

BEFORE THE POLLUTION CONTROL BOARD  
OF THE STATE OF ILLINOIS

IN THE MATTER OF: )

Adjusted Standard Petition of )  
Brickyard Landfill, H&L Disposal )  
Company, a Division of Republic )  
Service, Inc., Pursuant to Title 35 of the )  
Illinois Administrative )  
Code Part 814.402(b)(3) )

AS 13-04  
(Adjusted Standard)

ORIGINAL

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STATE OF ILLINOIS  
Pollution Control Board

NOTICE

**Illinois Pollution Control Board**  
Attn: Mr. John Therriault, Clerk  
James R. Thompson Center  
100 West Randolph Street  
Suite 11-500  
Chicago, IL 60601

**Brown Hay & Stephens, LLP**  
Attn: Ms. Claire Manning, Esq.  
205 S. Fifth Street, Suite 700 – P. O. Box 2459  
Springfield, Illinois 62705

**PLEASE TAKE NOTICE** that I have today filed with the office of the Clerk of the Pollution Control Board the **RECOMMENDATION OF THE ILLINOIS EPA**, copies of which are herewith served upon you.

Respectfully submitted,

**ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,**  
Respondent



Kyle Nash Davis, Esq.  
Division of Legal Counsel  
Illinois Environmental Protection Agency  
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P.O. Box 19276  
Springfield, Illinois 62794-9276  
217/782-5544  
217/782-9143 (TDD)

Dated: 22 November 2013

**CERTIFICATE OF SERVICE**

I, the undersigned non-attorney, state that I served a copy of the above-described document to counsel of record via U.S. Mail at 1021 North Grand Ave. East, Springfield, IL 62794, at or before 5:00 p.m. on 11-21-13.

**Illinois Pollution Control Board**

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STATE OF ILLINOIS  
Illinois Pollution Control Board

Brenda Baehner

Clerical signature

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**RECOMMENDATION OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY**

The **ILLINOIS ENVIRONMENTAL PROTECTION AGENCY** ("Illinois EPA/Respondent"), through its attorney Kyle Nash Davis, Esquire, hereby submits a **RECOMMENDATION** in the above captioned matter. This filing is submitted pursuant to Section 35 of the Illinois Environmental Protection Act ("EPAAct") [415 ILCS 5/35 (2010)] and 35 Ill. Adm. Code 104 *et seq.* For the reasons outlined below, the Illinois EPA recommends that the petition captioned above be **GRANTED**.

**I. INTRODUCTION**

1. On May 31, 2013, Brickyard Disposal & Recycling, Inc. ("Petitioner"), filed a Petition for Adjusted Standard ("Petition"). Petitioner's request for relief was to seek relief pursuant to Section 28.1 of the EPAAct, as well as, Section 814.402(b)(3) of the Board's regulations (35 Ill. Adm. Code 814.402(b)(3)). (Pet. at 1)
2. The Board docketed the Petition as AS: 13-04.
3. The Illinois EPA filed an Appearance in the matter AS 13-04 contemporaneously with the filing of this Recommendation.

4. On June 13, 2013, Petitioner filed its Certification of Publication with the Board.
5. On August 8, 2013, the Board issued an Order in the matter requesting that Petitioner either file an amended Petition or the matter would be dismissed by the Board.
6. On October 9, 2013, following a request for an extension of time, the Petitioner filed an Amended Petition for Adjusted Standard ("Amended Petition" or "Am Pet.").
7. Thereafter, on October 24, 2013, Petitioner filed a Notice of Publication with the Board.
8. According to the Amended Petition, during the landfill's operation, wastes including but potentially not limited to railroad ties and other construction debris were deposited in an area contiguous to the landfill. According to Petitioner, to achieve effective closure, incorporation of this fill area is necessary. (Am Pet. at 3) and, likewise, incorporation of the material will require movement of the groundwater monitoring boundaries. (Am Pet. at 3)

## **II. INVESTIGATION**

9. To date, Respondent has not received a citizen inquiry regarding AS 13-04.
10. Because of the Board's prior Order directing Petitioner to provide more specific detail regarding this matter, the Illinois EPA will provide a review of the Board's

comments as they appeared within that Order and review the response. In total, the Illinois EPA found the amended Petition helpful in providing more details and focus to this request.

11. **Boards Comment No. 1**

Provide a specific reference to and a description of all standard(s) from which an adjusted standard is sought and the effective dates of the standards. (See: 35 Ill. Adm. Code 104.406(a) Pet. Exh. A)

**Revised Petition:**

The petitioner only requests an adjusted standard for 35 Ill. Adm. Code 811.318(b)(3): the requirement that groundwater monitoring wells shall be established as close to the potential source of discharge as possible without interfering with the waste disposal operations.

**IEPA Response**

The Brickyard site contains two permitted units, Unit 1 (subpart D) and Unit 2 (Subpart C). Each unit has a separate groundwater monitoring network for each unit. Thus, a Subpart D unit does not have a "zone of attenuation" and a modeled "groundwater impact assessment" for determining a future theoretical leachate release from that unit. Petitioner requests only a review of its Subpart D Unit (Unit 1) within the Amended Adjusted Standard Petition. This clarification is helpful and the Illinois EPA's Bureau of Land technical staff feels that the clarification is controlling of the relief that may be granted. Since the relief requested is solely for Unit 1, as such, 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. However, monitoring wells should be spaced less than 250 feet perpendicular to groundwater flow. This demonstration has not been provided for within the Amended Petition, however the Illinois EPA expects for such to be submitted in the upcoming and post- Final Order on AS: 13-4 significant modification permit application. This conclusion, upon consideration of the Board's comments and a re-review by Bureau of Land technical staff, in essence, simplifies Petitioner's request, since, in short, Title 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. This concept and the rationale above will be used several times during this discussion and will be echoed, in summation, throughout some the discussions below.

12. **Boards Comment No. 2**

Provide the number of persons employed by Brickyard's facility. (See: 35 Ill. Adm. Code 104.406(d))

**Revised Petition:**

Pages 8-9: Brickyard employs eight full-time employees at the facility located at 601 Brickyard Road. Temporary personnel are hired on an as-needed basis.

Outside contractor personnel also regularly work at the site, including:

- construction (15 persons);
- work on synthetic liner (12 persons);
- quality control, inspection and sampling (4 persons);
- surveyor (1 person); and

gas to energy plant (2 persons).

Republic Services employs additional personnel at its offices located at 180 S. Henning Road in Danville, including truck drivers (20 persons), maintenance personnel (6 persons), and those related to local and regional business operations, such as management and support staff (8 persons). Brickyard thus estimates the total number of persons involved in activities at the landfill to be 70 in any given year.

### **IEPA Response**

The way the number of employees is represented in this amended petition may be misleading for the following reasons:

- a. Outside contractor personnel typically only work at the facility for a fraction of any given year. Also, these employees may not live in the Danville region.
- b. Google Maps indicates that the 180 S. Henning Road in Danville location is likely the location for Republic's waste hauling division for the region. Having these jobs located in Danville may not depend on the operation of the Brickyard landfill facility.

