

ILLINOIS POLLUTION CONTROL BOARD

January 23, 2014

IN THE MATTER OF:)
)
PETITION OF BRICKYARD DISPOSAL &) AS 13-4
RECYCLING, INC. PURSUANT TO 35 ILL.) (Adjusted Standard – Land)
ADM. CODE 814.402(B)(3))
)
OPINION AND ORDER OF THE BOARD (by C.K. Zalewski):

On May 31, 2013, Brickyard Disposal & Recycling, Inc. (Brickyard or Petitioner), located at 601 Brickyard Road, Danville, Vermilion County, filed a petition for an adjusted standard (Pet.) pursuant to Section 28.1 of the Environmental Protection Act (Act) (415 ILCS 5/28.1 (2012)). Brickyard seeks relief from the monitoring well requirements of 35 Ill. Adm. Code 811.318(b)(3), (b)(5) and 811.320(c) by requesting the Board to adjust the compliance boundary pursuant to 35 Ill. Adm. Code 814.402(b)(3).

Brickyard consists of two separate waste units, Brickyard I and Brickyard II, separated by a haul road. Brickyard II is still in operation. The petition concerns only Brickyard I (the site), which is described by Brickyard as an “‘existing landfill’ under the Board’s landfill regulations.” Pet. at 2. According to the petition, Brickyard I initiated closure in 1997. *Id.* The petition is in furtherance of Brickyard’s effort to obtain final closure and post-closure care certification approvals from the Illinois Environmental Protection Agency (Agency or IEPA). In its original petition, Brickyard states,

[d]uring the landfill’s operation, railroad ties and other construction debris . . . were deposited and/or utilized in an area contiguous to the landfill, and now provide stability and support for Brickyard I, so that any environmentally responsible final closure will require incorporation of this fill area. Incorporation of the fill area will require an adjustment to the groundwater monitoring boundaries, as specifically allowed for via a Board adjusted standard. *Id.*

On August 8, 2013, the Board identified informational deficiencies in Brickyard’s petition and directed Brickyard to file an amended petition to cure the deficiencies. *In re Petition of Brickyard Disposal & Recycling, Inc.*, AS 13-4, *slip op.* at 2 (Aug. 8, 2013). On October 9, 2013, Brickyard filed an amended petition (Am. Pet.) addressing many of the issues the Board enumerated in its August 8, 2013 Order, but also changing the relief requested by withdrawing its request for a zone of attenuation. Brickyard also withdrew its request for an adjusted standard from the determination of the zone of attenuation at Section 811.320(c) and monitoring well requirement at Section 811.318(b)(5). However, the amended petition continues to request an adjusted compliance boundary pursuant to Section 814.403(b) and relief from the monitoring well requirement at Section 811.318(b)(3). Am. Pet. at 18-19.

As explained in greater detail below, Brickyard filed the necessary statutory notices of publication of the relief requested in its original and amended petitions. The Agency, for its part,

has recommended that the Board grant the adjusted standard as requested in both the original and amended petitions.

Based on our reading of 35 Ill. Adm. Code 814.402(b)(3), the Board will not grant an adjusted standard moving the compliance boundary beyond the edge of the unit without also establishing a zone of attenuation. The amended petition for adjusted standard is therefore denied and this docket is closed.

This opinion begins with a discussion of the procedural history, addresses whether notice was proper, and then discusses the factual background of the case. The Board then summarizes Brickyard's original petition, the Agency's recommendation, Brickyard's amended petition, the Agency's amended recommendation, and finally Brickyard's response to the Agency's amended recommendation. The Board next provides the applicable standards and the applicable legal framework before explaining the Board's basis for denial.

BACKGROUND

Procedural History

On May 31, 2013, as described above, Brickyard filed its original petition for an adjusted standard. Brickyard sought relief from monitoring well requirements of 35 Ill. Adm. Code 811.318(b)(3), 811.318(b)(5) and 811.320(c) by requesting the Board to provide a zone of attenuation and adjust the compliance boundary pursuant to 35 Ill. Adm. Code 814.402(b)(3) for the closed Brickyard I site at 601 Brickyard Road, Danville, Vermilion County.

On July 17, 2013, the Agency filed a recommendation (Ag. Rec.) requesting that Brickyard provide additional information and add certain conditions but ultimately recommending that the Board grant the adjusted standard.

On August 8, 2013, the Board identified informational deficiencies in Brickyard's petition and directed Brickyard to file an amended petition to cure the deficiencies. Petition of Brickyard Disposal & Recycling, Inc. Pursuant to 35 Ill. Adm. Code 814.402(b)(3), AS 13-4, slip op. at 2 (Aug. 8, 2013).

On October 9, 2013, Brickyard filed an amended petition (Am. Pet.) addressing many of the issues the Board enumerated in its August 8, 2013 Order. But, Brickyard also makes other fundamental changes in its relief request, requesting only relief from Section 811.318(b)(3) and an adjusted compliance boundary. Brickyard argues that as a Part 814 Subpart D unit, Brickyard I is exempt from the requirements for monitoring well placement at Section 811.318(b)(5), and determination of the zone of attenuation at Section 811.320(c) of the Board's rules. Am. Pet. at 18-19; 35 Ill. Adm. Code 811.318(b)(5), 811.320(c).

On November 26, 2013, the Agency filed an amended recommendation (Am. Ag. Rec.), which highlights deficiencies in Brickyard's amended petition but again recommends that the requested relief be granted. Am. Ag. Rec. 1.

On December 5, 2013 Brickyard filed a response to the Agency's recommendation (Res.) addressing issues raised in the Agency's amended recommendation.

