rules set forth the procedures and time frame for registration, permitting, and construction. They also address general construction requirements for secondary containment of storage tanks and operational areas, as well as recordkeeping, management and operational procedures. They further delineate facility inspection, maintenance and closure requirements. Additionally, these rules set forth guidelines for connections to potable water supplies and the open burning of agrichemicals, agrichemical containers, and other agri-related chemical wastes.

8 Ill. Adm. Code 255 has been developed as a joint effort of the Agency and IDOA, in cooperation with the agricultural community. Nevertheless, because IDOA is designated as the State management agency for purposes of the Federal Insecticide, Fungicide, and Rodenticide Act (7 USCS 136 et seq), it was deemed

appropriate by IDOA and the Agency that these regulations be promulgated by IDOA. Additionally, for the purpose of applying a uniform approach to regulation of pesticide and fertilizer facilities, it was appropriate that the IDOA regulations be the primary source of regulations applicable to pesticide and fertilizer operations regulated herein.

This situation, however, does raise a number of questions. Among these are: Can the Board require compliance with regulations of another Agency? Would adoption of the 255 provisions constitute an improper adoption of regulations which the Board lacks authority under the Act to adopt? If IDOA should ammend Part 255, what would be the consequences to the instant rules? and, which regulations, IDOA's or the Board's, would control in event of a conflict? Although these questions were raised at hearing (R. at 397-400), the Board does not believe that they have yet been fully resolved. Accordingly, the Board requests that interested persons address them during the comment period.

The Board does note that it may be possible to replace the citations to 255 rules with a Board note. Such note could be inserted following Section615.603 and could have the form:

> (Board Note: Owners or operators of facilities subject to this Part may also be subject to regulations under 8 Ill. Adm. Code 255).

In addition to the requirements of 8 Ill. Adm. Code 255, Subpart I specifies certain design and operating requirements particular to the facilities regulated under the instant Part. These include compliance with the groundwater monitoring and closure/post-closure requirements of Parts B and C, maintenance of written inventory records, weekly inspections for leaks and deterioration of structures, and a requirement that all containers of pesticides be contained within a secondary containment structure, the standards for which are set forth in 8 Ill. Adm. Code 255.

Part 615, Subpart J: Fertilizer Storage and Handling Units

Subpart J establishes special requirements for facilities and units for the storage and handling of fertilizers. Subpart J is essentially identical to Subpart I, except for its application to fertilizers facilities and units rather than to pesticide facilities and units.

In the Agency proposal the instant Subparts I and J were proposed as a single Subpart. They are herein proposed as separate Subparts to clarify the intent that the regulations apply to facilities which store and handle pesticides and fertilizers, as well as to facilities which store and handle

pesticides or fertilizers (See PC #9 at par. 30). It is further believed that the placement of any additional regulations which may be proposed regarding these two types of facilities would be better accommodated within the instant structure.

Part 615, Subpart K: Road Oil Storage and Handling Units

Subpart K establishes special requirements for facilities and units for the storage and handling of road oils. For the Subpart to apply, three tests must be met. These are:

1) The facility or unit is an existing facility or unit pursuant to the definition of "existing" at 615.102.

2) The facility or unit is located wholly or partially within either a setback zone of a potable water well or within a regulated recharge area.

3) The facility or unit stores or accumulates more than 25,000 gallons of road oils at any one time.

In the Agency's original proposal as well as Section 14.4(a)(5) of the Act reference is made to the applicability of the Subpart to road oil facilities located at a "central location". In response to a query of the definition of "central location" (R. at 408), the Agency has responded that it intended the term to be defined as in (3) above (PC # 3 at par. 32). Since this definition is unique to this Subpart, the Board believes that clarity is to be gained by simply using the wording of the definition and excluding the phrase "central location".

Section 615.702 prescribes the required closure by date certain of those regulated road oil facilities which are located in a minimum setback zone and where the road oils contain waste. Additionally, in the Agency's original version there was a qualification that the road oils were "produced by cutbacks consisting of petroleum residuum or petroleum distilates". As the Agency subsequently has noted (PC #9 at par. 33), there are no road oils which are not so produced. The Agency has accordingly requested that this qualification be deleted (Id.), which has been done.

Closure is required to be completed within two years after the effective date of Part 615. Closure is not intended to be required if the unit ceases storing or handling road oils prior to this time (see PC #9 at par. 34).

Section 615.702 also sets out in subsection (c) provisions by which exception to required closure may be obtained. For a general discussion of the required closure provision, see page 18 herein.

Section 615.703 prescribes that the owner or operator of any unit subject to this Subpart shall comply with the groundwater monitoring requirements and program of Subpart B.

Section 615.704 sets out various design and operating requirements applicable to above-ground storage tanks. For the purposes of Part 615, an above-ground storage tank is defined at Section 615.102 as a storage tank which is not an underground storage tank, in accordance with the Agency request (PC #9 at par. 35).

Design and operating requirements include providing and maintaining primary and secondary containment, as well as various prohibitions against operating practices. The design and operating requirements are patterned after and similar to 35 Ill. Adm. Code: Subpart J (PC #9 at par. 36). These design and operating requirements are specified in subsection (f) as becoming applicable two years after the effective date of the instant rules.

Section 615.705 establishes the closure requirements applicable to above-ground storage tanks.

Part 615, Subpart L: De-Icing Agent Storage and Handling Units

Subpart L establishes special requirements for affected de-icing agent facilities or units. The Subpart is applicable to all units located wholly or partially within a setback zone. The Subpart does not apply to affected units which are located in a regulated recharge area, unless the unit is also located within a setback zone.

For Subpart L to be applicable, the unit must also store or accumulate more than 50,000 pounds of de-icing agent at any one time. In the Agency's original proposal as well as Section 14.4(a)(5) of the Act reference is made to the applicability of the Subpart to de-icing agent units located at a "central location". In response to a query of the definition of "central location" (R. at 408), the Agency has responded that it intended the term to be defined as a unit which stores or accumulates more than 50,000 pounds of de-icing agent at any one time (PC # 3 at par. 32). Since this definition is unique to this Subpart, the Board believes that clarity is to be gained by simply using the wording of the definition and excluding the phrase "central location".

Subpart L is similar to Subparts G, I, and J in that it does not require closure of the affected facilities, but rather specifies design and operating requirements which must be met by the owner or operator. These include the groundwater monitoring requirements and program of Subpart B. Also included are design and operating requirements for indoor and outdoor units.

Definitions of indoor and outdoor units have been added in Secction 615.721 in accordance with the Agency's request (PC #9 at par. 39).

## DISCUSSION OF PART 616

Part 616 sets forth "Standards for New Activities Within a Setback Zone or Regulated Recharge Area" pursuant to the Section 14.4(d) of the Act. Many of the provisions of Part 616 are identical to provisions of Part 615, and in general, discussion of these will not be repeated here.

Nevertheless, there are some several significant differences between the two Parts, including:

1. Part 616 has no required closure provisions, since facilities of the type which have required closure if governed by Part 615 are statutorily prohibited if governed under Part 616.

2. Each new facility or unit subject to the groundwater monitoring requirements of Part 616 is required to establish background concentrations for contaminants likely to be present at or released from the facility or unit. These background concentrations constitute both triggers and benchmarks for preventive and corrective action.

3. Where corrective action must be undertaken, new facilities are required to clean up groundwater to a level consistent with background concentrations, rather than to the level of the groundwater standards.

### Part 616, Subpart A: General

Sections 616.101, 615,102, 616.103, and 615.105 present similar or identical introductory provisions to those found in Part 615. For purposes of economy, the definitions of Section 615.102 are incorporated into Part 616 rather than repeated, except for several definitions which are particular to Part 616.

Section 616.104 sets out the two methods by which exceptions to the prohibitions against sitings of new facilities may be achieved. Both of these exception procedures are prescribed in the Act, and hence are statutory provisions. The first method, specified at 616.104(a), is the waiver provision for setback zones of potable water supply wells other than community water supply wells found at Section 14.2(b) of the Act. The second method, specified at 616.104(b), is the provision for the Board's granting of an exception for setback zones for community water supply wells found at Section 14.2(c) of the Act.

Neither of these two subsections was present in the Agency's original version. These are introduced here to provide unity to the Part 616 regulations.

Part 616, Subpart B: Groundwater Monitoring Requirements

Subpart B sets out the groundwater monitoring and corrective action requirements applicable to certain new regulated activities. All facilities or units subject to Part 616 are also subject to the groundwater monitoring requirements except for waste piles and underground storage tanks.

In most of its provisions, Subpart B is modeled after 35 Ill. Adm. Code 724.Subpart F. It thus also closely parallels 615.Subpart B. However, as noted above, there is a principal difference between Parts 615 and 616 regarding the trigger and objective for remedial action. The significant differences are discussed below.

Section 616.207 sets out procedures for establishing background concentrations and maximum allowable results. The procedure begins with the owner or operator collecting a series of samples intended to represent the background groundwater quality. The sampling must start at or near the beginning of operation of the facility (no later than six months after startup), and the parameters which must be sampled are those which are most likely to be represented in any contamination deriving from the facility. Based upon these results the owner or operator calculates summary statistics (mean and standard deviation) and a critical benchmark number, the Maximum Allowable Result ("MAR"), for each parameter. A MAR is the upper limit of the 95% confidence interval[17] set about the sample mean, except that it in no case may be larger than the corresponding groundwater standard.

The procedures herein proposed to calculate the MARs are identical to the procedures recommended by the Agency (Agency Proposal, Part 616, p. 39). However, the calculation formula has been simplified by combining the t-value and degrees-of-freedom factor into a single factor. As well, the procedure has been brought into the body of the regulations rather than presented in an appendix.

[17] In the Agency proposal the calculation procedure for determining this quantity is characterized as a t-test for determining differences between means. However, the appropriate terminology appears to be that presented here.

The entirety of this Section has been substantially altered from that presented in the Agency's proposal. The purpose is to provide clarification without altering any basic principles. Accordingly, the Board asks that interested persons particularly scrutinize this Section to see if this goal has been achieved.

Section 616.208 sets out the sampling procedures which are to be followed after completion of the background sampling phase. Except where a non-compliance response is required, these constitute the normal, continuing sampling requirements.

A non-compliance response is required whenever an exceedence of a MAR is recorded. Under this circumstance, the owner or operator is initially required to confirm the exceedence. If the confirmation is obtained, the owner or operator is then required to proceed with either of the non-compliance programs specified at Section 616.209 or 616.210.

The Agency version of the instant proposal identified the circumstance where a MAR is exceeded as constituting a "statistically significant increase". The Board notes that such exceedence will not always be a "statistically significant increase" in the normal term-of-art usage of this phrase nor in the rigid sense in which this term is employed by statisticians. Accordingly, this term has not been used in the instant version of the proposal.

Section 616.209 sets out one of the two options available to an owner or operator who has identified that a MAR has been exceeded in any sample. This option requires an accelerated sampling and analysis schedule, plus the initiation of a corrective action program if exceedences of the MAR persists for more than two consecutive months.

Section 616.210 sets out an alternative non-compliance program similar to that of Section 615.210.

Section 616.211 prescribes the elements necessary in a corrective action program. These are also similar to the elements set out in Section 615.211, except that the objective of the corrective action is returning the groundwater quality to the level of the MAR rather than to the level of the groundwater quality standard. This distinction was not present in the Agency's original proposal. However, the Board believes that it may be inconsistent with the objectives of the IPGA to allow contamination to build up or persist to the level of a groundwater standard.

In the normal circumstance the groundwater standard will be greater than the MAR, which in turn will be greater than the pre-facility background concentration. Requiring cleanup to a level no greater than the MAR thus is generally more stringent than

proposed by the Agency, but generally less stringent than recommended by those persons who favor requiring cleanup to the backgound level. The Board is not yet wedded to the "MAR-objective" concept, and accordingly proposes it today principally for the purpose of continued discussion.

Part 616, Subpart C: General Closure and Post-Closure Requirements

616.Subpart C is identical to 615.Subpart C except that new land treatment units are subject to 616.Subpart C, whereas existing land treatment units are not subject to 615.Subpart C.

Part 616, Subpart D: Landfills

Regulations for new landfill units are similar to those for existing units found in 615.Subpart D. However, there are certain additional requirements for new units. These include requirements for liners, cover, and leachate collection systems at Section 616.404. They also include monitoring and inspection requirements similar to those at 35 Ill. Adm. Code 724.403 and here found at Section 616.405, and surveying and recordkeeping requirements similar to those at 35 Ill. Adm. Code 724.409 and here found at Section 616.406.

Section 616.402 sets out the statutory prohibitions against the siting of new landfills found at Section 14.2(a), 14.2(d) and 14.3(e) of the Act. Although this concept is present in the Agency's original proposal, the language used here to express the prohibitions has been altered to more closely track the language of the Act. In particular, the instant proposal employs the terms "new potential primary source" and "new potential secondary source" of the Act.

It is possible that introduction of the language of the Act into this Section has altered the Agency's original intent. For example, the Agency's proposal limits the siting within maximum setback zones only of new special waste landfills, whereas the instant version prohibits the siting of any landfill which is a new potential primary source. It is not obvious that these two groups of landfills are equivalent.

The Board believes that the change proposed today, to more directly track the Act, is advisable since it may ward off potential confusion where the prohibitions of the Act and those considered herein may otherwise not be in exact agreement. It may also alleviate the concern of the Defenders that the Agency's construction is in violation of the Act (PC #10 at 6-7).

The Board particularly requests comment on this matter. The Board further notes that the change to Act-based language is also herein proposed for prohibitions associated with new facilities

other than landfills (see Sections 616.422, 616.442, 616.462, 616.602, 616.622, 616.702, and 616.722). The request for comment also extends to these sections.

Section 616.402 also contains a prohibition not specified in the Act. It is a prohibition proposed by the Agency against new on-site landfilling of special wastes within a regulated recharge area if the distance from the wellhead of the community water supply well to the proposed landfill is less than 2500 feet. It is to be noted that this prohibition can be set aside either during the promulgation of the regulated recharge area or as part of an adjusted standards proceeding, pursuant to Section 616.105.

Part 616, Subpart E: Land Treatment Units

616.Subpart E is similar to 615.Subpart E except in the provision of Section 616.424, which requires that new land treatment units be designed and operated in accordance with 35 Ill. Adm. Code: Subtitle C and 35 Ill. Adm. Code: Subtitle G.

Section 616.422 contains the Act's statutory prohibition against the siting of new land treatment units which qualify as either a new potential primary source or a new potential secondary source (see discussion of Section 616.402, above).

Part 616, Subpart F: Surface Impoundments

616.Subpart F is similar in its thrust to 615.Subpart F. However, it does impose additional requirements on new surface impoundments which go beyond those applicable to existing surface impoundments. The principal among these is the requirement that new surface impoundments be constructed containing two liners with a leachate collection system between such liners, found at Section 616.444.

Section 616.442 contains the Act's statutory prohibition against the siting of surface impoundments which qualify as either a new potential primary source or a new potential secondary source (see discussion of Section 616.402, above).

Part 616, Subpart G: Waste Piles

616.Subpart G, applicable to new waste piles, is identical to 615.Subpart G applicable to existing waste piles, except for the inclusion in Section 616.462 of the statutory prohibition against new waste piles which are also a new potential primary source or new potential secondary source (see discussion of Section 616.402, above).

Part 616, Subpart H: Underground Storage Tanks

616.Subpart H applicable to new underground storage tanks is identical to 615.Subpart H applicable to existing underground storage tanks.

Part 616, Subpart I: Pesticide Storage and Handling Units

616.Subpart I is identical to 615.Subpart I, except for the inclusion at Section 616.602 of the statutory prohibition against the siting of a new pesticide storage or handling facility which is also either a new potential primary source or a new potential secondary source (see discussion of Section 616.402, above).

Part 616, Subpart J: Fertilizer Storage and Handling Units

616.Subpart J is identical to 615.Subpart J, except for the inclusion at Section 616.622 of the statutory prohibition against the siting of a new fertilizer storage or handling facility which is also either a new potential primary source or a new potential secondary source (see discussion of Section 616.402, above).

Part 616, Subpart K: Road Oil Storage and Handling Units

616.Subpart K is identical to 615.Subpart K, except that the required closure provision of 616.702 is replaced by the statutory prohibition against the siting of a new pesticide storage or handling facility which is also either a new potential primary source or a new potential secondary source (see discussion of Section 616.402, above).

Part 616, Subpart L: De-Icing Agent Storage and Handling Units

616.Subpart L is similar in thrust to 615.Subpart I. Provisions which differ include the statutory prohibition against the siting of a new de-icing agent storage or handling facility which is also either a new potential primary source or a new potential secondary source (see discussion of Section 616.402, above). Additionally, there is an added prohibition against the siting of any new outdoor storage or handling facility within any setback zone or regulated recharge area, as proposed by the Agency.

DISCUSSION OF PART 617

Part 617 is intended to be used as the site for regulations delineating regulated recharge areas. Because no regulated recharge areas have been promulagate as of this time, the Part is essentially empty. Nevertheless, it is useful to establish the Part now to reserve the Part for future use and to allow for consistent reference to the body of regulated recharge area

regulations within Parts 615 and 616. Among the items that Part 617 will eventually include are the boundaries and effective date of any regulated recharge area, plus any special requirements or exceptions that apply within the regulated recharge area.