Title 35 Ill. Adm. Code 104.406(d) actually reads: "This description must also include the number of persons employed by the petitioner's facility at issue ...", implying that only the actual number of employees directly employed by the Brickyard Disposal and Recycling facility should be reported.

13. **Boards Comment No. 3**

Describe the relevant pollution control equipment already in use, such as the gas extraction and leachate collection, conveyance and storage systems as well as the offsite treatment facility. (See: 35 Ill. Adm. Code 104.406(d))

**Revised Petition:**

Page 9: The response is comprised of two paragraphs that describe the gas and leachate management equipment associated with Brickyard I.

**IEPA Response**

The response accurately reflects the pollution control equipment in use at Brickyard I. The Petitioner's response is adequate.

14. **Boards Comment No. 4**

Describe the qualitative and quantitative nature of the emissions, discharges or releases currently generated by Brickyard's activity, including landfill gas and leachate and how those emissions, discharges or releases are managed. (See: 35 Ill. Adm. Code 104.406(d))

**Revised Petition:**

Pages 9-12: This response is broken into separate categories for gas and leachate:

Gas:

The qualitative and quantitative nature of the gas emissions were obtained from the 2012 Annual Emission Report filed pursuant to Title V CAAPP Permit No.



9810021 and from the owner/operator of the gas-to-energy plant and flare station (Brickyard Energy Partners, LLC) (CAAPP Application No. 00080067).

Leachate:

The revised petition provides a lengthy description regarding “releases” that is primarily based on groundwater monitoring evaluations.

### **IEPA Response**

Gas:

- Emissions to the atmosphere would be regulated under the IEPA’s Bureau of Air. The Bureau of Land is not in a position to validate information provided by the petitioner regarding gas emissions.
- With regard to gas releases to the groundwater, remedial action for landfill gas impacts to groundwater is currently ongoing as outlined in Section IX of the of the Facility’s Permit for dichlorodifluoromethane and 1,1 dichloroethane and cis-1,2 dichloroethene at T101, T103, T104, R123, R124, G125, R127 and A126. The 2013 Annual Corrective Action Report demonstrated: 1,1-DCA has been non-detect at T101, T102, T103, G104, R123, R124, G125 and R127 for the last four years (since 2008). Cis-12 DCE has consistently been detected ~7 ug/L at A136. Dichlorodifluoromethane has been sporadically detected at R124 ~10 ug/L or less and is non-detect at all of the other groundwater wells.

Corrective action is working and organic concentrations are steadily decreasing.

Leachate:

- Qualitative information for Brickyard I leachate samples was provided in the Initial Petition Filing, Exhibit B, Attachment 5.
- Quantitative information regarding releases is presented very indirectly based on groundwater monitoring evaluations. Currently, there are no known releases of leachate into the groundwater. Brickyard is following all requirements of the facilities Permit, 1994-419-LFM in identifying the source of confirmed exceedences in the groundwater.

Regarding quantitative information for discharges (from leachate extraction locations), the design and operation of the Brickyard I leachate extraction system should be used to provide flow rate information for the overall leachate extraction for Brickyard I. None is provided.

15. **Boards Comment No. 5**

Clarify the proposed placement of monitoring wells in relation to the proposed compliance boundary and the edge of the unit if an adjusted standard from Title 35 Ill. Adm. Code 811.318(b)(3) is requested. (See: 35 Ill. Adm. Code 104.406(f))

**Revised Petition:**

Figures 7REV and 9REV provides the locations of existing temporary groundwater monitoring points and it is anticipated, though not certain without

modeling which must be done, that some of these points will compose the bulk of the final groundwater monitoring well locations.

The Petitioner notes that the final groundwater monitoring well network will be finalized through the permitting process with the Illinois EPA.

### **IEPA Response**

It appears that the proposed locations are largely adequate in detecting a release from the facility. For Subpart D facilities, the Agency requires a monitoring well spacing of 250 feet or less perpendicular to groundwater flow. Adequate information is not presented (current groundwater potentiometric maps and final groundwater monitoring well locations) to determine if the existing temporary "T" wells are adequate but, cursory review shows that additional groundwater wells may be required between T111 & T116 & T117 and between T103 and T118. But, the necessity of additional groundwater monitoring wells will be re-evaluated and demonstrated in the review through the permitting process of the significant modification permit application to be submitted by Brickyard with the final groundwater monitoring network. Additional revisions may be required at that time.

16. **Boards Comment No. 6**

Clarify if Brickyard is seeking relief from the monitoring well location requirements of 35 Ill. Adm. Code 811.318(b)(5). If temporary well T110 is not appropriate for monitoring groundwater at the edge of the zone of attenuation, propose an alternate location for a down-gradient monitoring well at the edge of the zone of attenuation. (See: 35 Ill. Adm. Code 104.406(f))

**Petitioner's Response**

Relief from 35 Ill. Adm. Code 811.318(b)(5) is not being requested for Unit I is a Subpart D unit and does not have a zone of attenuation and zone of attenuation groundwater monitoring wells.

**IEPA Response**

The Brickyard facility has two (2) units: (1) Unit 1 which is a subpart D facility and (2) Unit 2 which is a subpart C facility. Each facility has a separate groundwater monitoring network. The Subpart D unit does not have a "Zone of Attenuation" and a modeled "Groundwater Impact Assessment" for determining a future theoretical leachate release from the facility. As such, the requirement of placing the wells half of the distance from the Zone of Attenuation to the waste boundary is not applicable.

17. **Boards Comment No. 7**

Clarify if Brickyard is seeking relief from the statistical requirements of 35 Ill. Adm. Code 811.318(b)(5) found in 35 Ill. Adm. Code 811.320(e). If such relief is necessary, propose an alternate requirement for statistical analysis of groundwater monitoring data to demonstrate compliance with the applicable groundwater standards. (See: 35 Ill. Adm. Code 104.406(f), 811.320(e), 814.402(a)(8), 811.319(a)(1)(B), 811.319(a)(1)(C)(i), 811.319(a)(4)(B)(i), 811.319(b)(5)(G), and 811.320(d))

**Petitioner's Response**

Relief from 35 Ill. Adm. Code 811.318(b)(5) is not being requested for Unit I is a Subpart D unit and the Brickyard will continue to comply with the current statistical analysis of groundwater and applicable groundwater standards. The location of the compliance boundary groundwater monitoring well will be proposed through the permitting process through a significant modification permit application.

**Illinois EPA Response**

Unit 1 Subpart D is separate from Unit 2 Subpart C, each with its own unique groundwater monitoring network, the requirements for zone of attenuation and zone of attenuation wells are not applicable. Again, 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.

18. **Boards Comment No. 8**

Clarify whether Brickyard is also seeking relief from the provision of 35 Ill. Adm. Code 811.318(b)(5) that sets forth the requirement for determining a violation of the groundwater quality standards at the compliance boundary. If relief from this provision is sought, propose an alternate requirement for demonstrating compliance with the applicable groundwater quality standard at the compliance boundary. (See: 35 Ill. Adm. Code 104.406(f))

**Petitioner's Response**

Relief from 35 Ill. Adm. Code 811.318(b)(5) is not being requested for Unit I is a Subpart D unit and the Brickyard will continue to comply with the current

statistical analysis of groundwater and applicable groundwater standards. The location of the compliance boundary groundwater monitoring well will be proposed through the permitting process through a significant modification permit application.

