ILLINOIS POLLUTION CONTROL BOARD
December 16, 1993

IN THE MATTER OF:	)	
	)	R93-10
RCRA SUBTITLE D AMENDMENTS	)	(Identical in Substance Rule)
(AMENDMENTS TO 35 ILL. ADM.	)	
CODE PART 810, PART 811,	)	
AND PART 814)	)	

Adopted Rule. Final Order.

SUPPLEMENTAL OPINION AND ORDER OF THE BOARD (by G.T. Girard):[1]

SUMMARY OF TODAY'S ACTION[2]

On September 15, 1993, the Board adopted the final opinion and order in R93-10. In that opinion, the Board initiated a 15-day post-adoption comment period prior to filing the rules with the Secretary of State, to allow for review, particularly by those involved in the federal authorization process.

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[1] The Board wishes to express its appreciation for the contribution of Mrs. Joan Anderson to this rulemaking. Mrs. Anderson initiated this proceeding prior to her departure from the Board in November of 1993. Mrs. Anderson had directed this proposal through the Final Opinion and Order and had contributed greatly to this opinion and order.

The Board also expresses its appreciation to Anand Rao of the Board's technical support staff for his special assistance in drafting the opinion and crafting the order so as to blend the RCRA Subtitle D language into the Board's existing landfill regulations. The Board also appreciates the assistance of Board attorney Michael McCambridge for his assistance in drafting and formatting the opinion and order, particularly as regards financial assurance.

[2] In the Illinois Environmental Protection Act, the Board is charged to "determine, define and implement the environmental control standards applicable in the State of Illinois" (415 ILCS 5/5(b)). More generally, the Board's rulemaking charge is based on the system of checks and balances integral to Illinois environmental governance: the Board bears responsibility for the rulemaking and principal adjudicatory functions, whereas the Illinois Environmental Protection Agency (Agency) is responsible for carrying out the principal administrative duties. The latter's duties include administering the regulations that stem from today's action.

Subsequently, in response to requests from the United States Environmental Protection Agency (USEPA) and the Illinois Environmental Protection Agency (Agency), the Board granted a four-week extension to file final comments until October 30, 1993. (Board Order, R93-10 (October 7, 1993).)

The Board today amends the final opinion and order in R93-10 in order to address the post-adoption comments. Today's action also addresses certain federal and state actions relating to compliance dates, which occurred after September 15, 1993. First, the Board will address the compliance dates issue. The other changes made in response to public comments are discussed under the Section-by-Section commentary.

REVISION OF COMPLIANCE DATES

On July 28, 1993, the USEPA proposed amendments to RCRA Subtitle D landfill criteria (40 CFR 258) to delay several compliance dates from the initial proposal. (58 FR 40568.) The USEPA's proposal included, in pertinent part, the following compliance date revisions:

a) Delay the effective date of the Subtitle D regulations for certain small existing MSWLF units or lateral expansions[3] from October 9, 1993 to April 9, 1994; and
b) Delay the effective date of the financial assurance requirements for all MSWLF units from April 9, 1994 to April 9, 1995.

As noted in the Board's final opinion of September 15, 1993, the Board adopted the USEPA's proposed compliance dates in anticipation of the need to be identical in substance to the USEPA's regulations. Further, the Board expected that the USEPA's proposal would become effective before the end of the post-adoption comment period.

The USEPA finalized the proposed amendments to 40 CFR 258 on October 1, 1993. (58 FR 51536.) In addition to the revisions listed above, the USEPA's final amendments delay the effective date of the Subtitle D regulations from October 9, 1993 to October 9, 1994 for certain existing MSWLF units, and lateral expansions that receive flood-related waste. The amendments

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[3] The MSWLF unit must meet the following conditions: (i) the unit receives less than 100 tons of per day of waste for disposal; (ii) the unit is located in a state that has submitted an application for program approval to the USEPA by October 9, 1993, or is located on tribal lands; and (iii) the unit is not currently listed on the Superfund National Priority List (NPL).

allow states[4] to determine the MSWLF units that are needed to accept the flood-related waste, and specify the compliance dates for such MSWLF units.

In response to the federal action, the Illinois General Assembly in House Bill 299 adopted amendments to Sections 21.1 and 22.40 of the Environmental Protection Act (415 ILCS 5/1 et seq.) during the fall 1993 legislative session. These amendments were signed into law by Governor Edgar on November 16, 1993 as Public Act 88-512, effective retroactively from October 9, 1993. The statutory amendments revise the RCRA Subtitle D landfill compliance dates to mirror the federal mandates.

In order to be consistent with the federal regulations and the legislative intent, the Board has amended the compliance requirements specified in Section 814.107. The new Section 814.107(c) exempts an existing MSWLF unit or a lateral expansion of an existing unit from the additional requirements prescribed in Part 814 for MSWLF units until April 8, 1993, if the Agency determines that such a unit or lateral expansion is needed to receive flood-related waste. The Board has also made some minor changes to Section 814.107, which clarify the applicability of the compliance dates to lateral expansions at existing MSWLF units. Finally, the Board has corrected the compliance dates specified in Section 811.Subpart G (financial assurance requirements) to reflect the federal regulations.

PUBLIC COMMENTS

As noted above, the Board started the post-adoption "public comment" phase of this rulemaking upon the adoption of the Subtitle D amendments on September 15, 1993. The following post-adoption public comments (PC) relating to the final adopted regulations were received by the Board:

PC #11	Comments from David N. Zorin of Thomas and Stidham
PC #12	Waste Management, Inc. (WMI)
PC #13	USEPA, Region 5, Solid Waste Section (USEPA)
PC #14 & #15	Illinois Environmental Protection Agency (Agency)

The Board extends its appreciation to all commenters for their thoughtful contributions. The Board has reviewed in detail all of the post-adoption public comments. In responding to these, the Board today makes a number of changes to the amendments adopted on September 15, 1993. These changes are discussed under the following Section-by-Section commentary.

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[4]States affected by the Great Flood of 1993, which include areas designated by the President as Federally-designated disaster areas.

Part 811

Purpose, Scope and Applicability (Section 811.101)

The USEPA's comments request the Board to indicate whether a provision comparable to 40 CFR 258.3 is specified in the Board's nonhazardous solid waste landfill regulations. (PC. #13, comment 1.) 40 CFR 258.3 requires an owner or operator of a MSWLF unit to comply with any other applicable federal rule, laws, regulations, or other requirements. The Board's landfill regulations do not expressly require an owner or operator to comply with all applicable federal laws and regulations. However, in order to be consistent with the federal regulations, the Board has added a requirement similar to 40 CFR 258.3 in Sections 811.101 and 814.101.

Operating Standards (Section 811.107)

The Agency's comments request the Board to specify the test method for free liquids outlined in 35 Ill. Adm. Code 729.320 instead of the test specified at Section 811.107(m). (PC. #15 at 1.) In this regard, the Agency notes that the test method specified under Part 729 is a better indicator of free liquids. The Board notes that the Agency's request to prescribe an alternative test method is beyond the scope of an identical in substance rulemaking, since the federal subtitle D regulations at 40 CFR 258.28 do not allow such specification. Therefore, the Board declines to make any changes concerning the free liquid test method. However, since the Agency's request is within the Board's general rulemaking authority under Title VII of the Act, the Board suggests that the Agency propose the appropriate changes by filing a general rulemaking petition.

Closure and Written Closure Plan (Section 811.110)

The USEPA's comments request the Board to clarify whether the reference to "subsection (g)" in Section 811.110(f)(1) should be actually "subsection (e)." (PC. #13, comment 10.) The Board notes that the USEPA's interpretation is correct. Section 811.110(f)(1) refers to subsection (g) instead of subsection (e) due to a typographical error. The Board has corrected this typographical oversight.

Design Period (Section 811.303)

The Agency's comments request the Board to add a requirement similar to 40 CFR 258.61(b)(2), which would allow the Agency to increase the length of the postclosure care period if the Agency determines that such an extension is necessary to protect human health and environment. (PC. #15 at 4.)

The Board notes that Section 811.303 specifies a minimum postclosure care period of 30 years for MSWLF units. However, the regulations allow the termination of the postclosure activities such as monitoring of groundwater, leachate, gas, etc., only if an owner or operator makes certain demonstrations that ensure the protection of human health and environment. For example, to terminate groundwater monitoring after the minimum period, an owner or operator is required to demonstrate that there is no statistically significant increase in the concentration of any monitored constituent over a period of three consecutive years. Thus, the Board believes that the adopted rules are consistent with the federal regulations. In view of this, the Board declines to make any additions concerning the postclosure care period.

Final Cover System (Section 811.314)

Both the USEPA and the Agency note that the requirements for final cover systems at Section 811.314(b) are less stringent than the federal standards at 40 CFR 258(b). (PC. #13, comment 8 and PC. #15 at 4.) 40 CFR 258.60(b) requires the final cover system to have a permeability at least as low as the bottom liner system, but in no case greater than 1 x 10^{-5} cm/sec. The Board regulations at Section 811.314(b) require the low permeability layer to achieve a permeability of at least 1 x 10^{-7} cm/sec. However, Section 811.314(b) does not require the low permeability layer to have a permeability as low as the bottom liner.

The Board notes that the final cover requirements of Section 811.314(b) would be consistent with the federal requirements if the bottom liner consists of a compacted earth liner, since the permeability of both the final cover and the bottom liner would be the same, i.e. 1 x 10^{-7} cm/sec. However, if the bottom liner consists of a flexible membrane liner (FML) with a permeability of less than 1 x 10^{-7} cm/sec, then the cover requirements at Section 811.314(b) may be construed to be less stringent than the federal standards. This is because the Board regulations do not require the final cover to achieve a permeability less than or equal to the permeability of the liner. The Board has added an additional requirement applicable to MSWLF units at Section 811.314(b)(4) to address this deficiency. Section 811.314(b)(4) requires the permeability of the final cover to be less than or equal to the permeability of the bottom liner, whenever the bottom liner permeability is less than 1 x 10^{-7} cm/sec.

Groundwater Monitoring Systems (Section 811.318)

The USEPA's comments request the Board to clarify whether the Board regulations under Part 811 contain groundwater monitoring requirements that are equivalent to 40 CFR 258.53(d). (PC. #13, comment 6.) In this regard, the Agency recommends the

addition of a requirement similar to 40 CFR 258.53(d) at Section 811.318 to assure consistency with the federal regulations. (PC. #15 at 2.) 40 CFR 258.53(d) requires the owner or operator to: measure groundwater elevation and determine the rate and direction of groundwater flow, each time groundwater is sampled; and measure the groundwater elevations in wells that monitor the same waste management area within a period of time short enough to avoid temporal variations in groundwater flow.

The Board regulations at Section 811.318(e)(6)(A) require the measurement of the water table elevation in all monitoring wells at the time of sample collection, but they do not require the determination of the rate and direction of groundwater flow. Regarding the sampling frequency, the Board notes that the quarterly sampling required by Section 811.319 accounts for any temporal variations in the groundwater flow characteristics. However, in order to be consistent with the federal regulations, the Board has amended Section 811.318(e) to include a requirement similar to 40 CFR 258.53(d). This additional requirement is applicable only to MSWLF units.

Groundwater Monitoring Program (Section 811.319)

Waste Management, Inc. (WMI) requests the Board to reduce the quarterly groundwater monitoring frequency required at Section 811.319(a) to a semi-annual frequency. (PC. #12.) WMI states that the adoption of the semi-annual frequency would be consistent with federal regulations. In this regard, WMI notes that it would be a mistake for the Board to adopt regulations that claim to be "identical in substance" to the federal regulations but fail to allow the Agency discretion in assigning monitoring frequencies that would be consistent with the Subtitle D regulations.

As it does with all of its determinations where identical in substance rulemakings have been mandated, the Board has followed the provisions in Section 7.2 of the Act, which articulate what constitutes "identical in substance". Such mandated rulemakings, as is the case here, usually flow from a State legislative statement of intent and directive to do what is necessary to secure federal approval of a program. The RCRA Subtitle D legislative statement (as well as that for RCRA Subtitle C) is found in Section 20(a) of the Act.

We emphasize that the Board is not authorized in this type of proceeding to review the substantive merits per se of the federal regulations or, for that matter, of the existing Board regulations. All of the Board's earlier regulations adopted on the merits pursuant to its "regular" procedures under Title VII of the Act and Section 5 of the APA - including those that are more stringent - remain, as long as there is not a problem of inconsistency. In this regard, the Board notes that the

quarterly monitoring requirement specified at section 811.319(a), which was adopted pursuant to the Board's "regular rulemaking procedures" is consistent with the federal regulations, even though it is more stringent. Thus any modification of such a requirement is beyond the scope of an identical in substance rulemaking. In view of this, the Board declines to make any changes concerning the groundwater monitoring frequency.

The USEPA notes that it could not locate any requirement equivalent to the assessment monitoring requirement at 40 CFR 258.55(e) in the Board's Subtitle D amendments. (PC. #13, comment 7.) 40 CFR 258.55(e) sets forth the conditions under which an owner or operator may return to detection monitoring. The Board regulations do not prescribe the conditions under which an owner or operator may revert back to detection monitoring. The regulations allow the Agency to make such a determination by means of a significant modification of the facility's permit. In order to be consistent with the federal regulations, the Board has added a condition similar to 40 CFR 258.55(e) at Section 811.319(b)(5)(G), which allows an owner or operator of a MSWLF unit to terminate the additional monitoring requirements applicable to MSWLF units. However, such MSWLF units would still be subject to all the other assessment monitoring requirements under Section 811.319(b) until the owner or operator obtains the Agency's approval of a significant modification of its permit to return to detection monitoring.

Groundwater Quality Standards (Section 811.320)

The USEPA's comments express concern regarding the requirements relating to groundwater quality standards at Sections 811.320(b)(2) and 814.402(b)(3). (PC. #13, comment 5.) The Board notes that Section 811.320(b)(2) specifies, in part, that the Board may prescribe an adjusted groundwater quality standard no greater than those of 35 Ill. Adm. Code 302.301, 302.304, and 302.305. While Section 814.402(b)(3) prescribes the water quality standards of 35 Ill. Adm. Code 302.301, 302.303, 302.304, and 302.305 as the applicable groundwater standards for existing landfill units, which are required to initiate closure by 1997 (Part 814.Subpart D), the USEPA believes that the Part 302 standards[5] have been replaced by the Board's Class I groundwater quality standards found at 35 Ill. Adm. Code 620. Based on this assumption, the USEPA states that there may be a potential for concentrations of five constituents to exceed 40 CFR 258.40 Table 1 standards[6]. In view of this, the USEPA's comments request Board clarification.

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[5]The Board's public and food processing water supply standards.

[6]The constituents include barium, hexavalent chromium, endrin, selenium, and 2,4,5-TP.

At the outset, the Board notes that the groundwater quality standards of Part 620 do not supersede or replace the groundwater quality standards applicable to landfills under Parts 811 or 814. In this regard, the Board notes the groundwater regulations at 35 Ill. Adm. Code 620.301 recognize the Board's authority to promulgate nondegradation standards applicable to particular type of facilities, including but not limited to landfills. Thus, under the Board's regulations any new MSWLF units, or existing MSWLF units that remain open beyond 1997 are subject to the nondegradation standards of Section 811.320(a), and not the groundwater quality standards of Part 620.

Also, the Board notes that the Part 620 standards do not replace the public and food processing water supply standards (Part 302) cited in Sections 811.320(b)(2) and 814.402(b)(3). For such a change to occur, the Board regulations must be amended in a general rulemaking pursuant to Section 27 of the Act. Thus, the USEPA's interpretation of the Board regulations concerning the applicable groundwater standards is not correct. However, the Board notes that the USEPA's concerns relating to exceedences of 40 CFR 258.40 Table 1 standards are still valid.

The standards specified at 35 Ill. Adm. Code 302.304 are the same as those specified in 40 CFR 258.40 Table 1 for the five constituents identified by the USEPA. However, the Board notes that Section 302.304 does not specify standards for all the constituents listed in 40 CFR 258.40. Therefore, Section 811.320(b)(2) appears to be inconsistent with the federal regulations. In order to address this inconsistency, the Board has added a new requirement at Section 811.320(b)(3). This additional requirement specifies that the Board may not set adjusted groundwater quality standards greater than the levels specified in 40 CFR 258.40 Table 1 for MSWLF units. The Board notes that there is no need to add a similar requirement under Section 814.402(b)(3), since 40 CFR 258.40 does not apply to existing MSWLF units.

Financial Assurance Requirements (Section 811.Subpart G)

Applicability (Section 811.700)

The USEPA's comments request the Board to clarify whether the reference to "Section 21.1" in Section 811.700(f) should be actually "Section 21" (PC. #13, comment 12.) The Board notes that the USEPA's interpretation is correct. The Board has corrected this typographical error.

Written Cost estimate (Section 811.704)

The Agency's comments note the MSWLF units must be excluded from the requirement at Section 811.704(g)(2), which allows the reduction of postclosure care costs to present value. (PC. #15

at 2.) The Board notes that the Agency's concerns are addressed in the final opinion and order, adopted on September 15, 1993. (See opinion at 17 and order at 63.) The adopted rules at Section 811.704(g) exclude MSWLF units from the requirements relating to postclosure cost reduction.

Revision of Cost Estimate (Section 811.705)

The Agency requests the Board to specify a method of adjusting financial assurance to reflect the annual adjustment for inflation under Section 811.705(d). (PC. #15 at 3.) The Board notes that the language at Section 811.705(d) was drawn from the federal regulations at 40 CFR 258.71(a)(2). Any addition to Section 811.705(d), such as the one recommended by the Agency would add to requirements not included in the federal rules. Therefore, the Board concludes that the Agency suggestion is beyond the scope of an identical in substance rulemaking. The Board also notes that this issue was discussed in the final opinion adopted on September 15, 1993, in this Docket. (See final opinion at 17.)

Mechanisms for Financial Assurance (Section 811.706)

In response to USEPA's comments, the Board has added a requirement that mirrors 40 CFR 258.74(l)(4) at Section 811.706(b)(3). (PC. #13, comment 10.) This addition requires an owner or operator of a MSWLF unit to ensure that the language of the financial assurance mechanisms used to provide financial assurance to be legally valid, binding, and enforceable under state and federal law.

PC. #11 asserts that the Board should have followed an Agency comment in our September 15, 1993 order. The comment suggests that the Board change Section 811.706(b) and (b)(1) to read as follows (revision underlined):

> (b) The owner or operator shall ensure that the language of the mechanisms listed in subsection (a), when used for providing financial assurance for closure, postclosure care, <u>or</u> corrective action, satisfies the following:
>
> > (1) The amount of funds assured is sufficient to cover the costs of closure, post-closure care, <u>or</u> corrective action . . ..

In support of this position, the commenter states that although Section 811.707 allows the use of multiple mechanisms to provide financial assurance, the "definition" of "cost estimate" in Section 811.704(a) would appear to make the provider of each bond used liable for the entire cost of closure, post-closure care, and corrective action, if necessary. The commenter called this

"an issue of 'multiplier effects' that could ensue in the financial industry" and "a financial 'Sword of Damocles'".

In response, the Board notes that Section 811.704(a) does not "define" the term "cost estimate"; rather, it imposes a duty on the landfill owner or operator to prepare a written estimate of the costs of facility closure and postclosure care. Similarly, and not mentioned by the commenter, Section 811.704(k)(1) imposes a similar duty on the owner or operator with regard to the costs of corrective action. Similarly, Section 811.706(b) imposes a duty on the owner or operator to ensure that the "language of the mechanism<u>s</u>" (emphasis added) chosen is sufficient to cover the costs of closure, post-closure care, and corrective action. Thus, as among Sections 811.704(a), 811.704(k)(1), 811.706(b), and 811.707, there is a duty on the <u>owner or operator</u> to supply an <u>aggregate</u> of financial assurance <u>mechanisms</u> in an amount at least equal to the total of the costs of closure, post-closure care, and corrective action. The Board does not see in these provisions any duty imposed on a financial institution to provide financial assurance beyond the face of the particular instrument itself.

If the concern is that one could interpret the regulations as to not allow the use of multiple instruments, two other provisions are more troubling. Sections 811.711(f)(1) and 811.712(f)(1) require that the penal sum of a surety bond must at least equal the "current cost estimate". The Board has not read this as precluding the use of an aggregate of multiple instruments, this is especially true in light of the fact that the requirements for other mechanisms includes similar "current cost estimate" language. (<u>See</u> Sections 811.710(d)(1)(C) & (d)(2)(B)(trust funds), 811.713(f)(1)(letters of credit), 811.714(d)(1)(insurance) & 811.715(b)(1) & (e)(1)(B)(ii).) The strained reading of the regulations requested by the commenter would require that Section 811.707, allowing the use of multiple mechanisms and instruments, be read as a nullity. The more reasonable interpretation, and the one intended by the Board, is that the words "current cost estimate", as they appear for each individual type financial assurance mechanism, actually be read as "that portion of the current cost estimate assured by the individual instrument", where multiple mechanisms and/or instruments are chosen.

The "bottom line" requirement is that the <u>aggregated</u> financial assurance provided at least equal the total amount of the cost estimates for closure, post-closure care, and corrective action. Section 811.707 contemplates a situation in which an owner or operator might find it better to provide that assurance by multiple mechanisms and/or instruments. That the language of Sections 811.710(d)(1)(C) & (d)(2)(B), 811.711(f)(1), 811.712(f)(1), 811.713(f)(1), 811.714(d)(1) & 811.715(b)(1) & (e)(1)(B)(ii) anticipated the use of a single mechanism and

instrument cannot be read as nullifying the express provision of Section 811.707. For these reasons, the Board will stick with our interpretation of our regulations, and we will not change these fundamental provisions derived through Section 27 rulemaking proceedings in the context of an identical-in-substance proceeding, absent some proof that the regulations cause the Illinois program to become less stringent than or inconsistent with the federal program that they address.

Financial Assurance Forms (Section 811.Appendix A)

The Agency's comments note that the Section 811.Appendix A does not provide a form or necessary language, for the self-insurance financial assurance mechanism. (PC. #15 at 3.) The Board notes that the forms for self-insurance are specified in Section 811.Appendix A: Illustrations G, H, and I. However, the Board believes that self-insurance is not an identical in substance issue, since the federal regulations do not provide for self-insurance. (See final opinion at 19.)

Part 814

The USEPA's comments request the Board to clarify whether all of the requirements of Part 811 apply to existing units and lateral expansions unless it is specifically stated otherwise in Sections 814.302 and 814.402. (PC. #13, comment 2.) The Board notes that the USEPA's interpretation reflects the intent of the Board's landfill regulations.

Applicability (Section 814.101)

The Agency's comments note that some existing MSWLF units currently permitted pursuant to 35 Ill. Adm. Code 813 may not be able to comply with all the requirements placed on new MSWLF units, as required by Section 814.10(b)(2). (PC. #15 at 3.) The Agency recommends that these existing units be required to comply with the requirements applicable to existing MSWLF units. In order to address the Agency's concern, the Board has amended Section 814.101(b)(2). This amendment requires existing MSWLF units regulated pursuant to Part 813 to comply with the standards specified for existing MSWLF units under Section 814.Subpart C instead of the requirements applicable to new MSWLF units. The Board has made similar changes at Section 814.109(d), which sets forth the permit modification requirements for existing MSWLF units.

The Board has added a requirement similar to 40 CFR 258.3 at Section 814.101(d)(2) in order to be consistent with the federal regulations. (See discussion under Section 811.101.)

Interim Permit Requirements (Section 814.108)

The Agency notes that the Board regulations contain no administrative procedures concerning the application for, and the issuance of, interim permits. (PC. #15 at 2.) The Agency states that the administration of the interim permit provisions would be greatly improved if the permitting scheme is clearly defined. The Board agrees that a well defined permitting scheme would be a great help in administering the interim permit provisions. However, the Board notes Section 22.42 of the Act requires the Agency to implement the interim permit requirements under the Agency's statutory authority. Further, as noted in the Agency's previous comments, all interim permits should be issued by the time the Board's proposal is reviewed by the USEPA. (PC. #9 at 44.). In view of this, the Board declines to specify any additional procedures for the issuance of interim permits.

Standards for Existing Landfills (Sections 814.302 and 814.402)

The USEPA's comments request the Board to clarify whether existing MSWLF units would be subject to the mass stability standards under Section 811.306(b), which are required by 40 CFR 258.15. (PC. #13, comment 3.) The Board notes that Section 811.306(b) prescribes stability standards for the liner and leachate collection system. The Board regulations inadvertently exempted existing MSWLF units from meeting the requirements of Section 811.306(b). In order to be consistent with the federal regulations, the Board has added the mass stability requirements of Section 811.306(b) to Sections 814.302(d) and 814.402(d).

Also, in order to address the USEPA's concerns relating to unstable area demonstrations, the Board has amended Sections 814.302(f) and 814.402(f). (PC. #13, comment 4.) These amendments, which are consistent with the federal regulations at 40 CFR 258.15(a) require existing MSWLF units that are unable to meet the applicable mass stability standards to close by October 9, 1996.

Requirements for Existing Units and Lateral Expansions Regulated Pursuant to 35 Ill. Adm. Code 807 (Section 814.Appendix A)

The USEPA notes that it could not locate the Illinois regulatory equivalent of 40 CFR 258.72(a)(1) for Part 807 facilities. (PC. 13, comment 9.) 40 CFR 258.72(a)(1) requires the cost estimate of postclosure care to be based on the most expensive costs of postclosure care during the postclosure care period. The Board notes that the requirements for Part 807 facilities, which are prescribed at Section 814.Appendix A do not include 40 CFR 258.72(a)(1). The Board did not include 40 CFR 258.72(a)(1) because we considered the postclosure cost estimate requirements at 35 Ill. Adm. Code 807.622 to be consistent with the federal requirements. However, in order to avoid any confusion, the Board has included 40 CFR 258.72(a)(1) under Section 814.Appendix A.

ORDER

The Board directs the Clerk to cause the publication as an adopted rule the following rule:

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

PART 810
SOLID WASTE DISPOSAL: GENERAL PROVISIONS

Section
810.101 Scope and Applicability
810.102 Severability
810.103 Definitions
810.104 Incorporations by Reference

AUTHORITY: Implementing Sections 5, 21, 21.1, 22 and 22.17, and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1989, ch. 111 1/2, pars. 1005, 1021, 1021.1, 1022, 1022.17 and 1027).

SOURCE: Adopted in R88-7 at 14 Ill. Reg. , effective .

NOTE: Capitalization indicates statutory language.

