

ILLINOIS POLLUTION CONTROL BOARD
May 5, 1988

BROWNING FERRIS INDUSTRIES
OF ILLINOIS, INC.,)
)
Petitioner,)
)
v.) PCB 84-136
)
ILLINOIS ENVIRONMENTAL)
PROTECTION AGENCY,)
)
Respondent.)

FRED C. PRILLAMAN, ATTORNEY-AT-LAW, APPEARED ON BEHALF OF
BROWNING FERRIS INDUSTRIES OF ILLINOIS, INC.; AND

E. WILLIAM HUTTON, ATTORNEY-AT-LAW, APPEARED ON BEHALF OF
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY.

OPINION AND ORDER OF THE BOARD (by B. Forcade):

This matter comes before the Board on the August 30, 1984 petition of Browning Ferris Industries of Illinois, Inc. ("BFI") appealing the July 27, 1984 permit decision by the Environmental Protection Agency ("Agency"). The facility involved is the Davis Junction Landfill, located south of Rockford in Ogle County. The Board held a public hearing on this matter in Ogle County on February 3, 1988. No member of the public was present. BFI submitted its post-hearing brief on March 10, 1988. The Agency submitted its brief on April 1, 1988 and an "Attachment A" on April 4, 1988. BFI submitted a reply brief on April 8, 1988. BFI challenges five permit conditions imposed by the Agency when it issued its July 27, 1984 Closure/Post-Closure Care Permit to BFI for the Davis Junction Landfill.

Factual Summary

BFI submitted its application for development of a solid waste disposal site in Ogle County to the Agency on November 20, 1974 (Ex. 22 & Ex. 30), and the Agency granted it development permit number 1975-11-DE on February 27, 1975 (Ex. 30). BFI submitted an application for an amended development permit and an operating permit on October 15, 1976, together with a minor modification request (Ex. 24) to reflect its intent to phase site development and modify leachate management (Ex. 25). BFI submitted entirely new site plans to reflect the proposed changes (Ex. 26, 27, 28 & 29). The estimated refuse space was 2,868,000 cubic yards of compacted waste, and the site was to have an overall life of 23 years (Ex. 26). The Agency granted

supplemental site development permit 1975-626 on October 28, 1976 as a result of the BFI application (Ex. 23). The Agency subsequently issued operating permit 1975-11-0P for this solid waste disposal facility on December 16, 1976.

BFI commenced operations at Davis Junction and received 1,900,000 cubic yards of uncompacted wastes into Phase 1 from December, 1976 until January, 1983. The incoming wastes included 87% common municipal wastes, 11% special (non-hazardous) wastes, and 2% Part 721 (40 CFR 261) hazardous wastes (Ex. 6; Ex. 12, p. 3). The record indicates that between late 1978 and early 1982, BFI obtained several permits for the disposal of liquid solvent wastes of various types, compositions, and quantities up to 1,500,000 gallons. Many are not described fully, but the permits included methylene chloride, 1,1,1-trichloroethane, and trichloroethylene (Ex. 18). The record does not indicate the identities and volumes of hazardous wastes received into Phase 1 prior to 1978. BFI kept detailed hazardous wastes records only from November 19, 1980 through January 25, 1983 (Ex. 12, p. 14).

As a result of BFI's receipt of wastes containing the three chlorinated organic solvents, the Agency required BFI to begin analyzing its groundwater samples for total organic carbon (TOC), total organic halide (TOX), methylene chloride, 1,1,1-trichloroethane, and trichloroethylene by a June 18, 1982 letter (Ex. 19). The subsequent permit issued December 20, 1983, however, did not include the three specific chlorinated solvent parameters (Ex. 12, Att. 9).

On September 16, 1982, BFI requested the Agency to amend its operating permit to allow leachate removal from Phase 1 at the rate of 5,000 gallons per week for disposal on the dry active fill at the site. The leachate was to remain at the site. Removal was to occur whenever the leachate level exceeded elevation 725.5 feet, so the maximum leachate level would remain at 726 feet (14 foot depth) (Ex. 21). The Agency issued supplemental permit 1982-124-SUPP on October 28, 1982 for this activity, with the proviso that no leachate or leachate-contaminated water be discharged to any groundwater, surface water, or sewer without a permit (Ex. 20). The application and permit included no reference to leachate characterization or composition, or to groundwater monitoring.

The U.S. Environmental Protection Agency requested on August 8, 1983 that BFI submit its Part B application by January 31, 1984 (See Ex. 16; See also 35 Ill. Adm. Code 703.150(b) (1984)). The record is silent as to when BFI filed its Part A application and obtained facility identification No. ILD 980700751 for the Davis Junction Phase 1. BFI instead chose to cease accepting hazardous wastes and close Phase 1 of its facility, which was near capacity anyway (See Ex. 16; See also 35

Ill. Adm. Code 703.157(b) (1984)). BFI submitted a partial Closure/Post-Closure Plan to the Agency on January 30, 1984 (Ex. 16; See also 35 Ill. Adm. Code 725.210 - 725.220 (1984); Ex. 32). The Agency responded on March 16, 1984 by notifying BFI of numerous deficiencies in its plan (Ex. 11). BFI submitted the entirety of its Closure/Post-Closure Plan to the Agency on April 13, 1984 (Ex. 12). Andrews Environmental Engineering, Inc. prepared the plan. The Agency again responded on April 27, 1984 by notifying BFI of its rejection due to numerous lingering deficiencies (Ex. 9). BFI submitted a partial response on June 4, 1984 (Ex. 6) and a final response on July 25, 1984 (Ex. 2). The Agency finally modified the BFI Davis Junction Phase 1 Closure/Post-Closure Plan on July 27, 1984 (Ex. 1; See 35 Ill. Adm. Code 725.212(d) & 725.218(d) (1984)). The Agency received public inquiry about the BFI plan from one member of the general public (See Ex. 3, 7 & 13). The Agency held no public hearing (Petition, par. 13).

BFI now appeals the Agency's modification of its Closure/Post-Closure Plan on August 30, 1984. The Agency made numerous modifications. BFI appealed only the five summarized below (Ex. 1; Petition Ex. "A"):

- Par. 3: BFI was to characterize its leachate by performing analyses for the 375 hazardous constituents listed in 40 CFR 261 Appendix VIII and submit a plan for leachate disposal;
- Par. 4: BFI was to decrease the maximum depth of leachate maintained in the hazardous area from 14 feet to less than one foot;
- Par.5(j): BFI was to monitor the groundwater quality quarterly for Methylene Chloride, 1,1,1-Trichloroethane and Trichloroethylene;
- Par.5(l): BFI was to perform statistical analyses on the monitoring data using the .1 level of Cochran's Approximation of Behrens-Fisher Student's T-Test; and
- Proviso: The Agency reserved the right to amend BFI's Closure and Post-Closure Plan.

Each of these issues is discussed below.

Discussion

The Board must confront some preliminary issues before it considers the substantive issues involved in the Agency modifications to the Closure/Post-Closure Plan which BFI now challenges. A discussion of each of the five substantive points will follow these preliminary discussions.

