ILLINOIS POLLUTION CONTROL BOARD
December 6, 2007

IN THE MATTER OF:	)	
	)	
PETITION OF JOHNS MANVILLE FOR AN ADJUSTED STANDARD FROM: 35 Ill. Adm. Code 811.310, 811.311, 811.318, 811.320 and 814	)	AS 04-4 (Adjusted Standard – Land)

EDWARD P. KENNEY APPEARED ON BEHALF OF PETITIONER; and

PETER E. ORLINSKY APPEARED ON BEHALF OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY.

OPINION AND ORDER OF THE BOARD (by G.T. Girard):

Johns Manville (JM) seeks an adjusted standard from specific landfill closure requirements for monitoring groundwater and gas at an on-site landfill in Waukegan, Lake County. The Illinois Environmental Protection Agency (IEPA) recommends that the adjusted standard be granted.

The Board's responsibility in this matter arises from the Environmental Protection Act (Act) (415 ILCS 5/1 *et seq.* (2006)). The Board is charged to "determine, define and implement the environmental control standards applicable in the State of Illinois" (415 ILCS 5/5(b) (2006)), and to "grant . . . an adjusted standard for persons who can justify such an adjustment" (415 ILCS 5/28.1(a) (2006)). More generally, the Board's responsibility in this matter is based on the checks and balances integral to Illinois environmental governance: the Board is charged with the rulemaking and principal adjudicatory functions, and the IEPA is responsible for carrying out the principal administrative duties.

The Board finds that JM has demonstrated that the factors relating to JM are substantially and significantly different from the factors considered by the Board in adopting the rules of general applicability. Further, the Board finds that JM has justified the grant of the adjusted standard and the request is consistent with federal law. The Board also finds that the requested standard will not result in environmental or health effects substantially and significantly more adverse than the effects considered by the Board in adopting the rule of general applicability. Therefore the Board grants the adjusted standard as set forth in the Board's order.

PROCEDURAL HISTORY

On June 30, 2004, JM filed a request (Pet.) for an adjusted standard pursuant to Section 28.1 of the Act (415 ILCS 5/28.1 (2006)). JM seeks relief from the landfill closure requirements pertaining to landfill gas monitoring and management, and groundwater monitoring under 35 Ill. Adm. Code 814, 811.310(c)(1), 811.311(a)(1), 811.318(b)(4), and 811.320.

Section 28.1 of the Act (415 ILCS 5/28.1 (2006)) and 35 Ill. Adm. Code 104.408 require publication of a notice of an adjusted standard proceeding in a newspaper of general circulation in the area affected by the petitioner's activity. The notice must be published within 14 days of filing a petition for an adjusted standard with the Board. *See* 35 Ill. Adm. Code 104.408(a). As required by 35 Ill. Adm. Code 104.410, the petitioner timely filed a certificate of publication with the Board on July 15, 2004. The notice of petition was published in the *News-Sun* on July 7, 2004.

Although JM had met the notice requirements, on August 5, 2004, the Board asked for additional information regarding the request for adjusted standard and declined to accept the petition. On September 30, 2004, petitioner filed an amended petition (Am. Pet.). The amended petition addressed most of the deficiencies cited by the Board, changed Section 811.318(b)(4) to Section 811.318(b)(3), and also requested relief from an additional provision set forth under 35 Ill. Adm. Code 811.320(c)(1). On November 4, 2004, the Board accepted the amended petition for hearing and directed JM to address the two issues concerning leachate characteristics and groundwater quality that were not addressed in the amended petition at hearing. During 2005-2006, the petitioner was working with the IEPA to address informational deficiencies and resolve IEPA concerns. *See* Joint Status Report (Sept. 29, 2006).

On May 22, 2007, the IEPA filed a recommendation (Rec.) and a motion to file the recommendation *instanter*. The Board grants the motion and accepts the recommendation. The IEPA recommends that the adjusted standard be granted as requested by JM.

On July 18, 2007, hearing was held before Board Hearing Officer Bradley Halloran (Tr. at @). The hearing was held in Waukegan, Lake County. At the hearing, JM presented the testimony of William Bow. The IEPA did not present witnesses and no members of the public attended the hearing.

ADJUSTED STANDARD PROCEDURE

In both a general rulemaking and a site-specific rulemaking, the Board is required to take the following factors into consideration: the existing physical conditions; the character of the area involved, including the character of the surrounding land uses; zoning classifications; the nature of the receiving body of water; and the technical feasibility and economic reasonableness of measuring or reducing a particular type of pollution. 415 ILCS 5/27(a) (2006). The general procedures that govern an adjusted standard proceeding are found at Section 28.1 of the Act and the Board's procedural rules at 35 Ill. Adm. Code 104. Section 28.1 also requires that the adjusted standard procedure be consistent with Section 27(a) of the Act. *Id*.

JM seeks an adjusted standard from rules of general applicability, which do not specify a level of justification for an adjusted standard. Therefore, in determining whether an adjusted standard should be granted from a rule of general applicability, the Board must consider, and JM has the burden to prove, the factors at Section 28.1(c) of the Act (415 ILCS 5/28.1(c) (2006)):

1) factors relating to that petitioner are substantially and significantly different from the factors relied upon by the Board in adopting the general regulation applicable to the petitioner;

2) the existence of those factors justifies an adjusted standard;

3) the requested standard will not result in environmental or health effects substantially and significantly more adverse than the effects considered by the Board in adopting the rule of general applicability; and

4) the adjusted standard is consistent with any applicable federal law. 35 Ill. Adm. Code 104.426(a) and 415 ILCS 5/28.1(c) (2006).

FACILITY DESCRIPTION

JM's facility is located in Waukegan, Lake County and is a 350-acre tract on the shore of Lake Michigan. Am. Pet. at 2. JM previously manufactured building materials including roofing and insulation products at the site. Am. Pet. at 8. The facility began operation in 1920 and employed several thousand people at the peak of manufacturing. Am. Pet. at 8-9. During the plant's operation, asbestos-containing building materials were manufactured until 1985 when manufacture of asbestos-containing building materials ceased. Am. Pet. at 9. JM gradually phased out manufacturing at the site until all manufacturing ceased in 1998 and the manufacturing buildings were demolished in 2000-2001. *Id*. Currently only a few contract employees are located at the facility. *Id*.

In 1983, pursuant to Section 105 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. § 9605), the United States Environmental Protection Agency (USEPA) placed a portion of the JM facility on the National Priorities List (NPL). Am. Pet. at 9. The NPL is set forth in 40 C.F.R. Part 300, Appendix B and was published at 48 *Fed. Reg.* 40658 (Sept. 9, 1993). *Id*. The portion of the facility placed on the NPL consists of approximately 120 acres. *Id*.

On June 14, 1984, JM and the USEPA executed an "Administrative Order and Consent Decree" that required JM to conduct a "Remedial Investigation/Feasibility Study" which was submitted on July 3, 1985. Am. Pet. at 9. On June 30, 1987, the USEPA issued a decision and the State of Illinois concurred with that decision. *Id*. On March 18, 1998, USEPA, JM, and the State of Illinois entered the consent decree in the United States District Court of the Northern District of Illinois. *Id*. The consent decree required placement of cover over a number of areas where asbestos-containing waste had been disposed of at the JM facility. *Id*.