ORDER

The Board hereby proposes for First Notice the following additions and amendments to 35 Ill. Adm. Code, Subtitle F: Public Water Supplies, Chapter I, Pollution Control Board, Parts 601, 615, 616, and 617. The Clerk of the Board is directed to file these proposed rules with the Secretary of State.

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE F: PUBLIC WATER SUPPLIES
CHAPTER I: POLLUTION CONTROL BOARD

PART 601
INTRODUCTION

Section
601.101 General Requirements
601.102 Applicability
601.103 Severability
601.104 Analytical Testing
601.105 Definitions

APPENDIX References to Former Rules

AUTHORITY: Implementing Section 17 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1987, ch. 111 1/2, pars. 1017 and 1027).

SOURCE: Filed with Secretary of State January 1, 1978; amended at 2 Ill. Reg. 36, p. 72, effective August 29, 1978; amended at 3 Ill. Reg. 13, p. 236, effective March 30, 1979; amended and codified at 6 Ill. Reg. 11497, effective September 14,1982; amended at 6 Ill. Reg. 14344, effective November 3, 1982; amended at _____ Ill. Reg. _____, effective _____.

NOTE: CAPITALIZATION DENOTES STATUTORY LANGUAGE

Section 601.105 Definitions

For purposes of this Chapter:

"Act" means the Environmental Protection Act, as amended, (Ill. Rev. Stat. 1981, ch. 111 1/2, pars. 1001 et seq.).

"Agency" means the Illinois Environmental Protection Agency

"Board" means the Illinois Pollution Control Board.

"Boil Order" means a notice to boil all drinking and culinary water for at least five minutes before use, issued by the proper authorities to the consumers of a public water supply affected, whenever the water being supplied may have become bacteriologically contaminated.

"Certified Laboratory" means any laboratory approved by the Agency or the Illinois Department of Public Health for the specific parameters to be examined, as set out in rules adopted pursuant to the Administrative

Procedure Act, (Ill. Rev. Stat. 1981, ch. 127, pars. 1001 et seq.).

"Chemical Analysis" means analysis for any inorganic or organic substance, with the exception of radiological or microbiological analyses.

"Confined Geologic Formations" are geologic water bearing formations protected against the entrance of contamination by other geologic formations.

"Disinfectant" means any oxidant, including but not limited to chlorine, chlorine dioxide, chloramines, and ozone, added to water in any part of the treatment or distribution process, which is intended to kill or inactivate pathogenic microorganisms.

"Dose Equivalent" means the product of the absorbed dose from ionizing radiation and such factors as account for differences in biological effectiveness due to the type of radiation and its distribution in the body as specified by the International Commission on Radiological Units and Measurements (ICRU).

"Gross Alpha Particle Activity" means the total radioactivity due to alpha particle emission as inferred from measurements on a dry sample.

"Gross Beta Particle Activity" means the total radioactivity due to beta particle emission as inferred from measurements on a dry sample.

~~"Ground Water means all natural or artificially introduced waters found below the ground surface, including water from dug, drilled, bored or driven wells, infiltration lines, and springs.~~ "GROUNDWATER" MEANS UNDERGROUND WATER WHICH OCCURS WITHIN THE SATURATED ZONE AND GEOLOGIC MATERIALS WHERE THE FLUID PRESSURE IN THE PORE SPACE IS EQUAL TO OR GREATER THAN ATMOSPHERIC PRESSURE. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.64)

"Halogen" means one of the chemical elements chlorine, bromine or iodine.

"Man-Made Beta Particle and Photon Emitters" means all radionuclides emitting beta particles and/or photons listed in Maximum Permissible Body Burdens and Maximum Permissible Concentration of Radionuclides in Air or Water for Occupational Exposure, National Bureau of Standards (NBS) Handbook 69, except the daughter products of thorium-232, uranium-235 and uranium-238.

"Maximum Total Trihalomethane Potential (MTP)" means the maximum concentration of total trihalomethanes produced in a given water containing a disinfectant residual after 7 days at a temperature of 25°C or above.

"Official Custodian" means any officer of an organization which is the owner or operator of a public water supply, and who has direct administrative responsibility for the supply.

"Persistent Contamination" exists when analysis for total coliform is positive in one or more samples of a routine sample set, and when three or more subsequent check samples indicate the presence of contamination.

"Picocurie (pCi)" means that quantity of radioactive material producing 2.22 nuclear transformations per minute.

"Recurring Contamination" exists when analysis of total coliform is positive in one or more samples of a routine sample set, if this occurs four or more times in a calendar year.

"Rem" means the unit of dose equivalent from ionizing radiation to the total body or any internal organ or organ system. A "millirem (mrem)" is 1/1000 of a rem.

"Re-sell Water" means to deliver or provide potable water, obtained from a public water supply subject to these regulations, to the consumer, who is then individually or specifically billed for water service, or where any monetary assessment is levied or required and specifically used for water service. Water supply facilities owned or operated by political subdivisions, homeowners associations, and not-for-profit associations, as well as privately owned utilities regulated by the Illinois Commerce Commission, are considered to sell water whether or not a charge is specifically made for water.

"Service Connection" is the opening, including all fittings and appurtenances, at the water main through which water is supplied to the user.

"Surface Water" means all tributary streams and drainage basins, including natural lakes and artificial reservoirs, which may affect a specific water supply above the point of water supply intake.

"Surface Water Supply Source" means any surface water

used as a water source for a public water supply.

"Supply" means a public water supply.

"Total Trihalomethanes (TTHM)" means the sum of the concentration in milligrams per liter of the trihalomethane compounds trichloromethane (chloroform), dibromochloromethane, bromodichloromethane and tribromomethane (bromoform), rounded to two significant figures.

"Trihalomethane (THM)" means one of the family of organic compounds named as derivatives of methane, wherein three of the four hydrogen atoms in methane are each substituted by a halogen atom in the molecular structure.

"Water Main" means any pipe for the purpose of distributing potable water which serves or is accessible to more than one property, dwelling, or rental unit, and is exterior to buildings.

(Source: Amended in R89-5 at _____ Ill. Reg. _____, effective _____)

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE F: PUBLIC WATER SUPPLIES
CHAPTER I: POLLUTION CONTROL BOARD

PART 615
EXISTING ACTIVITIES IN A SETBACK ZONE OR REGULATED RECHARGE AREA

SUBPART A: GENERAL



SUBPART B: GROUNDWATER MONITORING REQUIREMENTS



SUBPART C: GENERAL CLOSURE AND POST-CLOSURE REQUIREMENTS



SUBPART D: LANDFILLS

SUBPART E: LAND TREATMENT UNITS



SUBPART F: SURFACE IMPOUNDMENTS



SUBPART G: WASTE PILES



SUBPART H: UNDERGROUND STORAGE TANKS



SUBPART I: PESTICIDE STORAGE AND HANDLING UNITS



SUBPART J: FERTILIZER STORAGE AND HANDLING UNITS

SUBPART K: ROAD OIL STORAGE AND HANDLING UNITS



SUBPART L: DE-ICING AGENT STORAGE AND HANDLING UNITS



AUTHORITY: Implementing Sections 5, 14.4, 21, and 22, and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1987, ch. 111 1/2, pars. 1005, 1014.4, 1021, 1022, and 1027).

SOURCE: Adopted in R89-5 at _____ Ill. Reg. _____, effective _____.

NOTE: CAPITALIZATION DENOTES STATUTORY LANGUAGE.

SUBPART A: GENERAL

Section 615.101 Purpose

This Part prescribes requirements and standards for the protection of groundwater for certain types of existing facilities or units located wholly or partially within a setback zone regulated by the Act or within a regulated recharge area as delineated pursuant to Section 17.4 of the Act.

Section 615.102 Definitions

Except as stated in this Section, and unless a different meaning of a word or term is clear from the context, the definition of words or terms in this Part shall be the same as those used in the Act or the Illinois Groundwater Protection Act (Ill. Rev. Stat. 1987, ch. 111 1/2, pars. 7451 et seq.):

"Above-ground storage tank" means a storage tank that is not an underground storage tank.

"Act" means the Environmental Protection Act (Ill. Rev. Stat. 1987, ch. 111 1/2, pars. 1001 et seq.)

"Agency" means the Illinois Environmental Protection Agency.

"Board" means the Illinois Pollution Control Board.

"Certification" means a statement of professional opinion based upon knowledge and belief.

"COMMUNITY WATER SUPPLY" MEANS A PUBLIC SUPPLY WHICH SERVES OR IS INTENDED TO SERVE AT LEAST 15 SERVICE CONNECTIONS USED BY RESIDENTS OR REGULARLY SERVES AT LEAST 25 RESIDENTS. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.05)

"Compliance point" means any point which is located directly beneath a facility boundary, is located within the uppermost aquifer, and is at a hydraulically downgradient point of groundwater flow. If groundwater flow directions vary temporally or vertically, there may be more than one compliance point.

"Construction has commenced" means that all necessary federal, state, and local approvals have been obtained, and work at the site has been initiated and proceeds in a reasonably continuous manner to completion.

"Container" means any portable device (including, but not limited to, 55 gallon drums) in which material is stored, treated, disposed or otherwise handled. The term "container" does not include a vehicle used to transport material.

"Containerized" means being in a container.

"CONTAMINANT" IS ANY SOLID, LIQUID, OR GASEOUS MATTER, ANY ODOR, OR ANY FORM OF ENERGY, FROM WHATEVER SOURCE. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.06)

"CONTAMINATION" OR "CONTAMINATE" WHEN USED IN CONNECTION WITH GROUNDWATER, MEANS WATER POLLUTION OF SUCH GROUNDWATER. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.63)

"De-Icing agent" means a chemical used for de-icing, including but not limited to sodium chloride and calcium chloride. Sand, ashes, or other abrasive materials that do not alter the freezing point of water are not de-icing agents.

"Dike" means an embankment or ridge of either natural or manmade materials used to prevent the movement of liquids, sludges, solids, or other materials.

"Discharge" means the accidental or intentional spilling, leaking, pumping, pouring, emitting, emptying or dumping of any material onto or on any land or water.

"DISPOSAL" MEANS THE DISCHARGE, DEPOSIT, INJECTION, DUMPING, SPILLAGE, LEAKING OR PLACING OF ANY WASTE OR HAZARDOUS WASTE INTO OR ON ANY LAND OR WATER OR INTO ANY WELL SO THAT SUCH WASTE OR HAZARDOUS WASTE OR ANY CONSTITUENT THEREOF MAY ENTER THE ENVIRONMENT OR BE EMITTED INTO THE AIR OR DISCHARGED INTO ANY WATERS, INCLUDING GROUNDWATERS. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.08)

"Existing facility" or "existing unit" means a facility or unit which was in operation or for which construction has commenced on or before:

The effective date of this Part, for any facility or unit located within a minimum setback zone;

The effective date of an ordinance or regulation that establishes a maximum setback zone, for any facility or unit located within that zone; or

The effective date of a regulated recharge area as delineated in 35 Ill. Adm. Code 617, for any facility or unit located within that area.

A facility or unit is not an existing facility or unit if it closes on or before:

The effective date of this Part, for any facility or unit located within a minimum setback zone;

The effective date of an ordinance or regulation that establishes a maximum setback zone, for any facility or unit located within that zone; or

The effective date of a regulated recharge area as delineated in 35 Ill. Adm. Code 617, for any facility or unit located within that area.

"Facility" means all contiguous land and structures, other appurtenances and improvements on the land used for the treating, storing, handling, or disposal of any

material which causes that unit to be regulated under this Part. A facility may consist of one or more operational units.

"Facility boundary" means a line at the land's surface circumscribing the area on which, above or below which waste, pesticides, fertilizers, road oils or de-icing agents will be placed during the active life of the facility. The space taken up by any liner, dike or other barrier designed to contain waste, pesticides, fertilizers, road oils or de-icing agents falls within the facility boundary.

"Freeboard" means the vertical distance between the top of a tank or dike and the surface of the material contained therein.

"Free liquids" means liquids which readily separate from the solid portion of a waste under ambient temperature and pressure. To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods." (EPA Publication No. SW-846, incorporated by reference in Section 615.105).

"GROUNDWATER" MEANS UNDERGROUND WATER WHICH OCCURS WITHIN THE SATURATED ZONE AND GEOLOGIC MATERIALS WHERE THE FLUID PRESSURE IN THE PORE SPACE IS EQUAL TO OR GREATER THAN ATMOSPHERIC PRESSURE. (Ill. Rev. Stat. 1987, ch. 111 1/2, par. 1003.64))

"Groundwater standards" means

> The water quality standards for groundwater adopted by the Board under Section 8 of the Illinois Groundwater Protection Act (Ill. Rev. Stat. 1987, ch. 111 1/2, par. 7458); and
>
> The water quality standards set forth in 35 Ill. Adm. Code 302 or 303, to the extent these are applicable to groundwater.

"HAZARDOUS WASTE" MEANS A WASTE, OR COMBINATION OF WASTES, WHICH BECAUSE OF ITS QUANTITY, CONCENTRATION, OR PHYSICAL, CHEMICAL, OR INFECTIOUS CHARACTERISTICS MAY CAUSE OR SIGNIFICANTLY CONTRIBUTE TO AN INCREASE IN IRREVERSIBLE, OR INCAPACITATING REVERSIBLE, ILLNESS; OR POSE A SUBSTANTIAL PRESENT OR POTENTIAL HAZARD TO HUMAN HEALTH OR THE ENVIRONMENT WHEN IMPROPERLY TREATED, STORED, MANAGED, AND WHICH HAS BEEN IDENTIFIED, BY

CHARACTERISTICS OR LISTING, AS HAZARDOUS PURSUANT 35 Ill. Adm. Code 721. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.15)

"Ignitable material" is a material which meets one or more of the following criteria:

It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume and has a flash point less than 60° C (140° F), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in the American Society for Testing and Materials (ASTM) Method D-93, or a SetaFlash Closed Cup Tester, using the test method specified in ASTM Method D-3828, as incorporated by reference in Section 615.103;

It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture, or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard;

It is an ignitable compressed gas as defined in 49 CFR 173.300 and as determined by the test methods described in that regulation; or

It is an oxidizer as defined in 49 CFR 173.151.

"Incompatible material" means a material which may:

Cause corrosion or decay of containment materials (e.g., container inner liners or tank walls); or

When commingled with another material, produces heat or pressure, fire, explosion, violent reaction, toxic dusts, mists, fumes or gases, or flammable fumes or gases.

"Landfill" means a unit or part of a facility where waste is placed in or on land for disposal and which is not a land treatment unit, surface impoundment or an underground injection well.

"Landfill cell" means a discrete volume of a landfill which uses a liner to provide isolation of wastes from adjacent cells or wastes. Examples of landfill cells are trenches or pits.

"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. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.20)

"Land treatment" means the application of waste onto or incorporation of waste into the soil surface.

"Leachate" means any liquid, including suspended components in the liquid, that has percolated through or drained from a material.

"Licensed water well contractor" means a person licensed under the Water Well and Pump Installation Contractor's License Act (Ill. Rev. Stat., ch. 111 1/2, pars. 7101 et seq., as amended).

"Liner" means a continuous layer of natural or manmade materials beneath or on the side of a surface impoundment, landfill, landfill cell, waste pile, or storage pile which restricts the downward or lateral escape of waste, waste constituents, leachate or stored materials.

"New facility" or "new unit" means a facility or unit which is not an existing facility or unit.

"NON-COMMUNITY WATER SUPPLY" MEANS A PUBIC WATER SUPPLY THAT IS NOT A COMMUNITY WATER SUPPLY. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.05)

"Non-special waste" means a waste which is not a special waste.

"Non-public water supply" means a water supply that is not a public water supply.

"Off-site" means not on-site.

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

"Operator" means the person responsible for the overall operation of a facility or unit.

"Owner" means the person who owns a site or part of a site, or who owns the land on which the site is located.

"PESTICIDE" MEANS ANY SUBSTANCE OR MIXTURE OF SUBSTANCES INTENDED FOR PREVENTING, DESTROYING, REPELLING, OR MITIGATING ANY PEST OR ANY SUBSTANCE OR MIXTURE OF SUBSTANCES INTENDED FOR USE AS A PLANT REGULATOR, DEFOLIANT OR DESICCANT. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.68)

"Pile" means any noncontainerized accumulation of solid, non-flowing material that is used for treatment or storage.

"POTABLE" MEANS GENERALLY FIT FOR HUMAN CONSUMPTION IN ACCORDANCE WITH ACCEPTED WATER SUPPLY PRINCIPLES AND PRACTICES. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.65)

"PUBLIC WATER SUPPLY" MEANS ALL MAINS, PIPES AND STRUCTURES THROUGH WHICH WATER IS OBTAINED AND DISTRIBUTED TO THE PUBLIC, INCLUDING WELLS AND WELL STRUCTURES, INTAKES AND CRIBS, PUMPING STATIONS, TREATMENT PLANTS, RESERVOIRS, STORAGE TANKS AND APPURTENANCES, COLLECTIVELY OR SEVERALLY, ACTUALLY USED OR INTENDED FOR USE FOR THE PURPOSE OF FURNISHING WATER FOR DRINKING OR GENERAL DOMESTIC USE AND WHICH SERVE AT LEAST 15 SERVICE CONNECTIONS OR WHICH REGULARLY SERVE AT LEAST 25 PERSONS AT LEAST 60 DAYS PER YEAR. A PUBLIC WATER SUPPLY IS EITHER A "COMMUNITY WATER SUPPLY" OR A "NON-COMMUNITY WATER SUPPLY". (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.28)

"Reactive material" means a material which meets one or more of the following criteria:

It is normally unstable and readily undergoes violent change without detonating;

It reacts violently with water;

It forms potentially explosive mixtures with water;

When mixed with water, it generates toxic gases, vapors, or fumes in a quantity sufficient to present a danger to human health or the environment;

It is capable of detonation or explosive reaction if it is subject to a strong initiating source, or if heated under confinement;

It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure; or

It is a forbidden explosive as defined in 49 CFR 173, or a Class A explosive as defined in 49 CFR 173.53 or a Class B explosive as defined in 49 CFR 173.88.