The first preliminary issue regards the regulatory status of this permit appeal. The Resource Conservation and Recovery Act (hereinafter "RCRA") authorized USEPA to adopt regulations governing various aspects of hazardous waste management. 42 U.S.C. Sec. 6901 et seq. (1986). The Illinois Environmental Protection Act (hereinafter "the Act") includes a provision allowing the Board to adopt regulations identical in substance to the federal regulations. Ill. Rev. Stat. ch. 111 1/2, Sec. 1022.4 (1988). A regulation adopted by USEPA or this Board pursuant to RCRA authority is a RCRA regulation, a permit issued by USEPA or the Agency pursuant to RCRA authority is a RCRA permit. See 35 Ill. Adm. Code 700.255 & 700.260 (1984). Although the disposition of this proceeding centrally involves the Board's RCRA regulations, it is not a "RCRA appeal" in the strict, technical sense. RCRA permit appeals invoke certain unique regulatory procedures not involved in this appeal. See 35 Ill. Adm. Code 705 (1984). The standard Board procedures for Agency permit denials apply here. See 35 Ill. Adm. Code 105 (1984).

The RCRA regulations provide a two-step application procedure. Owners and operators of hazardous waste management facilities existing on November 19, 1980 were given an opportunity to submit a Part A application containing certain facility information. 35 Ill. Adm. Code 703.150(a), 703.181 & 725.101(b) (1984). These facilities were deemed to have achieved "interim status" and were required to comply with the "interim status standards" of Part 725 of the Board's regulations. 35 Ill. Adm. Code 703.153 & 703.156 (1984). This is the current regulatory status of the BFI facility involved in this proceeding. The owner or operator of the interim status facility was to submit a Part B application containing more detailed information within a certain time of an Agency notice that it was due, thus terminating its interim status upon final disposition of its application. 35 Ill. Adm. Code 703.150(b), 703.157 & 703.182 (1984). A more comprehensive body of hazardous waste management regulations would then apply to the facility. 35 Ill. Adm. Code 724.101 & 724.103 (1984).

Part 725 interim status standards are generally implemented directly without a permit application or review. These standards include several "mini-procedures" for Agency review of a facility without a complete RCRA permit application. This closure plan involves one of these mini-procedures. The mini-procedures are

based on similar procedures in 40 CFR 265. However, the Board modified the parallel federal procedures to provide for appeal of Agency decisions to the Board. 35 Ill. Adm. Code 725.218(g) (1984).

Parts 702, 703, and 705 govern Part B RCRA permit issuance. These procedures are generally inapplicable to proceedings concerning interim status. 35 Ill. Adm. Code 702.107 (1984). As stated by the Board in the past:

Although the Board intends the Agency's action with respect to interim status to be in the nature of permit actions, and hence appealable to the Board, the detailed procedures of Part 705 are not applicable.

In re Phase II RCRA Rules, 53 PCB 131, 150 (July 26, 1983); See Commonwealth Edison Co. v. IPCB, 127 Ill.App.3d 446, 449-450; 468 N.E.2d 1339, 1342-43 (3d Dist. 1984).

Therefore, Part 725 RCRA interim status closure/post-closure plans are not RCRA permits, and appeals of Agency decisions relating to these plans are not RCRA permit appeals. While the BFI Closure/Post-Closure permit did legitimately contain conditions based on RCRA regulations adopted by the Board, the permit itself was not issued pursuant to RCRA authority and is therefore not a RCRA permit.

The second preliminary issue involves the breadth of Agency discretion with regard to its disposition of the BFI Closure/Post-Closure Plan in light of prior Agency actions. BFI contends that by issuing the 1975 permit, the 1976 permits, and the 1982 supplemental operating permit, the Agency somehow cannot now alter those earlier determinations and require BFI to accept more stringent permit conditions. This contention is without merit.

Essentially, this argument is an estoppel argument. When a state agency acts in a governmental, as opposed to a proprietary, capacity, public policy militates against circumscribing the agency's discretion by an estoppel. Estoppel could impair the proper function of government and will only arise under extraordinary or compelling circumstances. Illinois Environmental Protection Agency v. Modine Manufacturing Co., PCB 86-27, Slip Op. at 4-5 (Feb. 4, 1988). In this case, the Agency acted in a governmental capacity, and no extraordinary or compelling circumstances appear in the record. As stated by the Board:

Such application of the doctrine [of estoppel] would impair the functioning of the State in

its role of protecting valuable interests in the environment. "[T]o allow estoppel here would be to permit the people of Illinois to be denied their constitutional right to a healthful environment."

Modine Manufacturing, PCB 86-27 at 5 (Feb. 4, 1988) (quoting Tri-County Landfill v. Pollution Control Board, 41 Ill.App.3d 249, 255, 353 N.E.2d 316 (2d Dist. 1976)).

Second, BFI's argument ignores one fact: the Agency's 1975, 1976, and 1982 permit decisions were made under a regulatory control program, and with a scientific understanding, that would change over time. A decision that was correct under general scientific knowledge and regulatory control programs that existed in 1976, may not be correct under scientific knowledge and regulatory control programs that existed in 1984.¹

The Agency's permit decisions of 1975, 1976, and 1982 were premised exclusively on the Board's solid waste regulations² Those regulations were originally adopted by the Board in 1973 (R72-5, adopted July 19, 1973), and made no distinction between landfills accepting municipal refuse and those accepting hazardous waste.³ All landfills were simply called "sanitary landfills." Those regulations remained effectively unchanged through the 1984 time frame involved in this proceeding.

By 1984, the legal principles upon which hazardous waste decisions could be made had changed dramatically. The statutory and regulatory control program for the management of hazardous waste under RCRA reflected a consensus that this particular type of waste posed special problems and deserved special and more rigorous control standards (See Ill.Rev.Stat. ch. 111-1/2, Section 1020(a)(4) (1984)). BFI's first permit which contained conditions implementing the RCRA hazardous waste regulatory scheme is the permit now at issue.

¹See the discussion of Second Supplemental issue beginning on page 25 of this Opinion and Order.

²Pollution Control Board Rules and Regulations, Chapter 7: Solid Waste (subsequently revised and codified at 35 Ill. Adm. Code 807 (1984)); see 35 Ill. Adm. Code 700.106 (1984).

³These regulations, however, did broadly define "hazardous waste," but only required that a landfill must obtain a permit to receive it. 35 Ill. Adm. Code 807.104 & 807.310 (1984).

BFI's argument presumes that an Agency decision finding a facility is properly operated as a "sanitary landfill" somehow is controlling on whether the facility is a properly closed hazardous waste facility. The Board is unable to accept this argument either in logic or as law. The issue before the Board is not whether prior Agency decisions are binding on the Board today. Rather, the issue now is whether the permit application submitted by BFI, and any other information available at the time of the permit decision, demonstrates compliance with the relevant statutory and regulatory requirements governing closure of a hazardous waste facility.

In summary, BFI arguments that the 1975, 1976, and 1982 permitting activities of the Agency somehow circumscribed the Agency's discretion in reviewing the Davis Junction Closure/Post-Closure Plan in 1984 are unavailing. As discussed, Illinois law would not support any theory of estoppel against the Agency. The fact that the Agency reviewed the plan under a new and distinct body of regulations militates in favor of increased Agency discretion. Finally, increased knowledge and articulated regulatory concern tends to favor not limiting the Agency's range of regulatory choices in 1984 as to what may have been reasonable in 1976 or 1982.