Notices of Publication

Section 28.1(d)(1) of the Act (415 ILCS 5/28.1(d)(1) (2012)) and Section 104.408(a) of the Board's procedural rules (35 Ill. Adm. Code 104.408(a)) require the adjusted standard petitioner to publish notice of filing the petition. Those authorities require advertisement in a newspaper of general circulation in the area likely to be affected by the proposed adjusted standard. The notice must indicate that any person may cause a public hearing to be held on the proposed adjusted standard by filing a hearing request with the Board within 21 days after publication. 415 ILCS 5/28.1(d)(1) (2012); 35 Ill. Adm. Code 104.408(b). Publication must take place within 14 days after the petition is filed. 415 ILCS 5/28.1(d)(1) (2012); 35 Ill. Adm. Code 104.408(a); *see also, e.g., In re Petition of SCA Tissue North American, L.L.C.*, AS 05-1 (Jan. 6, 2005) (dismissing petition for adjusted standard for lack of jurisdiction when publication of notice occurred after 14-day period). Within 30 days after filing the petition, the petitioner must file a certificate of publication with the Board. 35 Ill. Adm. Code 104.410.

On June 13, 2013, Brickyard filed a notice of publication concerning its original petition. In its August 8, 2013 order, the Board noted that

if Brickyard amends the petition 'such that the amendment is a substantive change to the requested relief in that it requests additional or alternative relief,' Brickyard 'must re-notice the amended petition pursuant to Section 104.408' (35 Ill. Adm. Code 101.408). *Brickyard Disposal*, AS 13-4, *slip op.* at 5-6 (Aug. 8, 2013), citing 35 Ill. Adm. Code 104.418(a).

On October 24, 2013, Brickyard filed a certificate of publication documenting that the required notice of the amended petition was published in the *Commercial-News* on October 11, 2013. The Board finds that Brickyard has met the notice requirements of the Act and the Board's procedural rules. *See* 415 ILCS 5/28.1(d)(1) (2012); 35 Ill. Adm. Code 104.408, 104.410.

Facts

Brickyard's facility provides waste disposal and recycling services to Vermilion County and the surrounding east-central Illinois region. Pet. at 1.¹ Brickyard's landfill facility consists of two separate waste units: Unit I ("Brickyard I") and Unit II ("Brickyard II"), separated by a haul road. *Id.* Together, the units cover approximately 152 acres within a 293 acre site. *Id.* The area around Brickyard I had been historically utilized by surface mining, either for shale, coal or both. Ag. Rec. at 9.

¹ Petitioner did not include page numbers on its original petition. For purposes of this order, the Board refers to the first page of the text of the petition as page 1 with each page following in sequential order.

Brickyard I was first permitted in 1981. Am. Pet. at 2. Brickyard I accepted its last load of waste in 1997, and initiated closure at that time, pursuant to Part 814, Subpart D. *Id.*

In 2000, to address volatile organic compounds detected in leachate due to gas migration, Brickyard implemented an Agency-approved groundwater management zone (GMZ) included by the Agency as a condition of Brickyard's permit. Am. Pet. at 13, Ag. Rec. at 7.

As part of the closure process for Brickyard I, Brickyard developed an assessment monitoring plan as required by one of the conditions under its permit. The Agency approved the plan on April 29, 2005, and Brickyard soon installed temporary assessment monitoring wells. Am. Pet. at 14. During the installation of the temporary wells, Brickyard's contractors investigated extraneous materials located in the area directly under the otherwise appropriate area for the location of the monitoring wells. *Id.* Brickyard states that the extraneous fill materials found were contiguous to Brickyard I and pre-existed initiation of closure and the onset of the federal Subtitle D rules. Am. Pet. at 8.

Due to concerns related to locating the temporary assessment wells directly above the fill materials, Brickyard conducted extensive investigations approved by the Agency to determine the nature of the fill material in July and August of 2006 and again in the fall of 2008. Am. Pet. at 14. The results of the 2006 investigation indicated that the fill material was sporadic, but present more consistently west of the eastern haul road, and within the area appropriately designated as the groundwater management zone. *Id.* at 14-15.

After discussions with the Agency, Brickyard conducted an additional field investigation during August and September of 2008 that included 59 additional test pits along the perimeter of Brickyard I. Am. Pet. at 14-15. The investigation revealed that the material was primarily broken and shredded railroad ties, with minor amounts of construction and demolition debris, such as scrap metal mixed with soil. *Id.* The fill material covers approximately 18 acres in three different areas, generally contiguous to Brickyard I. Am. Pet. at 15. The material was not continuously deposited, but exists in pockets. *Id.*

Original Petition

Brickyard's original petition requested relief from Board rules pursuant to 35 Ill. Adm. Code 814.402(b)(3) allowing Brickyard to monitor outside the area where extraneous fill materials have been deposited, outside the Brickyard I boundary on Brickyard's adjacent property. More specifically, Brickyard requested an adjusted compliance boundary along with an adjusted standard from the requirements for the location of monitoring points found at 35 Ill. Adm. Code 811.318(b)(3) and (b)(5), and the determination of the zone of attenuation referenced in 35 Ill. Adm. Code 811.320(c). *Id.* at 23, citing 35 Ill. Adm. Code 811.318(b)(3), 811.318(b)(5), 811.320(c).