"Registered land surveyor" means a person registered under the Illinois Land Surveyors Act (Ill. Rev. Stat. 1987, ch. 111, pars. 3201 et seq.).

"Registered professional engineer" means a person registered under the Illinois Professional Engineering Act (Ill. Rev. Stat. 1987, ch. 111, par. 5101 et seq.).

"REGULATED RECHARGE AREA" MEANS A COMPACT GEOGRAPHIC AREA, AS DETERMINED BY THE BOARD pursuant to Section 17.4 of the Act, THE GEOLOGY OF WHICH RENDERS A POTABLE RESOURCE GROUNDWATER PARTICULARLY SUSCEPTIBLE TO CONTAMINATION. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.67)

"Road oil" means slow-curing asphaltic oils which show no separation on standing and which are used for road construction, maintenance or repair.

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

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

"Secondary containment structure" means any structure or basin intended to contain spills and prevent runoff or leaching from piles, containers, or tanks and related piping.

"SETBACK ZONE" MEANS A GEOGRAPHIC AREA, DESIGNATED PURSUANT TO THIS ACT, CONTAINING A POTABLE WATER SUPPLY WELL OR A POTENTIAL SOURCE OR POTENTIAL ROUTE HAVING A CONTINUOUS BOUNDARY, AND WITHIN WHICH CERTAIN PROHIBITIONS OR REGULATIONS ARE APPLICABLE IN ORDER TO PROTECT GROUNDWATERS. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.61)

"SITE" MEANS ANY LOCATION, PLACE, TRACT OF LAND, AND FACILITIES, INCLUDING BUT NOT LIMITED TO BUILDINGS, AND IMPROVEMENTS USED FOR PURPOSES SUBJECT TO REGULATION OR CONTROL BY THIS ACT OR REGULATIONS THEREUNDER. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.43)

"SPECIAL WASTE" MEANS ANY SOLID, SEMI-SOLID, OR LIQUID WASTE GENERATED FROM A MUNICIPAL, COMMERCIAL, OR INDUSTRIAL WASTEWATER TREATMENT PLANT, WATER SUPPLY TREATMENT PLANT, OR AIR POLLUTION CONTROL FACILITY OR ANY OTHER SUCH WASTE HAVING SIMILAR CHARACTERISTICS AND EFFECTS. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.44)

"STORAGE" means the holding or containment of a material, either on a temporary basis or for a period of years, in such manner as not to constitute disposal of such material. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.46)

"Surface impoundment" means a natural topographical depression, man-made excavation, or diked area that is designed to hold liquid wastes or wastes containing free liquids.

"Surface water" means all water the surface of which is exposed to atmosphere.

"Tank" means a stationary device, designed to contain an accumulation of material which is constructed of non-earthen materials (e.g., wood, concrete, steel, plastic) which provide structural support. The term "tank" does not include areas used to accumulate materials prior to pumping to tanks or containers (i.e., sump pits) or associated piping. The term "tank" does not include vehicles used to transport material.

"Treatment" means any method, technique or process, including neutralization, designed to change the physical, chemical or biological character or composition of any material so as to neutralize such material, or so as to recover energy or material resources from the material or so as to render such material nonhazardous or less hazardous; safer to transport, store or dispose of, or amenable for recovery, amenable for storage or reduced in volume.

"Underground storage tank" means as a storage tank as defined at 35 Ill. Adm. Code 731.101(f).

"UNIT" MEANS ANY DEVICE, MECHANISM, EQUIPMENT, OR AREA (EXCLUSIVE OF LAND UTILIZED ONLY FOR AGRICULTURAL PRODUCTION). (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.62)

"Uppermost aquifer" means the geologic formation nearest the natural ground surface that is an aquifer, as well

as lower aquifers that are hydraulically interconnected with this aquifer within the facility boundary.

"WASTE" MEANS ANY GARBAGE, SLUDGE FROM A WASTE TREATMENT PLANT, WATER SUPPLY TREATMENT PLANT, OR AIR POLLUTION CONTROL FACILITY OR OTHER DISCARDED MATERIAL, INCLUDING SOLID, LIQUID, SEMI-SOLID, OR CONTAINED GASEOUS MATERIAL RESULTING FROM INDUSTRIAL, COMMERCIAL, MINING AND AGRICULTURAL OPERATIONS, AND FROM COMMUNITY ACTIVITIES, BUT DOES NOT INCLUDE:

Industrial discharges with NPDES permits issued pursuant to 35 Ill. Adm. Code 309;

Source, spent nuclear, or by-product materials as defined by the Atomic Energy Act of 1954 (42 U.S.C. 2014);

Any solid or dissolved material from any material subject to 62 Ill. Adm. Code 1700 et seq. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.53)

"Waste pile" means a pile consisting of waste which has a total volume greater than 10 cubic yards or which is stored for over 90 days.

"WATERS" MEANS ALL ACCUMULATIONS OF WATER, SURFACE AND UNDERGROUND, NATURAL, AND ARTIFICIAL, PUBLIC AND PRIVATE, OR PARTS THEREOF, WHICH ARE WHOLLY OR PARTLY WITHIN, FLOW THROUGH, OR BORDER UPON THIS STATE. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.56)

"WELL" MEANS A BORED, DRILLED OR DRIVEN SHAFT, OR DUG HOLE, THE DEPTH OF WHICH IS GREATER THAN THE LARGEST SURFACE DIMENSION. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.57)

Section 615.103 Incorporations by Reference

a) The Board incorporates the following material by reference:

1) 49 CFR 173 (1988).

2) American Society for Testing and Materials (ASTM) Standard D-93-79 or D-93-80, and ASTM Standard D-3828-87 (Available from: ASTM; 1916 Race Street; Philadelphia, PA 10103; (215) 299-5400).

3) "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods," EPA Publication No. SW-846 (Second Edition, 1982, as amended by Update I

(April, 1984) and Update II (April, 1985)). (Available from: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20401, (202-783-3238)).

b) This Section incorporates no later amendments or editions.

Section 615.104 Prohibitions

No person shall cause or allow the construction, use or operation of any facility or unit in violation of the Act or regulations adopted by the Board thereunder, including but not limited to this Part.

Section 615.105 General Exceptions

This Part does not apply to any facility or unit, or to the owner or operator of any facility or unit:

a) For which the owner or operator obtains certification of minimal hazard pursuant to Section 14.5 of the Act; or

b) For which different requirements are imposed in an adjusted standard proceeding or as part of a site-specific rulemaking, pursuant to Title VII of the Act.

c) For which different requirements are imposed in a regulated recharge area proceeding pursuant to Section 17.4 of the Act; or

d) Which is LOCATED ON THE SAME SITE AS A NON-COMMUNITY WATER SYSTEM WELL AND FOR WHICH THE OWNER IS THE SAME FOR BOTH THE facility or unit AND THE WELL. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1014.4(b)); or

e) Which is located WITHIN A REGULATED RECHARGE AREA AS DELINEATED in 35 Ill. Adm. Code 617, PROVIDED THAT:

1) THE BOUNDARY OF THE LATERAL AREA OF INFLUENCE OF A COMMUNITY WATER SUPPLY WELL LOCATED WITHIN THE REGULATED RECHARGE AREA does not INCLUDE SUCH facility or unit THEREIN;

2) THE DISTANCE FROM THE WELLHEAD OF THE COMMUNITY WATER SUPPLY TO THE facility or unit EXCEEDS 2500 FEET; AND

3) THE COMMUNITY WATER SUPPLY WELL WAS not IN EXISTENCE PRIOR TO JANUARY 1, 1988.

(Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1014.4(b)).

f) Nothing in this Section shall limit the authority of the Board to impose requirements on any facility or unit within any portion of any setback zone or regulated recharge area as part of any adjusted standard proceeding, site-specific rulemaking or a regulatory proceeding establishing the regulated recharge area.

SUBPART B: GROUNDWATER MONITORING REQUIREMENTS

Section 615.201 Applicability

This Subpart applies to:

a) Landfill units subject to Subpart D;

b) Surface impoundments subject to Subpart F;

c) Pesticide storage and handling units subject to Subpart I;

d) Fertilizer storage and handling units subject to Subpart J;

e) Road oil storage and handling units subject to Subpart K; and

f) De-icing agent storage and handling units subject to Subpart L.

Section 615.202 Compliance Period

The compliance period is the active life of the unit, including closure and post-closure care periods.

a) The active life begins when the unit first begins operation or on the effective date of this Part, whichever occurs later, and ends when the post-closure care period ends.

b) The post-closure care period for units other than landfill units is five years after closure, except as provided at Section 615.211(e).

c) The post-closure care period for landfill units is fifteen years after closure, except as provided at Section 615.211(e) or as may be provided by other Board regulations.

d) Subsections (b) and (c) notwithstanding, there shall be no post-closure care period if all waste, waste residues, contaminated containment system components and contaminated subsoils are removed or decontaminated at closure, and there is no ongoing corrective action pursuant to Section 615.211.

Section 615.203 Compliance With Groundwater Standards

The owner or operator shall comply with the groundwater standards.

a) The term of compliance is the compliance period.

b) Compliance shall be measured at the compliance point, or compliance points if more than one such point exists.

Section 615.204 Groundwater Monitoring System

a) Except as provided otherwise in subsection (b), the groundwater monitoring system must consist of a sufficient number of wells, installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer that:

1) Represent the quality of background water that has not been affected by contamination from the facility or unit; and

2) Represent the quality of groundwater at compliance point or points.

b) If a potable well can be used as a monitoring well pursuant to this subsection, no additional monitoring wells are required under this Section. A potable well may be used as a monitoring well if:

1) The unit is located within a setback zone for a potable well other than a community water supply well;

2) The well has been inspected by a licensed water well contractor;

3) The owner or operator of the unit seeking to use the well as a monitoring well certifies to the Agency that the well is constructed in accordance with the Illinois Water Well Construction Code (Ill. Rev. Stat. 1987, ch. 111 1/2, pars. 116.111 et seq., as amended) and 35 Ill. Adm. Code 920, or that the well is constructed in accordance with the criteria adopted by the Agency pursuant to 35 Ill. Adm. Code 602.115; and

4) The unit treats and disposes solely non-special waste if the unit is a landfill or a surface impoundment.

c) If a facility contains more than one unit, separate groundwater monitoring systems are not required for each unit, provided that provisions for sampling the groundwater in the uppermost aquifer will enable detection and measurement at the compliance point or points of the contaminants which have entered the groundwater from all units.

d) Monitoring wells other than potable wells must be designed and constructed in a manner that will enable the collection of groundwater samples during the compliance period. Well casings and screens must be made from durable material resistant to expected chemical or physical degradation, and must be made of materials that do not interfere with the quality of groundwater samples being collected. Well casings and screens must be made from fluorocarbon resins or stainless steel in the saturated zone if volatile organic sampling may be required during the monitoring period. The annular space opposite the screened section of the well (i.e., the space between the bore hole and well screen) must be filled with gravel or sand if necessary to collect groundwater samples. The annular space above the well screen must be sealed to prevent downward migration of water from overlying formations and the surface to the sampled depth.

Section 615.205 Groundwater Monitoring Program

The owner or operator shall develop a groundwater monitoring program which consists of:

a) Consistent sampling and analysis procedures that are designed to ensure monitoring results that provide a reliable indication of groundwater quality below the unit. At a minimum the program must include procedures and techniques for:

1) Sample collection;

2) Sample preservation and shipment;

3) Analytical procedures; and

4) Chain of custody control.

b) Sampling and analytical methods which are appropriate for groundwater monitoring and which allow for detection of the contaminants specified pursuant to this Subpart.

c) A determination of the groundwater head elevation each time groundwater is sampled. A determination of the groundwater head elevation is not required for samples taken from a potable well used as a monitoring well pursuant to Section 615.204(b).

d) A determination at least annually of the groundwater flow rate and direction in the uppermost aquifer.

e) If the owner or operator determines that the groundwater monitoring program no longer satisfies the requirements of this Section, the owner or operator shall, within 90 days, make appropriate changes to the program and shall notify the Agency of such changes when submitting the groundwater monitoring reports under Section 615.208.

Section 615.206 Contaminants to be Monitored

a) The owner or operator shall monitor for all parameters which meet the following criteria, except as provided in subsections (b) and (c):

1) Material containing such parameter is stored, disposed, or otherwise handled at the site; and

2) The Board has adopted a groundwater standard for such parameter.

b) The owner or operator of a unit subject to Subpart I for the storage and handling of pesticides shall monitor for five specific pesticides or five groups of chemically-similar pesticides stored or handled at the unit that are the most likely to enter into the groundwater from the unit and that are the most toxic. The owner or operator shall choose the five specific pesticides or five groups based upon the following criteria:

1) The volume of material stored or handled at the unit;

2) The leachability characteristics of the pesticides stored or handled at the unit;

3) The toxicity characteristics of the pesticides stored or handled at the unit;

4) The history of spillage of the pesticides stored or handled at the unit; and

5) The establishment of groundwater standards for the pesticides stored or handled at the unit.

c) The owner or operator of a unit subject to Subpart J for the storage and handling of fertilizers shall monitor for pH, specific conductance, total organic carbon, nitrates as nitrogen, and ammonia nitrogen.

Section 615.207 Sampling Frequency

a) The owner or operator shall determine whether groundwater standards have been exceeded at each monitoring well at least quarterly during the compliance period, except as provided otherwise in subsection (b) and Section 615.209(b).

b) The owner or operator of a unit subject to Subpart K for the storage and handling of road oils or Subpart L for the storage and handling of de-icing agents shall determine whether groundwater standards have been exceeded at each monitoring well at least annually during the compliance period, except as provided at Section 615.209(b).

Section 615.208 Reporting

The owner or operator shall submit results of all monitoring required pursuant to this Subpart to the Agency within 60 days after completion of sampling.

Section 615.209 Non-Compliance Response Program

If monitoring results collected pursuant to Sections 615.206 and 615.207 show that a groundwater standard has been exceeded, the owner or operator shall:

a) Notify the Agency of this finding when submitting the groundwater monitoring results required pursuant to Section 615.208. The notification must indicate which groundwater standards have been exceeded.

b) Resample the groundwater within 3 days in all monitoring wells where a groundwater standard has been exceeded and redetermine the presence and concentration of each parameter required pursuant to Section 615.206, except that:

1) If the unit is subject to Subpart I for the storage and related handling of pesticides, resample the

groundwater within 3 days in all monitoring wells where a groundwater standard has been exceeded and determine the presence and concentration in each such sample of each pesticide previously and presently stored or handled at the unit.

2) If the unit is subject to Subpart J for the storage and related handling of fertilizers, monitor monthly for the parameters set forth in Section 615.206(c) until the groundwater standard is no longer exceeded.

c) Submit the results of sampling required under subsection (b) when submitting the groundwater results required pursuant to Section 615.208.

d) Prepare an engineering feasibility plan for a corrective action program designed to achieve the requirements of Section 615.211. This report shall be submitted to the Agency within 120 days after the date on which the sample results are submitted to the Agency pursuant to subsection (c), unless:

1) None of the parameters identified under subsection (b) exceed the groundwater standards; or

2) The owner or operator makes a demonstration pursuant to Section 615.210.

e) Begin the correction action program specified in subsection (d) within 120 days after the date on which the sample results are submitted to the Agency pursuant to subsection (c), unless:

1) None of the parameters identified under subsection (b) exceed the groundwater standards; or

2) The owner or operator makes a demonstration pursuant to Section 615.210.

Section 615.210 Alternate Non-Compliance Response Program

If the groundwater sampling required pursuant to Section 615.207 shows that a groundwater standard has been exceeded, it is presumed that contamination from the facility or unit which is being monitored is responsible for the standard being exceeded. An owner or operator may overcome that presumption by making a clear and convincing demonstration that a source other than the facility or unit which is being monitored caused the exceedence or that the exceedence resulted from error in sampling, analysis or evaluation. In making such demonstration the owner or operator shall:

a) Notify the Agency that the owner or operator intends to make a demonstration under this Section when submitting the groundwater monitoring results required pursuant to Section 615.208.

b) Submit a report to the Agency which demonstrates that a source other than a facility or unit for which he is the owner or operator caused the groundwater standard to be exceeded, or that the groundwater standard was exceeded due to an error in sampling, analysis or evaluation. Such report must be included with the next submission of groundwater monitoring results required pursuant to Section 615.208; and

c) Continue to monitor in accordance with the groundwater monitoring program established pursuant to Sections 615.205, 615.206, and 615.207.