Section 810.103 Definitions

Except as stated in this Section, or 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 that applied to the same words or terms in the Environmental Protection Act (Act) (Ill. Rev. Stat. 1989, ch. 111 1/2, pars. 1001 et. seq.):

"Act" means the Environmental Protection Act, Ill. Rev. Stat. 1989, ch. 111 1/2, pars. 1001 et. seq.

"AGENCY" IS THE ENVIRONMENTAL PROTECTION AGENCY ESTABLISHED BY THE ENVIRONMENTAL PROTECTION ACT. (Section 3.08 of the Act.)

"Admixtures" are chemicals added to earth materials to improve for a specific application the physical or chemical properties of the earth materials. Admixtures include, but are not limited to: lime, cement, bentonite and sodium silicate.

"Applicant" means the person, submitting an application to the Agency for a permit for a solid waste disposal facility.

"AQUIFER" MEANS SATURATED (WITH GROUNDWATER) SOILS AND GEOLOGIC MATERIALS WHICH ARE SUFFICIENTLY PERMEABLE TO READILY YIELD ECONOMICALLY USEFUL QUANTITIES OF WATER TO WELLS, SPRINGS, OR STREAMS UNDER ORDINARY HYDRAULIC GRADIENTS and whose boundaries can be identified and mapped from hydrogeologic data. (Section 3 of the Illinois Groundwater Protection Act (Ill. Rev. Stat. 1989, ch. 111 1/2, par. 7453).)

"Bedrock" means the solid rock formation immediately underlying any loose superficial material such as soil, alluvium or glacial drift.

"BOARD" IS THE POLLUTION CONTROL BOARD ESTABLISHED BY THE ACT. (Section 3.04 of the Act.)

"Borrow area" means an area from which earthen material is excavated for the purpose of constructing daily cover, final cover, a liner, a gas venting system, roadways or berms.

"Chemical waste" means a non-putrescible solid whose characteristics are such that any contaminated leachate is expected to be formed through chemical or physical processes, rather than biological processes, and no gas is expected to be formed as a result.

"Contaminated leachate" means any leachate whose constituent violate the standards of 35 Ill. Adm. Code 811.202.

"Design Period" means that length of time determined by the sum of the operating life of the solid waste landfill facility plus the postclosure care period necessary to stabilize the waste in the units.

"DISPOSAL" MEANS THE DISCHARGE, DEPOSIT, INJECTION, DUMPING, SPILLING, LEAKING OR PLACING OF ANY SOLID WASTE INTO OR ON ANY LAND OR WATER OR INTO ANY WELL SUCH THAT SOLID WASTE OR ANY CONSTITUENT OF THE SOLID WASTE MAY ENTER THE ENVIRONMENT BY BEING EMITTED INTO THE AIR OR DISCHARGED INTO ANY WATERS, INCLUDING GROUNDWATER. (Section 3.08 of the Act.) If the solid waste is accumulated and not confined or contained to prevent its entry into the environment, or there is no certain plan for its disposal elsewhere, such accumulation shall constitute disposal.

"Disturbed areas" means those areas within a facility that have been physically altered during waste disposal operations or during the construction of any part of the facility.

"Documentation" means items, in any tangible form, whether directly legible or legible with the aid of any machine or device, including but not limited to affidavits, certificates, deeds, leases, contracts or other binding agreements, licenses, permits, photographs, audio or video recordings, maps, geographic surveys, chemical and mathematical formulas or equations, mathematical and statistical calculations and assumptions, research papers, technical reports, technical designs and design drawings, stocks, bonds and financial records, that are used to support facts or hypotheses.

"Earth liners" means structures constructed from naturally occurring soil material that has been compacted to achieve a low permeability.

"Existing facility" or "Existing unit" means a facility or unit which is not defined in this Section as a new facility or a new unit.

"EXISTING MSWLF UNIT" MEANS ANY MUNICIPAL SOLID WASTE LANDFILL UNIT THAT HAS RECEIVED HOUSEHOLD WASTE BEFORE OCTOBER 9, 1993. (Section 3.87 of the Act)

"Facility" means a site and all equipment and fixtures on a site used to treat, store or dispose of solid or special wastes. A facility consists of an entire solid or special waste treatment, storage or disposal operation. All structures used in connection with or to facilitate the waste disposal operation shall be considered a part of the facility. A facility may include, but is not limited to, one or more solid waste disposal units, buildings, treatment systems, processing and storage operations, and monitoring stations.

"Field capacity" means that maximum moisture content of a waste, under field conditions of temperature and pressure, above which moisture is released by gravity drainage.

"Gas collection system" means a system of wells, 1trenches, pipes and other related ancillary structures such as manholes, compressor housing, and monitoring installations that collects and transports the gas produced in a putrescible waste disposal unit to one or

more gas processing points. The flow of gas through such a system may be produced by naturally occurring gas pressure gradients or may be aided by an induced draft generated by mechanical means.

"Gas condensate" means the liquid formed as a landfill gas is cooled or compressed.

"Gas venting system" means a system of wells, trenches, pipes and other related structures that vents the gas produced in a putrescible waste disposal unit to the atmosphere.

"Geomembranes" means manufactured membrane liners and barriers of low permeability used to control the migration of fluids or gases.

"Geotextiles" are permeable manufactured materials used for purposes which include, but are not limited to, strengthening soil, providing a filter to prevent clogging of drains, collecting and draining liquids and gases beneath the ground surface.

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

"HOUSEHOLD WASTE" MEANS ANY SOLID WASTE (INCLUDING GARBAGE, TRASH, AND SANITARY WASTE IN SEPTIC TANKS) DERIVED FROM HOUSEHOLDS (INCLUDING SINGLE AND MULTIPLE RESIDENCES, HOTELS AND MOTELS, BUNKHOUSES, RANGER STATIONS, CREW QUARTERS, CAMPGROUNDS, PICNIC GROUNDS, AND DAY-USE RECREATION AREAS). (Section 3.89 of the Act)

"Hydraulic barriers" means structures designed to prevent or control the seepage of water. Hydraulic barriers include, but are not limited to cutoff walls, slurry walls, grout curtains and liners.

"Inert waste" means any solid waste that will not decompose biologically, burn, serve as food for vectors, form a gas, cause an odor, or form a contaminated leachate, as determined in accordance with Section 811.202(b). Such inert wastes shall include only non-biodegradable and non-putrescible solid wastes. Inert wastes may include, but are not limited to, bricks, masonry and concrete (cured for 60 days or more).

"Land application unit" means an area where wastes are agronomically spread over or disked into land or otherwise applied so as to become incorporated into the soil surface. For the purposes of this Part and 35 Ill. Adm. Code 811 through 815, a land application unit is not a landfill; however, other Parts of 35 Ill. Adm. Code: Chapter I may apply, and may include the permitting requirements of 35 Ill. Adm. Code 309.

"Landfill" means a unit or part of a facility in or on which waste is placed and accumulated over time for disposal, and which is not a land application unit, a surface impoundment or an underground injection well. For the purposes of this Part and 35 Ill. Adm. Code 811 through 815, landfills include waste piles, as defined in this Section.

"LATERAL EXPANSION" MEANS A HORIZONTAL EXPANSION OF THE ACTUAL WASTE BOUNDARIES OF AN EXISTING MSWLF UNIT OCCURRING ON OR AFTER OCTOBER 9, 1993. FOR PURPOSES OF THIS SECTION, A HORIZONTAL EXPANSION IS ANY AREA WHERE SOLID WASTE IS PLACED FOR THE FIRST TIME DIRECTLY UPON THE BOTTOM LINER OF THE UNIT, EXCLUDING SIDE SLOPES ON OR AFTER OCTOBER 9, 1993. (Section 3.88 Of the Act)

"Leachate" means liquid that has been or is in direct contact with a solid waste.

"Lift" means an accumulation of waste which is compacted into a unit and over which cover is placed.

"Malodor" means an odor caused by ONE OR MORE CONTAMINANT EMISSIONS INTO THE ATMOSPHERE FROM A FACILITY THAT IS IN SUFFICIENT QUANTITIES AND OF SUCH CHARACTERISTICS AND DURATION AS TO BE described as malodorous and which may be INJURIOUS TO HUMAN, PLANT, OR ANIMAL LIFE, TO HEALTH, OR TO PROPERTY, OR TO UNREASONABLY INTERFERE WITH THE ENJOYMENT OF LIFE OR PROPERTY. (Section 3.02 of the Act (defining "air pollution").)

"MUNICIPAL SOLID WASTE LANDFILL UNIT" OR "MSWLF UNIT" MEANS A CONTIGUOUS AREA OF LAND OR AN EXCAVATION THAT RECEIVES HOUSEHOLD WASTE, AND THAT IS NOT A LAND APPLICATION, SURFACE IMPOUNDMENT, INJECTION WELL, OR ANY PILE OF NONCONTAINERIZED ACCUMULATIONS OF SOLID, NONFLOWING WASTE THAT IS USED FOR TREATMENT OR STORAGE. A MSWLF UNIT MAY ALSO RECEIVE OTHER TYPES OF RCRA SUBTITLE D WASTES, SUCH AS COMMERCIAL SOLID WASTE, NONHAZARDOUS SLUDGE, SMALL QUANTITY GENERATOR WASTE AND INDUSTRIAL SOLID WASTE. SUCH A LANDFILL MAY BE PUBLICLY OR PRIVATELY OWNED OR OPERATED. A MSWLF UNIT

MAY BE A NEW MSWLF UNIT, AN EXISTING MSWLF UNIT OR A LATERAL EXPANSION. A SANITARY LANDFILL IS SUBJECT TO REGULATION AS A MSWLF IF IT RECEIVES HOUSEHOLD WASTE. (Section 3.85 of the Act)

"National Pollutant Discharge Elimination System" or "NPDES" means the program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits and imposing and enforcing pretreatment requirements under the Clean Water Act (33 U.S.C. 1251 et seq.), Section 12(f) of the Environmental Protection Act and 35 Ill. Adm. Code 309.Subpart A and 310. "NPDES permit" means a permit issued under the NPDES program.

"New facility" or "New unit" means a solid waste landfill facility or a unit at a facility, if one or more of the following conditions apply:

It is a landfill or unit exempt from permit requirements pursuant to Section 21(d) of the Act that has not yet accepted any waste as of the effective date of this Part;

It is a landfill or unit not exempt from permit requirements pursuant to Section 21(d) of the Act that has no development or operating permit issued by the Agency pursuant to 35 Ill. Adm. Code 807 as of the effective date of this Part; or

It is a landfill with a unit whose maximum design capacity or lateral extent is increased after the effective date of this Part.

BOARD NOTE: A new unit located in an existing facility shall be considered a unit subject to 35 Ill. Adm. Code 814, which references applicable requirements of 35 Ill. Adm. Code 811.

"NEW MSWLF UNIT" MEANS ANY MUNICIPAL SOLID WASTE LANDFILL UNIT THAT HAS RECEIVED HOUSEHOLD WASTE ON OR AFTER OCTOBER 9, 1993 FOR THE FIRST TIME. (Section 3.86 of the Act)

"One hundred (100) year flood plain" means any land area which is subject to a one percent or greater chance of flooding in a given year from any source.

"One hundred (100) year, 24 hour precipitation event" means a precipitation event of 24 hour duration with a probable recurrence interval of once in 100 years.

"Operator" means the person responsible for the operation and maintenance of a solid waste disposal facility.

"Owner" means a person who has an interest, directly or indirectly, in land, including a leasehold interest, on which a person operates and maintains a solid waste disposal facility. The "owner" is the "operator" if there is no other person who is operating and maintaining a solid waste disposal facility.

"Perched watertable " means an elevated watertable above a discontinuous saturated lens, resting on a low permeability (such as clay) layer within a high permeability (such as sand) formation.

"Permit area" means the entire horizontal and vertical region occupied by a permitted solid waste disposal facility.

"PERSON" IS ANY INDIVIDUAL, PARTNERSHIP, CO-PARTNERSHIP, FIRM, COMPANY, CORPORATION, ASSOCIATION, JOINT STOCK COMPANY, TRUST, ESTATE, POLITICAL SUBDIVISION, STATE AGENCY, OR ANY OTHER LEGAL ENTITY, OR THEIR LEGAL REPRESENTATIVE, AGENT OR ASSIGNS. (Section 3.26 of the Act.)

"Professional engineer" means a person who has registered and obtained a seal pursuant to "The Illinois Professional Engineering Act" (Ill. Rev. Stat 1989, ch. 111, par. 5101 et seq.).

"Professional land surveyor" means a person who has received a certificate of registration and a seal pursuant to "The Land Surveyors Act" (Ill. Rev. Stat. 1989, ch. 111, par. 3201 et seq.).

"Putrescible waste" means a solid waste that contains organic matter capable of being decomposed by microorganisms so as to cause a malodor, gases, or other offensive conditions, or which is capable of providing food for birds and vectors. Putrescible wastes may form a contaminated leachate from microbiological degradation, chemical processes, and physical processes. Putrescible waste includes, but is not limited to, garbage, offal, dead animals, general household waste, and commercial waste. All solid wastes which do not meet the definitions of inert or chemical wastes shall be considered putrescible wastes.

"Publicly owned treatment works" or "POTW" means a treatment works that is owned by the State of Illinois

or a unit of local government. This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastewater. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW treatment plant. The term also means the unit of local government which has jurisdiction over the indirect discharges to and the discharges from such a treatment works.

"RESOURCE CONSERVATION RECOVERY ACT" "RCRA" MEANS THE RESOURCE CONSERVATION AND RECOVERY ACT OF 1976 (P.L. 94-580 Codified as 42 USC. §§ 6901 et seq.) AS AMENDED. (Section 3.90 of the Act)

"Recharge zone" means an area through which water can enter an aquifer.

"Responsible charge," when used to refer to a person, means that the person is normally present at a waste disposal site; directs the day-to-day overall operation at the site; and either is the owner or operator or is employed by or under contract with the owner or operator to assure that the day-to-day operations at the site are carried out in compliance with any Part of 35 Ill. Adm. Code: Chapter I governing operations at waste disposal sites.

"Runoff" means water resulting from precipitation that flows overland before it enters a defined stream channel, any portion of such overland flow that infiltrates into the ground before it reaches the stream channel, and any precipitation that falls directly into a stream channel.

"Salvaging" means the return of waste materials to use, under the supervision of the landfill operator, so long as the activity is confined to an area remote from the operating face of the landfill, it does not interfere with or otherwise delay the operations of the landfill, and it results in the removal of all materials for salvaging from the landfill site daily or separates them by type and stores them in a manner that does not create a nuisance, harbor vectors or cause an unsightly appearance.

"Scavenging" means the removal of materials from a solid waste management facility or unit which is not salvaging.

"Seismic Slope Safety Factor" means the ratio between the resisting forces or moments in a slope and the

driving forces or moments that may cause a massive slope failure during an earthquake or other seismic event such as an explosion.

"Settlement" means subsidence caused by waste loading, changes in groundwater level, chemical changes within the soil and adjacent operations involving excavation.

"Shredding" means the mechanical reduction in particle sizes of solid waste. Putrescible waste is considered shredded if 90 percent of the waste by dry weight passes a 3 inch sieve.

"Significant Modification" means a modification to an approved permit issued by the Agency in accordance with Section 39 of the Act and 35 Ill. Adm. Code 813 that is required when one or more of the following changes, considered significant when that change measured by one or more parameters whose values lie outside the expected operating range of values as specified in the permit, are planned, occur or will occur:

An increase in the capacity of the waste disposal unit over the permitted capacity;

Any change in the placement of daily, intermediate or final cover;

A decrease in performance, efficiency or longevity of the liner system;

A decrease in efficiency or performance of the leachate collection system;

A change in configuration, performance, or efficiency of the leachate management system;

A change in the final disposition of treated effluent or in the quality of the discharge from the leachate treatment or pretreatment system;

Installation of a gas management system, or a decrease in the efficiency or performance of an existing gas management system;

A change in the performance or operation of the surface water control system;

A decrease in the quality or quantity of data from any environmental monitoring system;

A change in the applicable background concentrations or the maximum allowable predicted concentrations;

A change in the design or configuration of the regraded area after development or after final closure;

A change in the amount or type of postclosure financial assurance;

Any change in the permit boundary;

A change in the postclosure land use of the property;

A remedial action necessary to protect groundwater;

Transfer of the permit to a new operator;

Operating authorization is being sought to place into service a structure constructed pursuant to a construction quality assurance program; or

A change in any requirement set forth as a special condition in the permit.

"Sole source aquifer" means those aquifers designated pursuant to Section 1424(e) of the Safe Drinking Water Act of 1974, (42 U.S.C 300h-3).

"Solid Waste" means a waste that is defined in this Section as an inert waste, as a putrescible waste, as a chemical waste or as a special waste, and which is not also defined as a hazardous waste pursuant to 35 Ill. Adm. Code 721.

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

"Static Safety Factor" means the ratio between resisting forces or moments in a slope and the driving forces or moments that may cause a massive slope failure.

"Surface impoundment" means a natural topographic depression, a man-made excavation, or a diked area into which flowing wastes, such as liquid wastes or wastes containing free liquids, are placed. For the purposes

of this Part and 35 Ill. Adm. Code 811 through 815, a surface impoundment is not a landfill. Other Parts of 35 Ill. Adm. Code: Chapter I may apply, including the permitting requirements of 35 Ill. Adm. Code 309.

"Twenty-five (25) year, 24 hour precipitation event" means a precipitation event of 24 hour duration with a probable recurrence interval of once in 25 years.

"Uppermost aquifer" means the first geologic formation above or below the bottom elevation of a constructed liner or wastes, where no liner is present, which is an aquifer, and includes any lower aquifer that is hydraulically connected with this aquifer within the facility's permit area.

"Unit" means a contiguous area used for solid waste disposal.

"Unit of local government" means a unit of local government, as defined by Article 7, Section 1 of the Illinois Constitution. A unit of local government may include, but is not limited to, a municipality, a county, or a sanitary district.

"Waste pile" means an area on which non-containerized masses of solid, non flowing wastes are placed for disposal. For the purposes of this Part and 35 Ill. Adm. Code 811 through 815, a waste pile is a landfill, unless the operator can demonstrate that the wastes are not accumulated over time for disposal. At a minimum, such demonstration shall include photographs, records or other observable or discernable information, maintained on a yearly basis, that show that within the preceding year the waste has been removed for utilization or disposed elsewhere.

"Waste stabilization" means any chemical, physical or thermal treatment of waste, either alone or in combination with biological processes, which results in a reduction of microorganisms, including viruses, and the potential for putrefaction.

"Working face" means any part of a landfill where waste is being disposed.

"Zone of attenuation" is the three dimensional region formed by excluding the volume occupied by the waste placement from the smaller of the volumes resulting from vertical planes drawn to the bottom of the uppermost aquifer at the property boundary or 100 feet from the edge of one or more adjacent units.

Section 810.104 Incorporations by Reference

a) The Board incorporates the following material by reference:

40 CFR 141.40 (1988).

Auditing Standards--Current Text, August 1, 1990 Edition, available through the American Institute of Certified Public Accountants, 1211 Avenue of the Americas, New York, NY 10036.

Test Methods for Evaluating Solid Waste, Physical/Chemical methods, EPA Publication SW-846 (Third Edition, 1986 as amended by Update I (November, 1990). SW-846 and Update I are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, Ph: (202) 783-3238.

40 CFR 258.Appendix II (1992).

b) This incorporation includes no later amendments or editions.

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

PART 811
STANDARDS FOR NEW SOLID WASTE LANDFILLS

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SUBPART C: PUTRESCIBLE AND CHEMICAL WASTE LANDFILLS

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SUBPART E: CONSTRUCTION QUALITY ASSURANCE PROGRAMS

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SUBPART G: FINANCIAL ASSURANCE

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811.701 Upgrading Financial Assurance
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Illustration B Certificate of Acknowledgment
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Illustration I Letter from Chief Financial Officer

811.Appendix B Section-by-Section Correlation Between the Requirements of the Federal MSWLF Regulations at 40 CFR 258 (1992) and the Requirements of Parts 810 through 814.

AUTHORITY: Implementing Sections 5, 21, 21.1, 22, 22.17 and 28.1 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1989, ch. 111 1/2, pars. 1005, 1021, 1021.1, 1022, 1022.17, 1028.1 and 1027).

SOURCE: Adopted in R88-7 at 14 Ill. Reg. , effective .

NOTE: Capitalization indicates statutory language.

SUBPART A: GENERAL STANDARDS FOR ALL LANDFILLS

Section 811.101 Scope and Applicability

a) The standards of this Part apply to all new landfills, except those regulated pursuant to 35 Ill. Adm. Code 700 through 749. Subpart A contains general standards applicable to all new landfills. Subpart B contains additional standards for new landfills which dispose of only inert wastes. Subpart C contains additional standards for new landfills which dispose of chemical and putrescible wastes.

b) This Part shall not apply until one year after the effective date of this Part to new landfills solely receiving the following wastes generated by the following industries, provided that proposed regulations of general applicability to that industry category are filed with the Board no later than December 1, 1990: wastes generated by foundries and primary steel production facilities and coal combustion wastes generated by electric utilities. The requirements of 35 Ill. Adm. Code 807 shall apply to such landfills during the interim period of one year

after the effective date of this Part. This Part shall become effective immediately after Dec. 1, 1990 if no proposal has been filed by that date.

c) All general provisions of 35 Ill. Adm. Code 810 apply to this Part.

d) Standards for Municipal Solid Waste landfills

1) The standards of this Part also apply to all new MSWLF units, as defined at 35 Ill. Adm. Code 810.103. The standards for the new MSWLF units include:

A) The standards applicable to new landfills pursuant to subsection (a); and

B) The standards adopted in this part that are identical-in-substance to the federal regulations promulgated by the U.S. Environmental Protection Agency pursuant Sections 4004 and 4010 of the RCRA relating to MSWLF program. Such standards are individually indicated as applicable to MSWL units.

2) The Appendix table 811.Appendix B provides a Section-by-Section correlation between the requirements of the federal MSWLF regulations at 40 CFR 258 (1992) and the requirements of this Part.

3) An owner or operator of a MSWLF unit shall also comply with any other applicable Federal rules, laws, regulations, or other requirements.

BOARD NOTE: Subsection (d)(3) is Derived from 40 CFR 258.3 (1992).

Section 811.107 Operating Standards

a) Phasing of Operations

1) Waste shall be placed in a manner and at such a rate that mass stability is provided during all phases of operation. Mass stability shall mean that the mass of the waste deposited will not undergo settling or slope failure that interrupts operations at the facility or causes damage to any of the various landfill operations or structures, such as the liner, leachate or drainage collection

system, gas collection system or monitoring system.

2) The phasing of operations at the facility shall be designed in such a way as to allow the sequential construction, filling, and closure of discrete units or parts of units.

3) The operator shall design and sequence the waste placement operation in each discrete unit or parts of units, in conjunction with the overall operations of the facility, so as to shorten the operational phase and allow wastes to be built up to the planned final grade.

b) Size and Slope of Working Face

1) The working face of the unit shall be no larger than is necessary, based on the terrain and equipment used in waste placement, to conduct operations in a safe and efficient manner.

2) The slopes of the working face area shall be no steeper than two to one (horizontal to vertical) unless the waste is stable at steeper slopes.

c) Equipment

Equipment shall be maintained and available for use at the facility during all hours of operation, so as to achieve and maintain compliance with the requirements of this Part.

d) Utilities

All utilities, including but not limited to heat, lights, power and communications equipment, necessary for safe operation in compliance with the requirements of this Part shall be available at the facility at all times.

e) Maintenance

The operator shall maintain and operate all systems and related appurtenances and structures in a manner that facilitates proper operations in compliance with this Part.

f) Open Burning

Open burning is prohibited except in accordance with 35 Ill. Adm. Code 200 through 245.

g) Dust Control

The operator shall implement methods for controlling dust so as to prevent wind dispersal of particulate matter.

h) Noise Control

The facility shall be designed, constructed and maintained to minimize the level of equipment noise audible outside the facility. The facility shall not cause or contribute to a violation of 35 Ill. Adm. Code 900 through 905 or of Section 24 of the Act.

i) Vector Control

The operator shall implement measures to control the population of disease and nuisance vectors.

j) Fire Protection

The operator shall institute fire protection measures including, but not limited to, maintaining a supply of water on-site and radio or telephone access to the nearest fire department.

k) Litter Control

1) The operator shall patrol the facility daily to check for litter accumulation. All litter shall be collected and placed in the fill or in a secure, covered container for later disposal.

2) The facility shall not accept solid waste from vehicles that do not utilize devices such as covers or tarpaulins to control litter, unless the nature of the solid waste load is such that it cannot cause any litter during its transportation to the facility.

l) Mud Tracking

The facility shall implement methods, such as use of wheel washing units, to prevent tracking of mud by hauling vehicles onto public roadways.

m) Liquids Restrictions for MSWLF units

1) Bulk or noncontainerized liquid waste may not be placed in MSWLF units unless:

A) The waste is household waste other than septic waste; or

B) The waste is leachate or gas condensate derived from the MSWLF unit and the MSWLF unit, whether it is a new or existing MSWLF unit or lateral expansion, is designed with a composite liner and leachate collection system that complies with the requirements of Sections 811.306 through 811.309.

2) Containers holding liquid waste may not be placed in a MSWLF unit unless:

A) The container is a small container similar in size to that normally found in household waste;

B) The container is designed to hold liquids for use other than storage; or

C) The waste is household waste.

3) For purposes of this Section:

A) "Liquid waste" means any waste material that is determined to contain "free liquids" as defined by Method 9095 (Paint Filter Liquids Test), as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Pub. No. SW-846) incorporated by reference in 35 Ill. Adm Code 810.104.

B) "Gas condensate" means the liquid generated as a result of gas recovery processes at the MSWLF unit.

BOARD NOTE. Subsection 811.107(m) is Derived from 40 CFR 258.28 (1992).

Section 811.110 Closure and Written Closure Plan

a) The final slopes and contours shall be designed to complement and blend with the surrounding topography of the proposed final land use of the area.

b) All drainage ways and swales shall be designed to safely pass the runoff from the 100-year, 24-hour precipitation event without scouring or erosion.

c) The final configuration of the facility shall be designed in a manner that minimizes the need for further maintenance.

d) Written closure plan

1) The operator shall maintain a written plan describing all actions that the operator will undertake to close the unit or facility in a manner that fulfills the provisions of the Act, of this Part and of other applicable Parts of 35 Ill. Adm. Code: Chapter I. The written closure plan shall fulfill the minimum information requirements of 35 Ill. Adm. Code 812.114.