USEPA issued two "Explanations of Significant Differences" to the consent decree. The first, in June 1987, addressed differences in remedial actions taken and the second, on September 22, 2000, provided for the closure of the wastewater treatment system and the on-site landfill. Am. Pet. at 10. The on-site landfill was no longer required due to cessation of manufacturing activities. *Id*. This adjusted standard and an amended federal consent decree are intended to

implement the provisions of the second "Explanation of Significant Differences" issued by USEPA. *Id.*

After completion of the CERCLA action in 1992, JM filed an initial facility report to provide for the disposal of non-asbestos waste generated from manufacturing activities at the facility. Tr. at 22-23. The report provided that non-asbestos containing materials would be disposed of in the former miscellaneous disposal pit that had been created as a result of the surrounding area being built up during the CERCLA landfill work (Fill Area #1). Tr. at 23. The former collection basin would also be used for disposal of non-asbestos containing materials (Fill Area #2). Tr. at 23. The on-site landfill is physically located on the NPL tract and is on and surrounded by the CERCLA units. Am. Pet. at 10; Tr. at 28.

The landfill was intended to accept inert waste but also received some putrescible waste. More specifically, the waste deposited in the landfills was calcium silicate, which is crushed lime and sand (limestone) used in the insulation material, roofing materials, some granules, and miscellaneous smaller amounts of paper, cardboard, and occasional pieces of wood. Tr. at 23. The main materials were however calcium silicate and roofing materials. *Id*. No asbestos-containing materials were disposed of in the either of the two fill areas. *Id*. Furthermore, the consent decree specifically prohibited disposal of asbestos-containing materials in the two fill areas. Tr. at 24.

In preparing this adjusted standard, JM's consultants performed additional work to evaluate and verify what was in the on-site landfill. Tr. at 24. One method used for evaluation was well drilling which showed that the materials disposed of in the pit were consistent with the items JM had indicated were disposed in the landfill. *Id.*, and Petitioner's Group A at Exh. 7, pgs. 20-21. Work was also performed to establish that how much landfill gas was being generated and that work indicated very low pressure. Tr. at 25. Gas monitoring continued from April 2003 until the present on a monthly basis. Tr. at 25-26. The monthly monitoring shows very low gas pressure and no detections of landfill gas migrating. Tr. at 26.

REQUESTED RELIEF

The IEPA and the Illinois Attorney General have acknowledged that the on-site landfill is an existing landfill subject to the Board's rules at 35 Ill. Adm. Code 814. *Id*. Part 814 incorporates the provisions of Part 811 from which JM seeks an adjusted standard. Specifically JM seeks and adjusted standard from:

1. the requirements of Section 814.302 to the extent that the provisions of Sections 811.310(c)(1), 811.311(a)(1), 811.318(b)(4), and 811.320 are incorporated by reference;

2. the monitoring frequency for landfill gas monitoring (35 Ill. Adm. Code 811.310(c)(1));

3. the requirements for implementing a landfill gas management system, specifically the provisions relating to detection distance from the edge of the unit for implementing such a system (35 Ill. Adm. Code 811.311(a)(1)); and

4. the standards for the location of monitoring points found in 35 Ill. Adm. Code 811.318(b)(3) and 811.320(c)(1), specifically the requirement that monitoring wells shall be located within half the distance form the edge of the unit to the edge of the zone of attenuation. Am. Pet. at 13.

JM is specifically seeking two types of relief. Tr. at 26. First, JM is seeking reduction in the frequency of landfill gas monitoring from a monthly period to semi-annual for a total of five years. Tr. at 26-27. Secondly, JM is seeking relief from the location requirements for monitoring wells for groundwater and monitoring for gas that are currently required 100 feet away from the edge of the waste. Tr. at 27.

The specific language requested by JM for landfill gas monitoring frequency is:

> In lieu of compliance with 35 Ill. Adm. Code 811.310(c)(1) as applied to the On-Site Landfill at its facility in Waukegan, Illinois Johns Manville shall operate all gas monitoring devices, including the ambient air monitors, such that samples will be collected on a semi-annual basis for a period of five years following approval of this adjusted standard. If, at the end of five years, the requirements for implementing a Landfill Gas collection System (35 Ill. Adm. Code 811.311) are not met, no further monitoring will be conducted. Petitioner's Group A, Exh. 8.

And for installation of a landfill gas management system, JM offers this specific language:

> In lieu of compliance with 35 Ill. Adm. Code 811.311(a)(1) as applied to the On-Site Landfill at its facility in Waukegan, Illinois Johns Manville shall install a gas management system if 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 as close as possible to, but outside the boundary line shown on Figure 7 or the property line, whichever is less. *Id*.

The specific language requested by JM for determination of the zone of attenuation:

> In lieu of compliance with 35 Ill. Adm. Code 811.320(c)(1) as applied to the On-Site Landfill at its facility in Waukegan, Illinois, the zone of attenuation, within which concentrations of constituents in leachate discarded from the unit may exceed the applicable groundwater quality standard of this Section is a volume bounded by a vertical plane located as shown on Figure 8, extending form the ground surface to the bottom of the uppermost aquifer and excluding the volume occupied by the waste. Petitioner's Group A, Exh. 9.

And for the location of the groundwater monitoring points, JM offers the following:

In lieu of compliance with 35 Ill. Adm. Code 811.318(b)(3) as applied to the On-Site Landfill at its facility in Waukegan, Illinois Johns Manville shall install groundwater monitoring wells at the locations specified on the attached Figure 8. Those monitoring wells located along the proposed zone of attenuation boundary shall be considered "AGQS" wells consistent with the requirements of 35 Ill. Adm. Code 811.318(b)(5). *Id.*

JM offers additional clarification, based on discussion with the IEPA as follows:

The location of the bottom of the uppermost aquifer shall be determined in a manner consistent with the requirements of 35 Ill. Adm. Code 811.311(c)(2)(B).

Compliance with 35 Ill. Adm. Code 811.317(b) shall be assessed by modeling all applicable zone of attenuation distances, as shown on Figure 8.

It is recognized that no Maximum Allowable Predicted Concentrations or "MAPC" wells are being proposed; all monitoring pints are considered Applicable Groundwater Quality Standards or "AGQS" locations. As such, the obligations described in 35 Ill. Adm. Code 319(b)(3) immediately apply, if the concentration of one or more constituents monitored at or beyond the zone of attenuation, as shown on Figure 8, is above the applicable groundwater quality standards of Section 811.320 and is attributable to the On-Site Landfill. Am. Pet. at 20.

REGULATORY FRAMEWORK

JM seeks and adjusted standard from the requirements contained in 35 Ill. Adm. Code 814 which incorporate specific requirements of 35 Ill. Adm. Code 811.310(c)(1), 811.311(a)(1), 811.320(c)(1), and 811.318(b)(3). Also, JM references 35 Ill. Adm. Code 811.318(b)(5) in the requested adjusted standard.