A third preliminary matter which the Board must determine is that of the standard of review. In its post-hearing brief, BFI correctly reiterates the standard of review in permit appeal proceedings:

[T]he sole question before the Board is whether the applicant proves that the application, as submitted to the Agency, demonstrated that no violation of the Environmental Protection Act would have occurred if the requested permit had been issued.

Petitioner's Brief at 18 (quoting Joliet Sand & Gravel Co. v. Pollution Control Board, 163 Ill.App.3d 830, 833, 516 N.E.2d 955, 958 (3d Dist. 1987) (citation omitted).

BFI then properly proceeds to assert that BFI bears the burden to prove the Agency-imposed permit conditions unnecessary, but that the Agency is not required to justify its actions with regard to the application. Petitioner's Brief at 19 (citing Environmental Protection Agency v. Pollution Control Board, 118 Ill.App.3d 772, 780, 455 N.E.2d 188, 194 (1st Dist. 1983)).

The Board would agree with BFI's assessment of the current law with regard to the legal standard and burden of proof in this proceeding. After its appraisal of the current state of the law,

however, BFI abandons that standard and attempts to place the burden on the Agency. BFI begins nine assertions in its brief with, "The Agency has failed to demonstrate ... that the condition is necessary," or similar words. Petitioner's Brief at 26-28. By the submission of its Reply Brief, BFI completely abandons the standard of review previously articulated. For example, BFI asserts:

The burden was on the Agency, and it failed to meet its burden in that it failed to demonstrate the environmental necessity of a one-foot [leachate] head as opposed to 14 feet or some intermediate point between one foot and fourteen feet. Indeed, the Agency did no groundwater monitoring or scientific testing to determine whether the 14-foot head was excessive. (Reply Brief, p. 14).

The Board emphasizes that the burden of proof is on BFI, not the Agency. The Agency has no obligation to conduct groundwater monitoring or scientific testing at BFI's facility. BFI is entitled to a favorable decision if, and only if, it has successfully proven that the record before the Agency indicated that BFI's Closure/Post-Closure Plan, as originally submitted and supplemented prior to July 27, 1984, was sufficient to establish that the Davis Junction landfill would not cause a violation of the Act or Board regulations governing hazardous waste disposal facilities.

Initially, BFI correctly identified the standard of review and burden of proof. Therefore, the Board expected much of BFI's presentation at hearing, and that its briefs would focus on the facts in the record to logically demonstrate that its original plan would not violate the Act and applicable Board regulations. Unfortunately, BFI spent most of its efforts, at hearing and in briefs, trying to "put the Agency on trial." That is not what case is about. This Board must focus, and the Board will focus, on whether the facts in the record demonstrate future compliance. BFI's unwillingness to focus on that central issue is noted, but not controlling.

The Board further observes a fundamental problem with BFI's Closure/Post-Closure Plan as submitted to the Agency in April, 1984. The plan comprised 21 pages containing numerous references to various attachments for plan details. (Ex. 12). Many of the attachments are apparently pre-existing documents. For example, Attachment 2: Site Design Criteria is actually a copy of the October, 1976 application for a supplemental permit. (Compare Ex. 12 Att. 2 with Ex. 26); Attachment 3: Soil Data is actually a May, 1973 soil report (Ex. 12 Att. 3); and Attachment 8:

Leachate Collection System Data is merely copies of a September, 1982 letter from BFI and an October, 1982 Agency letter (2 pages total), regarding a supplemental permit to operate a leachate collection system. (Ex. 12 Att. 8). While such use of pre-existing documents itself presents no problem, how it was done here does. The BFI plan presented difficulty in locating much of the pertinent information necessary to determine the nature of various aspects of the facility. Further, where the plan speaks in multiple places on the same issues it is occasionally internally inconsistent. This made evaluation more difficult. Some of these problems are noted in the discussion of the substantive issues which follows.

SUBSTANTIVE ISSUES

I. Leachate Head

The first substantive issue before the Board is Modification Paragraph 4, which would require BFI to maintain a maximum leachate depth of one foot (elevation 713 feet), rather than the 14 foot (elevation 726 feet) originally proposed by BFI in its plan. The Board believes that two provisions of the Act and two regulations should be applied to the facts in determining whether BFI has met its burden of proving that its proposed 14 foot maximum leachate head would not result in a violation. The provisions of the Act which seem particularly relevant are Sections 12(a) and 3.55. They provide:

No person shall:

- a. Cause or threaten to cause or allow the discharge of any contaminants into the environment ... so as to cause or tend to cause water pollution ... or so as to violate regulations or standards adopted by the Pollution Control Board

Ill.Rev.Stat. ch. 111-1/2, Section 1012 (1988).

"WATER POLLUTION" is such alteration of the physical, thermal, chemical, biological or radioactive properties of any waters of the State, or such discharge of any contaminant into any waters of the State, as will or is likely to create a nuisance or render such waters harmful or detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate uses, or to livestock, wild animals, birds, fish, or other aquatic life.

Ill.Rev.Stat. ch. 111-1/2, Section 1003.55
(1988).

The Act would therefore require that the record on review at least demonstrate that no contaminant will leave the facility as a part of the leachate and enter the underground waters of the state in a quantity or concentration that would cause a violation of the Board's water quality standards. Those standards are found at 35 Ill. Adm. Code Part 302; see 35 Ill. Adm. Code 807.313 (1984).

The regulatory standards for closure performance and closure and post-closure care of an interim status hazardous waste facility are also directly applicable to the decision before the Board:

The owner or operator must close his facility in a manner that:

- a) Minimizes the need for further maintenance; and
- b) Controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous waste constituents, leachate, contaminated rainfall or waste decomposition products to the ground or surface waters

35 Ill. Adm. Code 725.211 (1984); see 35 Ill. Adm. Code 807.313 (1984) (codified version of pre-existing Chapter 7: Solid Waste, Rule 313).

To this end, several specific facilities management requirements apply to the closure and post-closure care of a hazardous waste landfill. Pertinent to leachate management, the Board's rules provide:

- b) In the closure and post-closure plans, the owner or operator must address the following objectives and indicate how they will be achieved:
 - 1) Control of pollutant migration from the facility via groundwater, surface water and air ...;
- c) The owner or operator must consider at least the following factors in addressing

the closure and post-closure care objective of paragraph (b) of this Section:

- 1) Type and amount of hazardous waste and hazardous waste constituents in the landfill;
 - 2) The mobility and the expected rate of migration of the hazardous waste and hazardous waste constituents; [and]
 - 3) Site location, topography and surrounding land use with respect to the potential effects of pollutant migration (e.g., proximity to groundwater, surface water and drinking water sources); [and]
- d) [D]uring the post-closure care period the owner or operator of a hazardous waste landfill must:
- 2) Maintain and monitor the leachate collection, removal and treatment system ... to prevent excess accumulation of leachate in the system .