**Illinois EPA Response**

Since Unit 1 is separate from Unit 2, each with its own unique groundwater monitoring network, the requirements for zone of attenuation and zone of attenuation wells are not applicable. Again, according to Illinois EPA's analysis, 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.

19. **Boards Comment No. 9**

If requesting an adjusted standard from 35 Ill. Adm. Code 811.320(c), explain how this subsection is applicable and the reasoning for the request along with a proposed alternate requirement to reflect Brickyard's intent. (See: 35 Ill. Adm. Code 104.406(f), 814.402(a)(8), (Pet. Exh. A.))

**Petitioner's Response**

Given that no relief is now being requested from Section 811.318(b)(5), the Petitioner believes that background concentrations used to evaluate the groundwater quality data have been and will continue to be statistically derived pursuant to Section 811.320(c) and no such relief is requested.

**Illinois EPA Response**

The Petitioner clarifies that no relief is being requested from Section 811.320(c). As explained above, Title 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.

20. **Boards Comment No. 10**

Revise the proposed conditions of the adjusted standard to reflect that the Board, not the Agency, may adjust the compliance boundary, consistent with the provisions of 35 Ill. Adm. Code 814.402(b)(3). (See: 35 Ill. Adm. Code 104.406(f), (Pet. Exh. A.))

**Petitioner's Response**

The proposed board order and conditions presented in Exhibit A have been revised to reflect the Board, not the Agency may adjust the compliance boundary.

**Illinois EPA Response**

The Petitioner's response is adequate.

21. **Board's Comment No. 11**

Provide clarification on Brickyard's request for a "temporary Applicable Groundwater Quality Standard." Pet. Exh. A. (emphasis added). If Brickyard is seeking an adjusted standard from the 35 Ill. Adm. Code 302 numeric water quality standards that are applicable pursuant to 35 Ill. Adm. Code 814.402(b)(3), propose specific alternate groundwater quality standards and provide information in accordance with Section 28.1 of the Act (415 ILCS 5/28.1 (2010)) and the procedures of 35 Ill. Adm. Code 104.Subpart D. (See: 35 Ill. Adm. Code 104.406(f), 811.320(a), 811.320(b), 814.402(a)(8), and 814.402(b)(3))

### **Petitioner's Response**

The Petitioner is not requesting an adjusted standard from the 35 IAC 302 numeric water quality standards that are applicable to pursuant to Section 814.402(b)(3).

The wording usage of "temporary Applicable Groundwater Quality Standard" is in reference to use existing permitted background values (Attachments 3 & 4 of the Permit) until representative wells specific background values can be proposed and approved through the permitting process to account for spatial groundwater quality present caused by the historical mining activities.

### **Illinois EPA Response**

Attachment's 3 & 4 of Brickyards Permit identifies extensive well specific intrawell applicable groundwater quality values for each of the sites monitoring wells. It is anticipated that these tables will be updated/expanded to account for natural spatial variability in the groundwater due to the historical mining activities (Class IV Groundwater) at the current temporary monitoring wells.

### 22. **Board's Comment No. 12**

If requesting an adjusted standard from the definition of "compliance boundary" at 35 Ill. Adm. Code 814.402(b)(3), state such a request and include language for an alternate definition consistent with the "zone of compliance" that may be provided by the Board consistent with 35 Ill. Adm. Code 814.402(b)(3)(H) and 814.402(b)(3)(I). (See: 35 Ill. Adm. Code 104.406(f))



### **Petitioner's Response**

An adjusted standard from the definition of "Zone of Attenuation" for Unit 1 is a Subpart D unit and zone of attenuation is not applicable.

An alternative definition of "compliance boundary" for Brickyard Unit 1 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.

### **Illinois EPA Response**

The Petitioner's response is adequate.

### 23. **Board's Comment No. 13**

If requesting an adjusted standard from the definition of "zone of attenuation" set forth in 35 Ill. Adm. Code 810.103, expressly state the request and propose language for an alternate definition consistent with the zone of attenuation that may be provided by the Board in 814.402(b)(3)(H) and 814.402(b)(3)(I). Integrate the specifics for the bottom of the uppermost aquifer as well as the lateral extent into the depiction or description of the proposed zone of attenuation and compliance boundary. (See: 35 Ill. Adm. Code 104.406(f))

### **Petitioner's Response**

The Petitioner is not requesting an adjusted standard from the definition of "Zone of Attenuation", for Brickyard Unit 1 is a Subpart D landfill, to which a zone of attenuation does not apply.

**Illinois EPA Response**

Unit 1 is a subpart D landfill; the requirements of "Zone of Attenuation" are not applicable. Title 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.

24. **Board's Comment No. 14**

Describe what institutional controls are proposed "to contain the extraneous materials in the existing location." (Pet. at 13, see: 35 Ill. Adm. Code 104.406(f))

**Revised Petition:**

The location cited for the response to the Board request for information is on Page 22 of the Amended Petition.

Pages 21 -22 include a brief description of the Cover Plan and provide a reference to the location. That location cited is in "Exhibit C to the Adj. Std. Pet."

**IEPA Response**

This footnote-cited location does not include discussion regarding institutional controls. Pages 21 -22 of the Amended Petition include a brief description of the Cover Plan and provide a reference to the location. That location cited is in "Exhibit C to the Adj. Std. Pet."

According to 35 Illinois Administrative Code 742.200, "Institutional Control" means a legal mechanism for imposing a restriction on land use, as described in

Subpart J. Other than the proposed cap within the Adjusted Standard, no 'institutional controls' are proposed in the Amended Petition.

25. **Board's Comment No. 15**

Propose a condition of the adjusted standard that would encompass the institutional controls referenced in the petition. (See: 35 Ill. Adm. Code 104.406(f))

**Revised Petition:**

Page 17 and Exhibit A provide : "Within 12 months of the date of this Order, Brickyard shall complete placement of additional cover to those areas identified in the Cover Plan, and as otherwise determined necessary during cover placement operations. The Construction Certification Report shall be submitted to the Illinois EPA within 60 days of completion of cover placement."

**IEPA Response**

As in the Agency's response to Comment 14 above, paragraph 24, the Illinois EPA notes that the Amended Petition proposes details regarding cap work over the extraneous material as the potential institutional control. The Illinois EPA has reviewed this plan and finds it acceptable for the purpose identified within the Amended Petition, i.e., to facilitate moving the monitoring wells out from the permitted Unit's boundary.

26. **Board's Comment No. 16**

Propose a condition of the adjusted standard regarding Brickyard's commitment to proceed with the extraneous materials cover plan and the date by which it must be completed. (See: 35 Ill. Adm. Code 104.406(f))

**Revised Petition:**

See page 17 and Exhibit A of the Amended Petition and the discussion of comment 15 above.

**IEPA Response**

The Illinois EPA notes that Petitioner has provided paragraph 4 within its proposed language for the Final Order on this matter which states:

"Within 12 months of the date of this Order, Brickyard shall complete placement of additional cover to those areas identified in the Cover Plan, and as otherwise determined necessary during cover placement operations. The Construction Certification Report shall be submitted to the Illinois EPA within 60 days of completion of cover placement."