Section 814.302 is in Subpart C, which is entitled "Standards of Existing Units Accepting Chemical or Putrescible Wastes that Remain Open for more than Seven Years". Section 814.302(a), in relevant part provides:

All of the requirements for new units described in 35 Ill. Adm. Code 811 shall apply to units regulated under this Subpart . . .. 35 Ill. Adm. Code 814.302(a).

Section 811.310(c)(1) provides:

c) Monitoring Frequency.

1) All gas monitoring devices, including the ambient air monitors must be operated to obtain samples on a monthly basis for the

entire operating period and for a minimum of five years after closure. 35 Ill. Adm. Code 811.310(c)(1).

Section 811.311(a)(1) provides:

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. 35 Ill. Adm. Code 811.311(a)(1).

Section 811.320(c)(1) provides:

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. 35 Ill. Adm. Code 811.320(c)(1).

Section 811.318(b)(3) and (5) provide:

b) Standards for the Location of Monitoring Points

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.

* * *

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. 35 Ill. Adm. Code 811.318(b)(3) and (5).

DISCUSSION

Before granting an adjusted standard, the Board must find that the factors delineated in Section 28.1(c) of the Act (415 ILCS 5/28.1(c) (2006)) have been addressed such that JM is entitled to the relief sought. The Board will summarize JM's arguments on each of those factors, then the Board will summarize the IEPA's position. The Board will also summarize the comment received. Then the Board will set forth the Board's findings on the requested adjusted standard.

Substantially Different Factors

The Board will first discuss generally the reasons why JM believes that the on-site landfill is substantially different than those considered by the Board in adopting the rules of general applicability. Next, the Board will discuss the specifics concerning the gas monitoring requirements, then the gas management system requirements. Finally, the Board will discuss the placement of the groundwater monitoring wells.

Generally

Mr. Bow testified that because of the characteristics of the waste disposed in JM's on-site landfill, the on-site landfill is much more similar to an inert waste landfill than a chemical and putrescible waste landfill. Tr. at 53. JM states, "much of the waste in the landfill is virtually inert, being composed primarily of calcium silicate and fiber glass-based roofing materials." Am. Pet. at 4. Technically, the on-site landfill is classified as a chemical and putrescible waste landfill; however, the limited amount of landfill gas generation is much more like an inert waste landfill. Tr. at 53. Mr. Bow testified that the difference between treating the on-site landfill as an inert waste landfill rather than a chemical and putrescible waste landfill would have made a difference in the adjusted standard. Tr. at 56-57.

Additionally, JM states "unlike most landfills in Illinois, the JM site was under intense federal and state oversight since before the adoption of the Pollution Control Board's solid waste landfill regulations as a result of its inclusion on the Superfund National Priority List in 1983." Pet at 5. JM asserts that the landfill rulemaking record does not indicate that the Board considered situations similar to JM's on-site landfill facility, "where the [JM] facility as a whole was subject to a Superfund consent decree which required the construction of cover to isolate asbestos that had been historically disposed of on-site" and the on-site landfill is "surrounded by units that were remediated under CERCLA." Am. Pet. at 5, 10.

Gas Monitoring

JM points out that the Board's statewide regulations on landfills specifically address two types of landfills: landfills for inert waste and landfills for chemical and putrescible wastes. Am. Pet. at 13. JM initially characterized the on-site landfill as an inert waste landfill but the IEPA indicated that the presence of materials like wood, cardboard and paper in the landfill in any amount meant the landfill should more properly be characterized as a chemical and putrescible waste landfill. Am. Pet. at 14.

JM notes that Section 811.310(c)(1) of the Board's rules applies to chemical and putrescible waste landfills and requires landfill gas monitoring devices to be operated to obtain samples on a monthly basis for the entire operating period of the landfill and for five years after closure. 35 Ill. Adm. Code 811.310(c)(1); Am. Pet. 14-15. However, JM asserts that investigation of the on-site landfill has found that the methane generation is more consistent with an inert waste landfill rather than a chemical and putrescible waste landfill. Am. Pet. at 15. JM's investigation resulted in the following observations:

1. measured landfill gas temperatures (approximately 50°F) were not typical of landfill gas temperatures in a solid waste landfill, which typically range from 100 to 130°F during substantial anaerobic activity and between 130 and 160°F during substantial aerobic activity;

2. the vegetative grass cover over the landfill was intact, growing and healthy, and showed no signs of burn-out, which is indicative of methane release to the landfill surface;

3. landfill gas pressures measured in monitoring wells were typically extremely low (less than 0.01" of water);

4. no malodors were noted within the landfill at any time;

5. the carbon dioxide levels in the on-site landfill were measured to be less than 1%.

6. no methane was present above regulatory criteria (50% of the Lower Explosive Level (LEL)) outside the limits of the waste boundary, despite the lack of any landfill gas collection system. Am. Pet. at 15.

These observations, according to JM, indicate negligible gas generation. *Id*.

JM maintains that while the on-site landfill may technically meet the requirements for chemical and putrescible waste landfills, the landfill characteristics for methane are more like an inert waste landfill. Am. Pet. at 16. JM argues that the frequency of landfill gas monitoring required by Section 811.310(c) is not necessary and would not provide additional protection to human health or the environment as compared to the requested adjusted standard. *Id*.

Gas Management System

JM notes that Section 811.311(a)(1) of the Board's rules contemplates detection of elevated methane levels below the ground surface 100 feet from the edge of the unit or the property boundary, whichever is closer. 35 Ill. Adm. Code 811.311(a)(1); Am. Pet. at 16. JM indicates that the property boundary is more than 100 feet from the edge of the unit, so the 100 feet mark applies to JM's on-site landfill. *Id*. However, JM states that 100 feet from the boundary of the on-site landfill is the area of the CERCLA landfill. *Id*.

JM states that within the area adjacent to Fill Area #1, the lateral limits of waste material are substantially defined by the toe of the steep side slopes of the CERCLA landfill. Am. Pet. at 16-17. As to Fill Area #2, JM advanced seven soil borings between the eastern limit of the on-site landfill and the perimeter road. Am. Pet. at 17. The soil borings indicate that roofing materials, transite, and white granular materials are present in the area; however based on the site history are not likely present below the surface east of the perimeter road. *Id*.

JM asserts that landfill gas monitoring, west of the perimeter road, would require installation of wells through the engineered cover placed for closure over the CERCLA landfill and into the underlying waste. Am. Pet. at 17. JM argues that installing, monitoring and maintaining wells in these locations compromises the integrity of the CERCLA cover and triggers maintenance obligations. *Id*. JM further argues that such placement also potentially exposes the now-covered asbestos-containing waste materials to personnel collecting the air samples. *Id*.

JM notes that whether monitoring gas beneath the cover of an adjacent landfill meets the intention of "ground surface" as used in the rule is not clear. Am. Pet. at 17. JM opines that the intent of the monitoring is to detect whether elevated levels of methane are generated by the landfill and are migrating away from the unit. *Id*. JM asserts that locating landfill gas monitoring devices at a distance of 100 feet from the on-site landfill would be very burdensome, potentially harmful to the CERCLA site and would not provide any additional protection to human health or the environment than the proposed adjusted standard due to extremely low levels of gas being generated by the on-site landfill. *Id*.