2) A modification of the written closure plan shall constitute a significant modification of the permit for the purposes of 35 Ill. Adm. Code 813.Subpart B.

3) In addition to the informational requirements of subsection 811.110(d)(1), an owner or operator of a MSWLF unit shall include the following information in the written closure plan:

A) An estimate of the largest area of the MSWLF unit ever requiring a final cover, as required by Section 811.314, at any time during the active life; and

B) An estimate of the maximum inventory of wastes ever on-site over the active life of the lanfill facility.

BOARD NOTE: Subsection 811.110(d)(3) is Derived from 40 CFR 258.60 (c)(1) and (c)(2) (1992).

e) The owner or operator of a MSWLF unit shall begin closure activities for each MSWLF unit no later than the date determined as follows:

1) 30 days after the date on which the MSWLF unit receives the final receipt of wastes; or

2) If the MSWLF unit has remaining capacity and there is a reasonable likelihood that the MSWLF unit will receive additional wastes, no later than one year after the most recent receipt of wastes.

3) The Agency shall grant extensions beyond this one-year deadline for beginning closure if the owner or operator demonstrates that:

A) the MSWLF unit has the capacity to receive additional wastes; and

B) the owner or operator has taken and will continue to take all steps necessary to prevent threats to human health and the environment from the unclosed MSWLF unit.

BOARD NOTE. Subsection (e) is Derived from 40 CFR 258.60(f) (1992).

f) The owner or operator of a MSWLF unit shall complete closure activities for each unit in accordance with the closure plan no later than the dates determined as follows:

1) within 180 days of beginning closure, as specified in subsection (e) of this Section.

2) The Agency shall grant extension of the closure period if the owner or operator demonstrates that:

A) the closure will, of necessity, take longer than 180 days; and

B) the owner or operator has taken and will continue to take all necessary steps to prevent threats to human health and the environment from the unclosed MSWLF unit.

BOARD NOTE. Subsection (e) is Derived from 40 CFR 258.60(g) (1992).

g) Deed notation.

1) Following closure of all MSWLF units at a site, the owner or operator shall record a notation on the deed to the landfill facility property or some other instrument that is normally examined during title search. The owner or operator shall place a copy of the instrument in the operating record, and shall notify the Agency that the notation has been recorded and a copy has been placed in the operating record.

2) The notation on the deed or other instrument must be made in such a way that in perpetuity notify any potential purchaser of the property that:

A) The land has been used as a landfill facility; and

B) Its use is restricted pursuant to Section 811.111(d).

BOARD NOTE. Subsection (g) is Derived from 40 CFR 258.60(i) (1992).

h) The Agency shall allow the owner or operator of a MSWLF unit to remove the notation from the deed only if the owner or operator demonstrates to the Agency that all wastes are removed from the facility.

BOARD NOTE. Subsection (h) is Derived from 40 CFR 258.60(j) (1992).

Section 811.111 Postclosure Maintenance

a) The operator shall treat, remove from the site, or dispose of all wastes and waste residues within 30 days after receipt of the final volume of waste.

b) The operator shall remove all equipment or structures not necessary for the postclosure land use, unless otherwise authorized by permit.

c) Maintenance and Inspection of the Final Cover and Vegetation:

1) Frequency of Inspections

A) The operator shall conduct a quarterly inspection of all vegetated surfaces for a minimum of five years after closure, and after five years, the operator may reduce the frequency of annual inspections until settling has stopped and there are no eroded or scoured areas.

B) For landfills, other than those used exclusively for disposing waste generated at the site, inspections shall be continued for a minimum period of 15 years after closure.

C) For MSWLF units, inspections performed in accordance with subsection (c)(1)(A) shall be continued for a minimum period of 30 years after closure, except as otherwise provided by subsections (c)(1)(D) and (c)(1)(E), below.

D) The Agency may reduce the inspection and maintenance period at a MSWLF unit upon a demonstration by the owner or operator that the reduced period is sufficient to protect human health and environment.

E) The owner or operator of a MSWLF unit shall petition the Board for an adjusted standard in accordance with Section 811.303, if the owner or operator seeks a reduction of the postclosure care monitoring period for all of the following requirements:

i) Inspection and maintenance (Section 811.111);

ii) Leachate collection (Section 811.309);

iii) Gas monitoring (Section 811.310); and

iv) Groundwater monitoring (Section 811.319).

2) All rills, gullies and crevices six inches or deeper identified in the inspection shall be filled. Areas identified by the operator or the Agency inspection as particularly susceptible to erosion shall be recontoured.

3) All eroded and scoured drainage channels shall be repaired and lining material shall be replaced if necessary.

4) All holes and depressions created by settling shall be filled and recontoured so as to prevent standing water.

5) All reworked surfaces, and areas with failed or eroded vegetation in excess of 100 square feet cumulatively, shall be revegetated in accordance with the approved closure plan for the facility.

d) Planned uses of property at MSWLF units

1) The owner or operator of a MSWLF unit shall include a description of the planned uses of the property during the postclosure care period in the written postclosure care plan prepared pursuant to 35 Ill Adm. Code 812.115.

2) Postclosure use of the property must not disturb the integrity of the final cover, liner, any other components of the containment system, or the function of the monitoring systems, unless necessary to comply with the requirements of this Part.

3) The Agency shall approve any other disturbance if the owner or operator demonstrates that the disturbance of the final cover, liner or other component of the containment system, including any removal of waste, will not increase the potential threat to human health or the environment.

BOARD NOTE. Subsection (d) is Derived from 40 CFR 258.61(c)(3) (1992).

Section 811.112 Recordkeeping Requirements for MSWLF Units

The owner or operator of a MSWLF unit shall record and retain near the facility in an operating record or in some alternative location specified by the Agency, the information submitted to the Agency pursuant to 35 Ill. Adm. Code 812 and 813, as it becomes available. At a minimum, the operating record shall contain the following information, even if such information is not required by 35 Ill. Adm. Code 812 or 813:

a) Any location restriction demonstration required by Section 811.302(e) and 35 Ill. Adm. Code 812.109, 812.110, 812.303 and 812.305;

b) Inspection records, training procedures, and notification procedures required by Section 811.323;

c) Gas monitoring results and any remediation plans required by Sections 811.310 and 811.311;

d) Any MSWLF unit design documentation for placement of leachate or gas condensate in a MSWLF unit required by Section 811.107(m);

e) Any demonstration, certification, monitoring results, testing, or analytical data relating to the groundwater monitoring program required by Sections 811.319, 811.324, 811.325, and 811.326 35 Ill Adm. Code 812.317, 813.501 and 813.502;

f) Closure and post-closure care plans and any monitoring, testing, or analytical data required by Sections 811.110 and 811.111, and 35 Ill. Adm. Code 812.114(h), 812.115 and 812.313; and

g) Any cost estimates and financial assurance documentation required by Subpart G of this Part.

BOARD NOTE. The requirements of this Section are derived from 40 CFR 258.29 (1992).

SUBPART C: PUTRESCIBLE AND CHEMICAL WASTE LANDFILLS

Section 811.302 Facility Location

a) No part of a unit shall be located within a setback zone established pursuant to Section 14.2 or 14.3 of the Act;

b) No part of a unit shall be located within the recharge zone or within 366 meters (1200 feet), vertically or horizontally, of a sole-source aquifer designated by the United States Environmental Protection Agency pursuant to Section 1424(e) of the Safe Drinking Water Act (42 U.S.C. 300f et seq.) unless there is a stratum between the bottom of the waste disposal unit and the top of the aquifer that meets the following minimum requirements:

1) The stratum has a minimum thickness of 15.2 meters (50 feet);

2) The maximum hydraulic conductivity in both the horizontal and vertical directions is no greater than $1x10^{-7}$ centimeters per second, as determined by in situ borehole or equivalent tests;

3) There is no indication of continuous sand or silt seams, faults, fractures or cracks within the stratum that may provide paths for migration; and

4) Age dating of extracted water samples from both the aquifer and the stratum indicates that the time of travel for water percolating downward through the relatively impermeable stratum is no faster than 15.2 meters (50 feet) in 100 years.

c) A facility located within 152 meters (500 feet) of the right of way of a township or county road or state or interstate highway shall have its operations screened from view by a barrier of natural objects, fences, barricades, or plants no less than 2.44 meters (8 feet) in height.

d) No part of a unit shall be located closer than 152 meters (500 feet) from an occupied dwelling, school, or hospital that was occupied on the date when the operator first applied for a permit to develop the unit or the facility containing the unit, unless the owner of such dwelling, school, or hospital provides permission to the operator, in writing, for a closer distance.

e) The facility shall not be located closer than 1525 meters (5000 feet) of any runway used by piston type aircraft or within 3050 meters (10,000 feet) of any runway used by turbojet aircraft unless the Federal Aviation Administration provides the operator with written permission, including technical justification, for a closer distance.

f) An owner or operator proposing to locate a new MSWLF unit within a five-mile radius of any airport runway used by turbojet or piston-type aircraft shall notify the affected airport and the Federal Aviation Administration (FAA) within 7 days of filing a permit application with Agency in accordance with 35 Ill. Adm. Code 813 for developing a new landfill.

BOARD NOTE. Subsection (f) is derived from 40 CFR 258.10 (1992).

Section 811.303 Design Period

a) The design period for putrescible and chemical waste disposal units shall be the estimated operating life plus a postclosure care period of 30 years. The design period for putrescible waste landfill units, other than MSWLF units, may be reduced if ~~unless~~ measures are undertaken in compliance with subsections (b) and (c) to encourage stabilization of putrescible waste. The design period for a MSWLF unit may be reduced in accordance with subsection (d).

b) The design period for a disposal unit which accepts only putrescible waste in shredded form shall be the estimated operating life plus 20 years of postclosure care.

c) The design period for a putrescible waste disposal unit that recycles leachate in accordance with Section 811.309(f) shall be the estimated operating life plus 20 years of postclosure care.

d) An owner or operator of a MSWLF unit may petition the Board for an adjusted standard pursuant to Section 28.1 of the Act and 35 Ill. Adm. Code 106.Subpart G to reduce the minimum postclosure care specified in accordance with the requirements Sections 811.111(c), 811.309(h), 811.310(c), and 811.319(a).

BOARD NOTE: Subsection (d) is derived from 40 CFR 258.61(b)(1).

Section 811.309 Leachate Treatment and Disposal System

a) Leachate shall be allowed to flow freely from the drainage and collection system. The operator is responsible for the operation of a leachate management system designed to handle all leachate as it drains from the collection system. The leachate management system shall consist of any combination of storage, treatment, pretreatment, and disposal options designed and constructed in compliance with the requirements of this Section.

b) The leachate management system shall consist of any combination of multiple treatment and storage structures, to allow the management and disposal of leachate during routine maintenance and repairs.

c) Standards for On-site Treatment and Pretreatment

1) All on-site treatment or pretreatment systems shall be considered part of the facility.

2) The on-site treatment or pretreatment system shall be designed in accordance with the expected characteristics of the leachate. The design may include modifications to the system necessary to accommodate changing leachate characteristics.

3) The on-site treatment or pretreatment system shall be designed to function for the entire design period.

4) All of the facility's unit operations, tanks, ponds, lagoons and basins shall be designed and constructed with liners or containment structures to control seepage to groundwater.

5) All treated effluent discharged to waters of the State shall meet the requirements of 35 Ill. Adm. Code 309.

6) The treatment system shall be operated by an operator certified under the requirements of 35 Ill. Adm. Code 312.

d) Standards for Leachate Storage Systems

1) The leachate storage facility must be able to store a minimum of at least five days' worth of accumulated leachate at the maximum generation rate used in designing the leachate drainage system in accordance with Section 811.307. The

minimum storage capacity may be built up over time and in stages, so long as the capacity for five consecutive days of accumulated leachate, during extreme precipitation conditions, is available at any time during the design period of the facility.

2) All leachate storage tanks shall be equipped with secondary containment systems equivalent to the protection provided by a clay liner 0.61 meter (2 feet thick) having a permeability no greater than 10^{-7} centimeters per second.

3) Leachate storage systems shall be fabricated from material compatible with the leachate expected to be generated and resistant to temperature extremes.

4) The leachate storage system shall not cause or contribute to a malodor.

5) The leachate drainage and collection system shall not be used for the purpose of storing leachate.

e) Standards for Discharge to an Off-site Treatment Works

1) Leachate may be discharged to an off-site treatment works that meets the following requirements:

A) All discharges of effluent from the treatment works shall meet the requirements of 35 Ill. Adm. Code 309.

B) The treatment system shall be operated by an operator certified under the requirements of 35 Ill. Adm. Code 312.

C) No more than 50 percent of the average daily influent flow can be attributable to leachate from the solid waste disposal facility. Otherwise, the treatment works shall be considered a part of the solid waste disposal facility.

2) The operator is responsible for securing permission from the off-site treatment works for authority to discharge to the treatment works.

3) All discharges to a treatment works shall meet the requirements of 35 Ill. Adm. Code 310.

4) Pumps, meters, valves and monitoring stations that control and monitor the flow of leachate from the unit and which are under the control of the operator shall be considered part of the facility and shall be accessible to the operator at all times.

5) Leachate shall be allowed to flow into the sewerage system at all times; however, if access to the treatment works is restricted or anticipated to be restricted for longer than five days, then an alternative leachate management system shall be constructed in accordance with subsection (c).

6) Where leachate is not directly discharged into a sewerage system, the operator shall provide storage capacity sufficient to transfer all leachate to an off-site treatment works. The storage system shall meet the requirements of subsection (d).

f) Standards for Leachate Recycling Systems

1) Leachate recycling systems may be utilized only at permitted waste disposal units that meet the following requirements:

A) The unit must have a liner designed, constructed and maintained to meet the minimum standards of Section 811.306.

B) The unit must have a leachate collection system in place and operating in accordance with Section 811.307.

C) A gas management system, equipped with a mechanical device such as a compressor to withdraw gas, must be implemented to control odors and prevent migration of methane in accordance with Section 811.311.

D) The topography must be such that any accidental leachate runoff can be controlled by ditches, berms or other equivalent control means.

2) Leachate shall not be recycled during precipitation events or in volumes large enough to cause runoff or surface seeps.

3) The amount of leachate added to the unit shall not exceed the ability of the waste and cover soils to

transmit leachate flow downward. All other leachate shall be considered excess leachate, and a leachate management system capable of disposing of all excess leachate must be available.

4) The leachate storage and distribution system shall be designed to avoid exposure of leachate to air unless aeration or functionally equivalent devices are utilized.

5) The distribution system shall be designed to allow leachate to be evenly distributed beneath the surface over the recycle area.

6) Daily and intermediate cover shall be permeable to the extent necessary to prevent the accumulation of water and formation of perched watertables and gas buildup; alternatively cover shall be removed prior to additional waste placement.

7) Daily and intermediate cover shall slope away from the perimeter of the site to minimize surface discharges.

g) Leachate Monitoring

1) Representative samples of leachate shall be collected from each unit and tested in accordance with subsections (g)(2) and (g)(3) at a frequency of once per quarter while the leachate management system is in operation. The frequency of testing may be changed to once per year for any monitored constituent, if it is not detected in the leachate. However, if such a constituent is detected in the leachate, testing frequency shall return to a quarterly schedule.

2) Discharges of leachate from units that dispose of putrescible wastes shall be tested for the following constituents prior to treatment or pretreatment:

A) Five day biochemical oxygen demand (BOD_5);

B) Chemical oxygen demand;

C) Total Suspended Solids;

D) Total Iron;

E) pH;

F) Any other constituents listed in the operator's National Pollution Discharge Elimination System (NPDES) discharge permit, pursuant to 35 Ill. Adm. Code 304, or required by a publicly owned treatment works, pursuant to 35 Ill. Adm. Code 310; and

G) All of the indicator constituents chosen in accordance with 35 Ill. Adm. Code 811.319(a)(2)(B) and used by the operator for groundwater monitoring.

3) Discharges of leachate from units which dispose only chemical wastes shall be monitored for constituents determined by the characteristics of the chemical waste to be disposed of in the unit. They shall include, as a minimum:

A) pH;

B) Total Dissolved Solids;

C) Any other constituents listed in the operator's NPDES discharge permit, pursuant to 35 Ill. Adm. Code 304, or required by a publicly owned treatment works, pursuant to 35 Ill. Adm. Code 310; and

D) All of the indicator constituents chosen in accordance with 35 Ill. Adm. Code 811.319(a)(2)(B) and used by the operator for groundwater monitoring.

h) Time of Operation of the Leachate Management System

1) The operator shall collect and dispose of leachate for a minimum of five years after closure and thereafter until treatment is no longer necessary.

2) Treatment is no longer necessary if the leachate constituents do not exceed the wastewater effluent standards in 35 Ill. Adm. Code 304.124, 304.125, 304.126 and do not contain a BOD_5 concentration greater than 30 mg/L for six consecutive months.

3) Leachate collection at a MSWLF unit shall be continued for a minimum period of 30 years after closure, except as otherwise provided by subsections (h)(4) and (h)(5), below.

4) The Agency may reduce the leachate collection period at a MSWLF unit upon a demonstration by the owner or operator that the reduced period is sufficient to protect human health and environment.

5) The owner or operator of a MSWLF unit shall petition the Board for an adjusted standard in accordance with Section 811.303, if the owner or operator seeks a reduction of the postclosure care monitoring period for all of the following requirements:

   i) Inspection and maintenance (Section 811.111);

   ii) Leachate collection (Section 811.309);

   iii) Gas monitoring (Section 811.310); and

   iv) Groundwater monitoring (Section 811.319).

BOARD NOTE: Subsection (h) is derived from 40 CFR 258.61 (1992).

Section 811.310 Landfill Gas Monitoring

a) This Section applies to all units that dispose putrescible wastes.

b) Location and Design of Monitoring Wells

   1) Gas monitoring devices shall be placed at intervals and elevations within the waste to provide a representative sampling of the composition and buildup of gases within the unit.

   2) Gas monitoring devices shall be placed around the unit at locations and elevations capable of detecting migrating gas from the ground surface to the lowest elevation of the liner system or the top elevation of the groundwater, whichever is higher.

   3) A predictive gas flow model may be utilized to determine the optimum placement of monitoring points required for making observations and tracing the movement of gas.

4) Gas monitoring devices shall be constructed from materials that will not react with or be corroded by the landfill gas.

5) Gas monitoring devices shall be designed and constructed to measure pressure and allow collection of a representative sample of gas.

6) Gas monitoring devices shall be constructed and maintained to minimize gas leakage.

7) The gas monitoring system shall not interfere with the operation of the liner, leachate collection system or delay the construction of the final cover system.

8) At least three ambient air monitoring locations shall be chosen and samples shall be taken no higher than 0.025 meter (1 inch) above the ground and 30.49m (100 feet) downwind from the edge of the unit or at the property boundary, whichever is closer to the unit.

c) Monitoring Frequency

1) All gas monitoring devices, including the ambient air monitors shall be operated to obtain samples on a monthly basis for the entire operating period and for a minimum of five years after closure.

2) After a minimum of five years after closure, monitoring frequency may be reduced to quarterly sampling intervals.

3) The sampling frequency may be reduced to yearly sampling intervals upon the installation and operation of a gas collection system equipped with a mechanical device such as a compressor to withdraw gas.

4) Monitoring shall be continued ~~After~~ for a minimum period of: thirty years after closure at MSWLF units, except as otherwise provided by subsections (c)(5) and (c)(6), below; five years after closure ~~or, in the case of~~ at landfills, other than MSWLF units, ~~those~~ which are used exclusively for disposing of wastes generated at the site~~,~~; or ~~a minimum of~~ fifteen years after closure at all other landfills regulated under this Part.~~,~~ ~~m~~Monitoring, beyond the minimum period, may ~~shall~~ be discontinued if the following conditions have been met for at least one year:

A) The concentration of methane is less than five percent of the lower explosive limit in air for four consecutive quarters at all monitoring points outside the unit; and

B) Monitoring points within the unit indicate that methane is no longer being produced in quantities that would result in migration from the unit and exceed the standards of subsection (a)(1).

5) The operator shall include in the permit, a list of air toxics to be monitored in accordance with subsection (d). The Agency shall determine the monitoring frequency of the listed compounds based upon their emission rates and ambient levels in the atmosphere.

6) The Agency may reduce the gas monitoring period at a MSWLF unit upon a demonstration by the owner or operator that the reduced period is sufficient to protect human health and environment.

7) The owner or operator of a MSWLF unit shall petition the Board for an adjusted standard in accordance with Section 811.303, if the owner or operator seeks a reduction of the postclosure care monitoring period for all of the following requirements:

i) Inspection and maintenance (Section 811.111);

ii) Leachate collection (Section 811.309);

iii) Gas monitoring (Section 811.310); and

iv) Groundwater monitoring (Section 811.319).

BOARD NOTE: Changes to subsections (c) are derived from 40 CFR 258.61 (1992).

d) Parameters to be Monitored

1) All below ground monitoring devices shall be monitored for the following parameters at each sampling interval:

A) Methane;

B) Pressure;

C) Nitrogen;

D) Oxygen;

E) Carbon dioxide; and

F) Any compound on the list of air toxics, adopted by the Board pursuant to Section 9.5 of the Act, which is expected to be produced in the landfill unit.

2) Ambient air monitors shall be sampled for methane only when the average wind velocity is less than 8 kilometers (five miles) per hour at a minimum of three downwind locations 30.49 meters (100 feet) from the edge of the unit or the property boundary, whichever is closer to the unit.

3) All buildings within a facility shall be monitored for methane by utilizing continuous detection devices located at likely points where methane might enter the building.

Section 811.311 Landfill Gas Management System

a) The operator shall install a gas management system if any one of the following conditions are met:

1) A methane concentration greater than 50 percent of the lower explosive limit in air is detected below the ground surface by a monitoring device or is detected by an ambient air monitor located at or beyond the property boundary or 30.5 meters (100 feet) from the edge of the unit, whichever is less, unless the operator can demonstrate that the detected methane concentration is not attributable to the facility;

2) Methane is detected at a concentration greater than 25 percent of the lower explosive limit in air in any building on or near the facility, unless the operator can demonstrate that the detected methane concentration is not attributable to the facility;

3) Malodors caused by the unit are detected beyond the property boundary; or

4) Leachate is recycled in accordance with Section 811.309(e).

b) If methane gas levels exceed the limits specified in subsections (a)(1) or (a)(2), an owner or operator of a MSWLF unit shall:

1) Notify the Agency in writing, within two business days, of an observed exceedance; and

2) Implement the requirements of this Section to ensure the protection of human health.

~~b~~c) Standards for Gas Venting System

1) Gas venting systems shall be utilized only as optional, temporary mitigation until the completion of an active system.

2) All materials shall be resistant to chemical reaction with the constituents of the gas.

3) The system shall be capable of venting all gas down to the water table or bottom of the liner, whichever is higher.

4) Gas venting systems shall be installed only outside the perimeter of the unit.

~~c~~d) Standards for Gas Collection Systems

1) Gas collection systems may be installed either within the perimeter of the unit or outside the unit.

2) The operator shall design and operate the system so that the standards of subsections (a)(1), (a)(2), and (a)(3) will not be exceeded.

3) The gas collection system shall transport gas to a central point or points for processing for beneficial uses or disposal in accordance with the requirements of Section 811.312.

4) The gas collection system shall be designed to function for the entire design period. The design may include changes in the system to accommodate changing gas flow rates or compositions.

5) All materials and equipment used in construction of the system shall be rated by the manufacturer as safe for use in hazardous or explosive environments and shall be resistant to corrosion by constituents of the landfill gas.

6) The gas collection system shall be designed and constructed to withstand all landfill operating conditions, including settlement.

7) The gas collection system and all associated equipment including compressors, flares, monitoring installations, and manholes shall be considered part of the facility.

8) Provisions shall be made for collecting and draining gas condensate to a management system meeting the requirements of Section 811.309.

9) Under no circumstances shall the gas collection system compromise the integrity of the liner, leachate collection or cover systems.

10) The portion of the gas collection system, used to convey the gas collected from one or more units for processing and disposal shall be tested to be airtight to prevent the leaking of gas from the collection system or entry of air into the system.

11) The gas collection system shall be operated until the waste has stabilized enough to no longer produce methane in quantities that exceed the minimum allowable concentrations in subsections (a)(1), (a)(2), and (a)(3).

12) The gas collection system shall be equipped with a mechanical device, such as a compressor, capable of withdrawing gas, or be designed so that a mechanical device can be easily installed at a later time, if necessary, to meet the requirements of subsections (a)(1), (a)(2), and (a)(3).

<u>BOARD NOTE: Subsection (b) is derived from 40 CFR 258.23(c)(1) (1992).</u>

Section 811.314 Final Cover System

a) The unit shall be covered by a final cover consisting of a low permeability layer overlain by a final protective layer constructed in accordance with the requirements of this Section.

b) Standards for the Low Permeability Layer

1) Not later than 60 days after placement of the final lift of solid waste, a low permeability layer shall be constructed.

2) The low permeability layer shall cover the entire unit and connect with the liner system.

3) The low permeability layer shall consist of any one of the following:

A) A compacted earth layer constructed in accordance with the following standards:

i) The minimum allowable thickness shall be 0.91 meter (3 feet);

ii) The layer shall be compacted to achieve a permeability of $1x10^{-7}$ centimeters per second and minimize void spaces.

iii) Alternative specifications may be utilized provided that the performance of the low permeability layer is equal to or superior to the performance of a layer meeting the requirements of subsections (b)(3)(A)(i) and (b)(3)(A)(ii).

B) A geomembrane constructed in accordance with the following standards:

i) The geomembrane shall provide performance equal or superior to the compacted earth layer described in subsection (b)(3)(A).

ii) The geomembrane shall have strength to withstand the normal stresses imposed by the waste stabilization process.

iii) The geomembrane shall be placed over a prepared base free from sharp objects and other materials which may cause damage.

C) Any other low permeability layer construction techniques or materials, provided that they provide equivalent or superior performance to the requirements of this subsection.

4) For a MSWLF unit, subsection (b)(3) notwithstanding, if the bottom liner system permeability is lower than 1×10^{-7} cm/sec, the permeability of the low permeability layer of the

final cover system shall be less than or equal to the permeability of the bottom liner system.

c) Standards for the Final Protective Layer

1) The final protective layer shall cover the entire low permeability layer.

2) The thickness of the final protective layer shall be sufficient to protect the low permeability layer from freezing and minimize root penetration of the low permeability layer, but shall not be less than 0.91 meter (3 feet).