Brickyard argued that if the adjusted standard were granted, potential impacts from either the landfill cell or the contiguous fill area of extraneous materials could then be fully understood and, if necessary, remediated. Pet. at 7. Brickyard contended that without the adjusted standard, Brickyard would be required to monitor directly above the extraneous fill material buried outside

the landfill cell, which would be problematic since the monitoring wells would not be capable of accurately assessing potential groundwater impacts related to the landfill due to the presence of the extraneous materials. *Id.* at 9-10. Brickyard claims “the adjusted standard is [a] necessary and appropriate means of dealing with the fill material since removal is not an environmentally sound or economically viable option” because the fill area provides support and stabilization of the existing landfill such that the area, in essence, provides a partial but essential framework for the existing landfill. *Id.* at 7. Brickyard states that the Agency agrees that monitoring outside the landfill and the area of extraneous materials would be appropriate to ascertain any impact, whether it be from the landfill or from the extraneous materials. *Id.*

Brickyard admittedly did not address alternatives to obtaining the adjusted standard because of the argued infeasibility and potential adverse environmental impacts. Pet. at 10. Brickyard contended that “removal would jeopardize the stability of the existing landfill such that the minimum safety factors under the Board’s Part 811 rules could not be met.” *Id.* For example, Brickyard explains removal of the buried materials would require excavation of much of the existing cover and would interrupt the gas extraction system—creating both safety and nuisance concerns. *Id.* Further, because of its location around the landfill, removal could create slope stability problems for Brickyard I, threatening the structural integrity of the landfill. *Id.* at 13. Rather, Brickyard argues that “the most protective approach for dealing with this historic deposition is to leave it in place, add protections, and continue to monitor it.” *Id.*

Brickyard planned to incorporate the proposed adjusted groundwater compliance boundary into Brickyard’s closure plan and permit, adding it to the landfill’s post-closure care operational costs. Pet. at 11. Further, Brickyard claimed it “has and will continue to use safe and appropriate institutional controls to contain the extraneous materials in the existing locations.” *Id.* at 13. Brickyard proposed an updated “cover plan” to insure that all the areas with extraneous materials would have at least two feet of protective cover and six inches of vegetative layer. *Id.* at 14. Brickyard stressed that “the adjusted standard will not adversely impact groundwater quality but instead, will achieve a greater degree of protection as would be achieved without it since monitoring within the compromised area will not achieve accurate results and removal of the material from the compromised area may indeed lead to more serious problems, including possible adverse groundwater impact.” *Id.*

Brickyard stated that the proposed zone of compliance would not extend beyond the facility property line nor beyond the annual high water mark of any navigable surface water, and that the proposed zone of compliance would not extend beyond 150 meters from the edge of Brickyard I. Pet. at 15. Brickyard attached a proposed redlined drawing indicating the zone of attenuation. *Id.* at 24.

Brickyard stated that the requested adjusted standard is consistent with federal law. Pet. at 17. Brickyard further contended that

Section 814.402 is applicable here and specifically exempts Brickyard I from the following requirements: (1) the location standards in 35 Ill. Adm. Code 811.302(a), (c), (d), (e), and (f); (2) the foundation and mass stability analysis standards in 35 Ill. Adm. Code 811.304 and 811.305; (3) the liner and leachate

drainage and collection requirements of 35 Ill. Adm. Code 811.306, 811.307, and 811.308; (4) the final cover requirements of 35 Ill. Adm. Code 811.314 shall not apply to units or parts of units closed, covered and vegetated prior to the effective date of this Part; (5) the hydrogeological site investigation requirements of 35 Ill. Adm. Code 811.315; (6) the groundwater impact assessment standards of 35 Ill. Adm. Code 811.317; the groundwater monitoring program requirements of 35 Ill. Adm. Code 811.318(c); and (7) the groundwater quality standards of 35 Ill. Adm. Code 811.320(a), (b) and (c). Pet. at 17-18.

Agency's Original Recommendation

On July 17, 2013, the Agency filed its original recommendation that Brickyard's petition be granted subject to certain clarifications requested by the Agency. Ag. Rec. at 1.

The Agency noted that 15 years had passed between the filing of the petition and Brickyard I accepting its final volume of waste. Ag. Rec. at 6. In the section entitled "Facts Presented in the Petition – Rationale for Recommendation," the Agency noted that Brickyard's petition coined the term "extraneous material" to include waste material disposed of on-site. *Id.* at 7. But, the Agency explained, while no such term exists within the definition of the Act, the extraneous material would be included within the definition of "waste" under Section 3.535. *Id.* at 7, citing 415 ILCS 5/3.535 (2012). The Agency further characterized the material on the Petitioner's site and adjacent to the Brickyard I facility as meeting the definition of "construction or demolition debris" under the Act. *Id.* at 10.

The Agency agreed with Brickyard that under present conditions, removal of such material would pose risks more problematic than allowing the material to remain in place, but cautioned that "in the future, removal could be an option, depending upon the circumstances at the time." Ag. Rec. at 10. The Agency also agreed with Brickyard that allowing placement of the monitoring wells for Brickyard I outside of the edge of the existing unit and just beyond the existing edge of the waste disposal unit would give both Brickyard and the Agency the ability to monitor both areas in an attempt to insure there is no threat to the environment. *Id.* at 11.

The Agency stated that, with certain key information missing from Brickyard's petition, the Agency could not provide an analysis of the assertions relative to the volume of leachate. Ag. Rec. at 12. The Agency noted that this calculation is based upon an assumption of a three foot depth of leachate in Unit I, but that the Agency would need actual calculations supporting such data to provide comment. *Id.* The Agency also requested that the proposed cover plan be incorporated as a condition to the acceptance of the petition. *Id.*

The Agency added that the original petition is almost void of reference to the actual relief sought, and instead assumed that relief is sought from 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. Ag. Rec. at 13. The Agency offered that this would only be part of the relief necessary to accomplish the proposed location of the monitoring wells. *Id.* The Agency stressed that Brickyard's original petition did not address

either applicability of 35 Ill. Adm. Code 811.318(b)(5) nor 35 Ill. Adm. Code 811.320(c). *Id.* The Agency presumed that the arguments made within the petition would apply with the same rationale to Section 811.320(c). *Id.* at 14.

The Agency noted that the wells identified within Brickyard's Figure 9 of Exhibit B to the original petition are only "temporary wells" under Section 5.5 of Exhibit B. Ag. Rec. at 14. The Agency argued that any Board finding should specifically note that these wells would be Applicable Groundwater Quality Standard wells until the locations can and would be finalized via the permitting process. *Id.* at 14.