Groundwater Monitoring

JM points out that Section 811.318(b)(3) of the Board's rules provides for the placement of Maximum Allowable Predicted Concentration (MAPC) wells within one-half the distance from the edge of the potential source of the discharge to the edge of the zone of attenuation downgradient, with respect to groundwater flow, from the source. 35 Ill. Adm. Code 811.318(b)(3); Am. Pet. at 18. Further, JM notes that Section 811.318(b)(5) requires at least one monitoring well as an Applicable Groundwater Quality Standard (AGQS) well at the downgradient limit of the zone of attenuation. 35 Ill. Adm. Code 811.318(b)(5); Am. Pet. at 18. Additionally, Section 811.320(c)(1) sets forth that the horizontal extent of the zone of attenuation as the vertical plane at the property boundary or 100 feet from the edge of the unit, whichever is less. 35 Ill. Adm. Code 811.320(c)(1). JM indicates that the property boundary is more than 100 feet from the edge of the unit, so the 100 feet mark applies to JM's on-site landfill. Am. Pet. at 16.

JM asserts that placement of monitoring wells at locations specified in the rules, *i.e.* 50 feet for "MAPC" wells and 100 feet for "AGQS" wells, would result in the wells being located in the areal limits of where subsurface waste materials are present as part of the CERCLA landfill. Am. Pet. at 18. JM maintains that groundwater monitoring at the locations required in the rules of general applicability would require either placement of the wells on the steeply sloping sides of the CERCLA landfill or through the engineered cover placed for closure of the CERCLA landfill. Am. Pet. at 18. Further, such placement could result in the wells being placed through the underlying CERCLA waste materials before actually entering the underlying groundwater-bearing zone. Am. Pet. at 18-19.

JM argues that installation, monitoring and maintenance of wells at the locations required in the rules of general applicability is not desirable for several reasons. First drilling through waste prior to installing monitoring wells can increase the risk of cross-contamination either by carrying contaminants vertically downward during drilling or providing a conduit for downward migration. Am. Pet. at 19. JM acknowledges that there are methods that can minimize the possibility of cross contamination; however, the practices are not without risk. *Id*. JM asserts that the use of these methods is not consistent with good environmental management practices. *Id*.

A second reason for concern is that in the case of Fill Area #1, ongoing and repetitive operations on the steeply sloping, more erosion-prone sides of the CERCLA landfill increases cover maintenance obligations. Am. Pet. at 19. Also such operations increase the risk of ambient release of asbestos fiber and subsequent exposure to surrounding populations from incremental erosion events or catastrophic slope failure. *Id*. A third concern is that any activities that result in penetration or damage to the existing CERCLA cover must be pre-approved by USEPA and IEPA and must adhere to health and safety protocols for the site. *Id*.

JM argues that for all these reasons locating groundwater monitoring wells as required by the rules of general applicability would be very burdensome and would increase the risk of contaminating the underlying groundwater. Am. Pet. at 19. Furthermore, JM asserts that the risk of ambient release and human exposure to asbestos fiber through inadvertent and potential catastrophic failure of the CERCLA remedy would be increased. *Id*. JM maintains that the increased risk would not be offset by any additional degree of protection to human health or the environment than the requested relief. *Id*. Therefore, JM argues the Board should grant the requested relief. *Id*.

Justification

JM argues that because of the presence of the adjacent CERCLA landfill, strict compliance with the rules of general applicability for monitoring of both gas and groundwater could result in drilling through an engineered cover into asbestos-containing waste. Am. Pet. at 22. Such drilling could compromise the CERCLA site and the CERCLA remedy. *Id*. In contrast, JM asserts that compliance with the proposed adjusted standard should meet the goals of the Board regulations and be equally protective of the environment. *Id*. JM states that

granting the adjusted standard is justified due to the uniqueness of the site and the granting of the adjusted standard will create a lesser risk for the CERCLA site. *Id*.

Environmental Effect

The following discussion of JM's reasoning regarding the environmental effect of the adjusted standard begins with a general discussion. Then the Board will discuss the gas monitoring and gas management system requirements. Finally, the Board will discuss the placement of the groundwater monitoring wells.

Generally

Mr. Bow testified that if both the gas management system and the groundwater monitoring wells were placed as required by the rules of general applicability, there would be health and safety issues. Tr. at 34. Specifically, Mr. Bow testified that the wells would be installed halfway up the slope of a now closed CERCLA landfill and not only the actual drilling but the equipment needed for the drilling could cause disturbances of the CERCLA landfill. Tr. at 34-35. Furthermore, IEPA, USEPA and JM would prefer to avoid drilling through a CERCLA cap as much as possible. Tr. at 35. Mr. Bow further testified that in his opinion the adjusted standard requested is equally protective of the environment as the rules of general applicability. Tr. at 54.

Gas Monitoring and Gas Management

JM contends that the intent of the gas monitoring is to detect whether elevated levels of methane generated by the landfill are migrating away from the unit. Am. Pet. at 17. JM concedes that the on-site landfill may technically meet the definition of a chemical and putrescible waste unit; however, the on-site landfill is really more similar to an inert waste landfill. Am. Pet. at 16; Tr. at 53. Thus, JM maintains that the frequency of the gas monitoring and location of the wells as required by the rules of general applicability would not be more protective of the environment or human health than the adjusted standard. *Id*.; Tr. at 53-54. JM further argues that this is especially true given the potential disturbance of the CERCLA landfill. Am. Pet. at 17.

Groundwater Monitoring

JM is requesting an adjusted standard from the groundwater monitoring requirements, because compliance with Sections 811.318(b)(3) and 811.320(c)(1) could result in inadvertent impacts to groundwater and exposure to asbestos fiber present beneath the CERCLA cap. Am. Pet. at 19 and 21. JM asserts that "[a]ny adjustment to the compliance boundary would not impact groundwater that is or may be used for human consumption" because there are no existing users of groundwater in the area. *Id*. Further, JM opines that any adjacent properties would not use the groundwater given the proximity of Lake Michigan. *Id*.

JM also points to factors such as the native soils, which due to the nature of the soils will minimize the number of potential migration pathways that contamination will follow. Am. Pet.

at 21. JM notes that the groundwater flow and data developed about the flow indicates that moving the zone of attenuation laterally will not result in the masking of contaminant transport due to an unexpected change in the groundwater flow characteristics. Am. Pet. at 21-22. Finally, JM notes that the adjusted standard will still have the edge of the zone of attenuation located on JM's property. Am. Pet. at 22.

JM states that the implementation of a groundwater monitoring program under Part 811 is intended to provide for detection, assessment and potentially corrective action if a regulated unit is adversely affecting the groundwater. JM asserts that the groundwater monitoring program proposed in the adjusted standard petition will similarly provide for detection of potential issues in a timely fashion, allowing officials to make decisions as to how to protect the groundwater. Am. Pet. at 7.

Consistency with Federal Law

JM opines that because the on-site landfill is not a municipal solid waste landfill as defined by Resource Conservation and Recovery Act (42 U.S.C. §§ 6921 *et. seq.*) (RCRA), granting the adjusted standard is consistent with federal law. Am. Pet. at 13. Further JM notes that the federal consent decree expressly contemplated the potential need for an adjusted standard from Illinois regulations. Am. Pet. at 22-23. Thus, the granting of the adjusted standard would not be contrary to the federal court case. Am. Pet. at 23.