Section 615.211 Corrective Action Program

An owner or operator required to conduct a corrective action program pursuant to this Subpart shall:

a) Begin corrective action within 120 days after the date on which the sample results are submitted to the Agency pursuant to Section 615.209(d).

b) Take corrective action which results in compliance with the groundwater standards at the compliance point or points.

c) Establish and implement a groundwater monitoring program to demonstrate the effectiveness of the corrective action program.

d) Take corrective action which maintains compliance with the groundwater standards:

1) At all compliance points; and

2) Beyond the facility boundary, where necessary to protect human health and the environment, unless the owner or operator demonstrates to the Agency that, despite the owner's or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such action. The owner or operator is not relieved of responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied.

e) Continue corrective action measures during the compliance period to the extent necessary to ensure that the groundwater protection standard is not exceeded at the compliance point or points. If the owner or operator is still conducting corrective action at the end of the compliance period, the owner or operator shall continue that corrective action for as long as necessary to achieve compliance with the groundwater protection standards. The owner or operator may terminate corrective action measures taken beyond the compliance period as identified at Section 615.202 if the owner or operator can demonstrate, based on data from the groundwater monitoring program under subsection (c), that the groundwater standards have not been exceeded for a period of three consecutive years.

g) Report in writing to the Agency on the effectiveness of the corrective action program. The owner or operator shall submit these reports semi-annually.

h) If the owner or operator determines that the corrective action program no longer satisfies the requirements of this Section, the owner or operator shall, within 90 days, make any appropriate changes to the program.

SUBPART C: GENERAL CLOSURE AND POST-CLOSURE REQUIREMENTS

Section 615.301 Applicability

This Subpart applies to:

a) Landfill units subject to Subpart D;

b) Surface impoundments subject to Subpart F;

c) Pesticide storage and handling units subject to Subpart I; and

d) Fertilizer storage and handling units subject to Subpart J.

Section 615.302 Closure Performance Standard

The owner or operator shall close the unit in a manner that:

a) Controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of waste, waste constituents, leachate, contaminated runoff or waste decomposition products to the ground;

b) Minimizes the need for maintenance during and beyond the post-closure care period; and

c) Complies with the closure requirements of 35 Ill. Adm. Code: Subtitles C and G.

Section 615.303 Certification of Closure

Within 60 days after completion of closure, the owner or operator shall submit to the Agency, by registered or certified mail, a certification that the unit has been closed in accordance with the closure requirements. The certification must be signed by the owner or operator and by an independent registered professional engineer. Documentation supporting the independent registered professional engineer's certification must be furnished to the Agency upon request.

Section 615.304 Survey Plat

No later than the submission of the certification of closure of each unit, the owner or operator shall submit to any local zoning authority, or authority with jurisdiction over local land use, and to the Agency, and record with land titles, a survey plat indicating the location and dimensions of any landfills cells, any other waste disposal units, and any pesticide and fertilizer storage and handling units, with respect to permanently surveyed benchmarks. This plat must be prepared and certified by a registered land surveyor.

Section 615.305 Post-Closure Notices for Waste Disposal Units

No later than 60 days after certification of closure of the unit, the owner or operator of a unit subject to Subpart D or F shall submit to the Agency, to the County Recorder and to any local zoning authority or authority with jurisdiction over local land use, a record of the type, location and quantity of wastes disposed of within each cell or other area of the unit.

Section 615.306 Certification of Completion of Post-closure Care

No later than 60 days after completion of the established post-closure care period, the owner or operator shall submit to the Agency, by registered or certified mail, a certification that the post-closure care period for the unit was performed in accordance with the specifications in the approved post-closure plan. The certification must be signed by the owner or operator and an independent registered professional engineer. Documentation supporting the independent registered professional engineer's certification must be furnished to the Agency upon request.

Section 615.307 Post-Closure Care Period

The post-closure care for all units except for landfills must continue for five years after closure, or to completion of correction action conducted pursuant Section 615.211, which ever is later. Post-closure care for landfills must continue for fifteen years after closure or to such time as provided by Board regulation, or to completion of correction action conducted pursuant to Section 615.211, whichever is later.

SUBPART D: LANDFILLS

Section 615.401 Applicability

This Subpart applies to existing landfill units which are located wholly or partially within a setback zone or regulated recharge area and which contain special waste or other waste generated on-site, except that this Subpart does not apply to any existing landfill unit which:

a) Contains solely one or more of the following: hazardous waste, livestock waste, landscape waste, or construction and demolition debris; or

b) Is exempt from this Part pursuant to Section 615.105.

Section 615.402 Required Closure of Units Located Within Minimum Setback Zones

No person shall cause or allow the use or operation within a minimum setback zone of any landfill unit commencing two years after the effective date of this Part. Closure shall be completed three years after the effective date of this Part. This Section does not apply to any landfill unit which the Board expressly finds, in an adjusted standard proceeding, poses no significant hazard to a community water supply well or other potable water supply well.

Section 615.403 Required Closure of Units Located Within Maximum Setback Zones

No person shall cause or allow the use or operation within a maximum setback zone of any landfill unit at which special waste is disposed, commencing two years after the effective date of the ordinance or regulation which establishes the maximum setback zone. Closure shall be completed within three years after the effective date of the ordinance or regulation which establishes the maximum setback zone. This Section does not apply to any landfill unit which the Board expressly finds, in an adjusted standard proceeding, poses no significant hazard to a community water supply well or other potable water supply well.

Section 615.404 Required Closure of Units Located Within Regulated Recharge Areas

No person shall cause or allow the use or operation within a regulated recharge area of any landfill unit which contains special waste and for which the distance from the wellhead of the community water supply well to any part of the landfill unit is 2500 feet or less. This provision becomes effective four years after the date on which the Board establishes the regulated recharge area. Closure shall be completed within five years after the date on which the Board establishes the regulated recharge area. This Section does not apply to any existing landfill unit which the Board expressly finds, in the regulatory proceeding establishing the regulated recharge area, poses no significant hazard to a community water supply well.

Section 615.405 Groundwater Monitoring

The owner or operator shall comply with the requirements of Subpart B.

Section 615.406 Operating Requirements

The owner or operator shall not cause or allow:

a) The disposal of incompatible materials in the same landfill cell.

b) The disposal of bulk or non-containerized liquid waste or waste containing free liquids (whether or not absorbents have been added) in the landfill unit.

c) The disposal of containerized free liquids in the landfill unit unless;

1) The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or

2) All free-standing liquid:

A) Has been removed by decanting or other methods;

B) Has been mixed with absorbent or solidified so that free-standing liquid is no longer observed; or

C) Has been otherwise eliminated; or

3) The container is the size of an ampule or smaller, and the container is either:

A) At least 90 percent full when placed in the landfill unit; or

B) Crushed, shredded or similarly reduced in volume to the maximum practical extent before burial in the landfill unit.

Section 615.407 Closure and Post-Closure Care

a) The owner or operator shall comply with the requirements of this Section and Subpart C.

b) At final closure of the landfill or upon closure of any cell, the owner or operator shall cover the landfill or cell with a final cover designed and constructed to:

1) Provide long-term minimization of migration of liquids through the closed landfill;

2) Function with minimum maintenance;

3) Promote drainage and minimize erosion or abrasion of the cover;

4) Accommodate settling and subsidence so that the cover's integrity is maintained; and

5) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

c) After final closure, the owner or operator shall, for a period of fifteen years, or such longer period set by the Board:

1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cap to correct the effects of settling, subsidence, erosion or other events;

2) Continue to operate the leachate collection and removal system; and

3) Prevent run-on and run-off from eroding or otherwise damaging the final cover.

## SUBPART E: LAND TREATMENT UNITS

### Section 615.421 Applicability

This Subpart applies to existing land treatment units which are located wholly or partially within a setback zone or regulated recharge area and which treat or dispose special waste or other waste generated on-site, except that this Subpart does not apply to any existing land treatment unit which:

a) Contains solely one or more of the following: hazardous waste, livestock waste, landscape waste, or construction and demolition debris; or

b) Is exempt from this Part pursuant to Section 615.105.

### Section 615.422 Required Closure of Units Located Within Minimum Setback Zones

No person shall cause or allow the use or operation within a minimum setback zone of any land treatment unit commencing two years after the effective date of this Part. Closure shall be completed within three years after the effective date of this Part. This Section does not apply to any land treatment unit which the Board expressly finds, in an adjusted standard proceeding, poses no significant hazard to a community water supply well or other potable water supply well.

### Section 615.423 Required Closure of Units Located Within Maximum Setback Zones

No person shall cause or allow the use or operation within a maximum setback zone of any land treatment unit at which special waste is treated or disposed, commencing two years after the effective date of the ordinance or regulation which establishes the maximum setback zone. Closure shall be completed within three years after the effective date of the ordinance or regulation which establishes the maximum setback zone. This Section does not apply to any land treatment unit which the Board expressly finds, in an adjusted standard proceeding, poses no significant hazard to a community water supply well or other potable water supply well.

### Section 615.424 Closure and Post-Closure Care

The owner or operator shall comply with the requirements of Subpart C.

## SUBPART F: SURFACE IMPOUNDMENTS

### Section 615.441 Applicability

This Subpart applies to existing surface impoundment units which are located wholly or partially within a setback zone or regulated recharge area and which contain special waste or other waste generated on-site, except that this Subpart does not apply to any existing surface impoundment unit which:

a) Contains solely one or more of the following: hazardous waste, livestock waste, landscape waste, or construction and demolition debris; or

b) Is exempt from this Part pursuant to Section 615.105.

### Section 615.442 Required Closure of Units Located Within Minimum Setback Zones

No person shall cause or allow the use or operation within a minimum setback zone of any surface impoundment unit commencing two years after the effective date of this Part. Closure shall be completed within three years after the effective date of this Part. This Section does not apply to any surface impoundment unit which the Board expressly finds, in an adjusted standard proceeding, poses no significant hazard to a community water supply well or other potable water supply well.

### Section 615.443 Required Closure of Units Located Within Maximum Setback Zones

No person shall cause or allow the use or operation within a maximum setback zone of any surface impoundment unit at which special waste is stored, treated or disposed, commencing two years after the effective date of the ordinance or regulation which establishes the maximum setback zone. Closure shall be completed within three years after the effective date of the ordinance or regulation which establishes the maximum setback zone. This Section does not apply to any surface impoundment unit that the Board expressly finds, in an adjusted standard proceeding, poses no significant hazard to a community water supply well or other potable water supply well.

### Section 615.444 Groundwater Monitoring

The owner or operator shall comply with the requirements of Subpart B.

### Section 615.445 Inspection Requirements

While a surface impoundment is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

a) Deterioration, malfunctions or improper operation of overtopping control systems;

b) Sudden drops in the level of the impoundment's contents;

c) Severe erosion or other signs of deterioration in dikes or other containment devices; or

d) A leaking dike.

Section 615.446 Operating Requirements

a) No person shall cause or allow incompatible materials to be placed in the same surface impoundment unit.

b) A surface impoundment unit must be removed from service in accordance with subsection (c) when:

1) The level of liquids in the unit suddenly drops and the drop is not known to be caused by changes in the flows into or out of the unit; or

2) The dike leaks.

c) When a surface impoundment unit must be removed from service as required by subsection (b), the owner or operator shall:

1) Shut off the flow or stop the addition of wastes into the impoundment unit;

2) Contain any surface leakage which has occurred or is occurring;

3) Stop the leak;

4) Take any other necessary steps to stop or prevent catastrophic failure;

5) If a leak cannot be stopped by any other means, empty the impoundment unit; and

6) Notify the Agency of the removal from service and corrective actions that were taken, such notice to be given within 10 days after the removal from service.

d) No surface impoundment unit which has been removed from service in accordance with the requirements of this Section may be restored to service unless the portion of the unit which failed has been repaired.

e) A surface impoundment unit which has been removed from service in accordance with the requirements of this Section and that is not being repaired must be closed in accordance with the provisions of Section 615.446.

Subpart 615.447 Closure and Post-Closure Care

a) If closure is to be by removal, the owner or operator shall remove all waste, all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils and structures and equipment contaminated with waste and leachate; and, if disposed in the State of Illinois, dispose of them at a facility permitted by the Agency.

b) If closure is not to be by removal, the owner or operator shall comply with the requirements of Subpart C and shall:

1) Eliminate free liquids by removing liquid wastes or solidifying the remaining wastes and waste residues.

2) Stabilize remaining wastes to a bearing capacity sufficient to support final cover.

3) Cover the surface impoundment unit with a final cover designed and constructed to:

A) Provide long-term minimization of the migration of liquids through the closed impoundment unit;

B) Function with minimum maintenance;

C) Promote drainage and minimize erosion or abrasion of the final cover;

D) Accommodate settling and subsidence so that the cover's integrity is maintained; and

E) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

c) If some waste residues or contaminated materials are left in place at final closure, the owner or operator shall comply with the requirements of Subpart C and shall:

1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion or other events;

2) Maintain and monitor the groundwater monitoring system; and

3) Prevent run-on and run-off from eroding or otherwise damaging the final cover.

## SUBPART G: WASTE PILES

### Section 615.461 Applicability

This Subpart applies to existing waste piles which are located wholly or partially within a setback zone or regulated recharge area and which contain special waste or other waste generated on-site, except that this Subpart does not apply to any existing waste pile which:

a) Contains solely one or more of the following: hazardous waste, livestock waste, landscape waste, or construction and demolition debris; or

b) Is exempt from this Part pursuant to Section 615.105.

### Section 615.462 Design and Operating Requirements

a) The owner or operator shall not cause or allow:

1) Disposal or storage in the waste pile of liquids or materials containing free liquids; or

2) Migration and runoff of leachate into adjacent soil, surface water, or groundwater.

b) A waste pile must comply with the following standards:

1) The waste pile must be under an impermeable membrane or cover that provides protection from precipitation;

2) The waste pile must be protected from surface water run-on; and

3) The waste pile must be designed and operated to control wind dispersal of waste by a means other than wetting.

c) This Section becomes effective six months after the effective date of this Part.

Section 615.463 Closure

The owner or operator shall accomplish closure by removing and disposing of all wastes and containment system components (liners, etc). If disposed in the State of Illinois, the waste and containment system components must be disposed at a disposal site permitted under the Act.

SUBPART H: UNDERGROUND STORAGE TANKS

Section 615.501 Applicability

This Subpart applies to existing underground storage tanks which are located wholly or partially within a setback zone or regulated recharge area and which contain special waste, except that this Subpart does not apply to any existing underground storage tank which:

a) Pursuant to 35 Ill. Adm. Code 731.110(a) must meet the requirements set forth in 35 Ill. Adm. Code 731, unless such a tank is excluded from those requirements pursuant to 35 Ill. Adm. Code 731.110(b); or

b) Must have interim status or a RCRA permit under 35 Ill. Adm. Code Subtitle G; or

c) Is exempt from this Part pursuant to Section 615.105.

Section 615.502 Design and Operating Requirements

Owners and operators of existing underground storage tanks that store special waste shall meet the requirements set forth in 35 Ill. Adm. Code 731. Such requirements must be met even if the tanks are excluded from coverage under 35 Ill. Adm. Code 731 by 35 Ill. Adm. Code 731.110(b). The exclusions set forth in 35 Ill. Adm. Code 731.110(b) shall not apply to any underground storage tank which stores special waste.

SUBPART I: PESTICIDE STORAGE AND HANDLING UNITS

Section 615.601 Applicability

This Subpart applies to any existing unit for the storage and handling of pesticides which is located wholly or partially within a setback zone or regulated recharge area and which:

a) Is operated for the purpose of commercial application; or

b) Stores or accumulates pesticides prior to distribution to retail sales outlets, including but not limited to a unit which is a warehouse or bulk terminal.

c) Subsections (a) and (b) notwithstanding, this Subpart does not apply to any unit exempt pursuant to Section 615.105.

Section 615.602 Groundwater Monitoring

The owner or operator shall comply with the requirements of Subpart B.

Section 615.603 Design and Operating Requirements

The owner or operator shall:

a) Comply with rules adopted by the Department of Agriculture, as set forth in 8 Ill. Adm. Code 255. In the event of a conflict between this Part and 8 Ill. Adm. Code 255, this Part shall control.

b) Maintain a written record inventorying all pesticides stored or handled at the unit.

c) At least weekly when pesticides are being stored, inspect storage containers, tanks, vents, valves, and appurtenances for leaks or deterioration caused by corrosion or other factors. If a leak or deterioration is found in any of these devices, the owner or operator must immediately repair or replace the device. The owner or operator shall maintain a written record of all inspections conducted under this Section and of all maintenance relating to leaks and deterioration of these devices.

d) Store all containers containing pesticides within a secondary containment structure that complies with the design standards set forth in 8 Ill. Adm. Code 255, if such containers are stored outside of a roofed structure or enclosed warehouse.

e) Maintain all written records required under this Section at the site. The owner or operator shall provide any such record to the Agency upon request.

Section 615.604 Closure and Post-Closure Care

The owner or operator shall comply with the requirements of Subpart C.

## SUBPART J: FERTILIZER STORAGE AND HANDLING AND UNITS

### Section 615.621 Applicability

This Subpart applies to any existing unit for the storage and handling of fertilizers which is located wholly or partially within a setback zone or regulated recharge area and which:

a) Is operated for the purpose of commercial application; or

b) Stores or accumulates fertilizers prior to distribution to retail sales outlets, including but not limited to a unit which is a warehouse or bulk terminal.

c) Subsections (a) and (b) notwithstanding, this Subpart does not apply to any unit exempt pursuant to Section 615.105.

### Section 615.622 Groundwater Monitoring

The owner or operator shall comply with the requirements of Subpart B.