35 Ill. Adm. Code 725.410 (1984).

Taken together, these various requirements establish a narrative standard for the review of the facts in this case. The facility operator must prevent the accumulation of excess leachate which would foster the migration of hazardous waste constituents, or other pollutant migration, into groundwater in a quantity or concentration that would cause water pollution. In evaluating whether water pollution might occur, the Board's water quality standards would provide at least minimal guidance. The regulations also provide that the factors in Section 725.410 (c) must be addressed in demonstrating whether the narrative standard will be met.

In effect then, the Board must review BFI's application to determine if it evaluates the necessary factors and contains sufficient factual information to at least demonstrate that a 14 foot leachate head will not cause migration of contaminants into groundwaters in a quantity or concentration that would violate the Board's water quality standards. This is the standard which must be applied to the facts of this case.

The Davis Junction Landfill is located on ground sloping towards the north-northwest. The direction of apparent groundwater flow is in the same direction. The excavation was in clayey loess and colluvial deposits; through water-bearing Farmdale sands; and into a dense, low-permeability till. About 14 feet beneath the landfill invert is the "uppermost aquifer": A 10 foot thick Kansan sand. (Ex. 12, att. 9). The Farmdale sand and Kansan sand aquifers apparently converge at some point north of the site. (Ex. 12, Att. 3, p.10). The landfill invert slopes 0.5% from 717 feet at the south end to 712 feet at the north end. The lowermost natural contour along the perimeter of the Phase I excavation, which is at its north end, is about 723 feet. (Ex. 27 & 29). At least the southern portion of the site is a groundwater recharge zone. (Ex. 12, Att. 3, p. 11). The piezometric surface is nearly parallel to and about two feet below the invert. (Ex. 12, Att. 3). The record also conflictingly places the piezometric level slightly lower in an idealized cross-sectional drawing of the facility. It was on this idealized level that BFI based its containment calculations. (Ex. 12, Att. 2; Ex. 26). Adjustment of the idealized level to the actual level otherwise indicated by the record could affect BFI's containment estimates.

A maximum leachate depth of 14 feet, at elevation 726 feet, is six feet below the top of the north berm, but between about one and five feet above the ground level north of the berm. (Ex. 12, Att. 2; Ex. 28). The berm therefore acts as a dike retaining leachate in the fill. BFI calculated that the landfill would retain the leachate about 164 years before it migrated into the lower aquifer. To achieve this containment a gradient of less than 1.0 was deemed necessary, dictating a maximum leachate depth of 14 feet at elevation 726 feet. Increased gradient would result in less containment. (Ex. 12, Att. 2, pp. 6-7).

Examination of BFI's calculations reveals that the containment time is inversely proportional to the gradient and directly proportional to variation in the leachate depth. It appears that a one foot decrease in leachate depth from 726 feet decreases the gradient by 5.9% and increases containment by 6.3%, so decreasing the leachate depth to one foot (from 14 feet) decreases the gradient to 0.235 and increases containment to 697 years. This assumes a clay permeability of 1×10^{-7} cm/sec, or 0.103 feet per year, as relied on by BFI. (Ex. 12, Att. 2, p. 10; Ex. 26).

The Agency asserted that the BFI estimate of 164 years is based on ideal assumptions and does not reflect what is actually occurring. The Agency believes that the formula employed, called Darcy's Law, is the least accurate of a few options for estimating leachate losses from the fill under the circumstances here. (R. 139). Further, the Agency believes that BFI's application of Darcy's Law may have inflated leachate retention

by up to three times by failing to account for soil porosity. (R. 145-46).

In summary, BFI believes leachate will reach the lower aquifer in 164 years, and the Agency believes it will reach the lower aquifer in as little as about 55 years. Unfortunately, this dispute misses the central issue. The question is not when leachate will reach the lower aquifer, but rather, what impact will it have when it does arrive? Contamination of an aquifer does not become acceptable simply because it will happen a specified number of years in the future. The record contains no evaluation of the impact the leachate will have on the aquifer, regardless of when it occurs. This is a serious deficiency in BFI's case.

The Agency expressed concern in its review of the original closure application because the data did not account for the movement of liquid through the landfill by calculating the amount of liquid entering and leaving the landfill. The Agency calls this method "water mass balancing" and asserts it is a more reliable method of estimating leachate loss in this particular case. (R. 139). In effect, water entering the landfill by infiltration ultimately must either increase the leachate head or it must leave the landfill. BFI indicates that it has never removed leachate from the landfill, except to recirculate it back into the fill material. The leachate level achieved 726 feet in October, 1982 and has not exceeded this level (R. 95-99; BFI Answers to Interrogatories). Since the evidence indicates no increase in the leachate head, the water must be exiting the landfill. Therefore, the respective estimates of how much infiltration is occurring become quite relevant.

Estimates of infiltration submitted by BFI in response to the second Agency rejection of its plan indicate 8.64 inches of water per year percolate through the topsoil into the cover. BFI estimated a "conservative" 1.96 inches per year percolate through the cover into the waste. BFI does not account for the 6.68 inches (8.64 inches less 1.96 inches) of water per year which percolate through the topsoil but somehow do not penetrate to the waste. (Ex. 6). The Phase I area is about 22 acres (see Ex. 27); See also Ex. 16, p. 3 (indicating 25 acres)), so infiltration of 1.96 inches of water translates to about 98,100 gallons per month.⁴ The "Soils Data" portion of BFI's plan contains an engineer's estimate from 1973 that normal anticipated infiltration through the cover should amount to six inches per year, or 4,000 cubic feet per day of leachate accumulation for

⁴Phase I occupies 22.1 acres (Ex. 27). 1.96 inches of infiltration through this area results in 1.18 million gallons per year, or 98,100 gallons per month, average.

the entire 70 acre area of all three phases of the landfill area. (Ex. 12 Att. 3 p. 16). This translates to 3.60 million gallons per year, or an average of 300,000 gallons per month, for a 22 acre area.

The Agency testimony indicates an estimated 313,000 gallons of infiltration per month based on BFI's estimated figures. (R. 149-50). The Agency did not provide the specifics of the calculation they used, but BFI did not rebut their figure with testimony at hearing or arguments in the briefs.

In summary, BFI's figures would show about 98,100 gallons per month will enter the landfill, the Agency believes about 313,000 gallons per month will enter. Regardless of the exact amount, two critical question remain: (1) Where has this liquid gone in the past, and where will it go in the future when it leaves the landfill?; and (2) What is its impact on local groundwater quality? There are only two methods by which liquid will leave the landfill: by the drawdown sump or through the liner and into the groundwater.

BFI variously proposed removing 5000 gallons of leachate per month or 5000 gallons of leachate per week from the drawdown sump as a part of their proposed Closure/Post-Closure Plan (Ex. 2; Ex. 12, Att. 8). Even assuming the higher weekly withdrawal rate, this leaves a substantial amount of leachate volume unaccounted for in the record. Assuming a 5000 gallon per week withdrawal rate and the BFI-based figures of 98,100 gallons per month infiltration, this leaves over 900,000 gallons of leachate migration out of the landfill per year in an unknown manner. Using the Agency estimate of 313,000 gallons of infiltration per month, the estimated annual loss would be 3.5 million gallons.