Finally, the Agency proposed adjusted standard conditions setting timelines for Brickyard to (1) submit the adjusted standard as a permit modification to the Agency for inclusion of the temporary well locations to be included as formal monitoring wells; (2) install the finalized groundwater monitoring network resulting from an Agency-approved permit modification which revises the existing groundwater monitoring network to satisfy the design requirements of 35 Ill. Adm. Code 811.318(b) and other information necessary for the Agency to make a determination relative to finalizing the permanent locations of such wells; and (3) complete the items set forth in the cover plan consistent with the description of such items as set forth in Section 4 of Exhibit C. Ag. Rec. at 18.

Board's More Information Order

On August 8, 2013, the Board accepted Brickyard's petition but identified information deficiencies and directed Brickyard to file an amended petition to cure the deficiencies. Brickyard Disposal, AS 13-4, *slip op.* at 2 (Aug. 8, 2013). The Board enumerated 25 deficiencies needed to continue the Board's analysis of Brickyard's petition. *Id.* Items ranged from providing the standards from which relief was sought to proposing additional conditions and providing additional information required with submittal of an adjusted standard under Board regulations. *See e.g., id.* at 2. The Board also directed Brickyard to address the Agency's concerns raised in the Agency's recommendation. *Id.* at 5.

Brickyard's Amended Petition

In its amended October 9, 2013 petition, Brickyard revised its requested relief. Brickyard withdrew its request for a zone of attenuation, along with its request for adjusted standard from the requirement for determining the zone of attenuation at Section 811.320(c) and the monitoring well requirement at Section 811.318(b)(5). Instead, Brickyard is requesting only an adjusted compliance boundary and an adjusted standard from Section 811.318(b)(3), stating that "the zone of attenuation or edge of the zone of attenuation as referenced in Section 811.318(b)(5) does not appear applicable." Am. Pet. at 18, citing 35 Ill. Adm. Code 811.318(b)(5).

Brickyard explains, that based upon the additional analysis Brickyard did to respond to the Board's August 8, 2013 information requests, because Brickyard I is a Subpart D landfill, 35 Ill. Adm. Code 814.402(a)(8) specifically exempts Subpart D facilities from the requirements of 35 Ill. Adm. Code 811.318(b)(5) requiring that "a minimum of at least one monitoring well shall be established at the edge of the zone of attenuation." Am. Pet. at 19, citing 35 Ill. Adm. Code

814.402(a)(8), 811.318(b)(5). Instead, Brickyard says that “background concentrations used to evaluate groundwater quality data have been and will continue to be statistically derived pursuant to Section 811.320(e)” and that Section “814.402(b)(3) dictates the location of the monitor wells by defining the compliance boundary.” *Id.* at 19, citing 35 Ill. Adm. Code 811.320(e), 814.402(b)(3). Brickyard states, “the zone of attenuation or edge of the zone of attenuation as referenced in Section 811.318(b)(5) does not appear applicable, nor does Section 811.320(c).” *Id.* citing 811.318(b)(5), 811.320(c). In summary, Brickyard says, “a simple adjustment of the location of the compliance boundary pursuant to Section 814.402(b)(3) is being requested,” and the request for the zone of attenuation is withdrawn. *Id.* at 19, citing 35 Ill. Adm. Code 814.402(b)(3).

Brickyard argues that the requested alternative compliance boundary complies with Sections 814.402(b)(3)(H) and 814.402(b)(3)(I) and that an “an alternative definition of ‘compliance boundary’ for Brickyard I could be any point *beyond the edge of the waste unit, and extraneous materials that may impact the ability of the monitor well network to allow adequate evaluation of potential sources of discharge to the groundwater.*” Am. Pet. at 21 (emphasis in original), citing 35 Ill. Adm. Code 814.402(b)(3)(H), (I). Brickyard offers that the proposed zone of attenuation would not extend beyond the facility property line, annual high water mark of any navigable surface water nor beyond 150 meters from the edge of Brickyard I. *Id.* at 28.

Also, Brickyard contends that “institutional controls” in the amended petition would include two containment measures: physical cover over the extraneous material and groundwater monitoring. Am. Pet. at 21. The proposed cover plan provides specifications for additional cover placement over a small area that does not contain the minimum two feet of low permeable material, and the proposed monitoring well network is designed to monitor the groundwater quality beyond the Brickyard I waste boundary and the extraneous materials to detect any negative influence to the groundwater quality caused by either the landfill or the extraneous materials or both. *Id.* The amended petition incorporates the cover plan from the original petition to ensure that all areas with less than two feet of protective cover will be augmented to contain at least two feet of protective cover and six inches of vegetative layer. *Id.* at 26.

Brickyard explains that the “the proposed routine monitor wells were located as close to the limits of the extraneous materials as possible given the topographic constraints (extreme topographic relief or the presence of surface water).” Am. Pet. at 17-18. Because of site access issues, and given that the actual well locations must be approved via permitting, the proposed compliance boundary was originally located beyond the well locations to account for potential relocation of wells. *Id.* at 18. Brickyard contends that “hydrogeologic conditions must also be considered where the monitorable water-bearing zone may be dry, requiring adjustment to a specific well location.” *Id.* In response to the Board’s request to clarify the proposed placement of monitoring wells in relation to the proposed compliance boundary and the edge of the unit, Brickyard proposes a revised compliance boundary closer to the monitor wells anticipated for the monitoring network subsequent to IEPA approval. *Id.* The amended proposed compliance boundary also identifies the distance the revised proposed compliance boundary is from the waste unit boundary, and illustrates how far the subject boundary was moved closer to the wells as compared to the initial submittal. *Id.*

In the amended petition, Brickyard again claims that the proposed adjusted standard will not adversely impact groundwater quality and instead, achieve a greater degree of protection. Am. Pet. at 22.