IEPA Recommendation and Brief

The IEPA recommends that the adjusted standard be granted to JM. Resp. at 4. The IEPA agrees that the adjusted standard requested is consistent with federal law and that JM has provided sufficient justification to warrant the adjusted standard. *Id*. The IEPA also believes that the requested adjusted standard is "at least as protective of the environment" as the rules of general applicability. *Id*.

More specifically, the IEPA notes that on January 6, 2005, the State of Illinois and JM entered into a consent decree that included an agreement by JM to close the on-site landfill. Resp. at 1. The consent decree "contemplated the possibility that JM would have to obtain an adjusted standard from the Board" to complete closure. *Id*. The IEPA has met with JM and asked questions at hearing and as a result recommends that the adjusted standard be approved. *Id*.; Br. at 1.

The IEPA has no knowledge of the costs associated with JM's complying with the rules of general applicability; however, the IEPA is aware of non-monetary problems. Resp. at 3. The IEPA agrees that very little gas is being generated and that semi-annual monitoring for gas will be sufficient. *Id*. Further, the IEPA acknowledges that in order to locate the monitoring wells, pursuant to the rules of general applicability, JM would need to drill through the CERCLA engineered barrier. *Id*. The IEPA therefore agrees that the alternative locations required by the requested adjusted standard are preferable. *Id*.

Public Comment

On November 23, 2004, the Board received one public comment from Jeffery C. Camplin on behalf of the Illinois Dunesland Preservation Society (Society) (PC 1). The Society notes that groundwater flows from the JM site to the "Federally Protected Critical Habitat and State Dedicated Nature Preserve of Illinois Beach State Park (Nature Preserve)" and the Society is currently seeking re-classification of the groundwater at the Nature Preserve. PC 1. In addition, the Society points out that the JM site is bordered by property used for public access and recreation. The Society asks that the Board consider the special protection afforded the Nature Preserve and the surrounding land uses when considering the adjusted standard. *Id*.

The Society also has concerns that the JM site has additional pollution which could be contaminating the groundwater and that the groundwater in the Nature Preserve could be contaminated. PC 1. The Society asks that the Board "review" the testing done of contaminants in the "soils, sludges, sediments, and groundwater" on the JM site and that proper testing be performed before the adjusted standard petition is considered. *Id*. The Society commented on the consent decrees and asked that the Board delay any decision on the petition until the State and Federal court rule. *Id*.

Board Findings

The Board agrees that the rules of general applicability from which JM is seeking an adjusted standard do not include a level of justification. Therefore, JM must prove the criteria of Section 28.1(c) of the Act (415 ILCS 5/28.1(c) (2006)) to establish that an adjusted standard is warranted. JM is seeking relief from the Board's landfill regulations regarding gas monitoring, implementation of gas management system, and location requirements for groundwater monitoring wells. In this section of the opinion, the Board will evaluate JM's petition, expert testimony, and supporting documentation to determine whether JM has demonstrated compliance with the Section 28.1(c) criteria.

As noted above, JM contends that its on-site landfill is different from the landfills considered by the Board because: the waste contained in the landfill is virtually inert; and the JM facility as a whole was subject to a Superfund consent decree which required the construction of cover to isolate asbestos that had been historically disposed of on-site. Am. Pet. at 4-5.

Landfill Gas Monitoring Frequency (Section 811.310(c)(1))

Substantially different factors. The Board's landfill regulations under Parts 811 and 814 set forth appropriate requirements for inert waste landfills, chemical waste landfills, putrescible waste landfills and municipal solid waste landfills. The Board's rules do not require gas monitoring and placement of gas monitoring systems for an inert waste landfill (*see* 35 Ill. Adm. Code 811.201-207). The Board rules also do not require monitoring of landfill gas for "chemical waste" landfills because by definition "chemical waste" is non-putrescible, *i.e*. the waste is not subject to biological processes that result in emission of landfill gas. *See* 35 Ill. Adm. Codes 810.103 and 811.310(a). In this regard, there appears to be some misunderstanding of the Board rules by the petitioner when it states that the gas monitoring requirements under Section 811.310 apply to chemical and putrescible waste landfills. Am. Pet. at 14. However,

because of the placement of a small amount of materials such as wood, cardboard and paper, JM's on-site landfill cannot be classified as either an inert waste landfill or a chemical waste landfill, but rather a putrescible waste landfill. Therefore, gas monitoring and placement of gas monitoring systems is required (*see* 35 Ill. Adm. Code 811.310, 811.311) and JM must comply with those regulations or seek relief when appropriate.

The Board notes that gas-monitoring requirements under Part 811 are intended mainly to apply to putrescible or municipal solid waste landfills, which emit significant amounts of landfill gas. While the Board regulations address wastes that do not produce landfill gas, the Board did not consider situations where a landfill would be classified as a putrescible waste landfill because of small amount putrescible waste being placed in an otherwise inert or chemical waste landfill. Therefore, the Board finds that the factors applicable to JM's request for relief from landfill gas monitoring requirements are substantially and significantly different from those considered by the Board in adopting the rule of general applicability. 415 ILCS 5/28.1(c)(1) (2006).

Justification for Relief. As to the requested relief from the gas monitoring requirements, JM's justification for seeking a lower monitoring frequency is that the on-site landfill generates little gas due to the fact that the on-site landfill is more representative of an inert waste landfill than a putrescible waste landfill. The Board notes that the results of monthly gas monitoring data are consistent with JM's assertions that methane production is low. Am. Pet. Exh. 1. Some of the other observations made by JM regarding landfill gas temperature, vegetative cover and malodor are also indicative of low landfill gas production. The Board finds that the petitioner has provided sufficient information to justify the granting of the adjusted standard. 415 ILCS 5/28.1(c)(2) (2006).

Environmental Impact. JM's testimony at hearing is that semi-annual monitoring is equally protective of the environment and the IEPA agrees. Again, the Board notes the monthly monitoring frequency required by the rule of general applicability at Section 811.310(c) is intended to address putrescible or municipal solid waste landfills where landfill gas is produced at higher rates. The record shows that JM's on-site landfill has very low gas production due to the inert characteristics of the waste contained in the landfill. In light of this, the Board finds that the requested adjusted standard will not result in environmental or health effects substantially and significantly more adverse than the effects considered by the Board in adopting the rule of general applicability. 415 ILCS 5/28.1(c)(3) (2006).

Consistency with Federal Law. Finally, both JM and the IEPA agree that the granting of the adjusted standard is consistent with federal law. The Board finds that the proposed adjusted standard is consistent with federal law. 415 ILCS 5/28.1(c)(4) (2006).

Finding. The Board finds that JM has demonstrated that an adjusted standard from the gas-monitoring requirement at Section 811.310(c)(1) is warranted and the Board will grant the adjusted standard.