The Illinois EPA would find this acceptable.

27. **Board's Comment No. 17**

Address the costs associated with the institutional controls and extraneous materials cover plan. (See: 35 Ill. Adm. Code 104.406(f))

**Revised Petition:**

Petitioner's response it at page 23 and Exhibit C: Expected costs are provided in tabular form.

### **IEPA Response**

It is noted that some of the proposed unit costs are greater than those currently approved for the facility's closure plan. The costs shown are reasonable construction costs for the size and scope of the project.

28. **Board's Comment No. 18**

Provide quantitative information on the existing groundwater quality within the proposed zone of attenuation as well as the background concentrations approved by the Agency thus far. (See: 35 Ill. Adm. Code 104.406(h))

### **Petitioner's Response**

2<sup>nd</sup> Quarter 2013 groundwater analytical results are provided in Exhibit D.

### **Illinois EPA Response**

Groundwater quality data from the 2<sup>nd</sup> Quarter 2013 groundwater monitoring event is provided in Exhibit D identifying the Class IV groundwater quality standard exceedences and permitted interwell and intrawell groundwater exceedences. 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).

The bulk of the groundwater background or Class IV exceedences are pH, magnesium, manganese, sulfate, TDS and zinc. Remedial action for landfill gas is currently ongoing as outlined in Section IX of the permit for dichlorodifluoromethane and 1,1 dichloroethane and cis-1,2 dichloroethene at

T101, T103, T104, R123, R124, G125, R127 and A126. Corrective action is working and organic concentrations have steadily been decreasing as demonstrated in the Annual Corrective Action Reports.

29. **Board's Comment No. 19**

Section 814.402(b)(3)(H) of the Board regulations provides, “[i]n 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.” 35 Ill. Adm. Code 814.402(b)(3)(H).

Address whether the “*average* annual high water mark” as proposed in the petition or the *maximum* annual high water mark of all years recorded is consistent with the requirements of 35 Ill. Adm. Code 814.402(b)(3)(H).

**Petitioner's Response**

“The term “annual high water mark” as contained in Section 814.402(b)(3)(H) is ambiguous and does not fit the typical terminology for the study of hydrology. The term as presented in Section 814.402(b)(3)(H), implies the highest water elevation that occurs on a frequency of one time per year (one-year recurrence interval) or a 100 percent probability of occurring annually. The annual high water mark will vary from year to year, which is why an average annual high (maximum) elevation was provided.”

“As stated in Section 4.8 of the Technical Support Document, the maximum river elevation (annual high water mark) was determined each year, from October 1,

1993 to July 18, 2012. The average of the annual high water marks was derived, resulting in an elevation of 519.14 feet above mean sea level (MSL). This does appear representative of what is stated in Section 814.402(b)(3)(H). The subject elevation does not encroach on the area containing the proposed compliance boundary.”

#### **Illinois EPA Response**

The use of the average high water mark is appropriate. The average high water mark of 519.4 MSL does not encroach upon the proposed compliance boundary as depicted in Revised Figure 9.

30. **Board's Comment No. 20**

Instead of an average or maximum, provide comments on using an annual high water mark statistically associated with a recurrence interval of 10, 25, 50 or 100 years (i.e. 10%, 4%, 2% or 1% probability).

#### **Petitioner's Response**

A study was conducted for the 10, 25 and 100 year floods and is presented in Exhibit D. A 10 year flood yields a 529.2 feet MSL elevation, a 25 year flood yields a 530.5 feet MSL elevation, a 50 year flood yields a 531.9 feet MSL elevation and a 100 year flood yields a 533.4 feet MSL elevation.

The contour map and proposed compliance boundary is provided as Revised Figure 9. The highest water mark of 533.4 feet MSL for a 100 year flood is below (outside) the compliance boundary in the area of concern in the northeast corner in the vicinity of groundwater wells T113 and T115.

**Illinois EPA Response**

The petitioner has demonstrated that the highest water mark of 533.4 feet MSL does not encroach upon the proposed compliance boundary in the area of concern in the northeast corner in the vicinity of groundwater wells T113 and T115.

31. **Board's Comment No. 21**

Indicate the values for the annual high water mark for the 10-, 25-, 50- and 100-year recurrence intervals and whether the proposed zone of attenuation would extend beyond these values.

**Petitioner's Response**

A 10 year flood yields a 529.2 feet MSL elevation, a 25 year flood yields a 530.5 feet MSL elevation, a 50 year flood yields a 531.9 feet MSL elevation and a 100 year flood yields a 533.4 feet MSL elevation.

The contour map and proposed compliance boundary is provided as Revised Figure 9. The highest water mark of 533.4 feet MSL for a 100 year flood is below (outside) the compliance boundary in the area of concern in the northeast corner in the vicinity of groundwater wells T113 and T115.

**Illinois EPA Response**

The petitioner has demonstrated that the highest water mark of 533.4 feet MSL does not encroach upon the proposed compliance boundary in the area of concern in the northeast corner in the vicinity of groundwater wells T113 and T115.



32. **Board's Comment No. 22**

Section 814.402(b)(3)(I) provides, “[n]otwithstanding the limitations of subsection 814.402(b)(3)(H), in no case shall the zone of compliance at an existing [Municipal Solid Waste Landfill] unit extend beyond 150 meters from the edge of the unit.” See 35 Ill. Adm. Code 814.402(b)(3)(I). Figure 7 of the TSD depicts the “proposed compliance boundary” with a red dashed line. Based on the scale of Figure 7, the contour of the red dashed line appears to extend beyond 150 meters in three places: the southwest corner of the unit between N 50000 and N 49500; the southwest corner between E 2000 and E 3000; and the east corner between N 50000 and N 50500 near the E 5000 line. Therefore, the Board requests that Brickyard:

Present a revised figure showing a proposed compliance boundary within 150 meters from the edge of the unit and within the facility property line. Please ensure that the thickness of the line used to depict the proposed compliance boundary is also within 150 meters from the edge of the unit and the facility property line.

**Petitioner's Response**

“The proposed zone of compliance will not extend beyond the 150 meters from the edge of Brickyard I.”

Revised Figure 7 provides measurements from the edge of the existing Unit 1 waste boundary to the proposed compliance boundary (red line and arrows).

Each measurement shows that the compliance boundary is 150 meters or less from Brickyard Unit 1.

**Illinois EPA Response**

The Petitioner demonstrated that the revised compliance boundary does not exceed past 150 meters from the waste boundary of Unit 1.

33. **Board's Comment No. 23**

Revise Figure 9 of the petition to more clearly depict the property boundary.

**Petitioner's Response**

A Revised Figure 9 is provided clearly depicting the property boundary.

**Illinois EPA Response**

The Petitioner's response is adequate.

34. **Board's Comment No. 24**

Provide justification for the adjusted compliance boundary along sections of the unit's perimeter where the extraneous material is not present.

**Petitioner's Response**

Two areas adjacent to the waste unit do not contain documented extraneous materials.