In its “justification for proposed adjusted standard” section, Brickyard further states:

The technical information contained in the Technical Support Document and the additional information provided with this Amended Petition, as applied to an analysis of the factors set forth in Section 814.402(b)(3) warrant the following conclusions:

- A) The hydrogeological characteristics of the unit, the surrounding land and the site do not pose an environmental risk if the boundary is adjusted as requested;
- B) The volume and physical and chemical characteristics of the leachate do not pose an environmental risk if the boundary is adjusted as requested;
- C) The quantity, quality, and direction of flow of groundwater underlying the facility is not subject to further risk, and does not pose further risk, if the boundary is adjusted as requested;
- D) There are no groundwater users who would be impacted if the boundary is adjusted as requested;
- E) Alternative drinking water sources will not be necessary;
- F) The existing quality of the groundwater will not be adversely impacted if the boundary is adjusted as requested (*See* discussion below regarding existing quality of groundwater and background concentrations in response to Board information request number 18);
- G) The public health, safety, and welfare will be protected, and not adversely impacted, if the boundary is adjusted as requested;
- H) The proposed zone of compliance will not extend beyond the facility property line nor beyond the annual high water mark of any navigable surface water (*See* discussion below regarding “annual high water mark” in response to Board information request numbers 19, 20 and 21);
- I) The proposed zone of compliance will not extend beyond 150 meters from the edge of Brickyard I. *Id.* at 27-28.

Brickyard explains that the distance of the revised compliance boundary from the Unit I waste boundary varies dependent upon location, but is considerably less than the maximum 150 meter limit, except near well T110 which is “slightly outside the 150 meter limit for the compliance boundary, so the exact location of a well in that area will be determined through permit application and will be within the compliance boundary proposed herein.” Am. Pet. at 19, 28 n.23.

Brickyard discusses two compliance alternatives in the instance the requested adjusted standard is not granted. Am. Pet. at 15-17. The first alternative would require Brickyard to monitor directly through the extraneous fill material buried outside the landfill cell. Brickyard argues that this is problematic as potential groundwater impacts from the landfill are not capable

of accurate assessment because any potential impact could be related to the buried material as opposed to the landfill. *Id.* at 16.

The other alternative offered was removal of the material that was historically placed outside the landfill. Pet. at 16. Brickyard describes the monetary costs for doing so as “considerable” but does not elaborate in the amended petition. *Id.* Brickyard argues that such alternative “must be rejected due to its infeasibility and potential adverse environmental impact.” *Id.* Brickyard explains that “removal would jeopardize the stability of the existing landfill such that the minimum safety factors under the Board’s Part 811 rules could not be met.” *Id.* at 16-17. For example, removal of the buried materials would require removal of much of the existing cover and interruption of the gas extraction system – creating both safety and nuisance concerns. *Id.* Also, removal would require dewatering which could promote mine void collapse, liner fatigue, and possible failure. *Id.*

Agency Amended Recommendation

On November 26, 2013, the Agency filed an amended recommendation in response to Brickyard’s amended petition. In the amended recommendation, the Agency contends that Brickyard’s “clarification is controlling of the relief that may be granted,” and concludes “35 Ill. Adm. Code 814.402(a)(8) specifically exempts Subpart D facilities from the requirements of 35 Ill. Adm. Code 811.320(a), (b), and (c): Zone of Attenuation.” Ag. Am. Rec. at 3-4. The Agency remarks that since the relief requested was solely for Brickyard I, a Subpart D facility, the amended petition does not have a “zone of attenuation” nor a modeled “groundwater impact assessment” for determining a future theoretical leachate release from that unit. *Id.* Further, the Agency comments that “the requirement of placing the wells half of the distance from the Zone of Attenuation to the waste boundary is not applicable and a well spacing model based upon a simulated release would also not be required.” *Id.* at 3-4. The Agency states that “an alternative definition of ‘compliance boundary’ for Brickyard Unit I could be any point beyond the edge of the waste unit, and extraneous materials that may impact the ability of the monitoring well network to allow adequate evaluation of potential sources of discharge to the groundwater.” *Id.* at 15.

The amended recommendation also notes other information missing in the amended petition such as: 1) the flow rate information for the overall leachate extraction for Brickyard I; 2) adequate information regarding current groundwater potentiometric maps and final groundwater monitoring well location to determine if the existing temporary “T” wells are adequate; and 3) updated and expanded well-specific intrawell applicable groundwater quality values for each of the sites monitoring wells to account for natural spatial variability in the groundwater due to historical mining activities. Ag. Am. Rec. at 8, 9, 14. The Agency further adds that representative intrawell background values have yet to be established for the bulk of the temporary wells to account for spatial variability in groundwater quality, which is prevalent in Class IV groundwater areas (coal mining activities). *Id.* at 19.

The Agency states that the amended petition does not include an adequate discussion regarding institutional controls. Ag. Am. Rec. at 16. While the amended petition includes a brief description of the cover plan and provided a reference to the location, the Agency contends

that no institutional controls are proposed that meet the definition of “institutional control” under 35 Ill. Adm. Code 742.200, other than the proposed cap. *Id.* at 16-17.

The Agency also suggests a fifth condition to Brickyard’s suggested language, to read that “within 12 months of the date of this Order, Brickyard shall complete installation of the final groundwater monitoring well network following the permitting process through significant modification permit application.” Ag. Am. Rec. at 42.

Brickyard’s Response to Agency’s Amended Recommendation

On December 5, 2013, Brickyard filed a response to the Agency’s amended recommendation “filed solely as a means to clarify and/or eliminate any outstanding issues so that the Board might be in a position to expeditiously approve this uncontested request.” Res. at 2. In the response, Brickyard notes that Brickyard and the Agency engaged in extensive exchange of information and discussion, both pre-filing and post-filing, and “the Petition itself resulted from a meeting with the IEPA, where all participants agreed the approach set forth in the Petition was appropriate and needed in order to achieve permitting for an effective groundwater monitoring network.” *Id.* at 1.