Implementation of Landfill Gas Management System (Section 811.311(a)(1))

Substantially Different Factors. The landfill gas management system provision at Section 811.311(a)(1) requires the implementation of a gas management system if a methane concentration greater than 50% of the lower explosive limit is detected below the ground surface or in the ambient air at 100 feet from the edge of the unit or the property boundary, whichever is less. Since the property boundary is at a greater distance, the 100-foot distance from the edge of the unit applies to JM's landfill. JM asserts that the factors that apply to its on-site landfill are substantially different than those considered by the Board because JM's site includes a Superfund site that has been remediated pursuant to CERCLA and includes a closed landfill with an engineered barrier. The CERCLA areas surround the on-site landfill at issue in this proceeding.

According to JM, compliance with Section 811.311(a)(1) would require the placement of the gas monitoring devices or monitoring wells approximately half way up the side slope of the closed CERCLA landfill. Clearly, the Board's landfill rules requiring placement of gas and groundwater monitoring wells did not contemplate placement of such wells that would result in significant disturbance of a closed Superfund site. Thus, the Board finds that there exist substantially and significantly different factors for JM than those considered in adopting the rules of general applicability. 415 ILCS 5/28.1(c)(1) (2006).

Justification for Relief. JM has submitted detailed information including topographic maps to show the location of the CERCLA landfill with respect to the on-site landfill and demonstrate that the placement of gas monitoring devices or wells in accordance with Section 811.311(a)(1) would compromise the integrity of the closed RCRA landfill. The Board notes that JM also provided additional information and a revised Figure 8 to address concerns about the zone of attenuation. Finally, as noted above, JM has provided sufficient information to show that the on-site landfill does not produce significant quantities of landfill gas. The Board finds that the existence of the substantially different factors and the supporting data justifies granting the adjusted standard. 415 ILCS 5/28.1(c)(2) (2006).

Environmental Impact. As to the environmental impact of the requested adjusted standard, the Board agrees with the petitioner that the placement of gas monitoring devices that affect the integrity of the closed CERCLA landfill is potentially hazardous. Further, the Board notes that under the adjusted standard, JM will continue to monitor landfill gas levels at locations farther away from the edge of the on-site landfill. Given the inert nature of the wastes contained in the on-site landfill and continued monitoring of landfill gas at or within the property boundary, the Board is convinced that the proposed adjusted standard from the gas management system requirements are at least as protective of the environment as the rules of general applicability. Therefore, the Board finds that the proposed adjusted standard "will not result in environmental or health effects substantially and significantly more adverse than the effects considered by the Board in adopting the rule of general applicability." 415 ILCS 5/28.1(c)(3) (2006).

Consistency with the Federal Law. JM and the IEPA agree that the proposed adjusted standard is consistent with federal law. Further, both JM and the IEPA indicate that the consent decree in federal court contemplated this adjusted standard. The Board has reviewed the record and finds that the proposed adjusted standard is consistent with federal law. 415 ILCS 5/28.1(c)(4) (2006).

Finding. The Board finds that JM has demonstrated that an adjusted standard from the implementation of a gas monitoring system requirement at Section 811.311(a)(1) is warranted and the Board will grant the adjusted standard.

Location of Groundwater Monitoring Wells (Sections 811.318(b)(3) and 811.320(c)(1))

Substantially Different Factors. JM seeks relief from groundwater monitoring well location requirements to avoid drilling monitoring wells through the engineered cover of the closed CERCLA landfill. Specifically, JM requests relief from Section 811.318(b)(3), which requires placement of monitoring wells 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. JM also seeks relief from Section 811.320(c)(1), which sets forth, in part, that the extent of the zone of attenuation is a volume bounded by a vertical plane at the property boundary or 100 feet from the edge of the unit, whichever is less. JM seeks relief from Section 811.320(c)(1) because Section 811.318(b)(5) requires the placement of at least one monitoring well at the edge of the zone of attenuation, downgradient with respect to groundwater flow.

As noted earlier, for JM's on-site landfill, the edge of the zone of attenuation is located at 100 feet from edge of the unit, since JM's property boundary is at a distance greater than 100 feet from the edge of the unit. The placement of monitoring wells at 100 feet from the edge of the unit, and at a distance halfway from the edge of the unit and the edge of the zone of attenuation, would involve the installation of wells: 1) on the steeply sloping sides of the CERCLA landfill (Fill Area #1); 2) through the engineered cover placed for closure of the CERCLA landfill (Fill Areas #1 and #2); and/or 3) into and through the underlying "CERCLA" waste materials, prior to penetrating the underlying groundwater-bearing zone (Fill Areas #1 and #2). Am. Pet. at 18-19.

The Board rules pertaining to location of monitoring wells at Section 811.318 (b)(3) are intended to be part of the early warning groundwater monitoring requirements for chemical and putrescible waste landfills. *See* 35 Ill. Adm. Code 811.318(c) and 811.319(a)(4)(A)(ii). The zone of attenuation requirement at Section 811.320(c)(1) is intended "to provide a buffer area between the source of the discharge and the point at which the applicable groundwater standards are enforced." *See* Development, Operating And Reporting Requirements For Non-Hazardous Waste Landfills, R88-7 (Aug. 17, 1990) at Exh. 1 pg. 76. While the groundwater monitoring well location provisions at issue are intended for addressing groundwater contamination issues in a timely manner, the landfill rules did not contemplate drilling wells through closed CERCLA landfills. Thus, the Board finds that there exist substantially and significantly different factors for JM than those considered in adopting the rules of general applicability. 415 ILCS 5/28.1(c)(1) (2006).

Justification for Relief. JM has submitted detailed information including topographic maps to show the location of the CERCLA landfill with respect to the on-site landfill and demonstrate that the placement of monitoring wells in accordance with Sections 811.318(b)(3) and 811.320(c)(1) would compromise the integrity of the closed CERCLA site. The Board notes that JM also provided additional information and a revised Figure 8 to address concerns about

the zone of attenuation. The revised Figure 8 shows the zone of attenuation under the proposed adjusted standard along with alternative locations of the monitoring wells. The Board finds that the existence of the substantially different factors and the supporting data justifies granting the adjusted standard. 415 ILCS 5/28.1(c)(2) (2006).

Environmental Impact. Regarding the environmental impact of the proposed adjusted standard, the Board agrees with the petitioner that the placement of groundwater monitoring wells that affect the integrity of the closed CERCLA site is potentially hazardous. As noted by JM, compliance with the rule of general applicability would increase the risk of: contaminating underlying groundwater; and ambient release and human exposure to asbestos fiber through inadvertent and potentially catastrophic failure of the CERCLA remedy. Further, the Board notes that under the adjusted standard JM is still subject to the groundwater monitoring and compliance requirements. As clarified by the petitioner, the requirements of Section 811.319(b)(3) "immediately apply, if the concentration of one or more constituents monitored at or beyond the zone of attenuation, as shown on Figure 8, is above the applicable groundwater quality standards of Section 811.320 and is attributable to the On-Site Landfill." Am. Pet. at 20. In light of this, the Board finds that the proposed adjusted standard "will not result in environmental or health effects substantially and significantly more adverse than the effects considered by the Board in adopting the rule of general applicability." 415 ILCS 5/28.1(c)(3) (2006).