3) The final protective layer shall consist of soil material capable of supporting vegetation.

4) The final protective layer shall be placed as soon as possible after placement of the low permeability layer to prevent desiccation, cracking, freezing or other damage to the low permeability layer.

BOARD NOTE: subsection (b)(4) is derived from 40 CFR 258.60(a) (1992).

Section 811.318 Design, Construction and Operation of Groundwater Monitoring Systems

a) All potential sources of discharges to groundwater within the facility, including, but not limited to, all waste disposal units and the leachate management system, shall be identified and studied through a network of monitoring wells operated during the active life of the unit and for the time after closure specified in accordance with Section 811.319. Monitoring wells designed and constructed as part of the monitoring network shall be maintained along with records that include, but are not limited to, exact well location, well size, type of well, the design and construction practice used in its installation and well and screen depths.

b) Standards for the Location of Monitoring Points

1) A network of monitoring points shall be established at sufficient locations downgradient with respect to groundwater flow and not excluding the downward direction, to detect any discharge of contaminants from any part of a potential source of discharge.

2) Monitoring wells shall be located in stratigraphic horizons that could serve as contaminant migration pathways.

3) Monitoring wells shall be established as close to the potential source of discharge as possible without interfering with the waste disposal operations, and within half the distance from the edge of the potential source of discharge to the edge of the zone of attenuation downgradient, with respect to groundwater flow, from the source.

4) The network of monitoring points of several potential sources of discharge within a single facility may be combined into a single monitoring network, provided that discharges from any part of all potential sources can be detected.

5) A minimum of at least one monitoring well shall be established at the edge of the zone of attenuation and shall be located downgradient with respect to groundwater flow and not excluding the downward direction, from the unit. Such well or wells shall be used to monitor any statistically significant increase in the concentration of any constituent, in accordance with Section 811.320(e) and shall be used for determining compliance with an applicable groundwater quality standard of Section 811.320. An observed statistically significant increase above the applicable groundwater quality standards of Section 811.320 in a well located at or beyond the compliance boundary shall constitute a violation.

c) Maximum Allowable Predicted Concentrations

The operator shall use the same calculation methods, data, and assumptions as used in the groundwater impact assessment to predict the concentration over time and space of all constituents chosen to be monitored in accordance with Section 811.319 at all monitoring points. The predicted values shall be used to establish the maximum allowable predicted concentrations (MAPC) at each monitoring point. The MAPCs calculated in this subsection shall be applicable within the zone of attenuation.

d) Standards for Monitoring Well Design and Construction

1) All monitoring wells shall be cased in a manner that maintains the integrity of the bore hole. The casing material shall be inert so as not to

affect the water sample. Casing requiring solvent-cement type couplings shall not be used.

2) Wells shall be screened to allow sampling only at the desired interval. Annular space between the borehole wall and well screen section shall be packed with gravel sized to avoid clogging by the material in the zone being monitored. The slot size of the screen shall be designed to minimize clogging. Screens shall be fabricated from material expected to be inert with respect to the constituents of the groundwater to be sampled.

3) Annular space above the well screen section shall be sealed with a relatively impermeable, expandable material such as a cement/bentonite grout, which does not react with or in any way affect the sample, in order to prevent contamination of samples and groundwater and avoid interconnections. The seal shall extend to the highest known seasonal groundwater level.

4) The annular space shall be back-filled with expanding cement grout from an elevation below the frost line and mounded above the surface and sloped away from the casing so as to divert surface water away.

5) The annular space between the upper and lower seals and in the unsaturated zone may be back-filled with uncontaminated cuttings.

6) All wells shall be covered with vented caps and equipped with devices to protect against tampering and damage.

7) All wells shall be developed to allow free entry of water, minimize turbidity of the sample, and minimize clogging.

8) The transmissivity of the zone surrounding all well screens shall be established by field testing techniques.

9) Other sampling methods and well construction techniques may be utilized if they provide equal or superior performance to the requirements of this subsection.

e) Standards for Sample Collection and Analysis

1) The groundwater monitoring program shall include consistent sampling and analysis procedures to assure that monitoring results can be relied upon to provide data representative of groundwater quality in the zone being monitored.

2) The operator shall utilize procedures and techniques to insure that collected samples are representative of the zone being monitored and that prevent cross contamination of samples from other monitoring wells or from other samples. At least 95 percent of a collected sample shall consist of groundwater from the zone being monitored.

3) The operator shall establish a quality assurance program that provides quantitative detection limits and the degree of error for analysis of each chemical constituent.

4) The operator shall establish a sample preservation and shipment procedure that maintains the reliability of the sample collected for analysis.

5) The operator shall institute a chain of custody procedure to prevent tampering and contamination of the collected samples prior to completion of analysis.

6) At a minimum, the operator shall sample the following parameters at all wells at the time of sample collection and immediately before filtering and preserving samples for shipment:

   A) The elevation of the water table;

   B) The depth of the well below ground;

   C) pH;

   D) The temperature of the sample; and

   E) Specific Conductance.

7) In addition to the requirements of subsections (e)(1) through (e)(6), the following requirements shall apply to MSWLF units:

   A) Each time groundwater is sampled, an owner or operator of a MSWLF unit shall:

i) Measure the groundwater elevations in each well immediately prior to purging; and

ii) Determine the rate and direction of ground-water flow.

B) An owner or operator shall measure groundwater elevations in wells which monitor the same waste management area within a period of time short enough to avoid temporal variations in groundwater flow which could preclude accurate determination of groundwater flow rate and direction.

BOARD NOTE: subsection (e)(7) is derived from 40 CFR 258.53(d) (1992).

Section 811.319 Groundwater Monitoring Programs

a) Detection Monitoring Program

Any use of the term "maximum allowable predicted concentration" in this Section is a reference to 35 Ill. Adm. Code 811.318(c). The operator shall implement a detection monitoring program in accordance with the following requirements:

1) Monitoring Schedule and Frequency

A) The monitoring period shall begin as soon as waste is placed into the unit of a new landfill or within one year of the effective date of this Part for an existing landfill. Monitoring shall continue for a minimum period of fifteen years after closure, or in the case of MSWLF units, a minimum period of 30 years after closure, except as otherwise provided by subsection (a)(1)(C) of this Section. The operator shall sample all monitoring points for all potential sources of contamination on a quarterly basis except as specified in subsection (a)(3) or may institute more frequent sampling throughout the time the source constitutes a threat to groundwater. For the purposes of this section, the source shall be considered a threat to groundwater, if the results of the monitoring indicate that the concentrations of any of the constituent monitored within the zone of attenuation are above the maximum

allowable predicted concentration for that constituent.

B) Beginning fifteen years after closure of the unit, or five years after all other potential sources of discharge no longer constitute a threat to groundwater, as defined in subsection (a)(1)(A), the monitoring frequency may change on a well by well basis to an annual schedule if either of the following conditions exist. However, monitoring shall return to a quarterly schedule at any well where a statistically significant increase is determined to have occurred in accordance with Section 811.320(e), in the concentration of any constituent with respect to the previous sample.

i) All constituents monitored within the zone of attenuation have returned to a concentration less than or equal to ten percent of the maximum allowable predicted concentration; or

ii) All constituents monitored within the zone of attenuation are less than or equal to their maximum allowable predicted concentration for eight consecutive quarters.

C) Monitoring shall be continued for a minimum period of: thirty years after closure at MSWLF units, except as otherwise provided by subsections (a)(1)(D) and (a)(1)(E), below; five years after closure ~~or, in the case of~~ at landfills, other than MSWLF units, ~~those~~ which are used exclusively for disposing waste generated at the site~~,~~; or ~~a minimum period of~~ fifteen years after closure at all other landfills regulated under this Part. Monitoring, beyond the minimum period, may be discontinued under the following conditions:

i) No statistically significant increase is detected in the concentration of any constituent above that measured and recorded during the immediately preceding scheduled sampling for three consecutive years, after changing to an annual monitoring frequency; or

ii) Immediately after contaminated leachate is no longer generated by the unit.

D) The Agency may reduce the groundwater monitoring period at a MSWLF unit upon a demonstration by the owner or operator that the reduced period is sufficient to protect human health and environment.

E) An owner or operator of a MSWLF unit shall petition the Board for an adjusted standard in accordance with Section 811.303, if the owner or operator seeks a reduction of the postclosure care monitoring period for all of the following requirements:

i) Inspection and maintenance (Section 811.111);

ii) Leachate collection (Section 811.309);

iii) Gas monitoring (Section 811.310); and

iv) Groundwater monitoring (Section 811.319).

BOARD NOTE: Changes to subsections (a)(1)(A) and (a)(1)(C), and Subsections (a)(1)(D) and (a)(1)(E) are derived from 40 CFR 258.61 (1992).

2) Criteria for Choosing Constituents to be Monitored

A) The operator shall monitor each well for constituents that will provide a means for detecting groundwater contamination. Constituents shall be chosen for monitoring if they meet the following requirements:

i) The constituent appears in, or is expected to be in, the leachate; and

ii) The Board has established for the constituent a public or food processing water supply standard, at 35 Ill. Adm. Code 302, the Board has established a groundwater quality standard under the Illinois Groundwater Protection Act (Ill. Rev. Stat. 1989, ch. 111 1/2, par. 7451 et seq.), or the constituent may otherwise cause or contribute to groundwater contamination.

B) One or more indicator constituents, representative of the transport processes of constituents in the leachate, may be chosen for monitoring in place of the constituents it represents. The use of such indicator constituents must be included in an Agency approved permit.

3) Organic Chemicals Monitoring

The operator shall monitor each existing well that is being used as a part of the monitoring well network at the facility within one year of the effective date of this Part, and monitor each new well within three months of its establishment. The monitoring required by this subsection shall be for a broad range of organic chemical contaminants in accordance with the procedures described below:

A) The analysis shall be at least as comprehensive and sensitive as the tests for;

i) The 51 organic chemicals in drinking water described at 40 CFR 141.40 (1988), incorporated by reference at 35 Ill. Adm. Code 810.104; and

ii) Any other organic chemical for which a groundwater quality standard or criterion has been adopted pursuant to Section 14.4 of the Act or Section 8 of the Illinois Groundwater Protection Act.

B) At least once every two years, the operator shall monitor each well in accordance with subsection (a)(1)(A).

C) The operator of a MSWLF unit shall monitor each well in accordance with subsection (a)(1)(A) on an annual basis.

BOARD NOTE. Subsection (a)(3)(C) is derived from 40 CFR 258.54(b) (1992).

4) Confirmation of Monitored Increase

A) The confirmation procedures of this subsection shall be used only if the concentrations of the constituents monitored can be measured at or above the practical quantitation limit (PQL). The PQL is defined

as the lowest concentration that can be reliably measured within specified limits of precision and accuracy, under routine laboratory operating conditions. The operator shall institute the confirmation procedures of subsection (a)(4)(B) after notifying the Agency in writing, within 10 days, of the following observed increases :

i) The concentration of any constituent monitored in accordance with subsection (a)(1) and (a)(2) shows a progressive increase over four consecutive quarters;

ii) The concentration of any constituent exceeds the maximum allowable predicted concentration at an established monitoring point within the zone of attenuation;

iii) The concentration of any constituent monitored in accordance with subsection (a)(3) exceeds the preceding measured concentration at any established monitoring point; and

iv) The concentration of any constituent monitored at or beyond the zone of attenuation exceeds the applicable groundwater quality standards of Section 811.320.

B) The confirmation procedures shall include the following:

i) The operator shall verify any observed increase by taking additional samples within 45 days of the initial observation and ensure that the samples and sampling protocol used will detect any statistically significant increase in the concentration of the suspect constituent in accordance with subsection 811.320(e), so as to confirm the observed increase. The operator shall notify the Agency of any confirmed increase before the end of the next business day following the confirmation.

ii) The operator shall determine the source of any confirmed increase, which may include, but shall not be limited to,

natural phenomena, sampling or analysis errors, or an off-site source.

iii) The operator shall notify the Agency in writing of any confirmed increase and state the source of the confirmed increase and provide the rationale used in such a determination within ten days of the determination.

b) Assessment Monitoring

The operator shall begin an assessment monitoring program in order to confirm that the solid waste disposal facility is the source of the contamination and to provide information needed to carry out a groundwater impact assessment in accordance with subsection (c). The assessment monitoring program shall be conducted in accordance with the following requirements:

1) The assessment monitoring shall be conducted in accordance with this subsection to collect information to assess the nature and extent of groundwater contamination~~,~~. The owner or operator of a MSWLF unit shall comply with the additional requirements prescribed in subsection (b)(5). The assessment monitoring ~~which~~ shall consist of, but not be limited to, the following steps:

A) More frequent sampling of the wells in which the observation occurred;

B) More frequent sampling of any surrounding wells;

C) The placement of additional monitoring wells to determine the source and extent of the contamination;

D) Monitoring of additional constituents that might indicate the source and extent of contamination; and

E) Any other investigative techniques that will assist in determining the nature and extent of the contamination.

2) The operator of the facility for which assessment monitoring is required shall file the plans for an assessment monitoring program with the Agency. If the facility is permitted by the Agency, then the

plans shall be filed for review as a significant permit modification pursuant to 35 Ill. Adm. Code 813.Subpart B. The assessment monitoring program shall be implemented within 90 days of confirmation of any monitored increase in accordance with subsection (a)(4) or, in the case of permitted facilities, within 90 days of Agency approval.

3) If the analysis of the assessment monitoring data shows that the concentration of one or more constituents, monitored at or beyond the zone of attenuation is above the applicable groundwater quality standards of Section 811.320 and is attributable to the solid waste disposal facility, then the operator shall determine the nature and extent of the groundwater contamination including an assessment of the potential impact on the groundwater should waste continue to be accepted at the facility and shall implement remedial action in accordance with subsection (d).

4) If the analysis of the assessment monitoring data shows that the concentration of one or more constituents is attributable to the solid waste disposal facility and exceeds the maximum allowable predicted concentration within the zone of attenuation, then the operator shall conduct a groundwater impact assessment in accordance with the requirements of subsection (c).

5) In addition to the requirements of subsection (b)(1), to collect information to assess the nature and extent of groundwater contamination, the following requirements are applicable to MSWLF units:

A) The monitoring of additional constituents pursuant to (b)(1)(D) shall include, at a minimum, the constituents listed in 40 CFR 258. Appendix II, incorporated by reference at 35 Ill. Adm. Code 810.104.

BOARD NOTE. Subsection (b)(5)(A) is derived from 40 CFR 258.55(b) (1992).

B) Within 14 days of obtaining the results of sampling required under subsection (b)(5)(A), the owner or operator shall:

i) place a notice in the operating record identifying the constituents that have been detected; and

ii) notify the Agency that such a notice has been placed in the operating record.

BOARD NOTE. Subsection (b)(5)(B) is derived from 40 CFR 258.55(d)(1) (1992).

C) The owner or operator shall establish background concentrations for any constituents detected pursuant to subsection (b)(5)(A) in accordance with Section 811.320(e).

BOARD NOTE. Subsection (b)(5)(C) is derived from 40 CFR 258.55(d)(3) (1992).

D) Within 90 days of the initial monitoring in accordance with subsection (b)(5)(A), the owner or operator shall monitor for the constituents listed in 40 CFR 258.Appendix II on a semiannual basis during the assessment monitoring.

BOARD NOTE. Subsection (b)(5)(D) is derived from 40 CFR 258.55(d)(2) (1992).

E) The owner or operator may request the Agency to delete any of the of the 40 CFR 258.Appendix II constituents by demonstrating to the Agency that the deleted constituents are not reasonably expected to be in or derived from the waste contained in the leachate.

BOARD NOTE. Subsection (b)(5)(E) is derived from 40 CFR 258.55(b) (1992).

F) Within 14 days of finding an exceedance above the applicable groundwater quality standards in accordance with subsection (b)(3), the owner or operator shall:

i) place a notice in the operating record that identifies the constituents monitored under subsection (b)(1)(D) that have exceeded the groundwater quality standard;

ii) notify the Agency and the appropriate officials of the local municipality or county within whose boundaries the site is located that such a notice has been placed in the operating record; and

iii) notify all persons who own land or reside on land that directly overlies any part of the plume of contamination if contaminants have migrated off-site.

BOARD NOTE. Subsection (b)(5)(F) is derived from 40 CFR 258.55(g)(1)(i) through (iii) (1992).

G) If the concentrations of all 40 CFR 258.Appendix II constituents are shown to be at or below background values, using the statistical procedures in Section 811.320(e), for two consecutive sampling events, the owner or operator shall notify the Agency of this finding and may stop monitoring the 40 CFR 258.Appendix II constituents.

BOARD NOTE. Subsection (b)(5)(G) is derived from 40 CFR 258.55(e) (1992).

c) Assessment of Potential Groundwater Impact

An operator required to conduct a groundwater impact assessment in accordance with subsection (b)(4) shall assess the potential impacts outside the zone of attenuation that may result from confirmed increases above the maximum allowable predicted concentration within the zone of attenuation, attributable to the facility, in order to determine if there is need for remedial action. In addition to the requirements of Section 811.317, the following shall apply:

1) The operator shall utilize any new information developed since the initial assessment and information from the detection and assessment monitoring programs and such information may be used for the recalibration of the GCT model; and

2) The operator shall submit the groundwater impact assessment and any proposed remedial action plans determined necessary pursuant to subsection (d) to the Agency within 180 days of the start of the assessment monitoring program.

d) Remedial Action. The owner or operator of a MSWLF unit shall conduct corrective action in accordance with Sections 811.324, 811.325, and 811.326. The owner or operator of a landfill facility, other than a MSWLF unit, shall conduct remedial action in accordance with this subsection.

1) The operator shall submit plans for the remedial action to the Agency. Such plans and all supporting information including data collected during the assessment monitoring shall be submitted within 90 days of determination of either of the following:

A) The groundwater impact assessment performed in accordance with subsection (c), indicates that remedial action is needed; or

B) Any confirmed increase above the applicable groundwater quality standards of Section 811.320 is determined to be attributable to the solid waste disposal facility in accordance with subsection (b).

2) If the facility has been issued a permit by the Agency, then the operator shall submit this information as an application for significant modification to the permit;

3) The operator shall implement the plan for remedial action within 90 days of the following:

A) Completion of the groundwater impact assessment under subsection (c) that requires remedial action;

B) Establishing that a violation of an applicable groundwater quality standard of Section 811.320 is attributable to the solid waste disposal facility in accordance with subsection (b)(3); or

C) Agency approval of the remedial action plan, where the facility has been permitted by the Agency.

4) The remedial action program shall consist of one or a combination of one or more of the following solutions:

A) Retrofit additional groundwater protective measures within the unit;

B) Construct an additional hydraulic barrier, such as a cutoff wall or slurry wall system;

C) Pump and treat the contaminated groundwater; or

D) Any other equivalent technique which will prevent further contamination of groundwater.

5) Termination of the Remedial Action Program

A) The remedial action program shall continue in accordance with the plan until monitoring shows that the concentrations of all monitored constituents are below the maximum allowable predicted concentration within the zone of attenuation, and below the applicable groundwater quality standards of Section 811.320 at or beyond the zone of attenuation, over a period of 4 consecutive quarters.

B) The operator shall submit to the Agency all information collected under subsection (d)(5)(A). If the facility is permitted then the operator shall submit this information as significant modification of the permit.

Section 811.320 Groundwater Quality Standards

a) Applicable Groundwater Quality Standards

1) Groundwater quality shall be maintained at each constituent's background concentration, at or beyond the zone of attenuation. The applicable groundwater quality standard established for any constituent shall be:

A) The background concentration; or

B) The Board established standard adjusted by the Board in accordance with the justification procedure of subsection (b).

2) Any statistically significant increase above an applicable groundwater quality standard established pursuant to subsection (a) that is attributable to the facility and which occurs at or beyond the zone of attenuation within 100 years after closure of the last unit accepting waste within such a facility shall constitute a violation.

3) For the purposes of this Part:

A) "Background concentration" means that concentration of a constituent that is established as the background in accordance with subsection (d); and

B) "Board established standard" is the concentration of a constituent adopted by the Board as a standard for public and food processing water supplies under 35 Ill. Adm. Code 302 or as a groundwater quality standard adopted by the Board pursuant to Section 14.4 of the Act or Section 8 of the Illinois Groundwater Protection Act, whichever is lower.

b) Justification for Adjusted Groundwater Quality Standards

1) An operator may petition the Board for an adjusted groundwater quality standard in accordance with the procedures specified in Section 28.1 of the Act and 35 Ill. Adm. Code 106.410 through 106.416.

2) For groundwater which contains naturally occurring constituents which meet the requirements of 35 Ill. Adm. Code 302.301, 302.304, and 302.305, the Board will specify adjusted groundwater quality standards no greater than those of 35 Ill. Adm. Code 302.301, 302.304, and 302.305, upon a demonstration by the operator that:

A) The change in standards will not interfere with, or become injurious to, any present or potential beneficial uses for such waters;

B) The change in standards is necessary for economic or social development, by providing information including, but not limited to, the impacts of the standards on the regional economy, social disbenefits such as loss of jobs or closing of landfills, and economic analysis contrasting the health and environmental benefits with costs likely to be incurred in meeting the standards; and

C) All technically feasible and economically reasonable methods are being used to prevent the degradation of the groundwater quality.

3) Notwithstanding subsection (b)(2), in no case shall the Board specify adjusted groundwater quality standards for a MSWLF unit greater than the levels set forth below:

Chemical	Concentration (mg/l)
Arsenic	0.05
Barium	1.0
Benzene	0.005
Cadmium	0.01
Carbon tetrachloride	0.005
Chromium (hexavalent)	0.05
2,4-Dichlorophenoxy acetic acid	0.1
1,4-Dichlorobenzene	0.075
1,2-Dichloroethane	0.005
1,1-Dichloroethylene	0.007
Endrin	0.0002
Fluoride	4
Lindane	0.004
Lead	0.05
Mercury	0.002
Methoxychlor	0.1
Nitrate	10
Selenium	0.01
Silver	0.05
Toxaphene	0.005
1,1,1-Trichloromethane	0.2
Trichloroethylene	0.005
2,4,5-Trichlorophenoxy acetic acid	0.01
Vinyl Chloride	0.002

~~3~~4) For groundwater which contains naturally occurring constituents which do not meet the standards of 35 Ill. Adm. Code 302.301, 302.304, and 302.305, the Board will specify adjusted groundwater quality standards, upon a demonstration by the operator that:

A) The groundwater does not presently serve as a source of drinking water;

B) The change in standards will not interfere with, or become injurious to, any present or potential beneficial uses for such waters;

C) The change in standards is necessary for economic or social development, by providing information including, but not limited to,

the impacts of the standards on the regional economy, social disbenefits such as loss of jobs or closing of landfills, and economic analysis contrasting the health and environmental benefits with costs likely to be incurred in meeting the standards; and

D) The groundwater cannot presently, and will not in the future, serve as a source of drinking water because:

i) It is impossible to remove water in usable quantities;

ii) The groundwater is situated at a depth or location such that recovery of water for drinking purposes is not technologically feasible or economically reasonable;

iii) The groundwater is so contaminated that it would be economically or technologically impractical to render that water fit for human consumption;

iv) The total dissolved solids content of the groundwater is more than 3,000 mg/l and that water will not be used to serve a public water supply system; or

v) The total dissolved solids content of the groundwater exceeds 10,000 mg/l.

c) Determination of the Zone of Attenuation

1) The zone of attenuation, within which concentrations of constituents in leachate discharged from the unit may exceed the applicable groundwater quality standard of this Section, is a volume bounded by a vertical plane at the property boundary or 100 feet from the edge of the unit, whichever is less, extending from the ground surface to the bottom of the uppermost aquifer and excluding the volume occupied by the waste.

2) Zones of attenuation shall not extend to the annual high water mark of navigable surface waters.

3) Overlapping zones of attenuation from units within a single facility may be combined into a single

zone for the purposes of establishing a monitoring network.

d) Establishment of Background Concentrations

1) The initial monitoring to determine background concentrations shall commence during the hydrogeological assessment required by Section 811.315. The background concentrations for those parameters identified in Sections 811.315(e)(1)(G) and 811.319(a)(2) and (a)(3) shall be established based on quarterly sampling of wells for one year, monitored in accordance with the requirements of subsections (d)(2), (d)(3) and (d)(4), which may be adjusted during the operation of a facility. Statistical tests and procedures shall be employed, in accordance with subsection (e), depending on the number, type and frequency of samples collected from the wells, to establish the background concentrations. Adjustments to the background concentrations shall be made only if changes in the concentrations of constituents observed in upgradient wells over time are determined, in accordance with subsection (e), to be statistically significant. Background concentrations determined in accordance with this subsection shall be used for the purposes of establishing groundwater quality standards, in accordance with subsection (a). The operator shall prepare a list of the background concentrations established in accordance with this subsection. The operator shall maintain such a list at the facility, shall submit a copy of the list to the Agency for establishing standards in accordance with subsection (a), and shall provide updates to the list within ten days of any change to the list.

2) A network of monitoring wells shall be established upgradient from the unit, with respect to groundwater flow, in accordance with the following standards, in order to determine the background concentrations of constituents in the groundwater:

A) The wells shall be located at such a distance that discharges of contaminants from the unit will not be detectable;

B) The wells shall be sampled at the same frequency as other monitoring points to provide continuous background concentration data, throughout the monitoring period; and

C) The wells shall be located at several depths to provide data on the spatial variability.

3) A determination of background concentrations may include the sampling of wells that are not hydraulically upgradient of the waste unit where:

A) Hydrogeologic conditions do not allow the owner or operator to determine what wells are hydraulically upgradient of the waste; and

B) Sampling at other wells will provide an indication of background concentrations that is representative of that which would have been provided by upgradient wells.

4) If background concentrations cannot be determined on site, then alternative background concentrations may be determined from actual monitoring data from the aquifer of concern, which includes, but is not limited to, data from another landfill site that overlies the same aquifer.

e) Statistical Analysis of Groundwater Monitoring Data

1) Statistical tests shall be used to analyze groundwater monitoring data. One or more of the normal theory statistical tests listed in subsection (e)(4) shall be chosen first for analyzing the data set or transformations of the data set. Where such normal theory tests are demonstrated to be inappropriate, tests listed in subsection (e)(5) or a test in accordance with subsection (e)(6) shall be used. Any statistical test chosen from subsections (e)(4) or (e)(5), the level of significance (Type 1 error level) shall be no less than 0.01, for individual well comparisons, and no less than 0.05, for multiple well comparisons. The statistical analysis shall include, but not be limited to, the accounting of data below the detection limit of the analytical method used, the establishment of background concentrations and the determination of whether statistically significant changes have occurred in:

A) The concentration of any chemical constituent with respect to the background concentration or maximum allowable predicted concentration; and

B) The established background concentration of any chemical constituents over time.