The Board would find the discrepancy between 900,000 gallons per year and 3.5 million gallons per year to be insignificant so long as the destination of this leachate were properly characterized and its impact properly evaluated. Unfortunately, that is not the case. The record does not provide guidance on where this leachate is going or its possible impact on destination. In fact, as shown in the next section of this opinion, the record does not provide an evaluation of what contaminant levels might exist in the leachate.

This deficiency is fatal to BFI's case. The Board is unwilling to conclude as a matter of law that over 900,000 gallons of leachate per year from a hazardous waste landfill cannot cause pollution, and BFI has provided no information to allow that conclusion as a matter of fact. The Board must therefore conclude that BFI has not proven that the leachate head at 14 feet will not cause migration of contaminants into groundwater in a quantity or concentration that would violate Board water quality standards or risk harm to the environment.

Having concluded that the 14 foot leachate head is unacceptable, the Board will now evaluate whether the Agency's imposition of a one foot head was unreasonable.⁵ First, BFI does not dispute that it is technically possible to withdraw leachate to a one foot head (R. 89-90; 172-73). The question is whether such action is reasonable when the economic cost is measured against the environmental benefit. BFI has estimated the cost of removal at 40.5¢ per gallon for transportation, treatment, and disposal at Chem-Clear, based on the assumption of treatment as a hazardous waste. This totals about \$9.9 million (R. 89).⁶ The record does not indicate whether BFI has considered lower cost alternatives or whether BFI merely presented the highest cost method of disposal to the Board.

The record does not directly indicate the impact of such a removal, but some inferences are possible. Despite any alleged inaccuracy in BFI's application of Darcy's Law, the formula indicates that the rate of leachate retention increases proportionately with the decrease in maximum leachate depth. This would indicate a concomitant decrease in the rate of leachate loss. Further, assuming no change in the rate of infiltration, reducing the leachate depth could enhance the dilution effect of this infiltration over time.

Unfortunately, BFI has not provided information which would allow an evaluation of the environmental impact of the 14 foot level, so it left the Agency to infer a substantial environmental benefit of reducing the level to one foot. Therefore, the Board cannot conclude that the economic cost to BFI of reducing the leachate head outweighs the resulting environmental benefit. The Board notes that the Agency repeatedly asked BFI to provide information that would have allowed Agency and Board evaluation of the reduced impact which would occur at the one foot head

⁵By engaging in this concluding analysis, the Board has not placed the Agency "on trail," as previously noted on page 8 of this Opinion and Order. The Board merely augments its analysis by exploring the options available to the Agency as a result of BFI's recalcitrance in forwarding necessary information to the Agency.

⁶The Agency argues that the economic cost of compliance is immaterial (Agency Response at 21). Whatever the persuasive appeal of this argument in another context, it does not apply in such a proceeding as this, where the Board must exercise discretion, and the Agency must impose conditions "where environmental control standards are pliant to differing conditions" Commonwealth Edison Co. v. Pollution Control Board, 127 Ill. App. 3d 446, 448, 468 N.E.2d 1339, 1341 (3d Dist. 1984).

level, but BFI declined to provide it (Ex. 2, 6, 8, 9 & 11). Therefore, the Board must conclude that the one foot head level cannot be considered unreasonable.

In summary, BFI has failed to prove that the 14 foot maximum leachate depth it originally provided in its Closure/Post-Closure Plan would not result in a violation of the Act. The record supports reducing the leachate depth to the minimum practicable level, and that the one foot level is technically feasible. BFI declined to provide information for the record which would allow a conclusion that the one foot level is unreasonable. Therefore the Agency imposition of a one foot leachate head level is affirmed.

II. Leachate Characterization and Disposal

The second substantive issue before the Board is Modification Paragraph 3, which would require BFI to analyze its leachate and provide a proposed method of disposal:

By October 1, 1984, a leachate evaluation report shall be submitted, which discusses the hazardous constituents, amount accumulated and suitable means of disposal of accumulated leachate. Analysis of the leachate shall be performed to determine concentration of all toxic or hazardous constituents which are hazardous by characteristic or are listed in 40 CFR 261 Appendix VIII. A proposal for disposal of the leachate shall be made.

The Board believes that the same two provisions of the Act and same two regulations listed in Section I of this opinion, Leachate Head, should be applied to the facts here. Taken together, these statutory and regulatory requirements establish a narrative standard for review of the facts in this case. The facility operator must have sufficient information in the record regarding the characteristics of the hazardous wastes and the leachate in the landfill to demonstrate that migration of hazardous waste constituents, or other pollutant migration, into groundwater would not cause water pollution or environmental harm. In evaluating whether water pollution or environmental harm might occur, the Board's water quality standards would provide at least minimal guidance. The regulations also provide that the factors in Section 725.410(c) must be addressed in demonstrating whether the narrative standard will be met.

This standard will be particularly difficult for BFI to achieve, since the record already demonstrates that annually 900,000 to 3.5 million gallons of leachate leave the BFI facility in an unknown manner. The burden is even more difficult for BFI, since the record contains absolutely no chemical analysis of the

leachate. Any evaluation of the character of the leachate must therefore be premised on knowledge of the wastes which were disposed of at the facility.

Facility records indicate that BFI disposed of about 1,900,000 cubic yards (384 million gallons) of uncompacted waste in the landfill, of which about 36,000 cubic yards (7,300,000 gallons), or about 2% are hazardous waste (Ex. 12, pp. 33 & 14; Ex. 6, p. 3). BFI broadly describes the compositions of its hazardous wastes in a single paragraph:

Of the hazardous wastes placed in the facility, approximate [sic] 85% were in solid or semi-solid form, while approximately 15% were in liquid form. Approximately 96% of the hazardous wastes handled were heavy metal sludges typically produced by Rockford area industry. Of the total hazardous waste receipts, approximately 60% were waste classification F006 (waste water treatment sludges from the electroplating industry) and 31% were waste classification D001-D011 (heavy metal EP toxicity). Approximately 4% (less than 1,500 cubic yards) of the hazardous wastes accepted are other than metal bearing sludges. This other category includes spent solvent still bottoms/sludges, petroleum refining residues and minor amounts of chemicals such as rodenticide, glycol, polystyrene and phthalic anhydride. (Ex. 12, p. 14)

The 1,500 cubic yards (300,000 gallons) of hazardous wastes which BFI described as "other than metal bearing sludges" constitutes only 0.079% of the total waste volume, but still represents a significant volume. The Board notes that use of compacted waste volumes would severely affect BFI's hazardous waste proportion estimates.

BFI further states that less than 0.1% of the total waste volume (less than 1,900 cubic yards or 380,000 gallons) "consists of wastes that might produce volatile vapor which might contain hazardous constituents." Included in this 0.1% is the 0.000634% of the total waste volume (12 cubic yards or 2,400 gallons) which consists of solvents and petroleum refining residues (Ex. 8, p. 2; see R. 160). This number, "0.000634%," is repeated frequently by BFI in the transcripts and briefs; however, its significance and accuracy are debatable in light of other record information.