One area is located hydraulically upgradient to the site and the second area is along the central southern portion in the vicinity of wells T104, T119, T103, T118 and T117 (west to east). The southern extension where no extraneous waste is

present is significant for because it is downgradient of the waste unit, extraneous materials, and disturbed soils. Borings and cover probes conducted in the area between R127 and T118 indicate all unconsolidated materials to be disturbed from the waste boundary to the drainage way to the south. Although no extraneous materials were encountered, the disturbed nature of the backfill will negatively influence the groundwater quality when compared to the current background concentrations. For this reason the compliance boundary is proposed south and directly adjacent to the drainage feature which is well within the 150 meter limit. This will allow for adequate monitoring of groundwater quality outside the waste unit and disturbed deposits. The southern edge of the extraneous materials and disturbed deposits comprise the northern slope of the drainage area along the southern perimeter of Unit 1. Little area exists for wells to be installed north of the drainage area. All but one of the "T" wells (T118) have been installed across the drainage area. Therefore, locating the compliance boundary on the outside of the drainage structure between R127 and T118 is consistent with the remainder of the site."

#### **Illinois EPA Response**

To monitor representative groundwater along the southern area of the Unit 1, the Petitioner has adequately demonstrated need for extending the compliance boundary in the vicinity of wells T104, T119, T103, T118 and T117 (west to east).

35. **Board's Comment No. 25**

Propose specific, revised adjusted standard language reflecting all of the standards from which Brickyard seeks relief along with a list of conditions pertaining to the alternate requirements Brickyard proposes to meet.

### Petitioner's Response

The proposed order is provided as Exhibit A:

#### SUGGESTED BOARD FINDING

The Board finds that Brickyard I has proven that Section 28.1 of the Act (415 ILCS 5/28.1) and Section 814.402(b)(3) of the Board's rules (35 Ill. Adm. Code 814.402(b)(3)) support granting the adjusted standard. Therefore, the Board authorizes an adjustment to the Brickyard I compliance boundary to the limits as shown by redlining in the Revised Figure 9, dated September 2013 attached hereto.

#### PROPOSED BOARD ORDER

Brickyard Disposal and Recycling, Inc. is granted an adjusted standard from the requirements of 35 Ill. Adm. Code 811.318(b)(3) for the monitoring network wells relative to Brickyard, Unit I, permit 1981-24-DE, Site Number 1838040029. This adjusted standard is subject to the following conditions:

1. The Brickyard I compliance boundary is adjusted to the limits as shown by redlining in the Revised Figure 9, dated September 2013, attached hereto.
2. In lieu of the requirements of 35 Ill. Adm. Code 811.318(b)(3), Brickyard I shall comply with the following:

Monitoring wells shall be established as close to the potential source of discharge as possible without interfering with the waste disposal operations. The monitoring points shall be located within the compliance boundary, as shown by redlining in the Revised Figure 9, dated September 2013, attached hereto, and downgradient, with respect to groundwater flow, from the source.

3. Within 90 days of the date of this Order, Brickyard shall submit a significant modification permit application to the Agency for a groundwater monitoring network for Unit I, consistent with the relief granted herein.
4. Within 12 months of the date of this Order, Brickyard shall complete placement of additional cover to those areas identified in the Cover Plan, and as otherwise determined necessary during cover placement operations. The Construction Certification Report shall be submitted to the Illinois EPA within 60 days of completion of cover placement.

### Illinois EPA Response

Illinois EPA notes that no language is provided that Brickyard will submit an "approvable" significant modification permit application proposing the finalized groundwater monitoring network. Twelve months will allow ample time to complete the permitting process and

install additional monitoring wells. The following item is recommended to be added to the Proposed Order as No. 5. The Illinois EPA will suggest language for the Board's consideration below.

### **III. FACTS PRESENTED IN THE PETITION - RATIONALE FOR RECOMMENDATION**

36. Respondent notes that Petitioner is a perpetual Illinois corporation registered with the Illinois Secretary of State's office and was assigned file number 49880308. Petitioner was incorporated in August 1971 and is an active corporation and currently in good standing in the State.
37. Petitioner is the permitted owner and operator of Brickyard I, last receiving a permit modification in December of 2010; 1994-419-LFM, modification 97.
38. The site Petitioner owns and operates contains solid waste disposal units which are regulated by Board regulations and other applicable law. Petitioner's site is approximately 293 acres in total size, devoting approximately 152 acres to waste disposal. (Am Pet. at 2) The facility is located generally south of the city of Danville within Vermillion County, Illinois.
39. Permitted disposal units at the site (Bureau of Land Site #: 1838040029) include Unit I ("Brickyard I") and Unit II ("Brickyard II"). Brickyard I was initially permitted pursuant to Title 35 Illinois Administrative Code Part 807, initiated closure by September 18, 1997 and is subject to the standards of Title 35 Illinois Administrative Code Part 814, Subpart D. Brickyard II was initially permitted as a

new unit within an existing facility (Permit No. 1993-057-LF) pursuant to Title 35 Illinois Administrative Code Part 811. This later permit (1993-057-LF) was superseded and replaced by the initial significant modification permit for the facility (Permit No. 1994-419-LFM) which was submitted and approved by the Illinois EPA pursuant to Title 35 Illinois Administrative Code Part 814, Subpart A. Brickyard I is separated from Brickyard II by a service roadway. Other waste disposal areas are on-site (for example the extraneous material noted within the Amended Petition), such waste is located beyond the permitted boundaries of either Brickyard I or Brickyard II. Petitioner identifies some of this waste located near Brickyard I as including railroad ties and construction debris. (Am Pet. at 2)

40. Brickyard I was issued development permit 1981-024-DE in 1981 and accepted a final load of waste in 1997. As such, this unit operated for approximately 16 years, accepting solid waste during this time frame. (Am Pet. at 2) Brickyard II remains operational and continues to accept waste.

41. Petitioner offers that Brickyard I is subject to the Board's regulations as an "existing landfill." (Am Pet. at 2)

42. Based upon 35 Ill. Adm. Code 814.101(a) and the definitions of "existing facility" and "new facility" in 35 Ill. Adm. Code 811.103, any non-hazardous waste landfill that obtained a development permit before September 18, 1990, would be an "existing facility." Any existing facility that continued to accept waste after the date of September 18, 1992 and also ceased accepting waste before September 18, 1997, would be subject to the requirements of 35 Ill. Adm. Code 814 Subpart

D, pursuant to 35 Ill. Adm. Code 814.401(a).

43. Section 814.101(a) of the Board's regulations provides:

a) This Part establishes standards 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. The existing landfill facilities covered by this Part include existing MSWLF units and lateral expansions, as defined at 35 Ill. Adm. Code 810.103. This Part establishes requirements for both new and existing disposal units within such existing landfill facilities. Landfill owners or operators are required to determine the date on which their facilities must begin closure, which is dependent upon the ability of existing units to meet the design and performance standards contained in this Part.

(Source: Amended in R93-10 at 18 Ill. Reg. 1284, effective January 13, 1994)

44. This proceeding stems, primarily, from the requirement contained within 35 Ill. Adm. Code 814.402(b)(3). (Pet. at 1)

45. Section 814.402(b)(3) of the Board's regulations provides:

b) The following standards shall apply to units regulated under this Subpart:

\*\*\*

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.