### Section 615.623 Design and Operating Requirements

The owner or operator shall:

a) Comply with rules adopted by the Department of Agriculture, as set forth in 8 Ill. Adm. Code 255. In the event of a conflict between this Part and 8 Ill. Adm. Code 255, this Part shall control.

b) Maintain a written record inventorying all fertilizers stored or handled at the unit.

c) At least weekly when fertilizers are being stored, inspect storage containers, tanks, vents, valves, and appurtenances for leaks or deterioration caused by corrosion or other factors. If a leak or deterioration is found in any of these devices, the owner or operator shall immediately repair or replace the device. The owner or operator shall maintain a written record of all inspections conducted under this Section and of all maintenance relating to leaks and deterioration of these devices.

d) Store all containers containing fertilizers (except anhydrous ammonia) within a secondary containment structure that complies with the design standards set forth in 8 Ill. Adm. Code 255, if such containers are stored outside of a roofed structure or enclosed warehouse.

e) Maintain all written records required under this Section at the site. The owner or operator shall provide any such record to the Agency upon request.

Section 615.624 Closure and Post-Closure Care

The owner or operator shall comply with the requirements of Subpart C.

SUBPART K: ROAD OIL STORAGE AND HANDLING UNITS

Section 615.701 Applicability

This Subpart applies to any existing unit for the storage and related handling of road oils which is located wholly or partially within a setback zone or regulated recharge area and at which greater than 25,000 gallons of road oils are stored or accumulated at any one time, except as otherwise provided in Section 615.105.

Section 615.702 Required Closure of Units Located Within Minimum Setback Zones

a) No person shall cause or allow the use or operation within a minimum setback zone of any road oil storage and handling unit if the road oils stored and handled at the unit contain wastes.

b) Subsection (a) is effective two years after the effective date of this Part. Closure shall be completed within three years after the effective date of this Part.

c) Subsections (a) and (b) do not apply to any unit that the Board expressly finds, in an adjusted standard proceeding, poses no significant hazard to a community water supply well or other potable water supply well.

Section 615.703 Groundwater Monitoring

The owner or operator shall comply with the requirements of Subpart B.

Section 615.704 Design and Operating Requirements for Above-Ground Tanks

a) The owner or operator shall not cause or allow:

1) Materials to be placed in a tank if such materials could cause the tank to rupture, leak, corrode, or otherwise fail.

2) Uncovered tanks to be placed or operated so as to maintain less than 60 centimeters (2 feet) of freeboard unless:

A) The tank is equipped with a containment structure (e.g., dike or trench), a drainage control system, or a diversion structure (e.g., standby tank); and

B) Such containment structure, drainage control system, or diversion structure has a capacity that equals or exceeds the volume of the top 60 centimeters (2 feet) of the tank.

3) Material to be continuously fed into a tank, unless the tank is equipped with a means to stop this inflow (e.g., a feed cutoff system or a bypass system to a standby tank).

4) Incompatible materials to be placed in the same tank.

5) Material to be placed in a tank which previously held an incompatible material unless the incompatible material has been washed from the tank.

6) Ignitable or reactive material to be placed in a tank unless:

A) The material is stored or treated in such a way that it is protected from any material or conditions which may cause it to ignite or react; or

B) The tank is used solely for emergencies.

b) The owner or operator shall provide and maintain primary containment for the tank such that:

1) The tank has a minimum shell thickness that ensures that the tank will not fail (i.e., collapse, rupture, etc.).

2) The tank is compatible with the material to be placed in the tank or the tank is lined with a substance that is compatible with the material to be placed on the tank.

c) The owner or operator shall provide and maintain secondary containment for the tank that:

1) Is capable of containing the volume of the largest tank or 10% of the total volume for all tanks, whichever is greater;

2) Is constructed of material capable of containing a spill until cleanup occurs (e.g., concrete or clay). The base of the secondary containment area must be capable of minimizing vertical migration of a spill until cleanup occurs (e.g., concrete or clay);

3) Has cover (e.g., crushed rock or vegetative growth) on earthen embankments sufficient to prevent erosion; and

4) Isolates the tank from storm water drains and from combined storm water drains and sewer drains.

d) If incompatible materials are handled at the site secondary containment sufficient to isolate the units containing the incompatible materials must be provided.

e) The owner or operator of a tank shall also:

1) Test above-ground tanks and associated piping every five years for structural integrity.

2) Remove uncontaminated storm water runoff from the secondary containment area immediately after a precipitation event.

3) Handle contaminated storm water runoff in accordance with Subpart A of 35 Ill. Adm. Code: Subtitle C.

4) Provide a method for obtaining a sample from each tank.

5) Install, maintain, and operate a material level indicator on each tank.

6) When not in use, lock all gauges and valves that are used to inspect levels in the tank. All such devices must be located within the containment structure.

f) This Section becomes applicable two years after the effective date of this Part.

Section 615.705 Closure

a) At closure, all materials must be removed from containers, tanks, discharge control equipment, and discharge confinement structures.

b) All materials that are to be disposed in the State of Illinois must be disposed at a disposal site permitted under the Act.

SUBPART L: DE-ICING AGENT STORAGE AND HANDLING UNITS

Section 615.721 Applicability

This Subpart applies to any existing facility for the storage and related handling of de-icing agents which is located wholly or partially within a setback zone and at which more than 50,000 pounds of de-icing agent are stored or accumulated at any one time, except as otherwise provided in Section 615.105. For the purpose of this Subpart:

a) An indoor storage unit means a storage unit with a roof capable of protecting de-icing agents from wind and precipitation;

b) An outdoor storage unit means a unit for the storage of de-icing agents which is not an indoor storage unit.

Section 615.722 Groundwater Monitoring

The owner or operator shall comply with the requirements of Subpart B.

Section 615.723 Design and Operating Requirements

a) Indoor facilities must comply with the following standards beginning two years after the effective date of this Part:

1) The base of the facility must be constructed of materials capable of containing de-icing agents (i.e., bituminous or concrete pad).

2) The roof and walls of the facility must be constructed of materials capable of protecting the storage pile from precipitation and capable of preventing dissolved de-icing agents from entering into the adjacent soil, surface water, or groundwater. The walls of the facility must be constructed of materials compatible with the de-icing agents to be placed in the facility. Run-off from the roof must be diverted away from the loading pad.

3) All areas surrounding the storage pile, including but not limited to the loading pad, must be routinely inspected to determine whether any release of de-icing agents has occurred. Such areas shall be cleaned as necessary. Spilled de-icing agents must be placed back under the protective covering of the indoor storage pile. The storage pile must be reshaped as often as necessary to prevent leaching.

4) The integrity of the facility and loading pad must be maintained.

5) All areas surrounding the storage facility must be inspected daily to determine whether any release of de-icing agents has occurred. Spilled de-icing agents must be placed back into the storage facility.

b) Outdoor facilities or units must comply with the following standards beginning two years after the effective date of this Part:

1) An impermeable membrane or cover must be placed over all storage piles to protect the piles from precipitation and surface water run-on. The membrane or cover must prevent run-off and leachate from being generated by the outdoor storage piles. The piles must be formed in a conical shape, covered and stored on a paved pad capable of preventing leachate from entering adjacent soil, surface water, or groundwater.

2) Surface drainage must be directed to prevent flow through the base of the storage piles. De-icing agents must not be stored where drainage may enter into water supplies, farm lands or streams.

3) All areas surrounding the storage piles must be cleaned and must be inspected daily to determine whether any release of de-icing agents has occurred. Spilled de-icing agents must be placed back under the protective covering of the outdoor storage piles. The storage piles must be reshaped as often as necessary to prevent leaching.

4) The storage piles must be designed and operated to control wind dispersal of the product by means other than wetting.

Section 615.724 Closure

a) At closure, all de-icing agents must be removed from the site, discharge control equipment and discharge confinement structures.

b) All de-icing agents that are to be disposed in the State of Illinois must be disposed at a disposal site permitted under the Act.

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE F: PUBLIC WATER SUPPLIES
CHAPTER I: POLLUTION CONTROL BOARD

PART 616
NEW ACTIVITIES IN A SETBACK ZONE OR REGULATED RECHARGE AREA

SUBPART A: GENERAL



SUBPART B: GROUNDWATER MONITORING REQUIREMENTS



SUBPART C: GENERAL CLOSURE AND POST-CLOSURE REQUIREMENTS



SUBPART D: LANDFILLS

SUBPART E: LAND TREATMENT UNITS



SUBPART F: SURFACE IMPOUNDMENTS



SUBPART G: WASTE PILES



SUBPART H: UNDERGROUND STORAGE TANKS



SUBPART I: PESTICIDE STORAGE AND HANDLING UNITS



SUBPART J: FERTILIZER STORAGE AND HANDLING UNITS

SUBPART K: ROAD OIL STORAGE AND HANDLING UNITS



SUBPART L: DE-ICING AGENT STORAGE AND HANDLING UNITS



AUTHORITY: Implementing Sections 5, 14.4, 21, and 22, and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1987, ch. 111 1/2, pars. 1005, 1014.4, 1021, 1022, and 1027).

SOURCE: Adopted at R89-5 _____ Ill. Reg. _____, effective _____.

NOTE: CAPITALIZATION DENOTES STATUTORY LANGUAGE.

SUBPART A: GENERAL

Section 616.101 Purpose

This Part prescribes requirements and standards for the protection of groundwater for certain types of new facilities or units located wholly or partially within a setback zone regulated by the Act or within a regulated recharge area as delineated pursuant to Section 17.4 of the Act.

Section 616.102 Definitions

Except as stated in this Section, and unless a different meaning of a word or term is clear from the context, the definition of words or terms in this Part shall be the same as those used in 35 Ill. Adm. Code 615.102, the Act, or the Illinois Groundwater Protection Act (Ill. Rev. Stat. 1987, ch. 111 1/2, pars. 7451 et seq.).

"CONSTRUCTION COMMENCED" MEANS WHEN ALL NECESSARY FEDERAL, STATE AND LOCAL APPROVALS HAVE BEEN OBTAINED, AND WORK AT THE SITE HAS BEEN INITIATED AND PROCEEDS IN A REASONABLY CONTINUOUS MANNER TO COMPLETION.

(Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.58)

"NEW POTENTIAL ROUTE" MEANS:

> A POTENTIAL ROUTE WHICH IS NOT IN EXISTENCE OR FOR WHICH CONSTRUCTION HAS NOT COMMENCED AT ITS LOCATION AS OF JANUARY 1, 1988, OR
>
> A POTENTIAL ROUTE WHICH EXPANDS LATERALLY BEYOND THE CURRENTLY PERMITTED BOUNDARY OR, IF THE POTENTIAL ROUTE IS NOT PERMITTED, THE BOUNDARY IN EXISTENCE AS OF JANUARY 1, 1988.

(Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.58)

"POTENTIAL ROUTE" MEANS ABANDONED AND IMPROPERLY PLUGGED WELLS OF ALL KINDS, DRAINAGE WELLS, ALL INJECTION WELLS, INCLUDING CLOSED LOOP HEAT PUMP WELLS, AND ANY EXCAVATION FOR THE DISCOVERY, DEVELOPMENT OR PRODUCTION OF STONE, SAND OR GRAVEL. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.58)

"POTENTIAL PRIMARY SOURCE" MEANS ANY UNIT AT A FACILITY OR SITE NOT CURRENTLY SUBJECT TO A REMOVAL OR REMEDIAL ACTION WHICH:

> IS UTILIZED FOR THE TREATMENT, STORAGE, OR DISPOSAL OF ANY HAZARDOUS OR SPECIAL WASTE NOT GENERATED AT THE SITE; OR
>
> IS UTILIZED FOR THE DISPOSAL OF MUNICIPAL WASTE NOT GENERATED AT THE SITE, OTHER THAN LANDSCAPE WASTE AND CONSTRUCTION AND DEMOLITION DEBRIS; OR
>
> IS UTILIZED FOR THE LANDFILLING, LAND TREATING, SURFACE IMPOUNDING OR PILING OF ANY HAZARDOUS OR SPECIAL WASTE THAT IS GENERATED ON THE SITE OR AT OTHER SITES OWNED, CONTROLLED OR OPERATED BY THE SAME PERSON; OR
>
> STORES OR ACCUMULATES AT ANY TIME MORE THAN 75,000 POUNDS ABOVE GROUND, OR MORE THAN 7,500 POUNDS BELOW GROUND, OF ANY HAZARDOUS SUBSTANCES.

(Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.59)

"NEW POTENTIAL PRIMARY SOURCE" MEANS:

A POTENTIAL PRIMARY SOURCE WHICH IS NOT IN EXISTENCE OR FOR WHICH CONSTRUCTION HAS NOT COMMENCED AT ITS LOCATION AS OF JANUARY 1, 1988; OR

A POTENTIAL PRIMARY SOURCE WHICH EXPANDS LATERALLY BEYOND THE CURRENTLY PERMITTED BOUNDARY OR, IF THE PRIMARY SOURCE IS NOT PERMITTED, THE BOUNDARY IN EXISTENCE AS OF JANUARY 1, 1988; OR

A POTENTIAL PRIMARY SOURCE WHICH IS PART OF A FACILITY THAT UNDERGOES MAJOR RECONSTRUCTION. SUCH RECONSTRUCTION SHALL BE DEEMED TO HAVE TAKEN PLACE WHERE THE FIXED CAPITAL COST OF THE NEW COMPONENTS CONSTRUCTED WITHIN A 2-YEAR PERIOD EXCEED 50% OF THE FIXED CAPITAL COST OF A COMPARABLE ENTIRELY NEW FACILITY.

(Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.59)

"POTENTIAL SECONDARY SOURCE" MEANS ANY UNIT AT A FACILITY OR A SITE NOT CURRENTLY SUBJECT TO A REMOVAL OR REMEDIAL ACTION, OTHER THAN A POTENTIAL PRIMARY SOURCE, WHICH:

IS UTILIZED FOR THE LANDFILLING, LAND TREATING, OR SURFACE IMPOUNDING OF WASTE THAT IS GENERATED ON THE SITE OR AT OTHER SITES OWNED, CONTROLLED OR OPERATED BY THE SAME PERSON, OTHER THAN LIVESTOCK AND LANDSCAPE WASTE, AND CONSTRUCTION AND DEMOLITION DEBRIS; OR

STORES OR ACCUMULATES AT ANY TIME MORE THAN 25,000 BUT NOT MORE THAN 75,000 POUNDS ABOVE GROUND, OR MORE THAN 2,500 BUT NOT MORE THAN 7,500 POUNDS BELOW GROUND, OF ANY HAZARDOUS SUBSTANCES; OR

STORES OR ACCUMULATES AT ANY TIME MORE THAN 25,000 GALLONS ABOVE GROUND, OR MORE THAN 500 GALLONS BELOW GROUND, OF PETROLEUM, INCLUDING CRUDE OIL OR ANY FRACTION THEREOF WHICH IS NOT OTHERWISE SPECIFICALLY LISTED OR DESIGNATED AS A HAZARDOUS SUBSTANCE; OR

STORES OR ACCUMULATES PESTICIDES, FERTILIZERS, OR ROAD OILS FOR PURPOSES OF COMMERCIAL APPLICATION OR FOR DISTRIBUTION TO RETAIL SALES OUTLETS; OR

STORES OR ACCUMULATES AT ANY TIME MORE THAN 50,000 POUNDS OF ANY DE-ICING AGENT; OR

IS UTILIZED FOR HANDLING LIVESTOCK WASTE OR FOR TREATING DOMESTIC WASTEWATERS OTHER THAN PRIVATE SEWAGE DISPOSAL SYSTEMS AS DEFINED IN THE "PRIVATE SEWAGE DISPOSAL LICENSING ACT".

(Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.60)

"NEW POTENTIAL SECONDARY SOURCE" MEANS:

A POTENTIAL SECONDARY SOURCE WHICH IS NOT IN EXISTENCE OR FOR WHICH CONSTRUCTION HAS NOT COMMENCED AT ITS LOCATION AS OF JULY 1, 1988; OR

A POTENTIAL SECONDARY SOURCE WHICH EXPANDS LATERALLY BEYOND THE CURRENTLY PERMITTED BOUNDARY OR, IF THE SECONDARY SOURCE IS NOT PERMITTED, THE BOUNDARY IN EXISTENCE AS OF JULY 1, 1988, OTHER THAN AN EXPANSION FOR HANDLING OF LIVESTOCK WASTE OR FOR TREATING DOMESTIC WASTEWATERS; OR

A POTENTIAL SECONDARY SOURCE WHICH IS PART OF A FACILITY THAT UNDERGOES MAJOR RECONSTRUCTION. SUCH RECONSTRUCTION SHALL BE DEEMED TO HAVE TAKEN PLACE WHERE THE FIXED CAPITAL COST OF THE NEW COMPONENTS CONSTRUCTED WITHIN A 2-YEAR PERIOD EXCEED 50% OF THE FIXED CAPITAL COST OF A COMPARABLE ENTIRELY NEW FACILITY.

(Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1003.60)

"Practical Quantifiable Limit (PQL)" means the limit set forth in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846.

Section 616.103 Incorporations by Reference

a) The Board incorporates the following material by reference:

1) American Society for Testing and Materials (ASTM) Standard D-93-79 or D-93-80, and ASTM Standard D-

3278-78 (Available from: ASTM; 1916 Race Street; Philadelphia, PA 10103; (215) 299-5400).