First, Brickyard notes the unique set of facts of this case: historical deposition of extraneous materials outside the permitted boundary of an inactive landfill which is regulated pursuant to Part 815, Subpart D. Res. at 2, citing 35 Ill. Adm. Code 815.Subpart D. Brickyard contends that “clearly, the Board’s regulations of general applicability do not contemplate that extraneous materials exist outside the permitted landfill footprint.” *Id.*

Second, Brickyard explains that it could not achieve final closure through an adjusted standard moving the compliance boundary wells. Res. at 2. Brickyard explains that the Agency agrees that “(a) the responsible regulatory approach is to place the monitoring wells beyond the area of the extraneous fill material, to properly monitor *any* potential releases; and (b) the rules of general applicability do not allow for such without adjustment of the compliance boundary.” Res. at 3.

Third, Brickyard argues that the factors justifying a grant of the requested relief are set forth in Section 814.402(b)(3) contending that Brickyard’s supporting technical document fully analyzes each factor and reminds that the Agency “fully and unconditionally” recommends grant of the petition. Res. at 3.

Fourth, Brickyard opines that the environment will be better protected with the grant of this variance and has agreed to provide sufficient cover on the extraneous fill material in order to minimize and eliminate any environmental impact from the fill area. Res. at 3. In further response to a question the Board had regarding containment of this area, Brickyard promises to deed restrict the entire Brickyard property, including the fill area, into perpetuity. Res. at 3-4.

Finally, Brickyard agrees to accept the Agency's proffered language as a condition to the order that:

Within 12 months of the date of this Order, Brickyard shall complete installation of the final groundwater monitoring well network following the permitting process through a significant modification permit application. Res. at 4.

APPLICABLE RULES

35 Ill. Adm. Code 810.103 of the Board regulations define "Zone of attenuation":

"Zone of attenuation" means the three dimensional region formed by excluding the volume occupied by the waste placement from the smaller of the volumes resulting from vertical planes drawn to the bottom of the uppermost aquifer at the property boundary or 100 feet from the edge of one or more adjacent units. 35 Ill. Adm. Code 810.103.

Section 814.402 of the Board's regulations provides the applicable standards for existing Subpart D landfills. Section 814.402(a) provides:

- a) All of the requirements for new units described in 35 Ill. Adm. Code 811 shall apply to units regulated under this Subpart except the following:
 - 1) The location standards in 35 Ill. Adm. Code 811.302(a), (c), (d), (e), and (f);
 - 2) The foundation and mass stability analysis standards in 35 Ill. Adm. Code 811.304 and 811.305;
 - 3) The liner and leachate drainage and collection requirements of 35 Ill. Adm. Code 811.306, 811.307, and 811.308;
 - 4) The final cover requirements of 35 Ill. Adm. Code 811.314 shall not apply to units or parts of units closed, covered and vegetated prior to the effective date of this Part;
 - 5) The hydrogeological site investigation requirements of 35 Ill. Adm. Code 811.315;
 - 6) The groundwater impact assessment standards of 35 Ill. Adm. Code 811.317;
 - 7) The groundwater monitoring program requirements of 35 Ill. Adm. Code 811.318(c); and
 - 8) The groundwater quality standards of 35 Ill. Adm. Code 811.320(a), (b) and (c). 35 Ill. Adm. Code 814.402(a).

Section 814.402(b)(3) of the Board's regulations provides the analysis the Board shall use in considering an adjusted standard to adjust a compliance boundary, stating:

3) Groundwater Standards

A unit shall not contaminate a source of drinking water at the compliance boundary, defined as any point on the edge of the unit at or below the ground surface. At any point on the compliance boundary, the concentration of constituents shall not exceed the water quality standards specified in 35 Ill. Adm. Code 302.301, 302.303, 302.304, and 302.305. The Board may provide for a zone of attenuation and adjust the compliance boundary in accordance with Section 28.1 of the Act and the procedures of 35 Ill. Adm. Code 106.Subpart G upon petition demonstration by the owner or operator that the alternative compliance boundary will not result in contamination of groundwater which may be needed or used for human consumption. In reviewing such petitions, the Board will consider the following factors:

- A) The hydrogeological characteristics of the unit and surrounding land, including any natural attenuation and dilution characteristics of the aquifer;
- B) The volume and physical and chemical characteristics of the leachate;
- C) The quantity, quality, and direction of flow of groundwater underlying the facility;
- D) The proximity and withdrawal rates of groundwater users;
- E) The availability of alternative drinking water supplies;
- F) The existing quality of the groundwater, including other sources of contamination and their cumulative impacts on the groundwater;
- G) Public health, safety, and welfare effects; and
- H) In no case shall the zone of compliance extend beyond the facility property line or beyond the annual high water mark of any navigable surface water.
- I) Notwithstanding the limitations of subsection 814.402(b)(3)(H), in no case shall the zone of compliance

at an existing MSWLF unit extend beyond 150 meters from the edge of the unit. 35 Ill. Adm. Code 814.402(b)(3).

Sections 811.318(b)(3) and (5) of the Board's regulations provide for the location of monitoring points, and states:

- 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), (5).

Sections 811.320(c) of the Board's regulations provide the requirements for the determination of the zone of attenuation:

- c) Determination of the Zone of Attenuation
 - 1) The zone of attenuation, within which concentrations of constituents in leachate discharged from the unit may exceed the applicable groundwater quality standard of this Section, is a volume bounded by a vertical plane at the property boundary or 100 feet from the edge of the unit, whichever is less, extending from the ground surface to the bottom of the uppermost aquifer and excluding the volume occupied by the waste.
 - 2) Zones of attenuation shall not extend to the annual high water mark of navigable surface waters.
 - 3) Overlapping zones of attenuation from units within a single facility may be combined into a single zone for the purposes of establishing a monitoring network. 35 Ill. Adm. Code 811.320(c).