The record includes a June 1, 1982 survey of solvent disposal in Illinois landfills. The survey indicates BFI then held 24 still-valid (at the time of the survey) disposal permits

for a total of 2,190,000 gallons of solvent-containing wastes for this facility. Of these permits, six were for 1,1,1-trichloroethane, four were for alcohols, two for acetone, two for mineral spirits, and one for naphtha. The survey concedes that Agency experience indicates that actual disposal volumes are substantially less than the permitted volumes. A detailed listing of the permits for the facility (which included permits which had expired prior to the survey date) indicates a total authorized volume of 3,460,000 gallons of various organic and chlorinated organic solvent-bearing wastes of various solvent contents, and of individual permitted volumes ranging up to 1.5 million gallons (Ex. 18).

BFI disputes this survey only by affirming that the volumes actually received were less than those permitted. BFI then singles out one entry, "1,500,000 [gallons] solvents (97.5%)," and states that BFI actually received 871,450 gallons of what "should have read, water and water soluble solvents 97.5 percent" (R. 92-93; Ex. 18). Substantial clarification is necessary to harmonize the record information regarding BFI solvent-bearing waste permits and BFI's 0.000634% assertion.

In summary, the facility operated from December 1976 to January, 1983. The record contains no information on the identities or volumes of hazardous waste received prior to 1978. From 1978 to November 19, 1980, the record contains generalized information that does not identify the wastes with particularity. The information on wastes disposed from November 19, 1980 onward may be adequate in content but only covers about 35% of the facility's operational lifetime. Further, BFI's Closure/Post-Closure Plan only included "detailed" waste records for October and December, 1982 (Ex. 12, Att. 5). With such limited information the Board cannot conclude that BFI has demonstrated that the identities and quantities of contaminants in the leachate are sufficiently characterized to prove that they will not cause environmental harm when released to the underground waters.

In a similar vein, the Board must conclude that the Agency's imposition of full Appendix VIII testing is appropriate and reasonable. With the quantity of leachate which is escaping from this facility to an unknown location the Board believes a full and complete chemical analysis to characterize that leachate is, at a minimum, reasonable. Therefore the Agency modification regarding leachate testing is affirmed. The Board is aware of

the cost estimated by BFI as about \$7,000 per sample (R. 84-87).⁷ However, this cost may prove insignificant if an aquifer is at a significant risk of contamination.

The second issue regarding Modification Paragraph 3 is the requirement that BFI submit a plan for leachate disposal. The BFI Closure/Post-Closure Plan submitted April 13, 1984 merely incidentally provided that BFI could remove excess leachate from the landfill if necessary (Ex. 12, pp. 13, 17, 18 & Att. 2, p. 7). BFI included in its plan the October 5, 1976 Application for Supplemental Development Permit which changed the original plan for leachate disposal at a sewage treatment plant to one of containment and natural soil attenuation (Ex. 12, Att. 2, p. 5; Ex. 26, p. 5). This document did not and could not provide for the hazardous waste nature of the facility and leachate. Another attachment from September 16, 1982 regarded a supplemental permit for leachate removal. It provided for disposal in the "active dry refuse daily fill" (Ex. 12, Att. 8; Ex. 21). The plan included no other provisions for leachate disposal. BFI did not address leachate disposal in its June 4, 1984 reply to the initial Agency rejection, but highlighted the containment-natural attenuation provision of its October, 1976 Application (Ex. 8, p. 4). It is apparent from the BFI brief that this plan of containment and natural attenuation is its leachate disposal plan (Petitioner's Brief at 23). This brief, however, was not before the Agency on July 27, 1984 - any merit or lack of merit to this mode of disposal notwithstanding.

BFI finally proposed in its July 25, 1984 letter to the Agency to remove 5,000 gallons per month, analyze it for hazardous characteristics and constituents, and "dispose of the waste in accordance with applicable state regulations." BFI conceded it would consider the waste hazardous because derived from hazardous wastes, and expressed a possible intent to file for delisting and withdraw less from the landfill if experience proved it to not possess hazardous characteristics or contain hazardous constituents (Ex. 2, p. 2).

The BFI plan did not provide any single, acceptable provision which outlined any sound method for disposal of excess

⁷There is some confusion as to the actual cost of this screening. Agency Modification Paragraph 3 at issue required BFI to submit only a single report characterizing the leachate (Ex. 1, p. 1). BFI understood this to mean performing each analysis on four replicate samples (R. 86). This inflates the cost to the \$28,000 asserted by BFI (See R. 84-87; Petitioner's Brief at 12). Nothing in the record clarifies this apparent discrepancy. The Board makes no attempt to give any opinion on this apparent discrepancy, but merely observes its existence.

leachate during the closure and post-closure periods. The BFI plan must include such a provision and outline a procedure for leachate disposal with reasonable particularity. The Board gives no opinion as to what constitutes an acceptable plan or method of disposal, beyond the determination that the plan outlined by BFI did not satisfy the requirements of the Act and regulations. The Board affirms the Agency condition requiring BFI to submit a disposal plan.

III. Groundwater Monitoring

The third substantive issue before the Board is groundwater monitoring criteria and Agency Modification Paragraph 5(j). This imposes the additional requirement that BFI monitor the groundwater for three specific halogenated organic solvents: 1,1,1-trichloroethane, trichloroethylene, and methylene chloride (Ex. 1, pp. 2-3). BFI already monitors the groundwater for total organic carbon (TOC) and total organic halide (TOX) (Ex. 12, Att. 9; Petition at 7-8; Petitioner's Brief at 34-35). BFI estimates that the cost of these additional analyses is \$300 per monitoring sample, or about \$252,000 throughout the post-closure period (Petitioner's Brief at 36; R. 90). BFI contends that the testing for TOC and TOX would sufficiently detect groundwater contamination because they would both detect the presence of all three halogenated solvents (Petitioner's Brief at 35).

The regulations require the owner or operator of a landfill to "implement a groundwater monitoring program capable of determining the facility's impact on the quality of groundwater in the uppermost aquifer underlying the facility" 35 Ill. Adm. Code 725.190(a) (1984). The regulations provide for testing for various criteria, including TOC and TOX, but not explicitly including the three organic solvent parameters imposed by the Agency. 35 Ill. Adm. Code 725.192(b) & App. C (1984); see 40 CFR 265 App. III (1984). The regulations do provide for more extensive monitoring once contamination is suspected based on the routine monitoring results, when the facility is engaged in assessment monitoring. 35 Ill. Adm. Code 725.193 (1984). This would provide a firm basis for selecting additional testing criteria in such a circumstance, but this does not specifically require inclusion of additional criteria as part of the routine monitoring. The Agency once did notify BFI on June 18, 1982 that it would require groundwater monitoring for the three halogenated solvent parameters (Ex. 19), but did not include them in the testing criteria stipulated in BFI's December 20, 1983 Supplemental Permit No. 1983-74 (Ex. 12, Att. 9).