2) "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods," EPA Publication No. SW-846 (Second Edition, 1982, as amended by Update I (April, 1984) and Update II (April, 1985)). (Available from: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20401, (202-783-3238)).

b) This Section incorporates no later amendments or editions.

Section 616.104 Exceptions to Prohibitions

a) THE OWNER OF A NEW POTENTIAL PRIMARY SOURCE OR A POTENTIAL SECONDARY SOURCE MAY SECURE A WAIVER FROM THE prohibitions specified in Sections 616.402(a), 616.422(a), 616.442, 616.462(a), 616.602, 616.622, 616.702 or 616.722(a) against construction, use or operation within the setback zone FOR A POTABLE WATER SUPPLY WELL OTHER THAN A COMMUNITY WATER SUPPLY. A WRITTEN REQUEST FOR A WAIVER SHALL BE MADE TO THE OWNER OF THE WATER WELL AND THE AGENCY. SUCH REQUEST SHALL IDENTIFY THE NEW OR PROPOSED POTENTIAL SOURCE, SHALL GENERALLY DESCRIBE THE POSSIBLE EFFECT OF SUCH POTENTIAL SOURCE UPOON THE WATER WELL AND ANY APPLICABLE TECHNOLOGY-BASED CONTROL WHICH WILL BE UTILIZED TO MINIMIZE THE POTENTIAL FOR CONTAMINATION, AND SHALL STATE WHETHER, AND UNDER WHAT CONDITIONS, THE REQUESTOR WILL PROVIDE AN ALTERNATIVE POTABLE WATER SUPPLY. WAIVER MAY BE GRANTED BY THE OWNER OF THE WATER WELL NO LESS THAN 90 DAYS AFTER RECEIPT UNLESS PRIOR TO SUCH TIME THE AGENCY NOTIFIES THE WELL OWNER THAT IT DOES NOT CONCUR WITH THE REQUEST. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1014.2(b))

b) THE AGENCY SHALL NOT CONCUR WITH ANY SUCH REQUEST WHICH FAILS TO ACCURATELY DESCRIBE REASONABLY FORESEEABLE EFFECTS OF THE POTENTIAL SOURCE OR POTENTIAL ROUTE UPON THE WATER WELL OR ANY APPLICABLE TECHNOLOGY-BASED CONTROLS. SUCH NOTIFICATION BY THE AGENCY SHALL BE IN WRITING, AND SHALL INCLUDE A STATEMENT OF REASONS FOR THE NONCONCURRENCE. WAIVER OF THE MINIMUM SETBACK ZONE SHALL EXTINGUISH THE WATER WELL OWNER'S RIGHTS UNDER SECTION 6b OF THE ILLINOIS WATER WELL CONSTRUCTION CODE BUT SHALL NOT PRECLUDE POLLUTION. IF THE OWNER OF THE WATER WELL HAS NOT GRANTED A WAIVER WITHIN 120 DAYS AFTER RECEIPT OF THE REQUEST OR THE AGENCY HAS NOTIFIED THE OWNER THAT IT DOES NOT CONCUR WITH THE REQUEST, THE OWNER OF A POTENTIAL SOURCE OR POTENTIAL ROUTE MAY FILE A PETITION FOR AN EXCEPTION WITH THE BOARD AND THE AGENCY PURSUANT TO subsection (b) OF THIS SECTION. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1014.2(b))

c) NO WAIVER UNDER THIS SECTION IS REQUIRED WHERE THE POTABLE WATER SUPPLY WELL IS PART OF A PRIVATE WATER SYSTEM AS DEFINED IN THE ILLINOIS GROUNDWATER PROTECTION ACT, AND THE OWNER OF SUCH WELL WILL ALSO BE THE OWNER OF A NEW POTENTIAL SECONDARY SOURCE OR A POTENTIAL ROUTE. IN SUCH INSTANCES, A PROHIBITION OF 75 FEET SHALL APPLY AND THE OWNER SHALL NOTIFY THE AGENCY OF THE INTENDED ACTION SO THAT THE AGENCY MAY PROVIDE INFORMATION REGARDING THE POTENTIAL HAZARDS ASSOCIATED WITH LOCATION OF A POTENTIAL SECONDARY SOURCE OR POTENTIAL ROUTE IN CLOSE PROXIMITY TO A POTABLE WATER SUPPLY WELL. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1014.2(b))

d) THE BOARD MAY GRANT AN EXCEPTION FROM THE SETBACK REQUIREMENTS OF THIS SECTION AND SECTION 14.3 TO THE OWNER OF A NEW POTENTIAL PRIMARY SOURCE OTHER THAN LANDFILLING OR LAND TREATING, OR A NEW POTENTIAL SECONDARY SOURCE. THE OWNER SEEKING AN EXCEPTION WITH RESPECT TO A COMMUNITY WATER SUPPLY WELL SHALL FILE A PETITION WITH THE BOARD AND THE AGENCY. THE OWNER SEEKING AN EXCEPTION WITH RESPECT TO A POTABLE WATER SUPPLY WELL SHALL FILE A PETITION WITH THE BOARD AND THE AGENCY, AND SET FORTH THEREIN THE CIRCUMSTANCES UNDER WHICH A WAIVER HAS BEEN SOUGHT BUT NOT OBTAINED PURSUANT TO subsection (a) OF THIS SECTION. A PETITION SHALL BE ACCOMPANIED BY PROOF THAT THE OWNER OF EACH POTABLE WATER SUPPLY WELL FOR WHICH SETBACK REQUIREMENTS WOULD BE AFFECTED BY THE REQUESTED EXCEPTION HAS BEEN NOTIFIED AND BEEN PROVIDED WITH A COPY OF THE PETITION. A PETITION SHALL SET FORTH SUCH FACTS AS MAY BE REQUIRED TO SUPPORT AN EXCEPTION, INCLUDING A GENERAL DESCRIPTION OF THE POTENTIAL IMPACTS OF SUCH POTENTIAL SOURCE OR POTENTIAL ROUTE UPON GROUNDWATERS AND THE AFFECTED WATER WELL, AND AN EXPLANATION OF THE APPLICABLE TECHNOLOGY-BASED CONTROLS WHICH WILL BE UTILIZED TO MINIMIZE THE POTENTIAL FOR CONTAMINATION OF THE POTABLE WATER SUPPLY WELL. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1014.2(c))

e) THE BOARD SHALL GRANT AN EXCEPTION, WHENEVER IT IS FOUND UPON PRESENTATION OF ADEQUATE PROOF, THAT COMPLIANCE WITH THE SETBACK REQUIREMENTS OF THIS SECTION WOULD POSE AN ARBITRARY AND UNREASONABLE HARDSHIP UPON THE PETITIONER, THAT THE PETITIONER WILL UTILIZE THE BEST AVAILABLE TECHNOLOGY CONTROLS ECONOMICALLY ACHIEVABLE TO MINIMIZE THE LIKELIHOOD OF CONTAMINATION OF THE POTABLE WATER SUPPLY WELL, THAT THE MAXIMUM FEASIBLE ALTERNATIVE SETBACK WILL BE UTILIZED, AND THAT THE LOCATION OF SUCH POTENTIAL SOURCE OR POTENTIAL ROUTE WILL NOT CONSTITUTE A SIGNIFICANT HAZARD TO THE POTABLE WATER SUPPLY WELL. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1014.2(c))

f) A DECISION MADE BY THE BOARD PURSUANT TO THIS SUBSECTION SHALL CONSTITUTE A FINAL DETERMINATION. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1014.2(c))

g) THE GRANTING OF AN EXCEPTION BY THE BOARD SHALL NOT EXTINGUISH THE WATER WELL OWNER'S RIGHTS UNDER SECTION 6b OF THE ILLINOIS WATER WELL CONSTRUCTION CODE IN INSTANCES WHERE THE OWNER HAS ELECTED NOT TO PROVIDE A WAIVER PURSUANT TO subsection (a) OF THIS SECTION. (Ill. Rev. Stat. 1987, ch. 111 1/2 par. 1014.2(a))

Section 616.105 General Exceptions

This Part does not apply to any facility or unit, or to the owner or operator of any facility or unit for which:

a) The owner or operator obtains certification of minimal hazard pursuant to Section 14.5 of the Act; or

b) For which different requirements are imposed in an adjusted standard proceeding or in a site-specific rulemaking, pursuant to Title VII of the Act.

c) Different requirements are imposed in a regulated recharge area proceeding pursuant to Section 17.4 of the Act.

d) Nothing in this Section shall limit the authority of the Board to impose requirements on any facility or unit within any portion of any setback zone or regulated recharge area in any adjusted standard proceeding, site-specific rulemaking or a regulatory proceeding establishing the regulated recharge area.

SUBPART B: GROUNDWATER MONITORING REQUIREMENTS

Section 616.201 Applicability

This Subpart applies to:

a) Landfill units subject to Subpart D;

b) Land treatment units subject to Subpart E;

c) Surface impoundments subject to Subpart F;

d) Pesticide storage and handling units subject to Subpart I;

e) Fertilizer storage and handling units subject to Subpart J;

f) Road oil storage and handling units subject to Subpart K; and

g) De-icing agent storage and handling units subject to Subpart L.

Section 616.202 Compliance Period

The compliance period is the active life of the unit, including closure and post-closure care periods.

a) The active life begins when the unit first begins operation or on the effective date of this Part, whichever occurs later, and ends when the post-closure care period ends.

b) The post-closure care period for units other than landfill units is five years after closure, except as provided at Section 616.211(e).

c) The post-closure care period for landfill units is fifteen years after closure, except as provided at Section 616.211(e) or as may be provided by other Board regulations.

d) Subsections (b) and (c) notwithstanding, there shall be no post-closure care period if all waste, waste residues, contaminated containment system components and contaminated subsoils are removed or decontaminated at closure, and there is no ongoing corrective action pursuant to Section 616.211.

Section 616.203 Compliance With Groundwater Standards

The owner or operator shall comply with the groundwater standards.

a) The term of compliance is the compliance period.

b) Compliance shall be measured at the compliance point, or compliance points if more than one such point exists.

Section 616.204 Groundwater Monitoring System

a) The groundwater monitoring system must consist of a sufficient number of wells, installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer that:

1) Represent the quality of background water that has not been affected by contamination from the facility or unit; and

2) Represent the quality of groundwater at the compliance point or points.

b) If a facility contains more than one unit, separate groundwater monitoring systems are not required for each unit, provided that provisions for sampling the groundwater in the uppermost aquifer will enable detection and measurement at the compliance point or points of the contaminants which have entered the groundwater from all units.

c) Monitoring wells must be designed and constructed in a manner that will enable the collection of groundwater samples during the compliance period. Well casings and screens must be made from durable material resistant to expected chemical or physical degradation, and must be made of materials that do not interfere with the quality of groundwater samples being collected. Well casings and screens must be made from fluorocarbon resins or stainless steel in the saturated zone if volatile organic sampling may be required during the monitoring period. The annular space opposite the screened section of the well (i.e., the space between the bore hole and well screen) must be filled with gravel or sand if necessary to collect groundwater samples. The annular space above the well screen must be sealed to prevent downward migration of water from overlying formations and the surface to the sampled depth.

Section 616.205 Groundwater Monitoring Program

The owner or operator shall develop a groundwater monitoring program which consists of:

a) Consistent sampling and analysis procedures that are designed to ensure monitoring results that provide a reliable indication of groundwater quality below the unit. At a minimum the program must include procedures and techniques for:

1) Sample collection;

2) Sample preservation and shipment;

3) Analytical procedures; and

4) Chain of custody control.

b) Sampling and analytical methods which are appropriate for groundwater monitoring and which allow for detection of the contaminants specified pursuant to this Subpart.

c) A determination of the groundwater head elevation each time groundwater is sampled.

d) A determination at least annually of the groundwater flow rate and direction in the uppermost aquifer.

e) If the owner or operator determines that the groundwater monitoring program no longer satisfies the requirements of this Section, the owner or operator shall, within 90 days, make appropriate changes to the program. Conditions under which a groundwater monitoring program no longer satisfies the requirements of this Section include, but are not limited to:

1) A MAR is exceeded in any monitoring well that is being used as a background monitoring well or that the owner or operator has previously determined to be hydraulically upgradient from the facility; or

2) A redetermination of groundwater flow rate and direction conducted pursuant to subsection (d) shows that the existing monitoring system is not capable of assessing groundwater quality at the compliance points or points.

Section 616.206 Reporting

The owner or operator shall submit results of all monitoring required pursuant to this Subpart to the Agency within 60 days after completion of sampling.

Section 616.207 Establishing Background Values And Maximum Allowable Results (MAR)

a) Commencing no later than six months after the beginning of operation of the facility, the owner or operator of said facility shall, for a period of one year, sample each monitoring well at least every two months and analyze each such sample according to the following program:

1) For a facility subject to Subpart D (landfills), Subpart E (land treatment units), Subpart F (surface impoundments), Subpart K (road oil storage and handling units) or Subpart L (de-icing agent storage and handling units) analysis shall be for pH, specific conductance, total organic carbon, total organic halogen, and any other parameter which meets the following criteria:

A) Material containing such parameter is stored, treated or disposed at the facility; and

B) The Board has adopted a groundwater standard for such parameter.

2) For a facility subject to Subpart I for the storage and handling of pesticides analysis shall be for each pesticide stored or handled at the facility.

3) For a facility subject to Subpart J for the storage and handling of fertilizer analysis shall be for pH, specific conductance, total organic carbon, nitrates as nitrogen, ammonia nitrogen and for any other parameter which meets the following criteria:

A) Material containing such parameter is stored or handled at the facility; and

B) The Board has adopted a groundwater standard for such parameter.

b) The results obtained under subsection (a) shall be used to calculate the background mean, background standard deviation and the maximum allowable result (hereinafter referred to as "MAR") for each parameter using the following procedures:

1) Results from all samples collected during the year must be used in the calculations unless the owner or operator demonstrates to the Agency that one or more of the results was due to error in sampling, analysis or evaluation.

2) All calculations must be based on a minimum of at least six sample measurements per parameter per well.

3) If any measured value is equal to or greater than its PQL, or if any measured value is greater than its corresponding groundwater standard, the actual measured value must be used calculating the mean and standard deviation.

4) If any measured value is less than its PQL and less than its corresponding groundwater standard, the PQL rather than the measure value is to be used in calculating the mean and standard deviation.

5) The MAR for each parameter, except for pH, in each well is the lesser of the following two values:

A) The groundwater standard for the parameter.

B) The quantity equal to the measured mean value of the parameter plus the product of the parameter's standard deviation times the following constant:

| Sample Size | Constant |
|---|---|
| 6 | 2.10 |
| 7 | 2.03 |
| 8 | 1.97 |
| 9 | 1.93 |
| 10 | 1.90 |
| 11 | 1.88 |
| 12 | 1.85 |
| 13 | 1.84 |
| 14 | 1.82 |

6) The upper limit for the MAR for pH in each well is the lesser of the upper limit of the pH groundwater standard and the quantity calculated according to the procedure of subsection (c)(5)(B). The lower limit for the MAR for pH in each well is the greater of the lower limit of the pH groundwater standard and the quantity equal to the measured mean pH minus the product of the calculated pH standard deviation times the constant tabulated in subsection (c)(5)(B). For the purpose of this Part the pH groundwater standard is deemed to be exceeded if a sample value lies outside the range of the groundwater standard. For the purpose of this Part a pH MAR is deemed to be exceeded if a sample value lies outside the range established by the upper and lower limits of the pH Mar.

c) If the background mean or the MAR for any parameter measured in any well exceeds any groundwater standard, the owner or operator shall notify the Agency of the parameters that are exceeded and provide the Agency with an alternate method for analyzing groundwater samples. Such alternate method must be consistent with the groundwater standards.

d) The owner or operator shall submit to the Agency the results of the sample analyses and calculations required under this Section, including a summary of the background mean, background standard deviation and MAR for each parameter at each well. All documents required to be submitted to the Agency under this Section shall be submitted along with sample results required under Section 616.206.

Section 616.208 Continued Sampling

a) Upon completion of the background sampling required pursuant to Section 616.207, the owner or operator shall sample each monitoring well for the duration of the compliance period and analyze each sample, except as provided in Section 616.209, according to the following program:

1) For a facility subject to Subpart D (landfills), Subpart E (land treatment units) or Subpart F (surface impoundments) sampling shall be at least quarterly and analysis shall be for pH, specific conductance, total organic carbon, total organic halogen, and any other parameter which meets the following criteria:

A) Material containing such parameter is stored, treated or disposed at the facility; and

B) The Board has adopted a groundwater standard for such parameter.

2) For a facility subject to Subpart I for the storage and handling of pesticides sampling shall be quarterly and analysis shall be for five specific pesticides or five groups of chemically-similar pesticides stored or handled at the unit that are the most likely to enter into the groundwater from the unit and that are the most toxic. The owner or operator shall choose the five specific pesticides or five groups based upon the following criteria:

A) The volume of the pesticides stored or handled at the unit;

B) The leachability characteristics of the pesticides stored or handled at the unit;

C) The toxicity characteristics of the pesticides stored or handled at the unit;

D) The history of spillage of the pesticides stored or handled at the unit; and

E) The establishment of groundwater standards for the pesticides stored or handled at the unit.

3) For a facility subject to Subpart J for the storage and handling of fertilizer sampling shall be quarterly and analysis shall be for pH, total

organic carbon, nitrates as nitrogen, ammonia nitrogen, and specific conductance.