2) The statistical test or tests used shall be based upon the sampling and collection protocol of Sections 811.318 and 811.319.

3) Monitored data that are below the level of detection shall be reported as not detected (ND). The level of detection for each constituent shall be the minimum concentration of that constituent which can be measured and reported with 99 percent confidence that the true value is greater than zero, which is defined as the method detection limit (MDL). The following procedures shall be used to analyze such data, unless an alternative procedure in accordance with subsection (e)(6), is shown to be applicable:

A) Where the percentage of nondetects in the data base used is less than 15 percent, the operator shall replace NDs with the MDL divided by two, then proceed with the use of one or more of the Normal Theory statistical tests listed in subsection (e)(4);

B) Where the percentage of nondetects in the data base or data transformations used is between 15 and 50 percent, and the data are normally distributed, the operator shall use Cohen's adjustment to the sample mean and standard deviation, followed by one or more of the tests listed in subsection (e)(4)(C). However, where data are not normally distributed, the operator shall use an applicable nonparametric test from subsection (e)(5);

C) Where the percentage of nondetects in the database used is above 50 percent, then the owner or operator shall use the test of proportions listed in subsection (e)(4).

4) Normal theory statistical tests :

A) Student t-test including, but not limited to, Cochran's Approximation to the Behren-Fisher (CABF) t-test and Averaged Replicate (AR) t-test.

B) Parametric analysis of variance (ANOVA) followed by one or more of the multiple

comparison procedures including, but not limited to, Fisher's Least Significant Difference (LSD), Student Newman-Kuel procedure, Duncan's New Multiple Range Test and Tukey's W procedure.

C) Control Charts, Prediction Intervals and Tolerance Intervals, for which the type I error levels shall be specified by the Agency in accordance with the requirements of 35 Ill. Adm. Code 724.197(i).

5) Nonparametric statistical tests shall include: Mann-Whitney U-test, Kruskal-Wallis test, a nonparametric analysis of variance (ANOVA) for multiple comparisons or the Wilcoxon Rank Sum test.

6) Any other statistical test based on the distribution of the sampling data may be used, if it is demonstrated to meet the requirements of 35 Ill.Adm Code 724.197(i).

BOARD NOTE. Subsection (b)(3) is derived from 40 CFR 258.40 Table 1. (1992).

Section 811.323 Load Checking Program

a) The operator shall implement a load checking program that meets the requirements of this Section, for detecting and discouraging attempts to dispose regulated hazardous wastes at the facility. For purposes of this Section and Section 811.406, "regulated hazardous wastes" are wastes defined as such under RCRA, at 35 Ill. Adm. Code 721, and subject to regulations under 35 Ill. Adm. Code: Subtitle G.

b) In addition to checking for hazardous waste in accordance with subsection (a), the load checking program at a MSWLF unit shall include waste load inspection for detecting and discouraging attempts to dispose "polychlorinated biphenyl wastes" as defined in 40 CFR 761.3 (1992).

BOARD NOTE. Subsection (b) is derived from 40 CFR 258.20(a) (1992).

~~b~~c) The load checking program shall consist of, at a minimum, the following components:

1) Random inspections

A) An inspector designated by the facility shall examine at least three random loads of solid waste delivered to the landfill on a random day each week. The drivers randomly selected by the inspector shall be directed to discharge their loads at a separate, designated location within the facility. The facility shall conduct a detailed inspection of the discharged material for any regulated hazardous, or other unacceptable wastes that may be present. Cameras or other devices may be used to record the visible contents of solid waste shipments. Where such devices are employed, their use should be designated on a sign posted near the entrance to the facility.

B) If regulated hazardous wastes or other unacceptable wastes are suspected, the facility shall communicate with the generator, hauler or other party responsible for shipping the waste to the facility to determine the identity of the waste.

2) Recording inspection results

Information and observations derived from each random inspection shall be recorded in writing and retained at the facility for at least three years. The recorded information shall include, at a minimum, the date and time of the inspection; the names of the hauling firm and the driver of the vehicle; the vehicle license plate number; the source of the waste, as stated by the driver; and observations made by the inspector during the detailed inspection. The written record shall be signed by both the inspector and the driver.

3) Training

The solid waste management facility shall train designated inspectors, equipment operators, weigh station attendants, spotters at large facilities, and all other appropriate facility personnel in the identification of potential sources of regulated hazardous wastes and other unacceptable wastes, including but not limited to PCBs. The training program shall emphasize familiarity with containers typically used for regulated hazardous wastes and with labels for regulated hazardous wastes, under RCRA, and for hazardous materials

under the Hazardous Materials Transportation Act (49 U.S.C. 1801 et seq.).

~~e~~d) Handling Regulated Hazardous Wastes

1) If any regulated hazardous wastes are identified by random load checking, or are otherwise discovered to be improperly deposited at the facility, the facility shall promptly notify the Agency, the person responsible for shipping the wastes to the landfill, and the generator of the wastes, if known. Waste loads identical to the regulated hazardous waste identified through the random load checking which have not yet been deposited in the landfill shall not be accepted. The area where the wastes are deposited shall immediately be cordoned off from public access. The solid waste management facility shall assure the cleanup, transportation and disposal of the waste at a permitted hazardous waste management facility.

2) The party responsible for transporting the waste to the solid waste management facility shall be responsible for the costs of such proper cleanup, transportation and disposal.

3) Subsequent shipments by persons or sources found or suspected to be previously responsible for shipping regulated hazardous waste shall be subject to the following special precautionary measures prior to the solid waste management facility accepting wastes. The operator shall use precautionary measures such as questioning the driver concerning the waste contents prior to discharge and visual inspection during the discharge of the load at the working face or elsewhere.

Section 811.324 Corrective Action Measures for MSWLF Units

a) The owner or operator shall initiate an assessment of corrective action measures within 14 days of the following:

1) The groundwater impact assessment, performed in accordance with subsection 811.319 (c), indicates that remedial action is needed; or

2) The assessment monitoring, performed in accordance with subsection 811.319(b), indicates that a confirmed increase above the applicable

groundwater quality standards of Section 811.320 is attributable to the solid waste disposal facility.

b) The owner or operator shall complete the corrective action assessment within 90 days of initiating the assessment of corrective action measures in accordance with subsection (a).

c) The owner or operator shall continue to monitor in accordance with the assessment monitoring program, as specified in Section 811.319(b).

d) The assessment shall include an analysis of the effectiveness of various potential corrective action measures in meeting all of the requirements and objectives of the remedy, as described under Section 811.325, addressing at least the following:

1) The performance, reliability, ease of implementation, and potential impacts of appropriate potential remedies, including safety impacts, cross-media impacts, and control of exposure to any residual contamination;

2) The time required to begin and complete the remedy;

3) The costs of remedy implementation; and

4) The institutional requirements, such as State or local permit requirements or other environmental or public health requirements, that may substantially affect implementation of the remedies.

e) The owner or operator must discuss the results of the corrective action measures assessment prior to the selection of a remedy in a public meeting with interested and affected parties. Prior to the public meeting, the owner or operator of the MSWLF unit shall submit to the Agency a report describing the results of the corrective action measures assessment.

BOARD NOTE. Requirements of this Section are derived from 40 CFR 258.56 (1992).

Section 811.325 Selection of remedy for MSWLF Units

a) Within 90 days of the completion of the corrective action measures assessment conducted under Section 811.324, the owner or operator of a MSWLF unit shall:

1) Select a remedy based on the assessment results that, at a minimum, meets the requirements of subsection (b); and

2) Submit to the Agency an application for a significant modification to the landfill permit describing the selected remedy and how it meets the standards set forth in subsection (b).

b) Remedies selected under this Section must meet the following requirements:

1) They must be protective of human health and the environment;

2) They must attain the groundwater quality standards prescribed at Section 811.320;

3) They must control the sources of release so as to reduce or eliminate, to the maximum extent practicable, further releases of constituents detected under the assessment monitoring into the environment that may pose a threat to human health or the environment; and

4) They must comply with standards for management of wastes as specified in Section 811.326(d).

c) In selecting a remedy that meets the requirements of subsection (b), the owner or operator shall consider the following evaluation factors:

1) The long- and short-term effectiveness and protectiveness of the potential remedies, along with the degree of certainty that the remedy will prove successful based on consideration of the following factors:

A) The magnitude of reduction of existing risks;

B) The magnitude of residual risks in terms of likelihood of further releases due to waste remaining following implementation of a remedy;

C) The type and degree of long-term management required, including monitoring, operation, and maintenance;

D) Any short-term risks that might be posed to the community, workers, or the environment during implementation of such a remedy,

including potential threats to human health and the environment associated with excavation, transportation, and redisposal or containment;

E) The length of time until full protection is achieved;

F) Any potential for exposure of humans and environmental receptors to remaining wastes, considering the potential threat to human health and the environment associated with excavation, transportation, redisposal, or containment;

G) The long-term reliability of engineering and institutional controls; and

H) The potential need for replacement of the remedy.

2) The effectiveness of the remedy in controlling the source to reduce further releases based on consideration of the following factors:

A) The extent to which containment practices will reduce further releases; and

B) The extent to which treatment technologies may be used.

3) The ease or difficulty of implementing potential remedies based on consideration of the following types of factors:

A) The degree of difficulty associated with constructing the technology;

B) The expected operational reliability of the technologies;

C) The need to coordinate with and obtain necessary approvals and permits from other agencies;

D) The availability of necessary equipment and specialists; and

E) The available capacity and location of needed treatment, storage, and disposal services.

4) The practicable capability of the owner or operator to implement the remedies, including a consideration of the technical and economic capability.

5) The degree to which community concerns are addressed by potential remedies.

d) Schedule for implementing remedial action.

1) The owner or operator shall specify as part of the selected remedy a schedule(s) for initiating and completing remedial activities. Such a schedule must require the initiation of remedial activities within a reasonable period of time, taking into consideration the factors set forth in subsections (d)(3)(A) through (d)(3)(H).

2) The Agency shall specify the time period for initiating remedial action in the facility's permit.

3) The owner or operator shall consider the following factors in determining the schedule of remedial activities:

A) The extent and nature of contamination;

B) The practical capabilities of remedial technologies in achieving compliance with the groundwater quality standards established under Section 811.320 and other objectives of the remedy;

C) The availability of treatment or disposal capacity for wastes managed during implementation of the remedy;

D) The desirability of utilizing technologies that are not currently available, but which may offer significant advantages over already available technologies in terms of effectiveness, reliability, safety, or ability to achieve remedial objectives;

E) Any potential risks to human health and the environment from exposure to contamination prior to completion of the remedy;

F) Any resource value of the aquifer including:

i) Any current and future uses;

ii) The proximity and withdrawal rate of users;

iii) The ground-water quantity and quality;

iv) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituent;

v) The hydrogeologic characteristic of the facility and surrounding land;

vi) The ground-water removal and treatment costs;

vii) The cost and availability of alternative water supplies;

G) The practicable capability of the owner or operator to implement the remedies; and

H) Any other relevant factors.

e) The Agency shall determine that remediation of a release of one or more constituents monitored in accordance with Section 811.319 from a MSWLF unit is not necessary if the owner or operator demonstrates to the Agency that:

1) The groundwater is additionally contaminated by substances that have originated from a source other than the MSWLF unit and those substances are present in such concentrations that cleanup of the release from the MSWLF unit would provide no significant reduction in risk to actual or potential receptors; or

2) The constituents are present in groundwater that:

A) Is not currently or reasonably expected to be a source of drinking water; and

B) Is not hydraulically connected with waters to which the hazardous constituents are migrating or are likely to migrate in concentrations that would exceed the groundwater quality standards established under Section 811.320; or

3) The remediation of the release is technically impracticable; or

4) The remediation results in unacceptable cross-media impacts.

f) A determination by the Agency pursuant to subsection (e) shall not affect the Agency's authority to require the owner or operator to undertake source control measures or other measures that may be necessary to eliminate or minimize further releases to the groundwater, to prevent exposure to the groundwater, or to remediate the groundwater to concentrations that are technically practicable and which reduce threats to human health or the environment.

BOARD NOTE. The requirements of this Section are derived from 40 CFR 258.57 (1992).

Section 811.326 Implementation of the corrective action program at MSWLF Units

a) Based on the schedule established under section 811.325(d) for initiation and completion of corrective action, the owner or operator shall:

1) Establish and implement a corrective action groundwater monitoring program that:

A) At a minimum, meets the requirements of an assessment monitoring program under Section 811.319(b);

B) Indicates the effectiveness of the remedy; and

C) Demonstrates compliance with ground-water protection standard pursuant to subsection (e) of this Section.

2) Implement the remedy selected pursuant to Section 811.325.

3) Take any interim measures necessary to ensure the protection of human health and the environment. The Interim measures should, to the greatest extent practicable, be consistent with the objectives of and contribute to the performance of any remedy that may be required pursuant to Section 811.325. The owner or operator shall consider the following factors in determining whether interim measures are necessary:

A) The time required to develop and implement a final remedy;

B) Any actual or potential exposure of nearby populations or environmental receptors to hazardous constituents;

C) Any actual or potential contamination of drinking water supplies or sensitive ecosystems;

D) Any further degradation of the groundwater that may occur if remedial action is not initiated expeditiously;

E) The weather conditions that may cause hazardous constituents to migrate or be released;

F) Any risks of fire or explosion, or potential for exposure to hazardous constituents as a result of an accident or failure of a container or handling system; and

G) Any other situations that may pose threats to human health and the environment.

b) If an owner or operator determines, based on information developed after implementation of the remedy has begun or other information, that compliance with requirements of Section 811.325(b) are not being achieved through the remedy selected, the owner or operator shall:

1) Implement other methods or techniques that could practicably achieve compliance with the requirements, unless the owner or operator makes the determination under subsection (c) of this Section.

2) Submit to the Agency, prior to implementing any alternative methods pursuant to subsection (b)(1), an application for a significant modification to the permit describing the alternative methods or techniques and how they meet the standards of Section 811.325(b).

c) If the owner or operator determines that compliance with the requirements of Section 811.325(b) cannot be practically achieved with any currently available methods, the owner or operator shall:

1) Obtain the certification of a qualified groundwater scientist or a determination by the Agency that compliance with requirements under

Section 811.325(b) cannot be practically achieved with any currently available methods.

2) Implement alternative measures to control exposure of humans or the environment to residual contamination, as necessary to protect human health and the environment.

3) Implement alternative measures for control of the sources of contamination, or for removal or decontamination of equipment, units, devices, or structures that are:

A) Technically practicable; and

B) Consistent with the overall objective of the remedy.

4) Submit to the Agency, prior to implementing the alternative measures in accordance with subsection (c), an application for a significant modification to the permit justifying the alternative measures.

5) For purposes of this Section, a "qualified groundwater scientist" is a scientist or an engineer who has received a baccalaureate or postgraduate degree in the natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related fields as may be demonstrated by state registration, professional certifications, or completion of accredited university programs that enable that individual to make sound professional judgements regarding groundwater monitoring, contaminant fate and transport, and corrective action.

d) All solid wastes that are managed pursuant to a remedy required under Section 811.325, or pursuant to an interim measure required under subsection (a)(3), shall be managed by the owner or operator in a manner:

1) That is protective of human health and the environment; and

2) That complies with applicable requirements of Part 811.

e) Remedies selected pursuant to Section 811.325 shall be considered complete when:

1) The owner or operator complies with the groundwater quality standards established under Section 811.320 at all points within the plume of contamination that lie beyond the zone of attenuation established pursuant to Section 811.320;

2) Compliance with the groundwater quality standards established under Section 811.320 has been achieved by demonstrating that concentrations of the constituents monitored under the assessment monitoring program under Section 811.319(b) have not exceeded the groundwater quality standards for a period of three consecutive years using the statistical procedures and performance standards in Section 811.320(e). The Agency may specify an alternative time period during which the owner or operator must demonstrate compliance with the groundwater quality standard(s). The Agency shall specify such an alternative time period by considering the following factors:

   A) The extent and concentration of the release(s);

   B) The behavior characteristics of the hazardous constituents in the ground-water;

   C) The accuracy of monitoring or modeling techniques, including any seasonal, meteorological, or other environmental variabilities that may affect the accuracy; and

   D) The characteristics of the ground-water; and

3) All actions required to complete the remedy have been satisfied.

f) Within 14 days of the completion of the remedy, the owner or operator shall submit to the Agency an application for a significant modification of the permit including a certification that the remedy has been completed in compliance with the requirements of subsection (e). The certification must be signed by the owner or operator and by a qualified groundwater scientist.

g) Upon Agency review and approval of the certification that the corrective action has been completed, in accordance with subsection (e), the Agency shall

release the owner or operator from the financial assurance requirements for corrective action pursuant to Subpart G of this Part.

BOARD NOTE. Requirements of this Section are derived from 40 CFR 258.58 (1992).

SUBPART G: FINANCIAL ASSURANCE

Section 811.700 Scope, Applicability and Definitions

a) This Subpart provides procedures by which the owner or operator of a permitted waste disposal facility provides financial assurance satisfying the requirements of Section 21.1(a) of the Act.

b) Financial assurance may be provided, as specified in Section 811.706, by a trust agreement, a bond guaranteeing payment, a bond guaranteeing payment or performance, a letter of credit, insurance or self-insurance. The owner or operator shall provide financial assurance to the Agency before the receipt of the waste.

c) Except as provided in subsection (f), this Subpart does not apply to the State of Illinois, its agencies and institutions, or to any unit of local government; provided, however, that any other persons who conduct such a waste disposal operation on a site that is owned or operated by such a governmental entity shall provide financial assurance for closure and postclosure care of the site.

d) The owner or operator is not required to provide financial assurance pursuant to this Subpart if the owner or operator demonstrates:

1) That closure and postclosure care plans filed pursuant to 35 Ill. Adm. Code 724 or 725 will result in closure and postclosure care of the site in accordance with the requirements of this Part; and

2) That the owner or operator has provided financial assurance adequate to provide for such closure and postclosure care pursuant to 35 Ill. Adm. Code 724 or 725.

e) Definition: "Assumed closure date" means the date during the next permit term on which the costs of premature final closure of the facility, in accordance with the standards of this Part, will be greatest.

f) On or after April 9, 1995, no person, other than the State of Illinois, its agencies and institutions, shall conduct any disposal operation at a MSWLF unit that requires a permit under subsection (d) of section 21 of the Act, unless that person complys with the financial assurance requirements of this Part.

g) The standards adopted in this subpart that are identical in substance to the federal Subtitle D regulations that are individually indicated as applicable to MSWL units shall not apply to such units until April 9, 1995.

BOARD NOTE. Subsection (f) clarifies the applicability of the financial assurance requirements to local governments since the Subtitle D regulations exempt only federal and state governments from financial assurance requirements (40 CFR 258.70 (1992)).

BOARD NOTE: The compliance dates specified in subsections (f) and (g) reflect the revisions adopted by the USEPA in the Federal Register Notification published on October 1, 1993 (see 58 FR 51536).

Section 811.701 Upgrading Financial Assurance

a) The owner or operator shall maintain financial assurance equal to or greater than the current cost estimate calculated pursuant to Section 811.704 at all times, except as otherwise provided by subsection (b).

b) The owner or operator shall increase the total amount of financial assurance so as to equal the current cost estimate within 90 days after any of the following occurrences:

1) An increase in the current cost estimate;

2) A decrease in the value of a trust fund;

3) A determination by the Agency that an owner or operator no longer meets the gross revenue test of Section 811.715(d) or the financial test of Section 811.715(e); or,

4) Notification by the owner or operator that the owner or operator intends to substitute alternative financial assurance, as specified in Section 811.706, for self-insurance.

c) The owner or operator of a MSWLF unit shall annually make adjustments for inflation if required pursuant to Section 811.704(k)(2) or 811.705(d).

Section 811.702 Release of Financial Institution

The Agency shall release a trustee, surety, insurer or other financial institution when:

a) An owner or operator substitutes alternative financial assurance such that the total financial assurance for the site is equal to or greater than the current cost estimate, without counting the amounts to be released; or

b) The Agency releases the owner or operator from the requirements of this Subpart pursuant to 35 Ill. Adm. Code 813.403(b).

Section 811.703 Application of Proceeds and Appeals

a) The Agency may sue in any court of competent jurisdiction to enforce its rights under financial instruments. The filing of an enforcement action before the Board is not a condition precedent to such an Agency action, except when this Subpart or the terms of the instrument provide otherwise.

b) As provided in Titles VIII and IX of the Act and 35 Ill. Adm. Code 103 and 104, the Board may order modifications in permits to change the type or amount of financial assurance pursuant to an enforcement action or a variance petition. Also, the Board may order that an owner or operator modify a closure or postclosure care plan or order that proceeds from financial assurance be applied to the execution of a closure or postclosure care plan.

c) The following Agency actions may be appealed to the Board as a permit denial pursuant to 35 Ill. Adm. Code 105 and Section 21.5(e) of the Act:

1) A refusal to accept financial assurance tendered by the owner or operator;

2) A refusal to release the owner or operator from the requirement to maintain financial assurance;

3) A refusal to release excess funds from a trust;

4) A refusal to approve a reduction in the penal sum of a bond;

5) A refusal to approve a reduction in the amount of a letter of credit;

6) A refusal to approve a reduction in the face amount of an insurance policy; or

7) A determination that an owner or operator no longer meets the gross revenue test or financial test.

Section 811.704 Closure and Postclosure Care and Corrective Action Cost Estimates

a) Written cost estimate. The owner or operator shall have a written estimate of the cost of closure of all parts of the facility where wastes have been deposited in accordance with the requirements of this Part; the written closure plan, required by Section 811.110 and 35 Ill. Adm. Code 812.114; and the cost of postclosure care and plans required by this Part and the written postclosure care plans required by 35 Ill. Adm. Code 812.115. The cost estimate is the total cost for closure and postclosure care.

b) The owner or operator shall revise the cost estimate whenever a change in the closure plan or postclosure care plan increases the cost estimate.

c) The cost estimate must be based on the steps necessary for the premature final closure of the facility on the assumed closure date.

d) The cost estimate must be based on the assumption that the Agency will contract with a third party to implement the closure plan.

e) The cost estimate may not be reduced by allowance for the salvage value of equipment or waste, for the resale value of land, or for the sale of landfill gas.

f) The cost estimate must, at a minimum, include all costs for all activities necessary to close the facility in accordance with all requirements of this Part.

g) Except for a MSWLF unit, ~~T~~the postclosure monitoring and maintenance cost estimate must be prepared:

   1) On the basis of the design period for each unit at a facility, assuming operations will cease on the assumed closure date; and

   2) Reduced to present value, as follows:

A) Based on a 4 percent discount rate;

B) Without allowing for inflation;

C) Over a period including the time remaining until the assumed closure date, plus the postclosure care period;

h) The postclosure care cost estimate must, at a minimum, be based on the following elements in the postclosure care plan:

1) Groundwater monitoring, based on the number of monitoring points and parameters and the frequency of sampling specified in the permit.

2) The annual Cost of Cover Placement and Stabilization, including an estimate of the annual residual settlement and erosion control and the cost of mowing.

3) Alternative Landfill Gas Disposal. If landfill gas is transported to an off-site processing system, then the owner or operator shall include in the cost estimate the costs necessary to operate an on-site gas disposal system, should access to the off-site facility become unavailable. The cost estimate must include the following information: installation, operation, maintenance and monitoring of an on-site gas disposal system.

4) Cost Estimates Beyond the Design Period. When a facility must extend the postclosure care period beyond the applicable design period, the cost estimate must be based upon such additional time and the care activities occurring during that time.

i) This Section does not authorize the Agency to require the owner or operator to perform any of the indicated activities upon which cost estimates are to be based; however, if the site permit requires a closure activity, the owner or operator shall include the cost of that activity in the cost estimate.

j) Once the owner or operator has completed an activity, the owner or operator may file an application for significant permit modification pursuant to 35 Ill. Adm. Code 813.201 indicating that the activity has been completed, and zeroing that element of the cost estimate.

k) Cost estimate for corrective action at MSWLF units.

1) An owner or operator of a MSWLF unit required to undertake a corrective action program pursuant to Section 811.326 shall have a detailed written estimate, in current dollars, of the cost of hiring a third party to perform the corrective action in accordance with the Section 811.326. The corrective action cost estimate must account for the total costs of corrective action activities as described in the corrective action plan for the entire corrective action period. The owner or operator shall notify the Agency that the estimate has been placed in the operating record.

2) The owner or operator must annually adjust the estimate for inflation until the corrective action program is completed in accordance with Section 811.326(f).

3) The owner or operator must increase the corrective action cost estimate and the amount of financial assurance provided under paragraph (b) of this section if changes in the corrective action program or MSWLF unit conditions increase the maximum costs of corrective action.

4) The owner or operator may reduce the amount of the corrective action cost estimate and the amount of financial assurance provided pursuant to subsections (k)(5) and (k)(6) of this section if the cost estimate exceeds the maximum remaining costs of corrective action. The owner or operator shall notify the Agency that the justification for the reduction of the corrective action cost estimate and the amount of financial assurance has been placed in the operating record.

5) The owner or operator of each MSWLF unit required to undertake a corrective action program under Section 811.326 shall establish, in accordance with Section 811.706, financial assurance for the most recent corrective action program.

6) The owner or operator shall provide continuous coverage for corrective action until released from the financial assurance requirements for corrective action by demonstrating compliance with Section 811.326 (f) and (g).

BOARD NOTE. Subsection (k) is derived from 40 CFR 258.73 (1992).

Section 811.705 Revision of Cost Estimate

a) The owner or operator shall revise the current cost estimates for closure and postclosure care in each new application for permit renewal or where a facility modification results in an increase of the cost estimate.

b) The owner or operator shall review the closure and postclosure care plans prior to filing a revised cost estimate in order to determine whether they are consistent with current operations, and the requirements of this Subchapter. The owner or operator shall either certify that the plans are consistent, or shall file an application incorporating new plans pursuant to 35 Ill. Adm. Code 813.

c) The owner or operator shall prepare new closure and postclosure cost estimates reflecting current prices for the items included in the estimates when submitting any new application for permit renewal. The owner or operator shall file revised estimates even if the owner or operator determines that there are no changes in the prices.

d) The owner or operator of a MSWLF unit shall adjust the cost estimates of closure, postclosure, and corrective action for inflation on an annual basis during the following time period:

1) The active life of the unit for closure;

2) The active life and postclosure care period, for postclosure; or

3) until the corrective action program is completed in accordance with Section 811.326, for corrective action.