(Source: Amended in R93-10 at 18 Ill. Reg. 1284, effective January 13, 1994)

According to the regulations express language, the location of the compliance boundary for monitoring wells is defined as "... any point on the edge of the unit at or below the ground surface."

46. Additionally, 35 Ill. Adm. Code 811.318(b)(3)(Design, Construction and Operation of Groundwater Monitoring Systems) 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.
- \*\*\*

(Source: Amended at 31 Ill. Reg. 16172, effective November 27, 2007)

Thus, again, monitoring wells must be as close to the potential source of discharge as possible without interfering with the waste disposal operations...

47. During the approximately 15 years between the filing of this Petition and Brickyard I accepting its final volume of waste, Brickyard I discovered "extraneous material" in



the area which would be defined as on the edge of the unit. (Am Pet. at 8) Applications 2004-098 and 2005-036 were submitted detailing how Petitioner intended to develop an assessment monitoring plan. When installing temporary wells, the extraneous material was encountered. This triggered the Illinois EPA to request additional investigation of the area to determine the extent of the waste material beyond the footprint of Brickyard I; which investigation was conducted in 2006 and 2008. (Am Pet. at 14)

48. In general, the investigation revealed that a large amount of “extraneous material” is located to the direct south of Brickyard I’s existing footprint. The extent of this material, although not known with specific detail, extends generally from beyond the eastern most Brickyard I footprint to beyond the western most Brickyard I footprint, again on the southern boundary of the facility. (See generally: Revised Figure 9, September 2013, Attachment to Am Pet.)

49. Complicating matters further, A release of landfill gas from Brickyard I has occurred, corrective action and a Groundwater Management Zone was implemented in the area where the extraneous material was disposed. Petitioner proposed, and the Illinois EPA approved wells in 2000, when the remedial action was implemented. The GMZ became part of Petitioner’s permit, condition IX.

50. Respondent would note for the Board’s consideration that Petitioner has coined the term “extraneous material” within this Petition to include waste material disposed of on-site. No such term exists within the definition of the EPAct. Yet, such materials would fit within terms defined in the EPAct. Petitioner offers that “... railroad ties

and other construction debris ("extraneous fill material") were deposited and/or utilized in an area contiguous to [Brickyard I]... ." (Am Pet. at 3)

51. The EPAAct provides:

Sec. 3.535. Waste. "Waste" means any garbage, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility or other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows, or coal combustion by-products as defined in Section 3.135, or industrial discharges which are point sources subject to permits under Section 402 of the Federal Water Pollution Control Act, as now or hereafter amended, or source, special nuclear, or by-product materials as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 921) or any solid or dissolved material from any facility subject to the Federal Surface Mining Control and Reclamation Act of 1977 (P.L. 95-87) or the rules and regulations thereunder or any law or rule or regulation adopted by the State of Illinois pursuant herto.

(Source: P.A. 92-574, eff. 6-26-02.)

The 'extraneous fill material' referenced by Petitioner is located below grade, the material is covered by soil and surly would be within the definition of "waste" under Section 3.535.

52. Moreover, the EPAAct provides:

Sec. 3.160. Construction or demolition debris.

(a) "General construction or demolition debris" means non-hazardous, uncontaminated materials resulting from the construction, remodeling, repair, and demolition of utilities, structures, and roads, limited to the following: bricks, concrete, and other masonry materials; soil; rock; wood, including non-hazardous painted, treated, and coated wood and wood products; wall coverings; plaster; drywall; plumbing fixtures; non-asbestos insulation; roofing shingles and other roof coverings; reclaimed or other asphalt pavement; glass; plastics that are not sealed in a manner that conceals waste; electrical wiring and components containing no hazardous substances; and corrugated cardboard, piping or metals incidental to any of those materials. General construction or demolition debris does not include uncontaminated soil generated during construction, remodeling, repair, and demolition of utilities, structures, and roads provided the uncontaminated soil is not commingled with any general

construction or demolition debris or other waste. To the extent allowed by federal law, uncontaminated concrete with protruding rebar shall be considered clean construction or demolition debris and shall not be considered "waste" if it is separated or processed and returned to the economic mainstream in the form of raw materials or products within 4 years of its generation, if it is not speculatively accumulated and, if used as a fill material, it is used in accordance with item (i) in subsection (b) of this Section.

(b) "Clean construction or demolition debris" means uncontaminated broken concrete without protruding metal bars, bricks, rock, stone, reclaimed or other asphalt pavement, or soil generated from construction or demolition activities. Clean construction or demolition debris does not include uncontaminated soil generated during construction, remodeling, repair, and demolition of utilities, structures, and roads provided the uncontaminated soil is not commingled with any clean construction or demolition debris or other waste. To the extent allowed by federal law, clean construction or demolition debris shall not be considered "waste" if it is (i) used as fill material outside of a setback zone if the fill is placed no higher than the highest point of elevation existing prior to the filling immediately adjacent to the fill area, and if covered by sufficient uncontaminated soil to support vegetation within 30 days of the completion of filling or if covered by a road or structure, and, if used as fill material in a current or former quarry, mine, or other excavation, is used in accordance with the requirements of Section 22.51 of this Act and the rules adopted thereunder or (ii) separated or processed and returned to the economic mainstream in the form of raw materials or products, if it is not speculatively accumulated and, if used as a fill material, it is used in accordance with item (i), or (iii) solely broken concrete without protruding metal bars used for erosion control, or (iv) generated from the construction or demolition of a building, road, or other structure and used to construct, on the site where the construction or demolition has taken place, a manmade functional structure not to exceed 20 feet above the highest point of elevation of the property immediately adjacent to the new manmade functional structure as that elevation existed prior to the creation of that new structure, provided that the structure shall be covered with sufficient soil materials to sustain vegetation or by a road or structure, and further provided that no such structure shall be constructed within a home rule municipality with a population over 500,000 without the consent of the municipality. For purposes of this subsection (b), reclaimed or other asphalt pavement shall not be considered speculatively accumulated if: (i) it is not commingled with any other clean construction or demolition debris or any waste; (ii) it is returned to the

economic mainstream in the form of raw materials or products within 4 years after its generation; (iii) at least 25% of the total amount present at a site during a calendar year is transported off of the site during the next calendar year; and (iv) if used as a fill material, it is used in accordance with item (i) of the second paragraph of this subsection (b).

(c) For purposes of this Section, the term "uncontaminated soil" means soil that does not contain contaminants in concentrations that pose a threat to human health and safety and the environment.

(1) No later than one year after the effective date of this amendatory Act of the 96th General Assembly, the Agency shall propose, and, no later than one year after receipt of the Agency's proposal, the Board shall adopt, rules specifying the maximum concentrations of contaminants that may be present in uncontaminated soil for purposes of this Section. For carcinogens, the maximum concentrations shall not allow exposure to exceed an excess upper-bound lifetime risk of 1 in 1,000,000; provided that if the most stringent remediation objective or applicable background concentration for a contaminant set forth in 35 Ill. Adm. Code 742 is greater than the concentration that would allow exposure at an excess upper-bound lifetime risk of 1 in 1,000,000, the Board may consider allowing that contaminant in concentrations up to its most stringent remediation objective or applicable background concentration set forth in 35 Ill. Adm. Code 742 in soil used as fill material in a current or former quarry, mine, or other excavation in accordance with Section 22.51 or 22.51a of this Act and rules adopted under those Sections. Any background concentration set forth in 35 Ill. Adm. Code 742 that is adopted as a maximum concentration must be based upon the location of the quarry, mine, or other excavation where the soil is used as fill material.