4) For a unit subject to Subpart K for the storage and handling of road oils or subject to Subpart L for the storage and handling of de-icing agents sampling shall be annually and analysis shall be for pH, specific conductance, total organic carbon and total organic halogen.

b) For each sample and for each parameter analyzed pursuant to subsection (a), the owner or operator shall determine whether the measured value is greater than its MAR.

c) If any measured value is greater than its MAR, the owner or operator shall collect a second sample from the same well or wells from which the original sample was taken. This second sample shall be analyzed for each parameter found to be present in the first sample at a level greater than its MAR.

d) If any measured value on the second sample collected pursuant to subsection (c) continues to exceed its MAR, the owner or operator shall undertake a non-compliance response program in accordance with Section 616.209 or Section 616.210.

Section 616.209 Non-Compliance Response Program

An owner or operator required to undertake a non-compliance response program pursuant to Section 616.208(d) shall:

a) Notify the Agency of the need to undertake a non-compliance response program when submitting the groundwater monitoring results required pursuant to Section 616.206. The notification must indicate in which wells and for which parameters a MAR was exceeded.

b) Continue to sample and analyze according to the provisions of Section 616.208(a), except that:

1) For all units except those subject to Subpart I the frequency of all such sampling shall be monthly until no measured values above the MAR have been recorded for any parameter for two consecutive months.

2) For a unit subject to Subpart I for the storage and handling of fertilizers sampling shall be monthly for the parameters for each pesticide stored or handled at the facility until no measured values above the MAR have been recorded for two consecutive months.

d) If no measured values above the MAR have been recorded for any parameter for two consecutive months, but a parameter is detected for which the groundwater standard is less than or equal to the PQL, the owner or operator may return to the monitoring program prescribed in Section 616.208, but, in addition to monitoring for the parameters required under that Section, the owner or operator shall also continue monitoring for any parameter detected for which the groundwater standard is less than or equal to the PQL. The owner or operator shall continue monitoring for such additional parameters until the background means for the parameters established pursuant to Section 616.207 are not exceeded for two consecutive months. If at any time the level of any such additional parameter in the groundwater equals or exceeds the PQL for the parameter, the owner or operator shall submit to the Agency an engineering feasibility plan for a corrective action in accordance with subsection (e).

e) If sample values above any MAR persist for two or more more months after originally being recognized pursuant to Section 616.208(d), the owner or operator shall:

1) Submit to the Agency an engineering feasibility plan for a corrective action program designed to achieve the requirements of Section 616.211.

A) Such feasibility plan shall be submitted to the Agency within 180 days after the date of the sample in which a MAR was initially exceeded.

B) This requirement is waived if no MAR is exceeded in any sample taken pursuant to subsection (b) for two consecutive months.

2) Begin the corrective action program specified in the engineering feasibility plan no later than the date on which the engineering feasibility plan is submitted to the Agency, except as provided in subsection (e)(1)(B).

f) Subsections (b), (c), (d) and (e) do not apply if the owner or operator makes an alternate non-compliance demonstration pursuant to Section 616.210.

Section 616.210 Alternate Non-Compliance Response Program

If a non-compliance response program is required pursuant to Section 616.208(d), it is presumed that contamination from the

facility or unit which is being monitored is responsible for the MAR being exceeded. An owner or operator may overcome that presumption by making a clear and convincing demonstration that a source other than the facility or unit which is being monitored caused the MAR to be exceeded, or that the cause of the MAR being exceeded is due to error in sampling, analysis or evaluation. In making such demonstration the owner or operator shall:

a) Notify the Agency that the owner or operator intends to make a demonstration under this Section when submitting the groundwater monitoring results required pursuant to Section 616.206.

b) Submit a report to the Agency which demonstrates that a source other than a facility or unit for which he is the owner or operator caused the groundwater standard to be exceeded, or that the groundwater standard was exceeded due to an error in sampling, analysis or evaluation. Such report must be included with the next submission of groundwater monitoring results required pursuant to Section 616.206; and

c) Continue to monitor in accordance with the groundwater monitoring program established pursuant to Sections 616.205 and and 616.208.

Section 616.211 Corrective Action Program

An owner or operator required to conduct a corrective action program pursuant to this Subpart shall:

a) Take corrective action which results in compliance with all MARs at all compliance point or points.

b) Establish and implement a groundwater monitoring program to demonstrate the effectiveness of the corrective action program.

c) Take corrective action which maintains compliance with the groundwater standards:

1) At all compliance points; and

2) Beyond the facility boundary, where necessary to protect human health and the environment, unless the owner or operator demonstrates to the Agency that, despite the owner's or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such action. The owner or operator is not relieved of responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied.

d) Continue corrective action measures during the compliance period to the extent necessary to ensure that no MAR is exceeded at the compliance point or points.

e) If the owner or operator is still conducting corrective action at the end of the compliance period, the owner or operator shall continue that corrective action for as long as necessary to achieve compliance with all MARs. The owner or operator may terminate corrective action measures taken beyond the compliance period as identified at Section 615.202 if the owner or operator can demonstrate, based on data from the groundwater monitoring program under subsection (c), that no MAR has been exceeded for a period of three consecutive years.

f) Report in writing to the Agency on the effectiveness of the corrective action program. The owner or operator shall submit these reports semi-annually.

g) If the owner or operator determines that the corrective action program no longer satisfies the requirements of this Section, the owner or operator shall, within 90 days, make any appropriate changes to the program.

SUBPART C: GENERAL CLOSURE AND POST-CLOSURE REQUIREMENTS

Section 616.301 Applicability

This Subpart applies to:

a) Landfill units subject to Subpart D;

b) Land treatment units subject to Subpart E;

c) Surface impoundments subject to Subpart F;

d) Pesticide storage and handling units subject to Subpart I; and

e) Fertilizer storage and handling units subject to Subpart J.

Section 616.302 Closure Performance Standard

The owner or operator shall close the unit in a manner that:

a) Controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of waste, waste constituents, leachate, contaminated runoff or waste decomposition products to the ground;

b) Minimizes the need for maintenance during and beyond the post-closure care period; and

c) Complies with the closure requirements of 35 Ill. Adm. Code: Subtitles C and G.

Section 616.303 Certification of Closure

Within 60 days after completion of closure of each unit, the owner or operator shall submit to the Agency, by registered or certified mail, a certification that the unit has been closed in accordance with the closure requirements. The certification must be signed by the owner or operator and by an independent registered professional engineer. Documentation supporting the independent registered professional engineer's certification must be furnished to the Agency upon request.

Section 616.304 Survey Plat

No later than the submission of the certification of closure of each unit, the owner or operator shall submit to any local zoning authority, or authority with jurisdiction over local land use, and to the Agency, and record with land titles, a survey plat indicating the location and dimensions of any landfill cells, any other waste disposal units, and any pesticide and fertilizer storage and handling units, with respect to permanently surveyed benchmarks. This plat must be prepared and certified by a registered land surveyor.

Section 616.305 Post-Closure Notices for Waste Disposal Units

No later than 60 days after certification of closure of the unit, the owner or operator of a unit subject to Subpart D, E, or F shall submit to the Agency, to the County Recorder and to any local zoning authority or authority with jurisdiction over local land use, a record of the type, location and quantity of wastes disposed of within each cell or other area of the unit.

Section 616.306 Certification of Completion of Post-closure Care

No later than 60 days after completion of the established post-closure care period, the owner or operator shall submit to the Agency, by registered or certified mail, a certification that the post-closure care period for the unit was performed in accordance with the specifications in the approved post-closure plan. The certification must be signed by the owner or operator and an independent registered professional engineer. Documentation supporting the independent registered professional engineer's certification must be furnished to the Agency upon request.

Section 616.307 Post-Closure Care Period

The post-closure care for all units except for landfills must continue for five years after closure, or to completion of correction action conducted pursuant Section 616.211, which ever is later. Post-closure care for landfills must continue for fifteen years after closure or to such time as provided by Board regulation, or to completion of correction action conducted pursuant to Section 616.211, which ever is later.

SUBPART D: LANDFILLS

Section 616.401 Applicability

This Subpart applies to new landfill units which are located wholly or partially within a setback zone or regulated recharge area and which contain special waste or other waste generated on-site, except that this Subpart does not apply to any new landfill unit which:

a) Contains solely one or more of the following: hazardous waste, livestock waste, landscape waste, or construction and demolition debris; or

b) Is exempt from this Part pursuant to Section 616.105.

Section 616.402 Prohibitions

a) Pursuant to Sections 14.2(a), 14.2(d) and 14.3(e) of the Act, no person shall cause or allow the construction, use or operation of any landfill unit which is:

1) Located wholly or partially within a minimum setback zone and which is either a new potential primary source or a new potential secondary source, except as specified in Sections 616.104(a) and (b); or

2) Located wholly or partially within a maximum setback zone and which is a new potential primary source, except as specified in Section 616.104(b).

b) No person shall cause or allow the disposal of special waste in a new on-site landfill unit within a regulated recharge area if the distance from the wellhead of the community water supply well to the landfill unit is 2500 feet or less, except as provided at Section 616.105.

Section 616.403 Groundwater Monitoring

The owner or operator shall comply with the requirements of Subpart B.

Section 616.404 Design and Operating Requirements

a) The owner or operator of a landfill shall install two or more liners and a leachate collection system above and between the liners. The requirement for the installation of two or more liners in this subsection may be satisfied by the installation of a top liner designed, operated and constructed of materials to prevent the migration of any constituent into such liner during the period such facility remains in operation (including any post-closure monitoring period), and a lower liner designed, operated and constructed to prevent the migration of any constituent through such liner during such period. For the purpose of the preceding sentence, a lower liner shall be deemed to satisfy such requirement if it is constructed of at least a 10-foot thick layer of recompacted clay or other natural material with a permeability of no more than $1 \times 10^{-7}$ centimeter per second.

b) The owner or operator shall design, construct, operate and maintain a run-on control system capable of preventing flow onto the active portion of the landfill during peak discharge from at least a 25-year storm.

c) The owner or operator shall design, construct, operate and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

d) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

e) If the landfill contains any particulate matter which may be subject to wind dispersal, the owner or operator shall cover or otherwise manage the landfill to control wind dispersal.

Section 616.405 Monitoring and Inspection

a) During construction or installation, liners must be inspected for uniformity, damage and imperfections (e.g., holes, cracks, thin spots or foreign materials). Immediately after construction or installation:

1) Synthetic liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures or blisters; and

2) Soil-based and admixed liners and covers must be inspected for imperfections including lenses, cracks, channels, root holes or other structural non-uniformities that may cause an increase in the permeability of the liner or cover.

b) While a landfill is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

1) Deterioration, malfunctions or improper operation of run-on and run-off control systems;

2) Proper functioning of wind dispersal control systems, where present; and

3) The presence of leachate in and proper functioning of leachate collection and removal systems.

Section 616.406 Surveying and Recordkeeping

The owner or operator shall maintain the following items:

a) On a map, the exact location and dimensions, including depth, of each cell with respect to permanently surveyed benchmarks; and

b) A record of the contents of each landfill cell and the approximate location of each waste type within each cell.

Section 616.407 Operating Requirements

No person shall cause or allow:

a) The disposal of incompatible materials in the same landfill cell.

b) The disposal of bulk or non-containerized liquid waste or waste containing free liquids (whether or not absorbents have been added) in the landfill unit.

c) The disposal of containerized free liquids in the landfill unit unless;

1) The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or

2) All free-standing liquid:

A) Has been removed by decanting or other methods;

B) Has been mixed with absorbent or solidified so that free-standing liquid is no longer observed; or

C) Has been otherwise eliminated; or

3) The container is the size of an ampule or smaller, and the container is either:

A) At least 90 percent full when placed in the landfill unit; or

B) Crushed, shredded or similarly reduced in volume to the maximum practical extent before burial in the landfill unit.

Section 616.408 Closure and Post-Closure Care

a) The owner or operator shall comply with the requirements of this Section and Subpart C.

b) At final closure of the landfill or upon closure of any cell, the owner or operator shall cover the landfill or cell with a final cover designed and constructed to:

1) Provide long-term minimization of migration of liquids through the closed landfill;

2) Function with minimum maintenance;

3) Promote drainage and minimize erosion or abrasion of the cover;

4) Accommodate settling and subsidence so that the cover's integrity is maintained; and

5) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

c) After final closure, the owner or operator shall, for a period of fifteen years or as may be provided by other Board regulations:

1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cover to correct the effects of settling, subsidence, erosion or other events;

2) Continue to operate the leachate collection and removal system; and

3) Prevent run-on and run-off from eroding or otherwise damaging the final cover.

4) Protect and maintain surveyed benchmarks used in complying with Section 616.406.

SUBPART E: LAND TREATMENT UNITS

Section 616.421 Applicability

This Subpart applies to new land treatment units which are located wholly or partially within a setback zone or regulated recharge area and which treat or dispose special waste or other waste generated on-site, except that this Subpart does not apply to any new land treatment unit which:

a) Contains solely one or more of the following: hazardous waste, livestock waste, landscape waste, or construction and demolition debris; or

b) Is exempt from this Part pursuant to Section 616.105.

Section 616.422 Prohibitions

a) Pursuant to Sections 14.2(a), 14.2(c) and 14.3(e) of the Act, no person shall cause or allow the construction, use or operation of any land treatment unit which is:

1) Located wholly or partially within a minimum setback zone and which is either a new potential primary source or a new potential secondary source, except as specified in Sections 616.104(a) and (b); or

2) Located wholly or partially within a maximum setback zone and which is a new potential primary source, except as specified in Section 616.104(b).

b) Nothing in this Section shall prohibit land treatment within a maximum setback zone regulated by the Act of sludge resulting from the treatment of domestic wastewater or of sludge resulting from the treatment of water to produce potable water, if such activities are conducted in accordance with the Act and 35 Ill. Adm. Code: Subtitle C.

Section 616.423 Groundwater Monitoring

The owner or operator shall comply with the requirements of Subpart B.

Section 616.424 Design and Operating

The owner or operator shall design and operate the land treatment site in accordance with 35 Ill. Adm. Code: Subtitle C and 35 Ill. Adm. Code: Subtitle G.

Section 616.425 Closure and Post-Closure Requirements

The owner or operator shall comply with the requirements of Subpart C.

SUBPART F: SURFACE IMPOUNDMENTS

Section 616.441 Applicability

This Subpart applies to new surface impoundment units which are located wholly or partially within a setback zone or regulated recharge area and which contain special waste or other waste generated on-site, except that this Subpart does not apply to any new surface impoundment unit which:

a) Contains solely one or more of the following: hazardous waste, livestock waste, landscape waste, or construction and demolition debris; or

b) Is exempt from this Part pursuant to Section 616.105.

Section 616.442 Prohibitions

Pursuant to Sections 14.2(a), 14.2(c) and 14.3(e) of the Act, no person shall cause or allow the construction, use or operation of any surface impoundment unit which is:

a) Located wholly or partially within a minimum setback zone and which is either a new potential primary source or a new potential secondary source, except as specified in Sections 616.104(a) and (b); or

b) Located wholly or partially within a maximum setback zone and which is a new potential primary source, except as specified in Section 616.104(b).

Section 616.443 Groundwater Monitoring

The owner or operator shall comply with the requirements of Subpart B.

Section 616.444 Design and Operating Requirements

a) The owner or operator of a surface impoundment shall install two or more liners and a leachate collection system between such liners. The requirement for the installation of two or more liners in this subsection may be satisfied by the installation of a top liner designed, operated, and constructed of materials to prevent the migration of any constituent into such liner during the period such facility remains in operation (including any post-closure monitoring period), and a lower liner designed, operated and constructed to prevent the migration of any constituent through such liner during such period. For the purpose of the preceding sentence, a lower liner shall be deemed to satisfy such requirement if it is constructed of at least a 5-foot thick layer of recompacted clay or other natural material with a permeability of no more than $1 \times 10^{-7}$ centimeter per second.

b) A surface impoundment must be designed, constructed, maintained and operated to prevent overtopping resulting from normal or abnormal operations; overfilling; wind and wave action; rainfall; run-on; malfunctions of level controllers, alarms and other equipment; and human error.

c) A surface impoundment must have dikes that are designed, constructed and maintained with sufficient structural integrity to prevent massive failure of the dikes. In ensuring structural integrity, it must not be presumed that the liner system will function without leakage during the active life of the surface impoundment

d) The owner or operator shall maintain the following items:

1) Records describing the contents of the impoundment; and

2) A map showing the exact location and dimensions of the impoundment, including depth with respect to permanently surveyed benchmarks.

Section 616.445 Inspection Requirements

a) During construction and installation, liners must be inspected for uniformity, damage and imperfections (e.g., holes, cracks, thin spots or foreign materials). Immediately after construction or installation:

1) Synthetic liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures and blisters; and

2) Soil-based and admixed liners and covers must be inspected for imperfections including lenses, cracks, channels, root holes or other structural non-uniformities that may cause an increase in the permeability of that liner or cover.

b) While a surface impoundment is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

1) Deterioration, malfunctions or improper operation of overtopping control systems;

2) Sudden drops in the level of the impoundment's contents;

3) Severe erosion or other signs of deterioration in dikes or other containment devices; or

4) A leaking dike.