LEGAL FRAMEWORK FOR ADJUSTED STANDARD

The Act and the Board rules provide that a petitioner may request, and the Board may grant, an adjusted standard that is different from the generally applicable standard that would otherwise apply to the petitioner. *See* 415 ILCS 5/28.1 (2012); 35 Ill. Adm. Code 104.Subpart D.

After adopting a regulation of general applicability, the Board may grant, in a subsequent adjudicatory determination, an adjusted standard for persons who can justify such an adjustment consistent with subsection (a) of Section 27 of this Act. In granting such adjusted standards, the Board may impose such conditions as may be necessary to accomplish the purposes of this Act. The rule-making provisions of the Illinois Administrative Procedure Act and Title VII of this Act shall not apply to such subsequent determinations. 415 ILCS 5/28.1(a) (2012).

The general procedures that govern an adjusted standard proceeding are found at Section 28.1 of the Act and Section 104.Subpart D of the Board's procedural rules. 415 ILCS 5/28.1 (2012); 35 Ill. Adm. Code 104.400 *et seq.* The Board's procedural rules specify the required contents for the adjusted standard petition. *See* 35 Ill. Adm. Code 104.406, 104.416. After a petition for an adjusted standard is filed, the Agency must file its recommendation with the Board within 45 days after the filing of the petition or amended petition, or at least 30 days before any scheduled hearing, whichever is earlier. *See* 415 ILCS 5/2); 35 Ill. Adm. Code 104.416. The adjusted standard proceeding is adjudicatory in nature and therefore is not subject to the rulemaking provisions of the Illinois Administrative Procedure Act (5 ILCS 100/1-1 *et seq.* (2012)). *See* 415 ILCS 5/28.1(a) (2012); 35 Ill. Adm. Code 101.202 (defining "adjudicatory proceeding").

The burden of proof in an adjusted standard proceeding is on the petitioner. 415 ILCS 5/28.1(b), (c) (2012); 35 Ill. Adm. Code 104.426. Once granted, the adjusted standard, instead of the rule of general applicability, applies to the petitioner. 415 ILCS 5/28.1(a) (2012); 35 Ill. Adm. Code 101.202, 104.400(a).

STANDARD OF DECISION

The Board has authority to grant an adjusted standard, pursuant to Section 28.1 of the Act, for persons who can justify an adjustment in one of two ways. 415 ILCS 5/28.1 (2012). If the Board has specified the level of justification for an adjusted standard in the rule of general applicability, then that level of justification shall apply. 415 ILCS 5/28.1(b) (2012). However, if a rule of general applicability does not provide a level of justification, the Board will use the factors set out in Section 28.1 of the Act in granting an adjusted standard. 415 ILCS 5/28.1(c) (2012).

As discussed above, Brickyard requests an adjusted standard from Section 811.318(b)(3) and to move the location of the compliance boundary pursuant to Section 814.402(b)(3). 35 Ill. Adm. Code 814.402(b)(3). Section 814.402(b)(3) provides the applicable groundwater standards for Brickyard I because it is a Subpart D landfill, which is governed by the standards set forth

under Part 814, Subpart D. Further, Section 814.101(a) of the Board's rules dictate that Part 814 standards are applicable to all existing landfill facilities, which includes facilities that are not considered to be new as defined at 35 Ill. Adm. Code 810.103. 35 Ill. Adm. Code 814.101(a). Pursuant to Section 28.1(a), the level of justification is specifically provided for in the Board's landfill regulations at Section 814.402(b)(3) for adjusting the compliance boundary. 415 ILCS 28.1(a); 35 Ill. Adm. Code 814.402(b)(3).

Section 814.402(b)(3) of the Board's landfill regulations sets out the justification factors for an adjusted standard for a groundwater compliance boundary and zone of attenuation different than that provided for in the general landfill regulations. *See, supra*, p. 13-14. Regarding Brickyard's request for adjusted standard from the monitoring well location requirement at Section 811.318(b)(3), the factors set forth in Section 28.1 of the Act must be considered to justify the requested relief since the rule of general applicability does not provide a level of justification. 415 ILCS 5/28.1(c) (2012). Therefore, the Board must consider, and Brickyard has the burden to prove, the factors at Section 28.1(c) of the Act (415 ILCS 5/28.1(c) (2012)):

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. 415 ILCS 5/28.1 (2010).

DISCUSSION

The Board focuses this discussion on the relief being sought in the amended petition, as it is dispositive of the Board's consideration of the petition for adjusted standard. Accordingly, the Board need not consider the petition in relation to the factors in Section 814.402(b)(3).

In the original petition, Brickyard requested that the Board grant an adjusted standard establishing a zone of attenuation and an adjusted compliance boundary pursuant to 35 Ill. Adm. Code 814.402(b)(3) for Brickyard I. In the amended petition, Brickyard withdraws its request for a zone of attenuation and requests only an adjusted compliance boundary, arguing that, as a Part 814 Subpart D unit, Brickyard I is exempt from the requirement for a zone of attenuation found at Section 811.320(c) of the Board's rules. Am. Pet. at 18-19; 35 Ill. Adm. Code 811.320(c).

However, under 35 Ill. Adm. Code 814.402(b)(3), the Board has stated that it will not grant an adjusted standard to move the compliance boundary beyond the edge of the unit without also establishing a zone of attenuation. As previously stated,

“Zone of attenuation” is defined under Section 810.103 as “*the three dimensional region* formed by excluding the volume occupied by the waste placement from the smaller of the volumes resulting from vertical planes drawn to the bottom of the uppermost aquifer at the property boundary or 100 feet from the edge of one or more adjacent units.” 35 Ill. Adm. Code 810.103 (emphasis added).