(2) To the extent allowed under federal law and regulations, uncontaminated soil shall not be considered a waste.

(Source: P.A. 96-235, eff. 8-11-09; 96-1416, eff. 7-30-10; 97-137, eff. 7-14-11.)

The EAct's definition of "construction or demolition debris" above expressly includes the same type of material disclosed by Petitioner as being disposed of

within Petitioner site and adjacent to its Brickyard I facility.

53. Petitioner suggests that "... allowing the railroad ties and other extraneous fill material to remain in place [is believed necessary to facilitate final closure of Brickyard I]... ." (Am Pet. at 12) Within this discussion, Petitioner offers that removal of such material "... would pose risks more problematic than those involved within allowing it to remain in place." (Am Pet. at 12) While the Respondent can understand the rationale for this assertion, it cannot agree with this proposition in total. For purposes of this review, and according to current information, the Respondent would temper this rationale to include a caveat for time sensitivity and data availability. At this time, it may present more problems to remove than to allow such waste to remain. However, in the future, removal could be an option, depending upon the circumstances at that time.

54. Petitioner offers that Brickyard I and Brickyard II are separately permitted and that Brickyard II is not relevant to this petition. (Am Pet. at 2) Respondent agrees with this assertion. In a like manner, the waste beyond the footprint of Brickyard I is technically not a waste disposal unit which is a part of this Petition. Although it exists, and although it is unpermitted, the Illinois EPA would consider that, for purposes of this pleading, waste disposal unit a separate disposal unit and as Petitioner offers later not a lateral expansion of Brickyard I or its waste footprint. (Am Pet. at 19)

55. Petitioner concludes that what it seeks in this review is a manner by which it may achieve final closure of Brickyard I consistent with existing circumstances and

regulation. (Am Pet. at 18) Respondent, however, would note that allowing the monitoring wells for Brickyard I outside of the edge of the existing unit to just beyond the existing edge of the newly discovered waste disposal unit will give both Petitioner and Respondent the ability to monitor both areas in an attempt to insure neither one nor the other, nor for that matter both combined, poses a threat to the environment.

56. Petitioner estimates a cost of oversight and implementation of the Cover Plan as shown in tables within Exhibit C to the Amended Petition. Illinois EPA has no reason to doubt these estimates and does not draw any contrary conclusions.

57. Respondent offers that Petitioner is responsible for all of the waste disposal units (permitted or otherwise) on-site. (*See generally*: Am Pet. at 16 stating: "Petitioner recognizes that, no matter what the source of any impact (the landfill or the buried martial outside the landfill), the Petitioner is responsible for such impact, as the owner of the entire landfill area.") Petitioner's responsibility for the extraneous fill area unit is pertinent to the Respondent's Recommendation in that Respondent deems that capping (to reduce the risk of permeation of the waste from precipitation) and monitoring of the "extraneous waste fill area", even as in addition to monitoring the adjacent Brickyard I facility, is environmentally in the best interest of the State. Additional monitoring of this waste disposal unit will allow Petitioner and Respondent to assess in more detail any environmental impacts that are occurring or may occur from this unit.

58. Respondent cannot provide an analysis of the assertions within Exhibit B relative to the volume of leachate calculation within subsection 4.2.1. The Respondent notes that this calculation is based upon an assumption of a three (3) foot depth of leachate in Unit I. Respondent would need actual calculations and data supporting such data to provide comment. Elevation of Leachate Surface (Storet 71993) data does not appear to have been provided to the Illinois EPA since 2001. Similarly, Leachate Level from Monitoring Point (Storet 72109) data does not appear to have been provided to the Illinois EPA since 2006. However, from the elevation data available, it indicates fluctuations in elevation greatly exceeding three feet.
59. The Agency has reviewed the submitted information and proposal with regard to the investigation of the cover for the waste disposal unit under and adjacent to Brickyard I and provides no additional comment on that proposal other than a request to incorporate such work as a condition of acceptance of this petition.
60. Respondent has no issues with the citations to In the Matter of Petition of Johns Manville for an Adjusted Standard from 35 Ill. Adm. Code 811.311, 811.318, 811.320 and 814, AS 04-4, (December 6, 2007); In the Matter of Petition of Carus Chemical for an Adjusted Standard from 35 Ill. Adm. Code 814, Subpart D, AS 98-1 (September 18, 1997); or In the Matter of Petition of Commonwealth Edison for an Adjusted Standard from 35 Ill. Adm. Cod Parts 811 and 814, AS 96-9 (August 15, 1996). Respondent agrees with Petitioner, none of these decisions is directly on point, particularly the Commonwealth Edison proceeding where the Board considered argument relative to expense, which is not raised within this matter. This proceeding is more a matter of first impression on the issue raised.

#### IV. STATUTORY CRITERIA

##### **STANDARD FROM WHICH ADJUSTED STANDARD IS SOUGHT [35 Ill. Adm. Code 104.406(a)]**

61. Petitioner provides a recitation of the provision which would allow for the relief requested (Section 814.402(b)(3)). (Am Pet. at 3 and 4)

##### **STATEMENT OF IMPLEMENTATION OF FEDERAL REQUIREMENTS [35 Ill. Adm. Code 104.406(b)]**

62. The requirements within 35 Ill. Adm. Code Part 814, Subtitle D, were enacted consistent with federal regulations within the Resource Conservation and Recovery Act (P.L. 94-580; 42 USC 6901 *et seq.*). Petitioner's facility, which is the subject of this proceeding, is an existing facility under applicable Board regulations. Petitioner provided information on this requirement at pages four and five of its Amended Petition.

##### **LEVEL OF JUSTIFICATION [35 Ill. Adm. Code 104.406(c)]**

63. The regulations do specify a level of justification or other requirements.

The EPA Act provides:

"[A]fter 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." (415 ILCS 5/28.1)

Board regulations, 35 Ill. Adm. Code Section 814.402(b)(3) provide as follows:

- b) The following standards shall apply to units regulated under this Subpart:

\*\*\*

- 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.

(Source: Amended in R93-10 at 18 Ill. Reg. 1284, effective January 13, 1994)

According to this provision within the Board's regulations, the Board has allowed for discretion to move the "compliance boundary" provided the Petitioner can demonstrate that an alternative compliance boundary will not result in contamination of groundwater and further that the altered compliance boundary meets the expressed factors. Petitioner provides a review of this at pages five and six of the Amended Petition as well as within the justification provided within Exhibit A, submitted by Petitioner from Andrews Engineering, Inc. The Illinois EPA has reviewed this and notes that no condition exists for Petitioner to submit "approvable" significant modification permit application proposing the finalized groundwater

monitoring network.

**DESCRIPTION OF PETITIONER'S ACTIVITY**  
**[35 Ill. Adm. Code 104.406(d)]**

64. Petitioner's waste disposal unit, known as Brickyard I, is a permitted solid waste landfill, which has not accepted waste since 1997. (Am Pet. at 2) The unit at issue is located above and adjacent to another solid waste disposal unit. Petitioner addresses this issue within pages 6 through 9 of its Amended Petition. Again, the Illinois EPA notes that there is a need for the submission of a significant modification to the permit to approve the finalized well sites for monitoring.