The record indicates that unknown quantities of 1,1,1-trichloroethane, trichloroethylene, and methylene chloride are likely resident in the landfill. All are named as having been permitted for disposal at the site in various quantities and concentrations (Ex. 18). The record indicates controversy as to

whether these solvents are among several that may significantly increase the permeability of landfill clay liners (Ex. 18; Ex. 8, pp. 2-3). These parameter-specific tests may prove of special concern for this reason, but also for their greater sensitivity and specificity. The record indicates that TOC includes both naturally-occurring and man-made organic compounds. TOX specifically detects chlorinated organic compounds, including these three specific chlorinated solvents (R. 115; Petitioner's Brief at 35). The detection limits for the TOC and TOX testing procedures, however, are higher than those for the specific compounds (R. 116; Agency Brief at 22). Further, the TOC and TOX procedures would detect broad classes of compounds of no environmental concern (Agency Brief at 22). These facts force the conclusion that the more specific testing for the individual compounds is more desirable, especially since they are probably present in the landfill in some quantities and they are of particular technical and regulatory concern. Further, testing for these specific solvent parameters would likely prove more protective of the environment.

In Waste Management, Inc. v. Illinois Environmental Protection Agency, PCB 84-45, PCB 84-61 & PCB 84-68 (Oct. 1, 1984), aff'd sub nom. Environmental Protection Agency v. Pollution Control Board, 138 Ill.App.3d 550, 486 N.E.2d 293 (3d Dist. 1985), aff'd 115 Ill.2d 65, 503 N.E.2d 343 (1986), the Board observed that the Agency has traditionally had discretionary authority to prescribe reasonable groundwater monitoring criteria as part of its landfill permitting authority. Waste Management at 23. One restriction on this authority was that the criteria imposed must be necessary to accomplish the purposes of the Act and not be inconsistent with Board regulations. Id. at 19. A second restriction was that the criteria selection must be based on what wastes are resident in the landfill. Id. at 24. The present proceeding is very similar to Waste Management, with one major exception: BFI has failed to characterize its leachate either by analysis or by providing a detailed inventory of the wastes in the landfill.

In the absence of necessary information; in light of the fact that 1,1,1-trichloroethane, trichloroethylene, and methylene chloride are probably present in the landfill; and because the specific analyses for these criteria is more sensitive and conveys more pertinent information, the Board concludes that the Agency acted properly to require testing for these specific parameters to assure that no violation of the Act or regulations would occur. This conclusion results from the inadequacy of the information which BFI provided the Agency. The Board affirms the Agency modification.

IV. Statistical Analysis

The fourth substantive issue concerns Agency Modification Paragraph 5(1), which requires BFI to statistically analyze its groundwater monitoring results using the .1 level of Cochran's Approximation of the Behrens-Fisher Student's T-Test as set forth in the regulations. 35 Ill. Adm. Code 725 App. D (1984); 40 CFR 265 App. IV (1984). The BFI submissions to the Agency included no provision for a test for significance. (See Ex. 2, 6, 8, & 12 Att. 9.) Even if they had provided another test, it would have not complied with Board regulations. The regulations require the test imposed by the Agency. 35 Ill. Adm. Code 725.193(b) (1984).

BFI argues that controversy surrounds the use of this test and that more reliable tests exist (Petition at 8; Petitioner's Brief at 36-37; see R. 51-52). This is irrelevant because the Agency lacks authority to substitute any alternative in the face of an explicit regulatory directive. Ill.Rev.Stat. Ch. 111-1/2, Section 1039 (1988); 35 Ill. Adm. Code 702.108(a) (1984). The Agency modification is affirmed.

V. Agency Plan Modification

The final substantive issue concerns a proviso set forth by the Agency in its final modification of the BFI plan:

If the Agency determines that implementation of the Closure and Post-Closure Plan fails to satisfy requirements of 35 Ill. Adm. Code 725.211, the Agency reserves the right to amend this Closure and Post-Closure Plan. (Ex. 1, p. 5).

BFI argues that the Agency lacks authority to modify the plan and that such a unilateral modification would violate its due process rights (Petitioner's Brief at 38-39; Petitioner's Reply Brief at 17-18).

The Board's regulations include a provision whereby the Director of the Agency can modify a plan "if he deems it necessary to prevent threats to human health and the environment." 35 Ill. Adm. Code 725.218(f)(2) (1984). This provision includes an opportunity for public notice, public hearing, and consideration of comments prior to a final decision, and provides criteria for decisionmaking. Further, the rules give BFI a right to appeal the Agency modification, just as BFI has done in this proceeding. 35 Ill. Adm. Code 725.218(g) (1984). The Agency asserts no extra-statutory authority in this concluding proviso which does not comport with BFI's due process rights. See Waste Management at 20-21. The Agency modification is affirmed.

In summary, the Board affirms all five modifications to the BFI Closure/Post-Closure Plan. This decision is largely predicated on a lack of necessary information in the record to adequately support BFI's plan as submitted to the Agency. The Board acknowledges that the real issues involved in this case are the leachate depth and groundwater monitoring issues. These are the "big ticket" items which will cost BFI many dollars over several years. The Board notes, however, that BFI will be free to petition the Agency for modification, when it has assembled sufficient information to demonstrate that less stringent requirements are justified. See 35 Ill. Adm. Code 725.218 (1988). To do this, BFI must acquire the necessary data - data which are lacking in this proceeding.

Supplemental Issues

Two supplemental issues in this proceeding deserve attention. The first supplemental issue before the Board regards the scope and content of the Agency record on review. The Board must constrain its review to the record before the Agency when it modified the BFI Closure/Post-Closure Plan on July 27, 1984 and that developed at the hearing. Environmental Protection Agency v. Pollution Control Board, 118 Ill.App.3d 772, 780-781, 455 N.E.2d 188, 194 (1st Dist. 1983); Ill.Rev.Stat. ch. 111-1/2, Section 1040(d) (1988); 35 Ill. Adm. Code 105.103(b)(2) (1982). The Board rules governing permit appeals provide that the Agency has a certain time following the filing of an appeal petition to file "the entire Agency record of the permit application" 35 Ill. Adm. Code 105.102(a)(4) (1982). The issue arises in this proceeding whether certain evidence is admissible in light of these restrictions.

By the April 4, 1988 "Attachment A" to its April 1, 1988 Respondent's Brief, the Agency seeks to admit several additional documents to the Board record. BFI has challenged the admission of these documents in its April 8, 1988 Petitioner's Reply Brief. These include the following documents which were not part of the Agency record submitted in 1985:

1. A July 29, 1982 BFI submission of groundwater monitoring results from April 8, 1982 indicating an elevated lead content in the groundwater;
2. A March 2, 1983 Andrews Engineering letter to the Agency indicating that several revisions and upgradings were necessary to the BFI groundwater monitoring wells so they might provide more reliable results from the lower Kansan Sand aquifer underlying the fill, rather than the upper Farmdale Sand aquifer

which "pinches out" down gradient of the fill, which the fill transects, and which is cut-off from the fill by a clay barrier wall (See R. Exs. 27-29);

3. A May 20, 1983 Andrews Engineering letter to the Agency regarding the installation of 10 new groundwater monitoring wells, 7 immediately and 3 at a future time, and acknowledging Agency stringency on monitoring criteria selection;
4. A May 27, 1983 Agency letter to BFI granting supplemental permit 1983-74 for the installation of 11 monitoring wells, three in the future, imposing a requirement for quarterly analysis for TOC and TOX, and requiring collection of data that could indicate both horizontal and vertical groundwater flow at the site; and
5. A September 26, 1984 Agency letter to BFI identifying three apparent violations of the Board rules:
 - a. failure to perform the required Student's T-Test statistical analysis of groundwater monitoring data (See 35 Ill. Adm. Code 725.193(b) (1984));
 - b. failure to provide written notice to the Agency that the landfill may be affecting groundwater quality if the statistical test indicates a significant increase in groundwater quality indicators or decrease in pH (See 35 Ill. Adm. Code 725.193(d)(1) (1984)); and
 - c. failure to submit a certified groundwater quality assessment program to the Agency (See 35 Ill. Adm. Code 725.193(d)(2) (1984)).

based on May 18, 1984 groundwater monitoring data, which showed statistically significant increases in specific conductance and decreases in pH at various downgradient site monitoring wells, and on August 7, 1984 data which

confirmed the pH decrease in these wells, the specific conductance increase in some, a TOX increase in one, and a TOC increase in another.