BOARD NOTE. Subsection (d) is derived from 40 CFR 258.71(a)(2) (1992).

Section 811.706 Mechanisms for Financial Assurance

a) The owner or operator of a waste disposal site may utilize any of the ~~following~~ mechanisms listed in subsections (a)(1) through (a)(6) to provide financial assurance for closure and postclosure care, and for corrective action at a MSWLF unit. An owner or

operator of a MSWLF unit shall also meet the requirements of subsections (b), (c) and (d). The mechanisms are as follows:

~~a~~1) A trust Fund (Section 811.710);

~~b~~2) A surety Bond Guaranteeing Payment (Section 811.711);

~~c~~3) A surety Bond Guaranteeing Performance (Section 811.712);

~~d~~4) A letter of Credit (Section 811.713);

~~e~~5) Closure Insurance (Section 811.714); or

~~f~~6) Self-insurance (Section 811.715).

b) The owner or operator of a MSWLF unit shall ensure that the language of the mechanisms listed in subsection (a), when used for providing financial assurance for closure, postclosure, and corrective action, satisfies the following:

1) The amount of funds assured is sufficient to cover the costs of closure, post-closure care, and corrective action; and

2) The funds will be available in a timely fashion when needed.

3) The financial assurance mechanisms shall be legally valid, binding, and enforceable under state and federal law.

c) The owner or operator of a MSWLF unit shall provide financial assurance utilizing one or more of the mechanisms listed in subsection (a) within the following dates:

1) By April 9, 1995 (the effective date of these requirements) or prior to the initial receipt of solid waste, whichever is later, in the case of closure and post-closure care; or

2) No later than 120 days after the remedy has been selected in accordance with the requirements of Section 811.325, in the case of corrective action.

d) The owner or operator shall provide continuous coverage until the owner or operator is released from

the financial assurance requirements pursuant to 35 Ill. Adm. Code 813.403(b) or Section 811.326.

Board Note. Subsections (b) and (c) are derived from 40 CFR 258.74(l) (1992).

Section 811.707 Use of Multiple Financial Mechanisms

An owner or operator may satisfy the requirements of this Subpart by establishing more than one financial mechanism per site. These mechanisms are limited to trust funds, surety bonds guaranteeing payment, letters of credit and insurance. The mechanisms must be as specified in 35 Ill. Adm. Code 811.710, 811.711, 811.713 and 811.714, respectively, except that it is the combination of mechanisms, rather than the single mechanism, which must provide financial assurance for an amount at least equal to the current cost estimate. The owner or operator may use any or all of the mechanisms to provide for closure and postclosure care of the site or corrective action.

Section 811.708 Use of a Financial Mechanism for Multiple Sites

An owner or operator may use a financial assurance mechanism specified in this Subpart to meet the requirements of this Subpart for more than one site. Evidence of financial assurance submitted to the Agency must include a list showing, for each site, the name, address and the amount of funds assured by the mechanism. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each site. The amount of funds available to the Agency must be sufficient to close and provide postclosure care for all of the owner or operator's sites. In directing funds available through a single mechanism for the closure and postclosure care of any single site covered by that mechanism, the Agency shall direct only that amount of funds designated for that site, unless the owner or operator agrees to the use of additional funds available under that mechanism.

Section 811.709 Trust Fund for Unrelated Sites

Any person may establish a trust fund for the benefit of the Agency which may receive funds from more than one owner or operator for closure of different sites. Such a trust fund must operate like the trust fund specified in 35 Ill. Adm. Code 807.710, except as follows:

a) The trustee shall maintain a separate account for each site and shall evaluate such annually as of the day of creation of the trust;

b) The trustee shall annually notify each owner or operator and the Agency of the evaluation of each owner or operator's account;

c) The trustee shall release excess funds as required from the account for each site;

d) The trustee shall reimburse the owner or operator or other person authorized to perform closure or postclosure care only from the account for that site.

e) The Agency may direct the trustee to withhold payments only from the account for the site for which it has determined the cost of closure and postclosure care will be greater than the value of the account for that site pursuant to Section 811.710(g)(3).

Section 811.710 Trust Fund

a) An owner or operator may satisfy the requirements of this Subpart by establishing a trust fund which conforms to the requirements of this Section and submitting an original signed duplicate of the trust agreement to the Agency.

b) The trustee shall be an entity which has the authority to act as a trustee and:

1) Whose trust operations are examined by the Illinois Commissioner of Banks and Trust Companies pursuant to the Illinois Banking Act (Ill. Rev. Stat. 19891, ch. 17, pars. 301 et seq. [205 ILCS 5/1 et seq.]); or

2) Who complies with the Corporate Fiduciary Act (Ill. Rev. Stat. 1989, ch. 17, pars. 1551-1 et seq. [205 ILCS 620/1-1 et seq.]).

c) The trust agreement must be on the forms specified in Appendix A, Illustration A, and the trust agreement must be accompanied by a formal certification of acknowledgment, on the form specified in Appendix A, Illustration B.

d) Payments into the trust:

1) For closure and post closure care:

1A) The owner or operator shall make a payment into the trust fund each year during the pay-in period.

~~2~~B) The pay-in period is the number of years remaining until the assumed closure date.

~~3~~C) Annual payments are determined by the following formula:

Annual payment = (CE-CV)/Y

where:

CE = Current cost estimate
CV = Current value of the trust fund
Y = Number of years remaining in the pay in period.

~~4~~D) The owner or operator shall make the first annual payment prior to the initial receipt of waste for disposal. The owner or operator shall also, prior to such initial receipt of waste, submit to the Agency a receipt from the trustee for the first annual payment.

~~5~~E) Subsequent annual payments must be made no later than 30 days after each anniversary of the first payment.

~~6~~F) The owner or operator may accelerate payments into the trust fund, or may deposit the full amount of the current cost estimate at the time the fund is established.

~~7~~G) An owner or operator required to provide additional financial assurance for an increase in the cost estimate because of an amendment to this Subchapter may provide such additional financial assurance pursuant to this subsection. The owner or operator may provide the increase by contributing to a new or existing trust fund pursuant to this Section. Subsection (d)(2) notwithstanding, the pay-in period for such additional financial assurance shall be not less than three years.

2) For corrective action at MSWLF units:

A) The owner or operator shall make payments into the trust fund annually over one-half of the estimated length of the corrective action program in the case of corrective action for known releases. This period is referred to as the pay-in period.

B) The owner or operator shall make the first payment into the trust fund equal to at least one-half of the current cost estimate for corrective action divided by the number of years in the corrective action pay-in period, as defined in subsection (d)(2)(A) of this section. The amount of subsequent payments must be determined by the following formula:

Next payment = (RB-CV)/Y

where:

RB = Most recent estimate of the required trust fund balance for corrective action (i.e., the total costs that will be incurred during the second half of the corrective action period);

CV = Current value of the trust fund; and

Y = Number of years remaining in the pay-in period.

C) The owner or operator shall make the initial payment into the trust fund no later than 120 days after the remedy has been selected in accordance with the requirements of Section 811.325.

Board Note. Changes to subsection (d) are derived from 40 CFR 258.74 (a)(2), (a)(4), and (a)(5) (1992).

e) The trustee shall evaluate the trust fund annually, as of the day the trust was created or on such earlier date as may be provided in the agreement. The trustee shall notify the owner or operator and the Agency of the value within 30 days after the evaluation date.

f) If the owner or operator of a MSWLF unit establishes a trust fund after having used one or more alternative mechanisms specified in this Subpart, the initial payment into the trust fund must be at least the amount that the fund would contain if the trust fund were established initially and annual payments made according to the specifications of this Section.

Board Note. Subsection (f) is derived from 40 CFR 258.74 (a)(6) (1992).

~~f~~g) Release of excess funds:

1) If the value of the financial assurance is greater than the total amount of the current cost estimate, the owner or operator may submit a written request to the Agency for a release of the amount in excess of the current cost estimate.

2) Within 60 days after receiving a request from the owner or operator for a release of funds, the Agency shall instruct the trustee to the owner or operator such funds as the Agency specifies in writing to be in excess of the current cost estimate.

~~g~~h) Reimbursement for closure, ~~and~~ postclosure care and corrective action expenses:

1) After initiating closure or corrective action, an owner or operator, or any other person authorized to perform closure or postclosure care or corrective action, may request reimbursement for closure or postclosure care or corrective action expenditures, by submitting itemized bills to the Agency.

2) Within 60 days after receiving the itemized bills for closure or postclosure care activities or corrective action, the Agency shall determine whether the expenditures are in accordance with the closure or postclosure care or corrective action plan. The Agency shall instruct the trustee to make reimbursement in such amounts as the Agency specifies in writing as expenditures in accordance with the closure or postclosure care or corrective action plan.

3) If the Agency determines, based on such information as is available to it, that the cost of closure and postclosure care or corrective action will be greater than the value of the trust fund, it shall withhold reimbursement of such amounts as it determines are necessary to preserve the fund in order to accomplish closure and postclosure care or corrective action until it determines that the owner or operator is no longer required to maintain financial assurance for closure and postclosure care or corrective action. In the event the fund is inadequate to pay all

claims, the Agency shall pay claims according to the following priorities:

A) Persons with whom the Agency has contracted to perform closure or postclosure care or corrective action activities (first priority);

B) Persons who have completed closure or postclosure care or corrective action authorized by the Agency (second priority);

C) Persons who have completed work which furthered the closure or postclosure care or corrective action (third priority);

D) The owner or operator and related business entities (last priority).

Section 811.711 Surety Bond Guaranteeing Payment

a) An owner or operator may satisfy the requirements of this Subpart by obtaining a surety bond which conforms to the requirements of this Section and submitting the bond to the Agency. A surety bond obtained by an owner or operator of a MSWLF unit must be effective before the initial receipt of waste or before April 9, 1995 (the effective date of the financial assurance requirements under RCRA Subtitle D regulations), whichever is later, in the case of closure and post-closure care, or no later than 120 days after the remedy has been selected in accordance with the requirements of Section 811.325.

b) The surety company issuing the bond shall be licensed by the Illinois Department of Insurance pursuant to the Illinois Insurance Code (Ill. Rev. Stat. 19~~8~~91, ch. 73, pars. 613 et seq. [215 ILCS 5/1 et seq.]) and approved by the U.S. Department of the Treasury as an acceptable surety.

BOARD NOTE: The U.S. Department of the Treasury lists acceptable sureties in its Circular 570.

c) The surety bond must be on the forms specified in Appendix A, Illustration C, D or H.

d) Any payments made under the bond will be placed in the landfill closure and postclosure fund within the State Treasury.

e) Conditions:

1) The bond must guarantee that the owner or operator will provide closure and postclosure care in accordance with the approved closure and postclosure care plans. If the facility is a MSWLF unit, then the corrective action bond must guarantee that the owner or operator will implement corrective action in accordance with Section 811.326.

2) The surety will become liable on the bond obligation when, during the term of the bond, the owner or operator fails to perform as guaranteed by the bond. The owner or operator fails to perform when the owner or operator:

   A) Abandons the site;

   B) Is adjudicated bankrupt;

   C) Fails to initiate closure of the site or postclosure care or corrective action when ordered to do so by the Board pursuant to Title VII of the Act, or when ordered to do so by a court of competent jurisdiction; ~~or~~

   D) Notifies the Agency that it has initiated closure or corrective action, or initiates closure or corrective action, but fails to close the site or provide postclosure care or corrective action in accordance with the closure and postclosure care or corrective action plans~~.~~; or

   E) For a corrective action bond, fails to implement corrective action at a MSWLF unit in accordance with Section 811.326

f) Penal sum:

1) The penal sum of the bond must be in an amount at least equal to the current cost estimate.

2) The Agency shall approve a reduction in the penal sum whenever the current cost estimate decreases.

g) Term:

1) The bond must be issued for a term of at least five years and must not be cancelable during that term.

2) If the owner or operator fails to provide substitute financial assurance prior to expiration of a bond, the term of the bond must be automatically extended for one twelve-month period starting with the date of expiration of the bond. During such extension the bond will cease to serve as financial assurance satisfying the requirements of this Part, and will not excuse the owner or operator from the duty to provide substitute financial assurance.

3) The Agency shall release the surety if, after the surety becomes liable on the bond, the owner or operator or another person provides financial assurance for closure and postclosure care of the site or corrective action at a MSWLF unit, unless the Agency determines that the closure or postclosure care plan, corrective action program at a MSWLF unit, or the amount of substituted financial assurance is inadequate to provide closure and postclosure care or implement corrective action in compliance with this Part.

h) Cure of default and refunds:

1) The Agency shall release the surety if, after the surety becomes liable on the bond, the owner or operator or another person provides financial assurance for closure and postclosure care of the site or corrective action at a MSWLF unit, unless the Agency determines that the closure or postclosure care plan, corrective action at a MSWLF unit or the amount of substituted financial assurance is inadequate to provide closure and postclosure care or implement corrective action in compliance with this Part.

2) After closure and postclosure care have been completed in accordance with the plans and requirements of this Part or after the completion of corrective action at a MSWLF unit in accordance Section 811.326, the Agency shall refund any unspent money which was paid into the "Landfill Closure and Postclosure Fund"~~Agency~~ by the surety.

Board Note. corrective Action language at subsection (a) is derived from 40 CFR 258.74(b)(1) (1992). The other clarifying changes reflect the inclusion of financial assurance requirements for implementing corrective action at MSWLF units under this Section.

Section 811.712 Surety Bond Guaranteeing Performance

a) An owner or operator may satisfy the requirements of this Subpart by obtaining a surety bond which conforms to the requirements of this Section and submitting the bond to the Agency. A surety bond obtained by an owner or operator of a MSWLF unit must be effective before the initial receipt of waste or before April 9, 1995 (the effective date of the financial assurance requirements under RCRA Subtitle D regulations), whichever is later, in the case of closure and post-closure care, or no later than 120 days after the remedy has been selected in accordance with the requirements of Section 811.325.

b) The surety company issuing the bond shall be licensed by the Illinois Department of Insurance pursuant to the Illinois Insurance Code (Ill. Rev. Stat. 1991, ch. 73, pars. 613 et seq. [215 ILCS 5/1 et seq.]) and approved by the U.S. Department of the Treasury as an acceptable surety.

BOARD NOTE: The U.S. Department of the Treasury lists acceptable sureties in its Circular 570.

c) The surety bond must be on the forms as specified in Appendix A, Illustration C, D or H.

d) Any payments made under the bond will be placed in the landfill closure and postclosure fund within the State Treasury.

e) Conditions:

1) The bond must guarantee that the owner or operator will provide closure and postclosure care in accordance with the closure and postclosure care plans in the permit. If the facility is a MSWLF unit, then a corrective action bond must guarantee that the owner or operator will implement corrective action in accordance with Section 811.326. The surety shall have the option of providing closure and postclosure care ~~in accordance with the closure and postclosure care plans~~ or carrying out corrective action, or of paying the penal sum.

2) The surety will become liable on the bond obligation when, during the term of the bond, the owner or operator fails to perform as guaranteed by the bond. The owner or operator fails to perform when the owner or operator:

A) Abandons the site;

B) Is adjudicated bankrupt;

C) Fails to initiate closure of the site or postclosure care or corrective action when ordered to do so by the Board pursuant to Title VII of the Act, or when ordered to do so by a court of competent jurisdiction; or

D) Notifies the Agency that it has initiated closure or corrective action, or initiates closure or corrective action, but fails to close the site or provide postclosure care or corrective action in accordance with the closure and postclosure care or corrective action plans.

E) For a corrective action bond, fails to implement corrective action at a MSWLF unit in accordance with Section 811.326

f) Penal sum:

1) The penal sum of the bond must be in an amount at least equal to the current cost estimate.

2) The Agency shall approve a reduction in the penal sum whenever the current cost estimate decreases.

g) Term:

1) The bond must be issued for a term of at least five years and must not be cancelable during that term.

2) If the owner or operator fails to provide substitute financial assurance prior to expiration of a bond, the term of the bond must be automatically extended for one twelve-month period starting with the date of expiration of the bond. During such extension, the bond will cease to serve as financial assurance satisfying the requirements of this Part, and will not excuse the owner or operator from the duty to provide substitute financial assurance.

h) Cure of default and refunds:

1) The Agency shall release the surety if, after the surety becomes liable on the bond, the owner or operator or another person provides financial

assurance for closure and postclosure care of the site or corrective action at a MSWLF unit, unless the Agency determines that the closure or postclosure care plan, corrective action at a MSWLF unit, or the amount of substituted financial assurance is inadequate to provide closure and postclosure care or implement corrective action at a MSWLf unit in compliance with this Part.

2) After closure and postclosure care have been completed in accordance with the closure and postclosure care plans and the requirements of this Part or after the completion of corrective action at a MSWLF unit in accordance with Section 811.326, the Agency shall refund any unspent money which was paid into the "Landfill Closure and Postclosure Fund" ~~Agency~~ by the surety.

i) The surety will not be liable for deficiencies in the performance of closure by the owner or operator after the Agency releases the owner or operator from the requirements of this Subpart.

Board Note. MSWLF corrective action language at subsection (a) is derived from 40 CFR 258.74 (b)(1) (1992). The other clarifying changes reflect the inclusion of financial assurance requirements for implementing corrective action at MSWLF units under this Section.

Section 811.713 Letter of Credit

a) An owner or operator may satisfy the requirements of this Subpart by obtaining an irrevocable standby letter of credit which conforms to the requirements of this Section and submitting the letter to the Agency. A letter of credit obtained by an owner or operator of a MSWLF unit must be effective before the initial receipt of waste or before April 9, 1995 (the effective date of the financial assurance requirements under RCRA Subtitle D regulations), whichever is later, in the case of closure and post-closure care, or no later than 120 days after the remedy has been selected in accordance with the requirements of Section 811.325.

b) The issuing institution shall be an entity which has the authority to issue letters of credit and:

1) Whose letter-of-credit operations are regulated by the Illinois Commissioner of Banks and Trust Companies pursuant to the Illinois Banking Act

(Ill. Rev. Stat. 1991, ch. 17, pars. 301 et seq. [205 ILCS 5/1 et seq.]); or,

2) Whose deposits are insured by the Federal Deposit Insurance Corporation or the Federal Savings and Loan Insurance Corporation.

c) Forms:

1) The letter of credit must be on the forms specified in Appendix A, Illustration E.

2) The letter of credit must be accompanied by a letter from the owner or operator, referring to the letter of credit by number, the name and address of the issuing institution, and the effective date of the letter, and providing the following information: the name and address of the site and the amount of funds assured for closure and postclosure care of the site, or for corrective action at a MSWLF unit by the letter of credit.

d) Any amounts drawn by the Agency pursuant to the letter of credit will be deposited in the landfill closure and postclosure fund within the State Treasury.

e) Conditions on which the Agency may draw on the letter of credit:

1) The Agency shall draw on the letter of credit if the owner or operator fails to perform closure or postclosure care in accordance with the closure and postclosure care plans, or fails to implement corrective action at a MSWLF unit in accordance with Section 811.326.

2) The Agency shall draw on the letter of credit when the owner or operator:

A) Abandons the site;

B) Is adjudicated bankrupt;

C) Fails to initiate closure of the site or postclosure care or corrective action when ordered to do so by the Board pursuant to Title VII of the Act, or when ordered to do so by a court of competent jurisdiction; or

D) Notifies the Agency that it has initiated closure or corrective action, or initiates

closure or corrective action, but fails to Provide closure and postclosure care or corrective action in accordance with the closure and postclosure care or corrective action plans.

E) For a corrective action bond, fails to implement corrective action at a MSWLF unit in accordance with Section 811.326

f) Amount:

1) The letter of credit must be issued in an amount at least equal to the current cost estimate.

2) The Agency shall approve a reduction in the amount whenever the current cost estimate decreases.

g) Term:

1) The letter of credit must be issued for a term of at least five years and must be irrevocable during that term.

2) If the owner or operator fails to substitute alternative financial assurance prior to expiration of a letter of credit, the term of the letter of credit must be automatically extended for one twelve-month period starting with the date of expiration. During such extension, the letter of credit will cease to serve as financial assurance satisfying the requirements of this Part, and will not excuse the owner or operator from the duty to provide substitute financial assurance.

h) Cure of default and refunds:

1) The Agency shall release the financial institution if, after the Agency is allowed to draw on the letter of credit, the owner or operator or another person provides financial assurance for closure and postclosure care of the site or corrective action at a MSWLF unit, unless the Agency determines that a plan or the amount of substituted financial assurance is inadequate to provide closure and postclosure care, or implement corrective action at a MSWLF unit, as required by this Part.

2) After closure and postclosure care have been completed in accordance with the closure and

postclosure care plans and the requirements of this Part or after the completion of corrective action at a MSWLF unit in accordance with Section 811.326, the Agency shall refund any unspent money which was paid into the "Landfill Closure and Postclosure Fund" ~~Agency~~ by the financial institution.

Board Note. MSWLF corrective action language at subsection (a) is derived from 40 CFR 258.74 (c)(1) (1992). The other clarifying changes reflect the inclusion of financial assurance requirements for implementing corrective action at MSWLF units under this Section.

Section 811.714 Closure Insurance

a) An owner or operator may satisfy the requirements of this Subpart by obtaining closure and postclosure care insurance which conforms to the requirements of this Section and submitting an executed duplicate original of such insurance policy to the Agency.

b) The insurer shall be licensed to transact the business of insurance by the Illinois Department of Insurance pursuant to the Illinois Insurance Code (Ill. Rev. Stat. 1991, ch. 73, pars. 613 et seq. [215 ILCS 5/1 et seq.]).

c) The policy must be on forms approved by the Illinois Department of Insurance pursuant to the Illinois Insurance Code.

d) Face amount:

1) The closure and postclosure care insurance policy must be issued for a face amount at least equal to the current cost estimate. The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

2) The Agency shall approve a reduction in the amount of the policy whenever the current cost estimate decreases.

e) The closure and postclosure care insurance policy must guarantee that funds will be available to close the site and to provide postclosure care thereafter. The policy must also guarantee that, once closure begins,

the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Agency to such party or parties as the Agency specifies. The insurer will be liable when:

1) The owner or operator abandons the site;

2) The owner or operator is adjudicated bankrupt;

3) The Board, pursuant to Title VIII of the Act, or a court of competent jurisdiction orders the site closed;

4) The owner or operator notifies the Agency that it is initiating closure; or

5) Any person initiates closure with approval of the Agency.

f) Reimbursement for closure and postclosure care expenses:

1) After initiating closure, an owner or operator or any other person authorized to perform closure or postclosure care may request reimbursement for closure and postclosure care expenditures by submitting itemized bills to the Agency.

2) Within 60 days after receiving bills for closure or postclosure care activities, the Agency shall determine whether the expenditures are in accordance with the closure or postclosure care plan. The Agency shall direct the insurer to make reimbursement in such amounts as the Agency specifies in writing as expenditures in accordance with the closure and postclosure care plans.

3) If the Agency determines based on such information as is available to it that the cost of closure and postclosure care will be greater than the face amount of the policy, it shall withhold reimbursement of such amounts as it deems prudent until it determines that the owner or operator is no longer required to maintain financial assurance. In the event the face amount of the policy is inadequate to pay all claims, the Agency shall pay claims according to the following priorities:

A) Persons with whom the Agency has contracted to perform closure or postclosure care activities (first priority);

B) Persons who have completed closure or postclosure care authorized by the Agency (second priority);

C) Persons who have completed work which furthered the closure or postclosure care (third priority);

D) The owner or operator and related business entities (last priority).

g) Cancellation:

1) The owner or operator shall maintain the policy in full force and effect until the Agency releases the insurer pursuant to Section 811.702.

2) The policy must provide that the insurer may not cancel, terminate or fail to renew the policy, except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate or fail to renew the policy by sending notice by certified mail to the owner or operator and the Agency. Cancellation, termination or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Agency and the owner or operator, as evidenced by the return receipts. Cancellation, termination or failure to renew may not occur and the policy will remain in full force and effect in the event that on or before the date of expiration the premium due is paid.

h) Each policy must contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

Section 811.715 Self-Insurance for Non-commercial Sites

a) Definitions. The following definitions are intended to assist in the understanding of this Part and are not intended to limit the meanings of terms in any way that

conflicts with generally accepted accounting principles:

"Assets" means all existing and all probable future economic benefits obtained or controlled by a particular entity.

"Current assets" means cash or other assets or resources commonly identified as those which are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business.

"Current liabilities" means obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation of other current liabilities.

"Generally accepted accounting principles" means Auditing Standards--Current Text, incorporated by reference at 35 Ill. Adm Code 810.104.

"Gross Revenue" means total receipts less returns and allowances.

"Independently audited" refers to an audit performed by an independent certified public accountant in accordance with generally accepted auditing standards.

"Liabilities" means probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.

"Net working capital" means current assets minus current liabilities.

"Net worth" means total assets minus total liabilities and is equivalent to owner's equity.

"Tangible net worth" means tangible assets less liabilities; tangible assets do not include intangibles such as goodwill and rights to patents or royalties.

b) Information to be Filed

An owner or operator may satisfy the financial assurance requirements of this Part by providing the following:

1) Bond without surety promising to pay the cost estimate (subsection (c)).

2) Proof that the owner or operator meets the gross revenue test (subsection (d)).

3) Proof that the owner or operator meets the financial test (subsection (e)).

c) Bond Without Surety. An owner or operator utilizing self-insurance shall provide a bond without surety on the forms specified in Appendix A, Illustration G. The owner or operator shall promise to pay the current cost estimate to the Agency unless the owner or operator provides closure and postclosure care in accordance with the closure and postclosure care plans.

d) Gross Revenue Test. The owner or operator shall demonstrate that less than one-half of its gross revenues are derived from waste disposal operations. Revenue is "from waste disposal operations" if it would stop upon cessation of the owner or operator's waste disposal operations.

e) Financial Test

1) To pass the financial test, the owner or operator shall meet the criteria of either subsection (e)(1)(A) or (e)(1)(B):

A) The owner or operator shall have:

i) Two of the following three ratios: a ratio of total liabilities to net worth of less than 2.0; a ratio of the sum of net income plus depreciation, depletion and amortization to total liabilities of greater than 0.1; or a ratio of current assets to current liabilities of greater than 1.5; and

ii) Net working capital and tangible net worth each at least six times the current cost estimate; and

iii) Tangible net worth of at least $10 million; and

iv) Assets in the United States amounting to at least 90 percent of the owner or operator's total assets and at least six times the current cost estimate.