**DESCRIPTION OF COMPLIANCE EFFORTS AND ALTERNATIVES**  
**[35 Ill. Adm. Code 104.406(e)]**

65. The Illinois EPA does not take issue, generally, with Petitioner's representations concerning a description of compliance efforts and alternatives. The Petitioner does not provide costs of each alternative for review. (See: Am Pet at 16, "It is estimated that monetary costs for doing so would be considerable. However the costs of removal are not discussed in this Amended Petitioner because this alternative must be rejected due to its infeasibility and potential adverse environmental impact.") As such, the Illinois EPA cannot provide are view within this Recommendation. However, as noted before within the Agency's initial recommendation, should facts change or if data warrants, removal and disposal of the 'extraneous material' may become warranted. Further, as detailed below, additional work on-site is necessary to allow for proper technical review of issues, such as, addition of the proposed cover for the extraneous waste fill area.

**PROPOSED ADJUSTED STANDARD**  
**[35 Ill. Adm. Code 104.406(f)]**

66. Petitioner offers the following language for the Board's consideration:

SUGGESTED BOARD FINDING

The Board finds that Brickyard I has proven that Section 28.1 of the Act (415 ILCS 5/28.1) and Section 814.402(b)(3) of the Board's rules (35 Ill. Adm. Code 814.402(b)(3)) support granting the adjusted standard. Therefore, the Board authorizes an adjustment to the Brickyard I compliance boundary to the limits as shown by redlining in the Revised Figure 9, dated September 2013 attached hereto.

PROPOSED BOARD ORDER

Brickyard Disposal and Recycling, Inc. is granted an adjusted standard from the requirements of 35 Ill. Adm. Code 811.318(b)(3) for the monitoring network wells relative to Brickyard, Unit I, permit 1981-24-DE, Site Number 1838040029. This adjusted standard is subject to the following conditions:

1. The Brickyard I compliance boundary is adjusted to the limits as shown by redlining in the Revised Figure 9, dated September 2013, attached hereto.
2. In lieu of the requirements of 35 Ill. Adm. Code 811.318(b)(3), Brickyard I shall comply with the following:

Monitoring wells shall be established as close to the potential source of discharge as possible without interfering with the waste disposal operations. The monitoring points shall be located within the compliance boundary, as shown by redlining in the Revised Figure 9, dated September 2013, attached hereto, and downgradient, with respect to groundwater flow, from the source.

3. Within 90 days of the date of this Order, Brickyard shall submit a significant modification permit application to the Agency for a groundwater monitoring network for Unit I, consistent with the relief granted herein.
4. Within 12 months of the date of this Order, Brickyard shall complete placement of additional cover to those areas identified in the Cover Plan, and as otherwise determined necessary during cover placement operations. The Construction Certification Report shall be submitted to the Illinois EPA within 60 days of completion of cover placement.

67. If Petitioner's request is granted by the Board, Respondent suggests the following revisions to the above proposed language:

PROPOSED BOARD ORDER

Brickyard Disposal and Recycling, Inc. is granted an adjusted standard from the requirements of 35 Ill. Adm. Code 811.318(b)(3) for the monitoring network wells relative to Brickyard, Unit I, Permit No. 1994-419-LFM, Site Number 1838040029. This adjusted standard is subject to the following conditions:

1. The Brickyard I compliance boundary is adjusted to the limits as shown by redlining in the Revised Figure 9, dated September 2013, attached hereto.
2. In lieu of the requirements of 35 Ill. Adm. Code 811.318(b)(3), Brickyard I shall comply with the following:  
  
Monitoring wells shall be established as close to the potential source of discharge as possible without interfering with the waste disposal operations. The monitoring points shall be located within the compliance boundary, as shown by redlining in the Revised Figure 9, dated September 2013, attached hereto, and downgradient, with respect to groundwater flow, from the source.
3. Within 90 days of the date of this Order, Brickyard shall submit a significant modification permit application to the Agency for a groundwater monitoring network for Unit I, consistent with the relief granted herein.
4. Within 12 months of the date of this Order, Brickyard shall complete placement of additional cover to those areas identified in the Cover Plan, and as otherwise determined necessary during cover placement operations. The Construction Certification Report shall be submitted to the Illinois EPA within 60 days of completion of cover placement.
5. 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.

**IMPACT ON THE ENVIRONMENT**  
**[35 Ill. Adm. Code 104.406(g)]**

68. The Illinois EPA does not take issue with Petitioner representation of the environmental impact of issuing this adjusted standard. Again, Respondent does note that the Board regulations do expressly provide for monitoring beyond the

waste boundary and allows for the petition for an adjusted standard as the means.

**JUSTIFICATION FOR PROPOSED ADJUSTED STANDARD**  
**[35 Ill. Adm. Code 104.406(h)]**

69. The Burden of Proof contained at Section 104.426 of 35 Ill. Adm. Code, provides the Board with those matters which should consider in rendering a decision regarding a petition for Adjusted Standard. (See: Section 27(a) of the EPAct (415 ILCS 5/27(a)))

**CONSISTENCY WITH FEDERAL LAW**  
**[35 Ill. Adm. Code 104.406(i)]**

70. The issuance of relief requested, since allowed for under both the terms of the EPAct and applicable regulation would mean that the Board's action, approving the Amended Petition, would be consistent with federal implementation of the corresponding federal rules as they relate to solid waste disposal units under Subtitle D.

**WAIVER OF HEARING**  
**[35 Ill. Adm. Code 104.406(j)]**

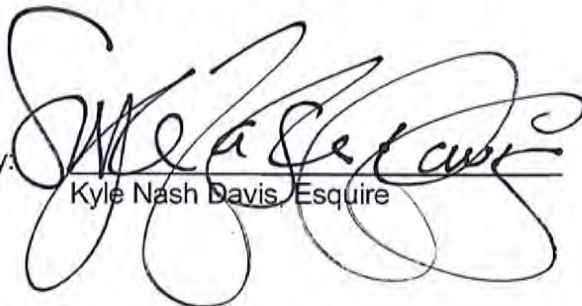
71. The Illinois EPA does not request a hearing.

## V. RECOMMENDATION

A review of the Petition for relief was made by Illinois EPA's Bureau of Land technical staff. The Illinois EPA concludes that, based upon the forgoing, the Board should **GRANT** Petitioner's Amended Petition for Adjusted Standard docketed as AS:13-04. The Illinois EPA further recommends that the Board should also consider that any Order on this matter contain a requirement that the Petitioner shall modify its current permit, Permit No. 1994-491-LFM, in order to reflect that it will perform additional modeling to determine the appropriate location for monitoring wells, as well as, providing for a deadline to implement the details relative to a cap over the extraneous fill area as proposed within Petitioner's Amended pleading.

Respectfully submitted,

**ENVIRONMENTAL PROTECTION AGENCY  
OF THE STATE OF ILLINOIS**

By:   
Kyle Nash Davis, Esquire

DATED: 22 November 2013

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