The Agency failed to explain in its April 1, 1988 brief why it did not tender these documents with the Agency record on October 25, 1985.

The July 29, 1982 letter, the March 2, 1983 proposal, the May 20, 1983 application, and the May 27, 1983 supplemental permit were before the Agency when it made its July 27, 1984 decision to modify BFI's Closure/Post-Closure Plan. Therefore, the Agency could have properly included those documents into the record for Board review. The September 26, 1984 letter post-dated the Agency permit decision and could not have been properly included in the record. However, the letter itself cited May 18, 1984 monitoring data which indicated possible contamination. This information could have been included in the Agency record.

The Board admonishes the Agency to assure that such information is submitted with the Agency record or brought out prior to the hearings.

Since the Board has made its decision based on information submitted by the Agency on October 25, 1985, and without considering these late-filed documents, the question of the admissibility of this late-filed information need not be decided.

The second supplemental issue before the Board is the applicability of the regulations at 35 Ill. Adm. Code Part 724 to BFI's facility. Both parties agreed that Part 725 regulations applied to the permit decisions, and that Part 724 did not directly apply. The Agency contended that Part 724 provides at least minimal guidance. The Board has avoided Part 724. It has decided this proceeding based solely on Illinois law and regulations as they stood on July 27, 1984 and applied under Part 725 to interim status facilities. The Board observes, however, that certain state and federal regulatory changes are now in progress that will affect the future application of this decision.

BFI asserts:

[T]he Agency attempted to apply the more stringent closure/post-closure standards of Section 724 to the subject site based on its belief that as an interim status site, BFI would ultimately have to obtain a Part B permit and would then be subject to the Section 724 standards. T. 41-42, T. 131. BFI has reviewed the relevant statutes and

regulations, together with the relevant preambles and USEPA memos, and has concluded that no further post-closure permit would be required by the facility once it filed and obtained approval of its closure plan. Petitioner's Brief, p. 30.

The Board agrees that in 1984 the Agency could not properly have applied the Part 724 standards to BFI's facility, and that no further permits would have been required. That is not, however, true today.

In 1984, Congress amended RCRA to add new Section 3005 (i). That provision requires all hazardous waste facilities which had received hazardous wastes after July 26, 1982, to comply with certain regulatory requirements for new facilities. On December 1, 1987, USEPA adopted final regulations implementing Section 3005 (i) at Volume 52, page 45788 of the Federal Register. That regulation not only requires compliance with the federal equivalent of Part 724, but the preamble to the regulation makes it clear that such facilities must submit a Part B application and obtain a RCRA permit:

Therefore, today's final rule differs from the proposed revision to Section 270.1(c) by requiring post-closure permits for any landfill, surface impoundment, waste pile, or land treatment unit which received waste after July 26, 1982, or which closed after January 26, 1983. The term "closure" in this context has been clarified to mean certification of closure according to Section 265.115.

52 Fed. Reg. 45794-95 (Dec. 1, 1987).

Since BFI's facility received hazardous waste after July 26, 1982, and did not certify closure prior to January 26, 1983 (see 35 Ill. Adm. Code 725.215 (1988); 40 CFR, Section 265.215 (1987)), BFI is clearly subject to the December 1, 1987 regulations. Further, those federal regulations are legally applicable to BFI as of December 1, 1987:

Prior to HSWA a State with final authorization administered its hazardous waste program entirely in lieu of the Federal program. The Federal requirements no longer applied in the authorized State, and EPA could not issue permits for any facilities in a state where the State was authorized to issue permits. When new, more stringent Federal requirements were promulgated or enacted, the State was obligated to enact equivalent authority within

specified time frames. New Federal requirements did not take effect in an authorized State until the State adopted the requirements as State law.

In contrast, under Section 3006(g) of RCRA, 42 U.S.C. 6926(g), new requirements and prohibitions imposed by the HSWA take effect in authorized States at the same time they take effect in nonauthorized States. EPA is directed to carry out those requirements and prohibitions in authorized States, including the issuance of permits, until the State is granted authorization to do so. While States must still adopt HSWA-related provisions as State law to retain final authorization, the HSWA requirements are applied by EPA in authorized States in the interim.

Today's rule is promulgated pursuant to RCRA Sections 3004(u), 3004(v) and 3005(t). These provisions were added by HSWA. Therefore, the Agency is adding the requirement to Table 1 in Section 271.1(j) which identifies the Federal program requirements that are promulgated pursuant to HSWA and that take effect in all States, regardless of their authorization status.

52 Fed. Reg. 45796 (Dec. 1, 1987).

Therefore, while the Agency could not, in 1984, properly apply the state counterpart of the federal Part 264 regulations to BFI, a substantial portion of the impact of today's decision has been undercut by developments in federal law during the pendency of this permit appeal. Those federal regulations do apply to BFI's facility today as a matter of federal law, and they have since December, 1987. Today's Board decision does not imply that they do not.

On February 25, 1988, the Board proposed state regulatory counterparts to the USEPA December 1, 1987 regulations (R87-39) for public comment. (R87-39; see 12 Ill. Reg. 6476 (Apr. 8, 1988)). Any final adoption of these regulations would apply to BFI's facility. The Board is specifically not making any decision as to what actions, if any, would be required at the BFI facility under any final adoption of these proposed regulations.

Once the R87-39 and several other regulatory proceedings are final, the State will attempt to secure HSWA approval from USEPA. Today's decision interprets 1984 law and has no bearing on the State's HSWA regulatory package.

This Opinion constitutes the Board's findings of facts and conclusions of law in this matter.

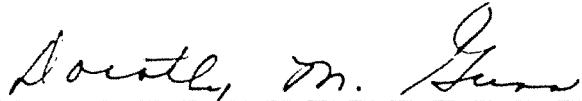
ORDER

The Illinois Environmental Protection Agency's Modification Plan of July 27, 1984 for Browning-Ferris Industries of Illinois, Inc. Closure and Post-Closure Plan for its Davis Junction Landfill facility is hereby affirmed by the Board.

Section 41 of the Environmental Protection Act, Ill. Rev. Stat. 1985, ch. 111-1/2, par. 1041, provides for appeal of final Orders of the Board within 35 days. The Rules of the Supreme Court of Illinois establish filing requirements.

IT IS SO ORDERED

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 5th day of May, 1988, by a vote of 7-0.



Dorothy M. Gunn, Clerk
Illinois Pollution Control Board