B) The owner or operator shall have:

i) A current rating of AAA, AA, A or BBB for its most recent bond issuance as issued by Standard and Poor, or a rating of Aaa, Aa, A or Baa, as issued by Moody; and

ii) Tangible net worth at least six times the current cost estimate; and

iii) Tangible net worth of at least $10 million; and

iv) Assets located in the United States amounting to at least 90 percent of its total assets or at least six times the current cost estimate.

2) To demonstrate that it meets this test, the owner or operator shall submit the following items to the Agency:

A) A letter signed by the owner or operator's chief financial officer and worded as specified in Appendix A, Illustration I; and

B) A copy of the independent certified public accountant's report on examination of the owner or operator's financial statements for the latest completed fiscal year; and

C) A special report from the owner or operator's independent certified public accountant to the owner or operator stating that:

i) The accountant has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

ii) In connection with that procedure, no matters came to the accountant's

attention which caused the accountant to believe that the specified data should be adjusted.

f) Updated Information.

1) After the initial submission of items specified in subsections (d) and (e), the owner or operator shall send updated information to the Agency within 90 days after the close of each succeeding fiscal year.

2) If the owner or operator no longer meets the requirements of subsections (d) and (e), the owner or operator shall send notice to the Agency of intent to establish alternative financial assurance. The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements.

g) Qualified Opinions. If the opinion required by subsections (e)(2)(B) and (e)(2)(C) includes an adverse opinion or a disclaimer of opinion, the Agency shall disallow the use of self-insurance. If the opinion includes other qualifications, the Agency shall disallow the use of self-insurance if:

1) The qualifications relate to the numbers which are used in the gross revenue test or the financial test; and,

2) In light of the qualifications, the owner or operator has failed to demonstrate that it meets the gross revenue test or financial test.

h) Parent Corporation. An owner or operator may satisfy the financial assurance requirements of this Part by demonstrating that a corporation which owns an interest in the owner or operator meets the gross revenue and financial tests. The owner or operator shall also provide a bond with the parent as surety (Appendix A, Illustration H).

Section 811.Appendix A Financial Assurance Forms
Illustration A Trust Agreement

TRUST AGREEMENT

Trust Fund Number________________

Trust Agreement, the "Agreement," entered into as of the ________ day of ______________, by and between __________________________, a ____________________________________, a __________________________ ______________, the "Grantor," and __________________________ ____, the "Trustee."

Whereas, Section 21.1 of the Environmental Protection Act, "Act", prohibits any person from conducting any waste disposal operation unless such person has posted with the Illinois Environmental Protection Agency, "IEPA", a performance bond or other security for the purpose of insuring closure of the site and postclosure care or corrective action in accordance with the Act and Illinois Pollution Control Board, "IPCB", rules.

Whereas, the IPCB has established certain regulations applicable to the Grantor, requiring that an operator of a waste disposal site provide assurance that funds will be available when needed for closure and/or postclosure care or corrective action of the site.

Whereas, the Grantor has elected to establish a trust to provide all or part of such financial assurance for the sites identified in this agreement.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

Whereas, Trustee is an entity which has authority to act as a trustee and whose trust operations are regulated by the Illinois Commissioner of Banks & Trust Companies or who complies with the Corporate Fiduciary Act (Ill. Rev. Stat. 19891, ch. 17, par. 1551-1 et seq. [205 ILCS 5/1]). (Line through any condition which does not apply.)

Now, Therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

a) The term "Grantor" means the operator who enters into this Agreement and any successors or assigns of the operator.

b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Sites and Cost Estimates. This Agreement pertains to the sites and cost estimates identified on attached Schedule A (on Schedule A, list the name and address and initial cost estimate of each site for which financial assurance is demonstrated by this agreement).

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of the IEPA. The Grantor and the Trustee intend that no other third party have access to the Fund except as provided in this agreement. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached to this agreement. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits on the Fund, less any payments or distributions made by the Trustee pursuant to this agreement. The Fund shall be held by the Trustee, in trust, as provided in this agreement. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor.

Section 4. Payment for Closure and Postclosure care or Corrective Action. The Trustee shall make payments from the Fund as the IEPA shall direct, in writing, to provide for the payment of the costs of closure and/or postclosure care or corrective action of the sites covered by this agreement. The Trustee shall reimburse the Grantor or other persons as specified by the IEPA from the Fund for closure and postclosure or corrective action expenditures in such amounts as the IEPA shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the IEPA specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trust Management. The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such

matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

a) Securities or other obligations of the Grantor, or any other owner or operator of the site, or any of their affiliates as defined in Section 80a-2(a) of the Investment Company Act of 1940, as amended (15 U.S.C. 80a-2(a)) shall not be acquired or held, unless they are securities or other obligations of the Federal government or the State of Illinois;

b) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by the Federal Deposit Insurance Corporation.

c) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

a) To transfer from time to time any or all of the assets of the Fund to any common, commingled or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

b) To purchase shares in any investment company registered under the Investment Company Act of 1940 (15 U.S.C. 80a-1 et seq.) including one which may be created, managed, underwritten or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this agreement or by law, the Trustee is expressly authorized and empowered:

a) To sell, exchange, convey, transfer or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expedience of any such sale or other disposition;

b) To make, execute, acknowledge and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers granted in this agreement;

c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve Bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund.

d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by the Federal Deposit Insurance Corporation; and

e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee, to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuation. The Trustee shall annually furnish to the Grantor and to the IEPA a statement confirming the value of the Trust. The evaluation day shall be each year on the _______ day of __________________. Any securities in the Fund shall valued at market value as of the evaluation day. The Trustee shall mail the evaluation statement to the Grantor and the IEPA within 30 days after the evaluation day. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the IEPA shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this agreement or any action to be taken hereunder. The Trustee

shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and the successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the IEPA and the present Trustee by certified mail ten days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests and instructions. All orders, requests and instructions by the IEPA to the Trustee shall be in writing, signed by the IEPA Director or his designees, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or IEPA hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests and instructions from the Grantor and/or IEPA, except as provided in this agreement.

Section 15. Notice of Nonpayment. The Trustee shall notify the Grantor and the IEPA, by certified mail within ten days following the expiration of the 30-day period after the anniversary of the establishment of the Trust, if no payment is received from the Grantor during that period. After the pay-in period is completed, the Trustee shall not be required to send a notice of nonpayment.

Section 16. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee and the IEPA Director, or by the Trustee and the IEPA Director if the Grantor ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee and the IEPA Director, or by the Trustee and the IEPA, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

Section 18. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the IEPA Director issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law. This Agreement shall be administered, construed and enforced according to the laws of the State of Illinois.

Section 20. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written.

Attest: Signature of Grantor ______________________________

Typed Name ______________________________

Title ______________________________

Seal

Attest: Signature of Trustee ______________________

Typed Name ______________________

Title ______________________

Seal

Section 811.Appendix A Financial Assurance Forms
Illustration C Forfeiture Bond

FORFEITURE BOND

Date bond executed: ______________________

Effective date: ______________________

Principal: ______________________

Type of organization: ______________________

State of incorporation: ______________________

Surety: ______________________

Sites:

Name ______________________

Address ______________________

City ______________________

Amount guaranteed by this bond: $ ______________________

Name ______________________

Address ______________________

City ______________________

Amount guaranteed by this bond: $ ______________________

Please attach a separate page if more space is needed for all sites.

Total penal sum of bond: $ ______________________

Surety's bond number: ______________________________

The Principal and the Surety promise to pay the Illinois Environmental Protection Agency ("IEPA") the above penal sum unless the Principal provides closure and postclosure care or corrective action for each site in accordance with the closure and postclosure care or corrective action plans for that site. To the payment of this obligation the Principal and Surety jointly and severally bind themselves, their heirs, executors, administrators, successors and assigns.

Whereas the Principal is required, under Section 21(d) of the Environmental Protection Act (Ill. Rev. Stat. 19891, ch. 111½, par. 1021(d) [415 ILCS 5/21(d)]) to have a permit to conduct a waste disposal operation;

Whereas the Principal is required, under Section 21.1 of the Environmental Protection Act to provide financial assurance for closure and postclosure care or corrective action; and

Whereas the Surety is licensed by the Illinois Department of Insurance;

Whereas the Principal and Surety agree that this bond shall be governed by the laws of the State of Illinois;

The Surety shall pay the penal sum to the IEPA if, during the term of the bond, the Principal fails to provide closure and postclosure care or corrective action for any site in accordance with the closure and postclosure care or corrective action plans for that site as guaranteed by this bond. The Principal fails to so provide when the Principal:

a) Abandons the site;

b) Is adjudicated bankrupt;

c) Fails to initiate closure of the site or postclosure care or corrective action when ordered to do so by the Board or a court of competent jurisdiction; ~~or~~

d) Notifies the Agency that it has initiated closure, or initiates closure, but fails to close the site or provide postclosure care or corrective action in accordance with the closure and postclosure care or corrective action plans; or

e) For corrective action, fails to implement corrective action at a municipal solid waste landfill unit in accordance with 35 Ill. Adm. Code 811.326.

The Surety shall pay the penal sum of the bond to the IEPA within 30 days after the IEPA mails notice to the Surety that the Principal has failed to so provide closure and postclosure care or corrective action. Payment shall be made by check or draft payable to the State of Illinois, Landfill Closure and Postclosure Fund.

The liability of the Surety shall not be discharged by any payment or succession of payments unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond. In no event shall the obligation of the Surety exceed the amount of the penal sum.

This bond shall expire on the _______ day of ________________, ______; provided, however, that if the Principal fails to provide substitute financial assurance prior to the expiration date, and the IEPA mails notice of such failure to the Surety within 30 days after such date, the term of this bond shall be automatically extended for one twelve-month period starting with the date of expiration of the bond.

The Principal may terminate this bond by sending written notice to the Surety; provided, however, that no such notice shall become effective until the Surety receives written authorization for termination of the bond from the IEPA.

In Witness Whereof, the Principal and Surety have executed this Forfeiture Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below certify that they are authorized to execute this surety bond on behalf of the Principal and Surety.

~~Principal Corporate Surety~~ ______________________________
PRINCIPAL

Signature Name ______________________________

Typed Name ______________________________

Address ______________________________

Title ______________________________

State of Incorporation ______________________________

Date ______________________________

Corporate seal

CORPORATE SURETY

Signature ______________________________

Typed Name ______________________________

Title ______________________________

Corporate seal ______________________ ~~Corporate seal~~

Bond premium: $ ______________________________

Section 811.Appendix A Financial Assurance Forms
Illustration D Performance Bond

PERFORMANCE BOND

Date bond executed: ______________________________

Effective date: ______________________________

Principal: ______________________________

Type of organization: ______________________________

State of incorporation: ______________________________

Surety: ______________________________

Sites:

Name ______________________________

Address ______________________________

City ______________________________

Amount guaranteed by this bond: $ ______________________________

Name ______________________________

Address ______________________________

City ______________________________

Amount guaranteed by this bond: $ ______________________________

Please attach a separate page if more space is needed for all sites.

Total penal sum of bond: $ ______________________________

Surety's bond number: ______________________________

The Principal and the Surety promise to pay the Illinois Environmental Protection Agency ("IEPA") the above penal sum unless the Principal or Surety provides closure and postclosure care or corrective action for each site in accordance with the closure and postclosure care or corrective action plans for that site. To the payment of this obligation the Principal and Surety jointly and severally bind themselves, their heirs, executors, administrators, successors and assigns.

Whereas the Principal is required, under Section 21(d) of the Environmental Protection Act (Ill. Rev. Stat. 19~~89~~91, ch. 111½, par. 1021(d) [415 ILCS 5/21(d)]) to have a permit to conduct a waste disposal operation;

Whereas the Principal is required, under Section 21.1 of the Environmental Protection Act, to provide financial assurance for closure and postclosure care or corrective action; and

Whereas the Surety is licensed by the Illinois Department of Insurance;

Whereas the Principal and Surety agree that this bond shall be governed by the laws of the State of Illinois;

The Surety shall pay the penal sum to the IEPA or provide closure and postclosure care or corrective action in accordance with the closure and postclosure care or corrective action plans for the site if, during the term of the bond, the Principal fails to provide closure and postclosure care or corrective action for any site in accordance with the closure and postclosure care or corrective action plans for that site as guaranteed by this bond. The Principal fails to so provide when the Principal:

a) Abandons the site;

b) Is adjudicated bankrupt;

c) Fails to initiate closure of the site or postclosure care or corrective action when ordered to do so by the Board or a court of competent jurisdiction; ~~or~~

d) Notifies the Agency that it has initiated closure, or initiates closure, but fails to close the site or provide postclosure care or corrective action in

accordance with the closure and postclosure care or corrective action plans; or

e) For corrective action, fails to implement corrective action at a municipal solid waste landfill unit in accordance with 35 Ill. Adm. Code 811.326.

The Surety shall pay the penal sum of the bond to the IEPA or notify the IEPA that it intends to provide closure and postclosure care or corrective action in accordance with the closure and postclosure care or corrective action plans for the site within 30 days after the IEPA mails notice to the Surety that the Principal has failed to so provide closure and postclosure care or corrective action. Payment shall be made by check or draft payable to the State of Illinois, Landfill Closure and Postclosure Fund.

If the Surety notifies the Agency that it intends to provide closure and postclosure care or corrective action, then the Surety must initiate closure and postclosure care or corrective action within 60 days after the IEPA mailed notice to the Surety that the Principal failed to provide closure and postclosure care or corrective action. The Surety must complete closure and postclosure care or corrective action in accordance with the closure and postclosure care or corrective action plans, or pay the penal sum.

The liability of the Surety shall not be discharged by any payment or succession of payments unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond. In no event shall the obligation of the Surety exceed the amount of the penal sum.

This bond shall expire on the _________ day of __________________, _______; provided, however, that if the Principal fails to provide substitute financial assurance prior to the expiration date, and the IEPA mails notice of such failure to the Surety within 30 days after such date, the term of this bond shall be automatically extended for one twelve-month period starting with the date of expiration of the bond.

The Principal may terminate this bond by sending written notice to the Surety; provided, however, that no such notice shall become effective until the Surety receives written authorization for termination of the bond from the IEPA.

In Witness Whereof, the Principal and Surety have executed this Forfeiture Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below certify that they are authorized to execute this surety bond on behalf of the Principal and Surety.

~~Principal Corporate Surety~~ ____________________________________
PRINCIPAL

Signature Name ____________________________________

Typed Name ____________________________________

Address ____________________________________

Title ____________________________________

State of Incorporation ____________________________________

Date ____________________________________

Corporate seal

CORPORATE SURETY

Signature ____________________________________

Typed Name ____________________________________

Title ____________________________________

Corporate seal~~____________________ Corporate seal~~

Bond premium: $ ____________________________________

Section 811.Appendix A Financial Assurance Forms
Illustration E Irrevocable Standby Letter of Credit

IRREVOCABLE STANDBY LETTER OF CREDIT

Director
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, Illinois 62706

Dear Sir or Madam:

We have authority to issue letters of credit. Our letter-of-credit operations are regulated by the Illinois Commissioner of Banks and Trusts or our deposits are insured by the Federal Deposit Insurance Corporation. (Omit language which does not apply)

We hereby establish our Irrevocable Standby Letter of Credit No. ________________ in your favor, at the request and for the account of ____ up to the aggregate amount of ___________________________ U. S. dollars ($ ____________), available upon presentation of

1. your sight draft, bearing reference to this letter of credit No. _______________; and,

2. your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued under authority of the Environmental Protection Act (Ill. Rev. Stat. 19~~8~~91, ch. 111½, par. 1001 et seq. [415 ILCS 5/1 et seq.]) and 35 Ill. Adm. Code 811.713(e).

This letter of credit is effective as of ____________________ ________ and shall expire on ______________________________; but, such expiration date shall be automatically extended for one period of twelve months starting with the expiration date if the operator fails to substitute alternative financial assurance prior to the expiration of this letter of credit and you notify us of such failure within 30 days after the above expiration date.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the State of Illinois ~~l~~Landfill ~~c~~Closure and ~~p~~Postclosure or Corrective Action ~~f~~Fund in accordance with your instructions.

This letter of credit is governed by the Uniform Commercial Code (Ill. Rev. Stat. 19~~8~~91, ch. 26, pars. 1-101 et seq. [810 ILCS 5/1-101 et seq.]).

Signature ____

Typed Name ____

Title ____

Date ____

Name and address of issuing institution ____________________

This credit is subject to ______________________________

Section 811.Appendix B Section-by-Section correlation between the Standards of the RCRA Subtitle D MSWLF regulations and the Board's nonhazardous waste landfill regulations.

RCRA SUBTITLE D REGULATIONS		ILLINOIS LANDFILL REGULATIONS	
I.	SUBPART A: General		
1)	Purpose, Scope, and Applicability (40 CFR 258.1)	1)	NL[1]: Sections 811.101, 811.301, 811.401, 811.501, and 811.700. EL[2]: Section 814.101.
2)	Definitions (40 CFR 258.2)	2)	Section 810.103.
II.	SUBPART B: Location Restrictions		
1)	Airport safety (40 CFR 258.10)	1)	NL: Section 811.302(e). EL: Section 814.302(c) and 814.402(c).
2)	Floodplains. (40 CFR 258.11)	2)	NL: Section 811.102(b). EL: Section 814.302 and 814.402.
3)	Wetlands. (40 CFR 258.12)	3)	NL: Sections 811.102(d), 811.102(e), and 811.103. EL: Section 814.302 and 814.402.
4)	Fault areas. (40 CFR 258.13)	4-5)	NL: Sections 811.304 and 811.305. EL: Section 814.302 and 814.402.
5)	Seismic impact zones. (40 CFR 258.14)		
6)	Unstable areas. (40 CFR 258.15)	6)	NL: Sections 811.304 and 811.305. EL: Sections 811.302(c) and 811.402(c).
7)	Closure of existing MSWL units. (40 CFR 258.16)	7)	EL: Sections 814.301 and 814.401.
III.	SUBPART C: Operating Criteria		
1)	Procedures for excluding the receipt of hazardous waste. (40 CFR 258.20)	1)	NL: Section 811.323. EL: Sections 814.302 and 814.402.
2)	Cover material requirements. (40 CFR 258.21)	2)	NL: Section 811.106. EL: Sections 814.302 and 814.402

1 - NL: New Landfill; 2 - EL: Existing Landfill and Lateral Expansions.

RCRA SUBTITLE D REGULATIONS	ILLINOIS LANDFILL REGULATIONS
III. SUBPART C: Operating criteria (contd.)	
3) Disease vector control. (40 CFR 258.22)	3) NL: Section 811.107(i). EL: Sections 814.302 and 814.402
4) Explosive gas control. (40 CFR 258.23)	4) NL: Sections 811.310, 811.311, and 811.312. EL: Sections 814.302 and 814.402
5) Air criteria. (40 CFR 258.24)	5) NL: Sections 811.107(b), 811.310, and 811.311. EL: Sections 814.302 and 814.402.
6) Access requirements. (40 CFR 258.25)	6) NL: Section 811.109. EL: Sections 814.302 and 814.402.
7) Run-on/run-off control system. (40 CFR 258.26)	7) NL: Section 811.103. EL: Sections 814.302 and 814.402.
8) Surface water requirements. (40 CFR 258.27)	8) same as above.
9) Liquids restrictions. (40 CFR 258.28)	9) NL: Section 811.107(m). EL: Sections 814.302 and 814.402.
10) Recordkeeping requirements. (40 CFR 258.29)	10) NL: Sections 811.112, and Parts 812 and 813. EL: Sections 814.302 and 814.402.
IV. SUBPART D: Design criteria (40 CFR 258.40)	IV) NL: 811.303, 811.304, 811.305, 811.306, 811.307, 811.308, 811.309, 811.315, 811.316, 811.317, and 811.Subpart E. EL: Sections 814.302 and 814.402.
V. SUBPART E: Groundwater Monitoring and Corrective Action	
1) Applicability.	1) NL: 35 Section 811.319(a)(1). EL: Sections 814.302 and 814.402.
2) Groundwater monitoring systems. (40 CFR 258.51)	2) NL: Sections 811.318 and 811.320(d). EL: Sections 814.302 and 814.402.
3) Groundwater sampling and analysis. (40 CFR 258.53)	3) NL: Section 811.318(e), 811.320(d), 811.320(e). EL: Sections 814.302 and 814.402.

RCRA SUBTITLE D REGULATIONS	ILLINOIS LANDFILL REGULATIONS
4) Detection monitoring program. (40 CFR 258.54)	4) NL: Section 811.319(a). EL: Sections 814.302 and 814.402.
5) Assessment monitoring program. (40 CFR 258.55)	5) NL: Section 811.319(b). EL: Sections 814.302 and 814.402.
6) Assessment of corrective measures. (40 CFR 258.56)	6) NL: Sections 811.319(d) and 811.324. EL: Sections 814.302 and 814.402.
7) Selection of remedy. (40 CFR 258.57)	7) NL: Sections 811.319(d) and 811.325. EL: Sections 814.302 and 814.402.
8) Implementation of the corrective action program. (40 CFR 258.58)	8) NL: Sections 811.319(d) and 811.325. EL: Sections 814.302 and 814.402.
VI. SUBPART F: Closure and Post-Closure Care	
1) Closure criteria. (40 CFR 258.60)	1) NL: Sections 811.110, 811.315 and 811.322. EL: Sections 814.302 and 814.402.
2) Post-closure care requirements. (40 CFR 258.61)	2) NL: Section 811.111. EL: Sections 814.302 and 814.402.
VII. SUBPART G: Financial Assurance Criteria	
1) Applicability and effective date. (40 CFR 258.70)	1) NL: Section 811.700. EL: Sections 814.302 and 814.402.
2) Financial assurance for closure. (40 CFR 258.71)	2, 3 and 4)
3) Financial assurance for post-closure. (40 CFR 258.72)	NL: Sections 811.701 through 811.705. EL: Sections 814.302 and 814.402.
4) Financial assurance for corrective action. (40 CFR 258.73)	
5) Allowable mechanisms. (40 CFR 258.73)	5) NL: Section 811.706 through 811.715. EL: Sections 814.302 and 814.402.

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

PART 814
STANDARDS FOR EXISTING LANDFILLS AND UNITS

SUBPART A: GENERAL REQUIREMENTS

Section
814.101 Scope and Applicability
814.102 Compliance Date
814.103 Notification to Agency
814.104 Applications for Significant Modification of Permits
814.105 Effect of Timely Filing of Notification and Application for Significant Modification
814.106 Agency Action on Applications for Significant Modifications to Existing Permits
814.107 Compliance Dates for Existing MSWLF Units
814.108 Interim Permit Requirements for Existing MSWLF Units
814.109 Permit Requirements for Lateral Expansions at Existing MSWLF Units

SUBPART B: STANDARDS FOR UNITS ACCEPTING INERT WASTE

Section
814.201 Scope and Applicability
814.202 Applicable Standards

SUBPART C: STANDARDS FOR EXISTING UNITS ACCEPTING CHEMICAL ~~AND~~ OR PUTRESCIBLE WASTES THAT MAY REMAIN OPEN FOR MORE THAN SEVEN YEARS

Section
814.301 Scope and Applicability
814.302 Applicable Standards

SUBPART D: STANDARDS FOR EXISTING UNITS ACCEPTING CHEMICAL ~~AND~~ OR PUTRESCIBLE WASTES THAT MUST INITIATE CLOSURE WITHIN SEVEN YEARS

Section
814.401 Scope and Applicability
814.402 Applicable Standards

SUBPART E: STANDARDS FOR EXISTING UNITS ACCEPTING INERT WASTE ONLY, OR ACCEPTING CHEMICAL AND PUTRESCIBLE WASTES THAT MUST INITIATE CLOSURE WITHIN TWO YEARS

Section
814.501 Scope and Applicability
814.502 Standards for Operation and Closure

AUTHORITY: Implementing Sections 5, 21, 21.1, 22, 22.17 and 28.1, and authorized by Section 27 of the Environmental

Protection Act (Ill. Rev. Stat. 1989, ch. 111 1/2, pars. 1005, 1021, 1021.1, 1022, 1022.17, 1028.1 and 1027).

SOURCE: Adopted in R88-7 at 14 Ill. Reg. , effective .

NOTE: Capitalization indicates statutory language.

SUBPART A: GENERAL REQUIREMENTS

Section 814.101 Scope and Applicability

a) This Part establishes the standards applicable to all existing landfill facilities, which includes existing facilities that are not considered to be new as defined at 35 Ill. Adm. Code 810.103. The existing landfill facilities covered by this Part include existing MSWLF units and lateral expansions, as defined at 35 Ill. Adm. Code 810.103. This Part establishes requirements for both new and existing disposal units within such existing landfill facilities. Landfill owners or operators are required to determine the date on which their facilities must begin closure, which is dependent upon the ability of existing units to meet the design and performance standards contained in this Part.

b) All existing MSWLF units and lateral expansions shall be subject to the following standards:

1) An existing MSWLF unit or a lateral expansion operating under a permit modified pursuant to Section 814.104 shall comply with the standards prescribed in Subpart C or Subpart D, whichever is applicable.

2) An existing MSWLF unit or a lateral expansion operating under a permit issued pursuant to 35 Ill. Adm. Code 813 shall comply with the terms of the permit and the standards prescribed in Section 814.Subpart C for existing MSWLF units.

3) An existing MSWLF unit or a lateral expansion operating under a permit issued pursuant 35 Ill. Adm. Code 807 shall comply with the terms of the permit and the requirements specified in Section 814.Appendix A until the units's permit is modified in accordance with Section 814.104.

4) An existing MSWLF unit or a lateral expansion that is newly required to obtain a permit under Section

21(d) of the Act on or after October 9, 1993 shall comply with the standards prescribed in Subpart C or Subpart D, whichever is applicable.

~~b~~c) The requirements of Sections 814.104, 814.105 and 814.106 of this Subpart apply only to those landfill facilities identified as existing facilities in subsection (a) and which require an Agency issued permit.

d) In addition to the requirements of subsection (c), an owner or operator of an existing MSWLF unit shall comply with the following:

1) permit requirements specified in Sections 814.108 and 814.109; and

2) any other applicable Federal rules, laws, regulations, or other requirements.