The Board reminds that a primary aid to an understanding and interpretation of the Board’s rules is the Board’s opinions in the rulemaking adopting them. The landfill rules were adopted in Operating and Reporting Requirements for Non-hazardous Waste Landfills, R88-7 (Aug. 17, 1990). The Board explained that the three dimensional region set in the definition of the zone of attenuation is “intended to accomplish several objectives:

1. Establish monitoring points as close to the unit as possible;
2. Keep the volume of geologic material that must be evaluated during a groundwater impact assessment to a minimum;
3. Keep any potential contaminated area to an absolute minimum; and
4. Establish an enforceable boundary at which an excursion (a significant increase in the concentration of any contaminant, attributable to the unit, and more than the allowable maximum concentration at that point) during the operation period is likely to be discovered before the end of the postclosure care period.” R88-7, Appendix A1 at 75 (Aug. 17, 1990).

While the Board recognizes that Brickyard I is not subject to groundwater impact assessment requirements at Section 811.317, the other objectives listed above are relevant to Brickyard. 35 Ill. Adm. Code 814.402(a)(6).

Section 814.402(b)(3) sets the compliance boundary for Part 814 Subpart D units “as any point on the edge of the unit at or below the ground surface.” 35 Ill. Adm. Code 814.402(b)(3). Further, Section 814.402(a)(8) exempts 35 Ill. Adm. Code 814 Subpart D units from Section 811.320(c), which provides for the determination of the zone of attenuation. 35 Ill. Adm. Code 814.402(a)(8), 811.320(c). Thus, Brickyard is not subject to the zone of attenuation requirements *as long as it complies with the groundwater standards at the edge of the unit*. However, under Section 814.402(b)(3), moving of the compliance boundary beyond the edge of the unit requires the establishment of a zone of attenuation. 35 Ill. Adm. Code 814.402(b)(3). Since Brickyard is requesting the Board adjust the compliance boundary such that the compliance boundary is not at the edge of the unit, the Board finds that the exemption from Section 811.320(c) under Section 814.402(a)(8) would no longer apply. 35 Ill. Adm. Code 811.320(c), 814.402(a)(8).

The Board's language in Section 814.402(b)(3) is clear and unequivocal. The generally applicable standard for Subpart D landfills under Section 814.402(b)(3) requires compliance at the edge of the unit at or below the ground surface. 35 Ill. Adm. Code 814.402(b)(3). But once the compliance boundary is moved beyond the edge of the unit, the rule states that the Board will establish a zone of attenuation. The Board appreciates the difficulties facing Brickyard with monitoring through the extraneous material. However, the existence of extraneous material outside the permitted boundary of the landfill does not negate the requirement to establish a three-dimensional zone of attenuation when adjusting the compliance boundary. Compliance with the groundwater standards must be shown at the edge of the zone of attenuation in accordance with standards for the location of monitoring points under Section 811.318 to "establish an enforceable boundary at which an excursion . . . during the operation period is likely to be discovered" and to "keep any potential contaminated area to an absolute minimum." 35 Ill. Adm. Code 811.318; *see also* R88-7, Appendix A1 at 75 (Aug. 17, 1990).

In making this finding concerning the correct interpretation of the cited landfill rules, the Board recognizes that Brickyard may not be able to comply with certain requirements under Sections 811.318 and 811.320(c). 35 Ill. Adm. Code 811.318, 811.320(c). Notably, Section 814.402(b)(3)(H) and (I) allow the zone of compliance to extend up to the property line but not beyond 150 meters from the edge of the unit. 35 Ill. Adm. Code 814.402(b)(3)(H), (I). However, the determination of the zone of attenuation under Section 811.320(c) is limited to the property boundary or 100 feet from the edge of the unit, whichever is less. 35 Ill. Adm. Code 811.320(c). Thus, to obtain the full relief it needs Brickyard may need to request a zone of attenuation and adjusted compliance boundary under Section 814.402(b)(3), and to justify any requested relief from specific provisions in Sections 810.103, 811.318 and 811.320 in accordance with the factors of Section 28.1(c) of the Act. 415 ILCS 28.1(c) (2012); 35 Ill. Adm. Code 814.402(b)(3), 810.103, 811.318, 811.320.

CONCLUSION

Again, in summary, the Board finds that, since Brickyard is requesting the Board adjust the compliance boundary per Section 814.402(b)(3) such that the compliance boundary is not at the edge of the unit, the exemption from Section 811.320(c) under Section 814.402(a)(8) no longer applies. 35 Ill. Adm. Code 814.402(a)(8), (b)(3), 811.320(c). Section 814.402(b)(3) provides that the Board will both provide for a zone of attenuation **and** adjust the compliance boundary upon review of a satisfactory demonstration. 35 Ill. Adm. Code 814.402(b)(3). Without providing for a zone of attenuation, the Board will not adjust the compliance boundary and grant a petition for adjusted standard from Section 811.318(b)(3) pursuant to 814.402(b)(3). 35 Ill. Adm. Code 811.318(b)(3), 814.402(b)(3).

For the reasons detailed above, the Board denies Brickyard's adjusted standard petition and closes this docket. Brickyard is free to file a new petition for adjusted standard.

This opinion constitutes the Board's finding of fact and conclusion of law in this matter.

ORDER

Brickyard is hereby denied an adjusted standard from 35 Ill. Adm. Code 814.402(b)(3), as requested in its amended petition filed on October 19, 2013.

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) (2012); *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, Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above order on January 23, 2014 by a vote of 4-0.



John T. Therriault, Clerk
Illinois Pollution Control Board