Consistency with the Federal Law. As noted above, JM and the IEPA agree that the proposed adjusted standard is consistent with federal law. Further, both JM and the IEPA indicate that the consent decree in federal court contemplated this adjusted standard. At hearing, JM added that there has not been any development associated with either the State consent order or the federal consent decree that would affect the adjusted standard proceeding. Tr. at 44. The Board has reviewed the record and finds that the proposed adjusted standard is consistent with federal law. 415 ILCS 5/28.1(c)(4) (2006).

Finding. The Board finds that JM has demonstrated that an adjusted standard from the location requirements for groundwater monitoring wells at Sections 811.318(b)(3) and 811.320(c)(1) is warranted and the Board will grant the adjusted standard.

Requested Adjusted Standard from Part 814

Although JM seeks an adjusted standard from Part 814, the Board finds that JM's request for relief from Part 814 is unnecessary. Section 814.302(a) requires JM to comply with the provisions of 35 Ill. Adm. Code 811, with a few exceptions. In this proceeding, JM has demonstrated that relief from the provisions discussed more thoroughly above is warranted. Therefore, the Board is granting an adjusted standard to JM from specific sections in Part 811 and the Board finds that an adjusted standard from Part 814 is not necessary.

CONCLUSION

The Board finds that JM has proven that the factors in Section 28.1(c) of the Act (415 ILCS 5/28.1(c) (2006)) support granting the adjusted standard. Therefore, the Board will grant JM an adjusted standard from the following requirements:

1. the monitoring frequency for landfill gas monitoring set forth at 35 Ill. Adm. Code 811.310(c)(1);

2. the requirements for implementing a landfill gas management system, specifically the provisions relating to detection distance for implementing such a system found in 35 Ill. Adm. Code 811.311(a)(1);

3. the standards for the location of monitoring points found in 35 Ill. Adm. Code 811.318(b)(3), specifically the requirement that monitoring wells shall be located within half the distance from the edge of the potential discharge source to the edge of the zone of attenuation; and

4. the horizontal extent of the zone of attenuation specified at 35 Ill. Adm. Code 811.320(c)(1).

This opinion constitutes the Board's findings of fact and conclusions of law.

ORDER

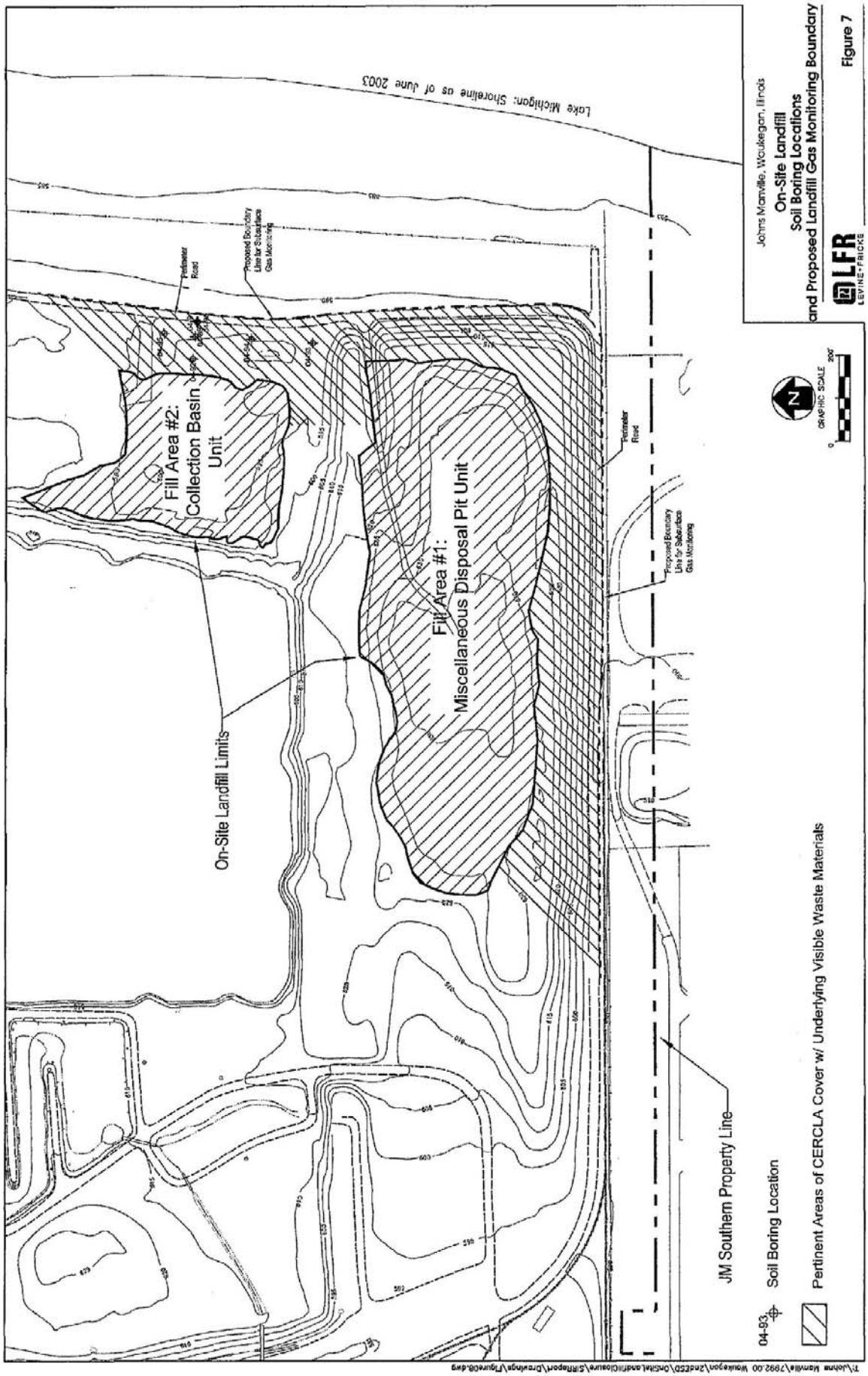
Johns Manville is hereby granted an adjusted standard from 35 Ill. Adm. Code 811.310(c)(1), 811.311(a)(1), 811.318(b)(3) and 811.320(c)(1). Pursuant to this adjusted standard, 35 Ill. Adm. Code 811.310(c)(1), 811.311(a), 811.318(b)(3) and 811.320(c)(1) shall not apply to Johns Manville's on-site landfill located at its facility at 1871 North Pershing Road in Waukegan, Illinois. The granting of this adjusted standard is contingent upon the following conditions:

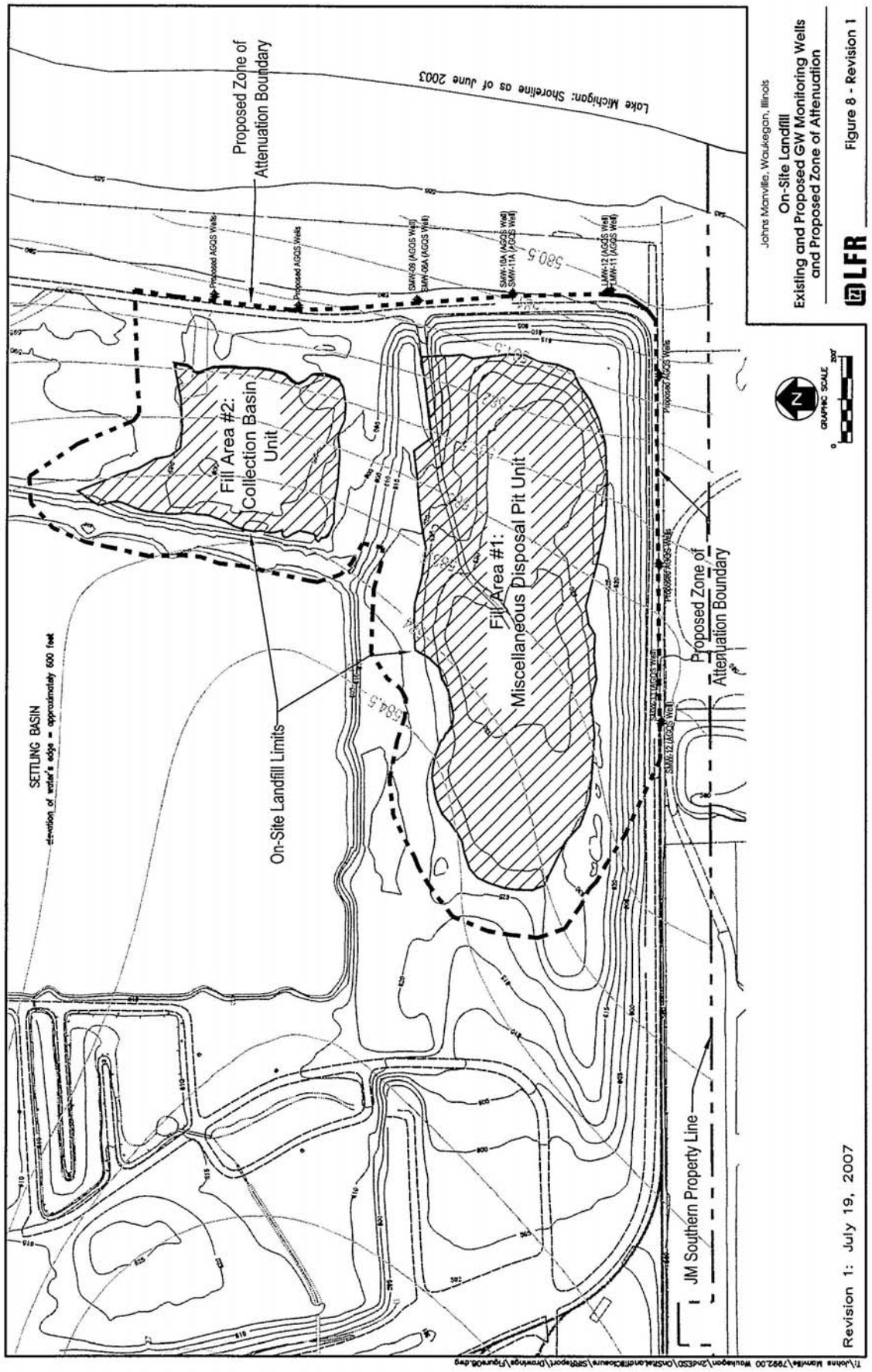
1. Johns Manville must operate all gas monitoring devices, including the ambient air monitors, such that samples will be collected on a semi-annual basis for a period of five years following approval of this adjusted standard. If, at the end of five years, the requirements for implementing a Landfill Gas Collection System (35 Ill. Adm. Code 811.311) are not met, no further monitoring must be conducted.

2. Johns Manville must install a gas management system if 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 as close as possible to, but outside the boundary line shown on Figure 7 of the amended adjusted standard petition (attached to and made a part of this order) or the property line, whichever is less.

3. Johns Manville must install groundwater monitoring wells at the locations specified on Figure 8 (Rev. 1, July 19, 2007) (attached to and made a part of this order) of the amended adjusted standard petition. Those monitoring wells located along the proposed zone of attenuation boundary (see condition 4) shall be considered "Applicable Groundwater Quality Standard" (AGQS) wells consistent with the requirements of 35 Ill. Adm. Code 811.318(b)(5).

4. The zone of attenuation for Johns Manville's on-site landfill, within which concentrations of constituents in leachate discharged from the unit may exceed the applicable groundwater quality standard set forth at 35 Ill. Adm. Code 811.320, is a volume bounded by a vertical plane located as shown on the amended adjusted standard petition Figure 8 (Rev. 1, July 19, 2007) (attached to and made a part of this order), extending from the ground surface to the bottom of the uppermost aquifer and excluding the volume occupied by the waste.

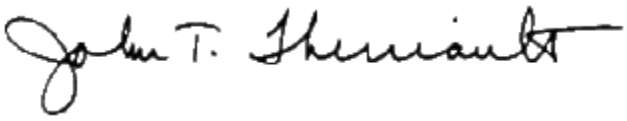

Lake Michigan: Shoreline as of June 2003
Fill Area #2: Collection Basin Unit
Fill Area #1: Miscellaneous Disposal Pit Unit
On-Site Landfill Limits
Perimeter Road
Proposed Boundary Line for Subsurface Gas Monitoring
JM Southern Property Line
04-93 Soil Boring Location
Pertinent Areas of CERCLA Cover w/ Underlying Visible Waste Materials
GRAPHIC SCALE
Johns Manville, Waukegan, Illinois
On-Site Landfill
Soil Boring Locations
and Proposed Landfill Gas Monitoring Boundary
LFR LEVINE-FRICKE
Figure 7


Lake Michigan: Shoreline as of June 2003
Proposed Zone of Attenuation Boundary
Fill Area #2: Collection Basin Unit
Fill Area #1: Miscellaneous Disposal Pit Unit
On-Site Landfill Limits
SETTLING BASIN
elevation of water's edge = approximately 600 feet
Proposed Zone of Attenuation Boundary
JM Southern Property Line
Johns Manville, Waukegan, Illinois
On-Site Landfill
Existing and Proposed GW Monitoring Wells and Proposed Zone of Attenuation
LFR
Figure 8 - Revision 1
Revision 1: July 19, 2007
GRAPHIC SCALE

IT IS SO ORDERED.

Section 41(a) of the Environmental Protection Act provides that final Board orders may be appealed directly to the Illinois Appellate Court within 35 days after the Board serves the order. 415 ILCS 5/41(a) (2006); *see also* 35 Ill. Adm. Code 101.300(d)(2), 101.906, 102.706. Illinois Supreme Court Rule 335 establishes filing requirements that apply when the Illinois Appellate Court, by statute, directly reviews administrative orders. 172 Ill. 2d R. 335. The Board's procedural rules provide that motions for the Board to reconsider or modify its final orders may be filed with the Board within 35 days after the order is received. 35 Ill. Adm. Code 101.520; *see also* 35 Ill. Adm. Code 101.902, 102.700, 102.702.

I, John T. Therriault, Assistant Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion and order on December 6, 2007, by a vote of 4-0.



John T. Therriault, Assistant Clerk
Illinois Pollution Control Board