BOARD NOTE: Subsection (d)(2) is Derived from 40 CFR 258.3 (1992).

~~e~~e) All general provisions of 35 Ill. Adm. Code 810 apply to this Part.

Section 814.102 Compliance Date

Unless otherwise expressly provided in Sections 814.105 and 814.107, all landfills with existing units shall comply with the requirements of this Part within six months of the effective date of this Part.

Section 814.103 Notification to Agency

No later than six months after the effective date of this Part, all owners or operators shall send notification to the Agency describing the facility, estimated date of closure of existing units, and whether the facility is subject to the requirements of Subpart B, Subpart C, Subpart D, or Subpart E.

Section 814.104 Applications for Significant Modification of Permits

a) All owners or operators of landfills permitted pursuant to Section 21(d) of the Environmental Protection Act (Act) (Ill. Rev. Stat. 1989, ch. 111 1/2, par 1021(d)) shall file an application for a significant modification to their permits for existing units, unless the units will be closed pursuant to Subpart E within two years of the effective date of this Part.

b) The owner or operator of an existing unit shall submit information required by 35 Ill. Adm. Code 812 to demonstrate compliance with Subpart B, Subpart C or Subpart D, whichever is applicable.

c) The application shall be filed within 48 months of the effective date of this Part, or at such earlier time as the Agency shall specify in writing pursuant to 35 Ill. Adm.Code 807.209 or 813.201(b).

d) The application shall be made pursuant to the procedures of 35 Ill. Adm. Code 813.

Section 814.105 Effect of Timely Filing of Notification and Application for Significant Modification

a) Permits issued pursuant to 35 Ill. Adm. Code 807 prior to the effective date of this Part remain in full force and effect until superseded by a permit issued pursuant to this Part or until revoked as a result of an enforcement action brought pursuant to Title VIII of the Act.

b) An owner or operator who has timely filed a notification pursuant to Section 814.103 and an application for significant permit modification pursuant to Section 814.104 shall continue operation under the terms of its existing permits until final determination by the Agency on its application and any subsequent appeal to the Board pursuant to Section 40 of the Act. During this time, the owner or operator will be deemed to be in compliance with all requirements of this Part.

Section 814.107 Compliance Dates for Existing MSWLF Units and Lateral Expansions

a) Except as specified in subsections (b) or (c), all existing MSWLF units and lateral expansions shall comply with the applicable requirements of this Part in accordance with Section 814.101(b) on or before October 9, 1993.

b) An existing MSWLF unit or a lateral expansion that meets the conditions of subsections (b)(1), (b)(2), and (b)(3) and receive waste after October 9, 1993 but stop receiving waste before April 9, 1994 is exempted from the additional requirements prescribed for existing MSWLF units and lateral expansions in this Part. The exemption conditions are as follows:

1) The unit accepted 100 tons per day or less of solid waste for disposal between October 9, 1991 and october 9, 1992.

2) The unit shall not accept more than 100 tons perday for disposal between October 9, 1993 and April 9, 1994.

3) The unit is not on the National Priority list (NPL) as found in 40 CFR 300 Appendix B.

c) An existing MSWLF unit or a lateral expansion of an existing unit is exempted from the additional requirements presecribed for MSWLF units in this Part until April 8, 1994, if the Agency determines that such a unit or lateral expansion is needed to receive flood-related waste.

BOARD NOTE: The compliance dates specified in subsections (a) and (b) reflect the revisions adopted by the USEPA in the Federal Register Notification published on October 1, 1993 (see 58 FR 51536).

Section 814.108 Interim Permit Requirements for Existing MSWLF Units

a) EXCEPT FOR A LATERAL EXPANSION OF AN EXISTING MSWLF UNIT REQUIRED TO RECEIVE A PERMIT MODIFICATION UNDER SECTION 21(t) OF THE ACT, BY SEPTEMBER 1, 1993, OR WITHIN 30 DAYS FOLLOWING THE EFFECTIVE DATE OF P.A. 88-496 (September 13, 1993), WHICHEVER OCCURS FIRST, THE OWNER OR OPERATOR OF AN EXISTING MSWLF UNIT SHALL SUBMIT TO THE AGENCY A WRITTEN APPLICATION FOR A PERMIT (IF NO PERMIT HAS BEEN ISSUED UNDER SECTION 21(d) OF THE ACT) OR A PERMIT MODIFICATION (IF A PERMIT HAS BEEN ISSUED UNDER SECTION 21(d) OF THE ACT) ON FORMS PRESCRIBED AND PROVIDED BY THE AGENCY.

b) PERSONS WHO SUBMIT AN APPLICATION FOR A PERMIT OR PERMIT MODIFICATION UNDER SUBSECTION (a) AND SECTION 22.42(a) OF THE ACT SHALL BE DEEMED TO HAVE AN INTERIM PERMIT OR INTERIM PERMIT MODIFICATION ON OCTOBER 9, 1993, OR 30 CALENDAR DAYS AFTER THE AGENCY RECEIVES THE APPLICATION UNDER SUBSECTION (a) ABOVE AND SECTION 22.42(a) OF THE ACT, WHICHEVER OCCURS FIRST, EXCEPT THAT:

1) THE AGENCY MAY IMPOSE SUCH CONDITIONS TO THE INTERIM PERMIT OR INTERIM PERMIT MODIFICATION LAW AS MAY BE NECESSARY TO ACCOMPLISH THE PURPOSES OF THE ACT AND AS ARE NOT INCONSISTENT WITH THE REGULATIONS DESCRIBED IN SECTION 22.41 OF THE ACT.

2) NO INTERIM PERMIT OR INTERIM PERMIT MODIFICATION SHALL BE DEEMED ISSUED UNDER THIS SUBSECTION AND SUBSECTION 22.42(b) OF THE ACT IF THE AGENCY PROVIDES WRITTEN NOTIFICATION TO THE APPLICANT, BY OCTOBER 1, 1993 OR WITHIN 30 CALENDAR DAYS AFTER THE AGENCY RECEIVES THE APPLICATION UNDER THIS SECTION, WHICHEVER OCCURS FIRST, THAT:

A) THE APPLICATION IS INCOMPLETE; OR

B) THE APPLICANT MUST SUBMIT AN APPLICATION FOR A LATERAL EXPANSION PURSUANT TO SECTION 21(t) OF THE ACT.

c) AN INTERIM PERMIT OR AN INTERIM PERMIT MODIFICATION DEEMED ISSUED UNDER THIS SECTION AND SECTION 22.42 OF THE ACT TO AN EXISTING MSWLF UNIT SHALL EXPIRE UPON THE OCCURRENCE OF THE FOLLOWING, WHICHEVER OCCURS FIRST:

1) SIX CALENDAR YEARS FROM THE DATE UPON WHICH THE INTERIM PERMIT OR INTERIM PERMIT MODIFICATION WAS DEEMED TO BE ISSUED UNDER THIS SECTION AND SECTION 22.42 OF THE ACT, EXCEPT THAT IN THE EVENT THAT THE AGENCY IS REVIEWING AN APPLICATION FOR A PERMIT OR A SIGNIFICANT MODIFICATION OF A PERMIT FOR THE MSWLF UNIT, OR IN THE EVENT THAT A BOARD REVIEW OF A PERMIT DENIAL OR CONDITIONS OF A PERMIT OR SIGNIFICANT MODIFICATION OF THE PERMIT FOR THE MSWLF UNIT PURSUANT TO SECTION 40 OR 41 OF THE ACT IS PENDING AT THE END OF 6 CALENDAR YEAR PERIOD, THE INTERIM PERMIT OR INTERIM PERMIT MODIFICATION SHALL EXPIRE UPON THE ISSUANCE OF THE AGENCY'S FINAL ACTION ON THE APPLICATION OR UPON THE CONCLUSION OF THE BOARD PROCEEDING UNDER SECTIONS 40 OR 41 OF THE ACT, INCLUDING THE EXHAUSTION OF ALL RIGHTS OF APPEAL OF THE PARTIES TO THE PROCEEDING.

2) FINAL ACTION BY THE AGENCY ON AN APPLICATION FOR A PERMIT OR SIGNIFICANT MODIFICATION OF A PERMIT ON OR AFTER OCTOBER 9, 1993, FOR THE MSWLF UNIT WHERE THE AGENCY NOTIFIES THE APPLICANT THAT THE AGENCY'S REVIEW OF THE APPLICATION INCLUDED A REVIEW OF THE MSWLF UNIT'S COMPLIANCE WITH BOARD RULES ADOPTED UNDER SECTION 22.40 OR 22.41 OF THE ACT.

3) THE BOARD REVOKES THE INTERIM PERMIT OR THE INTERIM PERMIT MODIFICATION DEEMED ISSUED UNDER THIS SECTION AND SECTION 22.42 OF THE ACT IN AN ENFORCEMENT ACTION BROUGHT UNDER THE ACT. (Section 22.42 of the Act.)

Section 814.109 Permit Modification Requirements for Lateral Expansions at Existing MSWLF Units

a) NO PERSON SHALL CAUSE OR ALLOW A LATERAL EXPANSION OF A MUNICIPAL SOLID WASTE LANDFILL UNIT ON OR AFTER OCTOBER 9, 1993, WITHOUT A PERMIT MODIFICATION, GRANTED BY THE AGENCY, THAT AUTHORIZES THE LATERAL EXPANSION. (Section 21(t) of the Act.)

b) An owner or operator of an existing MSWLF unit seeking a lateral expansion shall submit to the agency an application for a permit modification using the forms specified by the Agency.

c) An owner or operator of an existing MSWLF unit operating under a permit modified pursuant to Section 814.104 shall submit the information required by 35 Ill. Adm. Code 811 and 812 to demonstrate compliance with the additional requirements prescribed for lateral expansions under Subpart C or Subpart D, whichever is applicable.

d) An owner or operator of an existing MSWLF unit operating under a permit issued pursuant to 35 Ill. Adm. Code 813 shall submit the information required by 35 Ill. Adm. Code 811 and 812 to demonstrate compliance with the additional requirements prescribed for existing MSWLF units under Section 814.Subpart C.

e) An owner or operator of an existing MSWLF unit operating in accordance with Section 814.105 under a permit issued pursuant 35 Ill. Adm. Code 807 shall submit the information required by Section 814.Appendix A to demonstrate compliance with the specific Subtitle D standards listed in Appendix A.

f) The application shall be made pursuant to the permit modification procedures of 35 Ill. Adm. Code 813 or 807, whichever is applicable.

BOARD NOTE: The Board envisions that the informational requirements for existing MSWLF units with permits issued pursuant to 35 Ill. Adm. Code 813 and 814 (subsections (c) and (d)) will be minimal, since most of the information required by Parts 811 and 812 would have been submitted to the Agency along with the application for a new permit or a significant modification of an existing permit.

SUBPART C: STANDARDS FOR EXISTING UNITS ACCEPTING CHEMICAL ~~AND~~ OR PUTRESCIBLE WASTES THAT MAY REMAIN OPEN FOR MORE THAN SEVEN YEARS

Section 814.302 Applicable Standards

a) All of the requirements for new units described in 35 Ill. Adm. Code 811 shall apply to units regulated under this Subpart except the following:

1) The location standards in 35 Ill. Adm. Code 811.302(a), (d), ~~and~~ (e) and (f);

2) The foundation and mass stability analysis standards in 35 Ill. Adm. Code 811.304 and 811.305;

3) The final cover requirements of 35 Ill. Adm Code 811.314 shall not apply to units or parts of units closed, covered and vegetated prior to the effective date of this Part.

4) The liner and leachate drainage and collection requirements of 35 Ill. Adm. Code 811.306, 811.307, and 811.308; and

5) The hydrogeological site investigation requirements of 35 Ill. Adm. Code 811.315, except that information shall be collected to implement a groundwater monitoring program in accordance with 35 Ill. Adm. Code 811.318 and 811.319 and establish background concentrations for the purpose of establishing water quality standards pursuant to 35 Ill. Adm. Code 811.320; and

b) Units regulated under this Subpart shall be subject to the following standards:

1) The unit must be equipped with a system which will effectively drain and collect leachate and transport it to a leachate management system;

2) The owner or operator shall provide a long-term static safety factor of at least 1.5 to protect a completed unit against slope failure;

3) Calculation of the Design Period

For the purposes of calculating financial assurance for existing landfills, other than existing MSWLF units and lateral expansions, the design period shall be calculated as follows:

A) The design period shall be no less than the operating life of the landfill plus fifteen years of postclosure care;

B) The postclosure care period shall be extended by three years for each year the unit is expected to be in operation up to the applicable design period required by 35 Ill. Adm. Code 811 (For example, an existing unit with expected operating lives of three, seven or 12 years after the effective date of this Part would be required to provide financial assurance during operation and for a postclosure care period of either 15 years since 3 x 3 = 9 years is less than the 15 year minimum specified in subsection (b)(3)(A); 21 years since 3 x 7 = 21 years; or 30 years since 3 x 13 = 39 years is greater than the 30 years specified in Section 811.303(a), respectively); and

C) The design period may not be reduced as allowed by 35 Ill. Adm. Code 811.303(b) and (c).

c) Airport Safety Requirements for existing MSWLF units and lateral expansions.

1) An owner or operator of an existing MSWLF unit or a lateral expansion that is located within 10,000 feet (3,048 meters) of any airport runway end used by turbojet aircraft or within 5,000 feet (1,524 meters) of any airport runway end used by only piston-type aircraft shall:

A) Demonstrate that the unit is designed and operated so that the MSWLF unit does not pose a bird hazard to aircraft; and

B) place the demonstration required by subsection (c)(1)(A) of this section in the operating record and submit a copy of the demonstration to the Agency.

2) An owner or operator of an existing MSWLF unit seeking a lateral expansion within a five-mile radius of any airport runway end used by turbojet or piston-type aircraft shall notify the affected airport and the Federal Aviation Administration (FAA).

3) For purposes of this Section:

A) "Airport" means public-use airport open to the public without prior permission and

without restrictions within the physical capacities of available facilities.

B) "Bird hazard" means an increase in the likelihood of bird/aircraft collisions that may cause damage to the aircraft or injury to its occupants.

d) Notwithstanding any exemptions under subsection (a), existing MSWLF units shall be subject to the foundation and mass stability standards at 35 Ill. Adm. Code 811.304, 811.305 and 811.306(b).

e) Notwithstanding any exemptions under subsection (a) or any requirements under subsection (b), lateral expansions at existing MSWLF units shall be subject to the following requirements:

1) The foundation and mass stability standards at 35 Ill. Adm. Code 811.304 and 811.305;

2) The liner and leachate drainage and collection requirements at 35 Ill. Adm. Code 811.306, 811.307, and 811.308; and

3) The groundwater impact assessment requirements at 35 Ill. Adm. Code 811.317

f) Existing MSWLF units that are unable to meet the location restrictions pertaining to floodplains and airports specified at Sections 814.302(a) and 814.302(c), or the foundation and mass stability standards specified at Section 814.302(d) shall close by October 9, 1996. Such units shall comply with all of the applicable standards of this Part including closure and postclosure care activities.

g) The deadline for closure of required by subsection (f) of this Section may be extended up to two years if the owner or operator of an existing MSWLF unit demonstrates to the Agency that:

1) There is no available alternative disposal capacity; and

2) There is no immediate threat to human health and the environment.

BOARD NOTE: Subsection (c) is derived from 40 CFR 258.10 (1992. Subsections (f) and (g) are derived from 40 CFR 258.16 (1992).

SUBPART D: STANDARDS FOR EXISTING UNITS ACCEPTING CHEMICAL ~~AND~~ <u>OR</u> PUTRESCIBLE WASTES THAT MUST INITIATE CLOSURE WITHIN SEVEN YEARS

Section 814.402 Applicable Standards

a) All of the requirements for new units described in 35 Ill. Adm. Code 811 shall apply to units regulated under this Subpart except the following:

1) The location standards in 35 Ill. Adm. Code 811.302(a), (c), (d), ~~and~~ (e)<u>, and (f)</u>;

2) The foundation and mass stability analysis standards in 35 Ill. Adm. Code 811.304 and 811.305;

3) The liner and leachate drainage and collection requirements of 35 Ill. Adm. Code 811.306, 811.307, and 811.308;

4) The final cover requirements of 35 Ill. Adm Code 811.314 shall not apply to units or parts of units closed, covered and vegetated prior to the effective date of this Part;

5) The hydrogeological site investigation requirements of 35 Ill. Adm. Code 811.315;

6) The groundwater impact assessment standards of 35 Ill. Adm. Code 811.317;

7) The groundwater monitoring program requirements of 35 Ill. Adm. Code 811.318(c); and

8) The groundwater quality standards of 35 Ill. Adm. Code 811.320(a), (b) and (c).

b) The following standards shall apply to units regulated under this Subpart:

1) No new units shall be opened and an existing unit may not expand beyond the area included in a permit prior to the effective date of this Part or, in the case of permit exempt facilities, beyond the area needed for landfilling to continue until closure is initiated.

2) After the effective date of this Part, the unit may not apply for supplemental wastestream permits to accept new special wastes. However, the unit

may continue to accept special waste under permits existing prior to the effective date of this Part and may renew those permits as necessary.

3) Groundwater Standards

A unit shall not contaminate a source of drinking water at the compliance boundary, defined as any point on the edge of the unit at or below the ground surface. At any point on the compliance boundary, the concentration of constituents shall not exceed the water quality standards specified in 35 Ill. Adm. Code 302.301, 302.303, 302.304, and 302.305. The Board may provide for a zone of attenuation and adjust the compliance boundary in accordance with Section 28.1 of the Act and the procedures of 35 Ill. Adm. Code 106.Subpart G upon petition demonstration by the owner or operator that the alternative compliance boundary will not result in contamination of groundwater which may be needed or used for human consumption. In reviewing such petitions, the Board will consider the following factors:

A) The hydrogeological characteristics of the unit and surrounding land, including any natural attenuation and dilution characteristics of the aquifer;

B) The volume and physical and chemical characteristics of the leachate;

C) The quantity, quality, and direction of flow of groundwater underlying the facility;

D) The proximity and withdrawal rates of groundwater users;

E) The availability of alternative drinking water supplies;

F) The existing quality of the groundwater, including other sources of contamination and their cumulative impacts on the groundwater;

G) Public health, safety, and welfare effects; and

H) In no case shall the zone of compliance extend beyond the facility property line or beyond the annual high water mark of any navigable surface water.

I) Notwithstanding the limitations of subsection 814.402(b)(3)(H), in no case shall the zone of compliance at an existing MSWLF unit extend beyond 150 meters from the edge of the unit.

4) Calculation of the Design Period

For the purposes of calculating financial assurance for existing landfills, other than existing MSWLF units and lateral expansions, the design period shall be calculated as follows:

A) The design period shall be no less than five years; and

B) The postclosure care period shall be extended by three years for each year the unit is expected to be in operation up to the applicable design period required by 35 Ill. Adm. Code 811. (For example, an existing unit with an expected life of three years after the effective date of this Part would be required to provide financial assurance for nine years of postclosure care, 9 = 3 x 3.)

C) The design period may not be reduced as allowed by 35 Ill. Adm. Code 811.303(b) and (c).

c) Airport Safety Requirements for existing MSWLF units and lateral expansions.

1) An owner or operator of an existing MSWLF unit or a lateral expansion that is located within 10,000 feet (3,048 meters) of any airport runway end used by turbojet aircraft or within 5,000 feet (1,524 meters) of any airport runway end used by only piston-type aircraft shall:

A) Demonstrate that the unit is designed and operated so that the MSWLF unit does not pose a bird hazard to aircraft; and

B) place the demonstration required by subsection (c)(1)(A) of this Section in the operating record and submit a copy of the demonstration to the Agency.

2) An owner or operator of an existing MSWLF unit seeking a lateral expansion within a five-mile

radius of any airport runway end used by turbojet or piston-type aircraft shall notify the affected airport and the Federal Aviation Administration (FAA).

3) For purposes of this Section:

A) "Airport" means public-use airport open to the public without prior permission and without restrictions within the physical capacities of available facilities.

B) "Bird hazard" means an increase in the likelihood of bird/aircraft collisions that may cause damage to the aircraft or injury to its occupants.

d) Notwithstanding any exemptions under subsection (b), existing MSWLF units shall be subject to the foundation and mass stability standards at 35 Ill. Adm. Code 811.304, 811.305, and 811.306(b).

e) Notwithstanding any exemptions under subsection (a) or any requirements under subsection (b), lateral expansions at existing MSWLF units shall be subject to the following requirements:

1) The foundation and mass stability standards at 35 Ill. Adm. Code 811.304 and 811.305;

2) The liner and leachate drainage and collection requirements at 35 Ill. Adm. Code 811.306, 811.307, and 811.308; and

3) The groundwater impact assessment requirements at 35 Ill. Adm. Code 811.317, if the unit is equipped with a compacted earth liner in accordance with Section 811.306(d).

4) The groundwater monitoring systems requirements at 35 Ill. Adm. Code 811.318;

5) The groundwater quality standards at 35 Ill. Adm. Code 811.320.

f) Existing MSWLF units that are unable to meet the location restrictions pertaining to floodplains and airports specified at Sections 814.302(a) and 302(c) following or the foundation and mass stability standards specified at Section 814.302(d)shall close by October 9, 1996. Such units shall comply with all of

the applicable standards of this Part including closure and postclosure care activities.

g) The deadline for closure of required by subsection (f) of this section may be extended up to two years if the owner or operator of an existing MSWLF unit demonstrates to the Agency that:

1) There is no available alternative disposal capacity; and

2) There is no immediate threat to human health and the environment.

BOARD NOTE: Subsection 814.402(b)(3)(H) implements the compliance zone distance requirement specified at 40 CFR 258.40(d) (1992). Subsection (c) is derived from 40 CFR 258.10. Subsections (f) and (g) are derived from 40 CFR 258.16 (1992).

SUBPART E: STANDARDS FOR EXISTING UNITS ACCEPTING INERT WASTE ONLY, OR ACCEPTING CHEMICAL AND PUTRESCIBLE WASTES THAT MUST INITIATE CLOSURE WITHIN TWO YEARS

Section 814.501 Scope and Applicability

a) The standards in this Subpart are applicable to all existing units of landfills, including those exempt from permit requirements in accordance with Section 21(d) of the Act, that accept inert waste only, or which accept chemical and putrescible wastes.

b) All units that cannot demonstrate compliance with the requirements of Subpart B, ~~or~~ Subpart C or Subpart D are scheduled to begin closure within two years of the effective date of this Part must begin closure within two years of the effective date of this Part.

c) A new permit shall not be required for any facility at which all units will close within two years of the effective date of this Part.

Section 814.Appendix A Additional Requirements for Existing MSWLF Units and Lateral Expansions Operating Under Permits Issued Pursuant to 35 Ill. Adm. Code 807.

a) An existing MSWLF unit operating under a permit issued pursuant to 35 Ill. Adm. Code 807 shall comply with the following requirements of the federal Subtitle D standards under 40 CFR 258 (1992) until the unit's permit is modified in accordance with Section 814.104:

1) Location restrictions:

A) 40 CFR 258.10 (a) and (c);

B) 40 CFR 258.11 (a);

C) 40 CFR 258.15;

D) 40 CFR 258.16 (a);

2) Operating standards:

A) 40 CFR 258.20;

B) 40 CFR 258.23;

C) 40 CFR 258.26;

D) 40 CFR 258.27;

E) 40 CFR 258.28;

F) 40 CFR 258.29 (a) and (c);

3) Closure and postclosure care:

A) 40 CFR 258.60 (c)(2) and (c)(3), (d), (f), (g) and (i);

B) 40 CFR 258.61 (a), (c)(3) and (d);

4) Financial assurance requirements:

A) 40 CFR 258.70 (a);

B) 40 CFR 258.71 (a)(2);

C) 40 CFR 258.72 (a)(1) and (a)(2);

D) 40 CFR 258.73; and

E) 40 CFR 258.74.

b) In addition to the requirements of subsection (a), all existing MSWLF units, including municipally owned and operated on-site facilities, shall comply with the financial assurance requirements specified at 35 Ill. Adm. Code 807.Subpart F.

c) A lateral expansion at an existing MSWLF unit operating under a permit issued pursuant to 35 Ill. Adm. Code 807 shall comply with the following requirements of the federal Subtitle D standards under 40 CFR 258 (19920 until the unit's permit is modified in accordance with Section 814.104:

1) Location restrictions:

A) 40 CFR 258.10 (a), (b) and (c);

B) 40 CFR 258.11 (a);

C) 40 CFR 258.12 (a);

D) 40 CFR 258.13;

E) 40 CFR 258.14;

F) 40 CFR 258.15;

G) 40 CFR 258.16 (a);

2) Operating standards:

A) 40 CFR 258.20;

B) 40 CFR 258.23;

C) 40 CFR 258.26;

D) 40 CFR 258.27;

E) 40 CFR 258.28;

F) 40 CFR 258.29 (a) and (c);

3) Closure and postclosure care:

A) 40 CFR 258.60 (c)(2) and (c)(3), (d), (f), (g) and (i);

B) 40 CFR 258.61 (a), (c)(3) and (d);

4) Financial assurance requirements:

A) 40 CFR 258.70 (a);

B) 40 CFR 258.71 (a)(2);

C) 40 CFR 258.72 (a)(1) and (a)(2);

D) 40 CFR 258.73; and

E) 40 CFR 258.74.

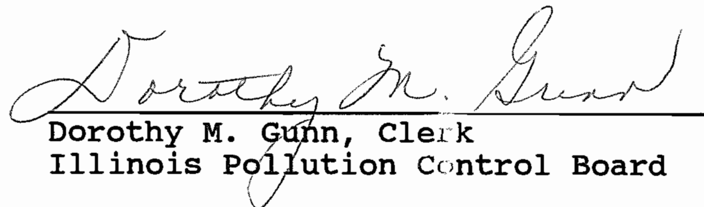
c) In addition to the requirements of subsection (b) of this appendix, a lateral expansion at an existing MSWLF unit operating under a permit issued pursuant to 35 Ill. Adm. Code 807 shall comply with the following requirements:

1) flexible membrane liner requirements prescribed at 35 Ill. Adm. Code 811.306 (d)(5)(A); and

2) All existing MSWLF units including municipally owned and operated and on-site facilities shall with the financial assurance requirements specified at 35 Ill. Adm. Code 807.Subpart F.

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above supplemental opinion and order was adopted on the 16th day of December, 1993, by a vote of 7-0.



Dorothy M. Gunn, Clerk
Illinois Pollution Control Board