Section 616.446 Operating Requirements

a) No person shall cause or allow incompatible materials to be placed in the same surface impoundment unit.

b) A surface impoundment unit must be removed from service in accordance with subsection (c) when:

1) The level of liquids in the unit suddenly drops and the drop is not known to be caused by changes in the flows into or out of the unit; or

2) The dike leaks.

c) When a surface impoundment unit must be removed from service as required by subsection (b), the owner or operator shall:

1) Shut off the flow or stop the addition of wastes into the impoundment unit;

2) Contain any surface leakage which has occurred or is occurring;

3) Stop the leak;

4) Take any other necessary steps to stop or prevent catastrophic failure;

5) If a leak cannot be stopped by any other means, empty the impoundment unit; and

6) Notify the Agency of the removal from service and corrective actions that were taken, such notice to be given within 10 days after the removal from service.

d) No surface impoundment unit which has been removed from service in accordance with the requirements of this Section may be restored to service unless the portion of the unit which failed has been repaired.

e) A surface impoundment unit which has been removed from service in accordance with the requirements of this Section and that is not being repaired must be closed in accordance with the provisions of Section 616.447.

Subpart 616.447 Closure and Post-Closure Care

a) If closure is to be by removal, the owner or operator shall remove all waste, all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils and structures and equipment contaminated with waste and leachate; and, if disposed in the State of Illinois, dispose of them at a facility permitted by the Agency.

b) If closure is not to be by removal, the owner or operator shall comply with the requirements of Subpart C and shall:

1) Eliminate free liquids by removing liquid wastes or solidifying the remaining wastes and waste residues.

2) Stabilize remaining wastes to a bearing capacity sufficient to support final cover.

3) Cover the surface impoundment unit with a final cover designed and constructed to:

A) Provide long-term minimization of the migration of liquids through the closed impoundment unit;

B) Function with minimum maintenance;

C) Promote drainage and minimize erosion or abrasion of the final cover;

D) Accommodate settling and subsidence so that the cover's integrity is maintained; and

E) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

c) If some waste residues or contaminated materials are left in place at final closure, the owner or operator shall comply with the requirements of Subpart C and shall for a period of 5 years after closure:

1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion or other events;

2) Maintain and monitor the groundwater monitoring system; and

3) Prevent run-on and run-off from eroding or otherwise damaging the final cover.

## SUBPART G: WASTE PILES

### Section 616.461 Applicability

This Subpart applies to new waste piles which are located wholly or partially within a setback zone or regulated recharge area and which contain special waste or other waste generated on-site, except that this Subpart does not apply to any new waste pile which:

a) Contains solely one or more of the following: hazardous waste, livestock waste, landscape waste, or construction and demolition debris; or

b) Is exempt from this Part pursuant to Section 616.105.

### Section 616.462 Prohibitions

a) Pursuant to Sections 14.2(a), 14.2(c) and 14.3(e) of the Act, no person shall cause or allow the construction, use or operation of any waste pile which is:

1) Located wholly or partially within a minimum setback zone and which is either a new potential primary source or a new potential secondary source, except as specified in Sections 616.104(a) and (b); or

2) Located wholly or partially within a maximum setback zone and which is a new potential primary source, except as specified in Section 616.104(b).

b) Nothing in this Section shall prohibit a waste pile within a maximum setback zone regulated by the Act of sludge resulting from the treatment of domestic wastewater or of sludge resulting from the treatment of water to produce potable water, if such activities are conducted in accordance with the Act and 35 Ill. Adm. Code: Subtitle C.

Section 616.463 Design and Operating Requirements

a) No person shall cause or allow:

1) Disposal or storage in the waste pile of liquids or materials containing free liquids; or

2) Migration and runoff of leachate into adjacent soil, surface water, or groundwater.

b) A waste pile must comply with the following standards:

1) The waste pile must be under an impermeable membrane or cover that provides protection from precipitation;

2) The waste pile must be protected from surface water run-on; and

3) The waste pile must be designed and operated to control wind dispersal of waste by a means other than wetting.

Section 616.443 Closure

The owner or operator shall accomplish closure by removing and disposing of all wastes and containment system components (liners, etc). If disposed in the State of Illinois, the waste and containment system components must be disposed at a disposal site permitted under the Act.

SUBPART H: UNDERGROUND STORAGE TANKS

Section 616.501 Applicability

This Subpart applies to new underground storage tanks which are located wholly or partially within a setback zone or regulated recharge area and which contain special waste, except that this Subpart does not apply to any new underground storage tank which:

a) Pursuant to 35 Ill. Adm. Code 731.110(a) must meet the requirements set forth in 35 Ill. Adm. Code 731, unless such a tank is excluded from those requirements pursuant to 35 Ill. Adm. Code 731.110(b); or

b) Must have interim status or a RCRA permit under 35 Ill. Adm. Code Subtitle G; or

c) Is exempt from this Part pursuant to Section 616.105.

Section 616.502 Design and Operating Requirements

Owners and operators of new underground storage tanks that store special waste shall meet the requirements set forth in 35 Ill. Adm. Code 731. Such requirements must be met even if the tanks are excluded from coverage under 35 Ill. Adm. Code 731 by 35 Ill. Adm. Code 731.110(b). The exclusions set forth in 35 Ill. Adm. Code 731.110(b) shall not apply to any underground storage tank which stores special waste.

SUBPART I: PESTICIDE STORAGE AND HANDLING UNITS

Section 616.601 Applicability

This Subpart applies to any new unit for the storage and handling of pesticides which is located wholly or partially within a setback zone or regulated recharge area and which:

a) Is operated for the purpose of commercial application; or

b) Stores or accumulates pesticides prior to distribution to retail sales outlets, including but not limited to a unit which is a warehouse or bulk terminal.

c) Subsections (a) and (b) notwithstanding, this Subpart does not apply to any unit exempt pursuant to Section 616.105.

Section 616.602 Prohibitions

Pursuant to Sections 14.2(a), 14.2(c) and 14.3(e) of the Act, no person shall cause or allow the construction, use or operation of any facility for the storage and handling of pesticides which is:

a) Located wholly or partially within a minimum setback zone and which is either a new potential primary source or a new potential secondary source, except as specified in Sections 616.104(a) and (b); or

b) Located wholly or partially within a maximum setback zone and which is a new potential primary source, except as specified in Section 616.104(b).

Section 616.603 Groundwater Monitoring

The owner or operator shall comply with the requirements of Subpart B.

Section 616.604 Design and Operating Requirements

The owner or operator shall:

a) Comply with rules adopted by the Department of Agriculture, as set forth in 8 Ill. Adm. Code 255. In the event of a conflict between this Part and 8 Ill. Adm. Code 255, this Part shall control.

b) Maintain a written record inventorying all pesticides stored or handled at the unit.

c) At least weekly when pesticides are being stored, inspect storage containers, tanks, vents, valves, and appurtenances for leaks or deterioration caused by corrosion or other factors. If a leak or deterioration is found in any of these devices, the owner or operator must immediately repair or replace the device. The owner or operator shall maintain a written record of all inspections conducted under this Section and of all maintenance relating to leaks and deterioration of these devices.

d) Store all containers containing pesticides within a secondary containment structure that complies with the design standards set forth in 8 Ill. Adm. Code 255, if such containers are stored outside of a roofed structure or enclosed warehouse.

e) Maintain all written records required under this Section at the site. The owner or operator shall provide any such record to the Agency upon request.

Section 616.605 Closure and Post-Closure Care

The owner or operator shall comply with the requirements of Subpart C.

## SUBPART J: FERTILIZER STORAGE AND HANDLING AND UNITS

### Section 616.621 Applicability

This Subpart applies to any new unit for the storage and handling of fertilizers which is located wholly or partially within a setback zone or regulated recharge area and which:

a) Is operated for the purpose of commercial application; or

b) Stores or accumulates fertilizers prior to distribution to retail sales outlets, including but not limited to a unit which is a warehouse or bulk terminal.

c) Subsections (a) and (b) notwithstanding, this Subpart shall not apply to any unit exempt pursuant to Section 616.105.

### Section 616.622 Prohibitions

Pursuant to Sections 14.2(a), 14.2(c) and 14.3(e) of the Act, no person shall cause or allow the construction, use or operation of any facility for the storage and handling of fertilizers which is:

a) Located wholly or partially within a minimum setback zone and which is either a new potential primary source or a new potential secondary source, except as specified in Sections 616.104(a) and (b); or

b) Located wholly or partially within a maximum setback zone and which is a new potential primary source, except as specified in Section 616.104(b).

### Section 616.623 Groundwater Monitoring

The owner or operator shall comply with the requirements of Subpart B.

### Section 616.624 Design and Operating Requirements

The owner or operator shall:

a) Comply with rules adopted by the Department of Agriculture, as set forth in 8 Ill. Adm. Code 255. In the event of a conflict between this Part and 8 Ill. Adm. Code 255, this Part shall control.

b) Maintain a written record inventorying all fertilizers stored or handled at the unit.

c) At least weekly when fertilizers are being stored, inspect storage containers, tanks, vents, valves, and appurtenances for leaks or deterioration caused by corrosion or other factors. If a leak or deterioration is found in any of these devices, the owner or operator shall immediately repair or replace the device. The owner or operator shall maintain a written record of all inspections conducted under this Section and of all maintenance relating to leaks and deterioration of these devices.

d) Store all containers containing fertilizers (except anhydrous ammonia) within a secondary containment structure that complies with the design standards set forth in 8 Ill. Adm. Code 255, if such containers are stored outside of a roofed structure or enclosed warehouse.

e) Maintain all written records required under this Section at the site. The owner or operator shall provide any such record to the Agency upon request.

Section 616.625 Closure and Post-Closure Care

The owner or operator shall comply with the requirements of Subpart C.

SUBPART K: ROAD OIL STORAGE AND HANDLING UNITS

Section 616.701 Applicability

This Subpart applies to any new unit for the storage and related handling of road oils which is located wholly or partially within a setback zone or regulated recharge area and at which greater than 25,000 gallons of road oils are stored or accumulated at any one time, except as otherwise provided in Section 616.105.

Section 616.702 Prohibitions

Pursuant to Sections 14.2(a), 14.2(c) and 14.3(e) of the Act, no person shall cause or allow the construction, use or operation of any facility for the storage and handling of road oils which is:

a) Located wholly or partially within a minimum setback zone and which is either a new potential primary source or a new potential secondary source, except as specified in Sections 616.104(a) and (b); or

b) Located wholly or partially within a maximum setback zone and which is a new potential primary source, except as specified in Section 616.104(b).

Section 616.703 Groundwater Monitoring

The owner or operator shall comply with the requirements of Subpart B.

Section 616.704 Design and Operating Requirements for Above-Ground Tanks

a) The owner or operator of a tank shall not cause or allow:

1) Materials to be placed in a tank if such materials could cause the tank to rupture, leak, corrode, or otherwise fail.

2) Uncovered tanks to be placed or operated so as to maintain less than 60 centimeters (2 feet) of freeboard unless:

A) The tank is equipped with a containment structure (e.g., dike or trench), a drainage control system, or a diversion structure (e.g., standby tank); and

B) Such containment structure, drainage control system, or diversion structure has a capacity that equals or exceeds the volume of the top 60 centimeters (2 feet) of the tank.

3) Material to be continuously fed into a tank, unless the tank is equipped with a means to stop this inflow (e.g., a feed cutoff system or a bypass system to a standby tank).

4) Incompatible materials to be placed in the same tank.

5) Material to be placed in a tank which previously held an incompatible material unless the incompatible material has been washed from the tank.

6) Ignitable or reactive material to be placed in a tank unless:

A) The material is stored or treated in such a way that it is protected from any material or conditions which may cause it to ignite or react; or

B) The tank is used solely for emergencies.

b) The owner or operator shall provide and maintain primary containment for the tank such that:

1) The tank has a minimum shell thickness that ensures that the tank will not fail (i.e., collapse, rupture, etc.).

2) The tank is compatible with the material to be placed in the tank or the tank is lined with a substance that is compatible with the material to be placed on the tank.

c) The owner or operator shall provide and maintain secondary containment for the tank that:

1) Is capable of containing the volume of the largest tank or 10% of the total volume for all tanks, whichever is greater;

2) Is constructed of material capable of containing a spill until cleanup occurs (e.g., concrete or clay). The base of the secondary containment area must be capable of minimizing vertical migration of a spill until cleanup occurs (e.g., concrete or clay);

3) Has cover (e.g., crushed rock or vegetative growth) on earthen embankments sufficient to prevent erosion; and

4) Isolates the tank from storm water drains and from combined storm water drains and sanitary sewer drains.

d) If incompatible materials are handled at the site secondary containment sufficient to isolate the units containing the incompatible materials must be provided.

e) The owner or operator of a tank shall also:

1) Test above-ground tanks and associated piping every five years for structural integrity.

2) Remove uncontaminated storm water runoff the secondary containment area immediately after a precipitation event.

3) Handle contaminated storm water runoff in accordance with Subpart A of 35 Ill. Adm. Code: Subtitle C.

4) Provide a method for obtaining a sample from each tank.

5) Install, maintain, and operate a material level indicator on each tank.

6) When not in use, lock all gauges and valves that are used to inspect levels in the tank. All such devices must be located within the containment structure.

Section 616.705 Closure

a) At closure, all materials must be removed from containers, tanks, discharge control equipment, and discharge confinement structures.

b) All materials that are to be disposed in the State of Illinois must be disposed at a disposal site permitted under the Act.

SUBPART L: DE-ICING AGENT STORAGE AND HANDLING UNITS

Section 616.721 Applicability

This Subpart applies to any new facility for the storage and related handling of de-icing agents which is located wholly or partially within a setback zone and at which more than 50,000 pounds of de-icing agent are stored or accumulated at any one time, except as otherwise provided in Section 616.105. For the purpose of this Subpart:

a) An indoor storage unit means a storage unit with a roof capable of protecting de-icing agents from wind and precipitation;

b) An outdoor storage unit means a unit for the storage of de-icing agents which is not an indoor storage unit.

Section 616.722 Prohibitions

a) Pursuant to Sections 14.2(a), 14.2(c) and 14.3(e) of the Act, no person shall cause or allow the construction, use or operation of any facility for the storage and handling of de-icing agents which is:

1) Located wholly or partially within a minimum setback zone and which is either a new potential primary source or a new potential secondary source, except as specified in Sections 616.104(a) and (b); or

2) Located wholly or partially within a maximum setback zone and which is a new potential primary source, except as specified in Section 616.104(b).

b) No person shall cause or allow the construction, use or operation within any setback zone or regulated recharge area of any outdoor facility for the storage and handling of de-icing agents, except as provided at Section 616.105.

Section 616.723 Groundwater Monitoring

The owner or operator shall comply with the requirements of Subpart B.

Section 616.724 Design and Operating Requirements For Indoor Storage Facilities

a) The base of the facility must be constructed of materials capable of containing de-icing agents (i.e., bituminous or concrete pad).

b) The roof and walls of the facility must be constructed of materials capable of protecting the storage pile from precipitation and capable of preventing dissolved de-icing agents from entering into the adjacent soil, surface water, or groundwater. The walls of the facility must be constructed of materials compatible with the de-icing agents to be placed in the facility. Run-off from the roof must be diverted away from the loading pad.

c) The loading pad of the facility must be constructed of materials capable of containing a spill (i.e., concrete or bituminous pad). The borders of the loading pad must be curbed to prevent dry or dissolved de-icing agents from migrating from the loading pad into the adjacent soils, surface water, or groundwater. The loading pad must be covered by a roof of sufficient size to provide the pad and de-icing agents with protection from precipitation to prevent run-off or dissolved de-icing agents from entering into the adjacent soil, surface water, or groundwater.

d) All areas surrounding the storage pile, including but not limited to the loading pad, must be routinely inspected to determine whether any release of de-icing agents has occurred. Such areas shall be cleaned as necessary. Spilled de-icing agents must be placed back under the protective covering of the indoor storage pile. The storage pile must be reshaped as often as necessary to prevent leaching.

e) The integrity of the facility and loading pad must be maintained.

f) All areas surrounding the storage facility must be inspected daily to determine whether any release of de-icing agents has occurred. Spilled de-icing agents must be placed back into the storage facility.

Section 616.725 Closure

a) At closure, all de-icing agents must be removed from the site, discharge control equipment and discharge confinement structures.

b) All de-icing agents that are to be disposed in the State of Illinois must be disposed at a disposal site permitted under the Act.

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE F: PUBLIC WATER SUPPLIES
CHAPTER I: POLLUTION CONTROL BOARD

PART 617
REGULATED RECHARGE AREAS

SUBPART A: GENERAL

Section
617.101 Purpose
617.102 Definitions

AUTHORITY: Implementing Section 17.4 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1987, ch. 111 1/2, pars. 1017.4 and 1027).

SOURCE: (Adopted in R89-5 at _____ Ill. Reg. _____, effective _____)

SUBPART A: GENERAL

Section 617.101 Purpose

This Part sets out regulated recharge areas as delineated pursuant to Section 17.4 of the Act.

Section 617.102 Definitions

Unless a different meaning of a word or term is clear from the context, the definition of words or terms in this Part shall be the same as those used in 35 Ill. Adm. Code 615.102, the Act, or the Illinois Groundwater Protection Act (Ill. Rev. Stat. 1987, ch. 111 1/2, pars. 7451 et seq.).

IT IS SO ORDERED.

B. Forcade concurred.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 31st day of August, 1989, by a vote of 6-0.

Dorothy M. Gunn

Dorothy M. Gunn, Clerk
Illinois Pollution Control Board