

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)
)
Petition for Adjusted Standard) AS 08-003
from 35 Ill. ADM. CODE 620.420) (Adjusted Standard-Water)
For Nobel Risley's Landfill #2)

NOTICE OF FILING

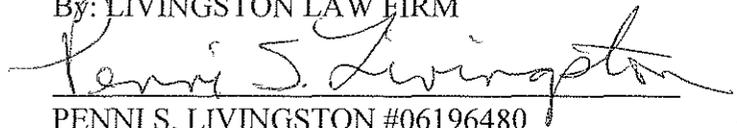
To: Ms. Carol Webb Mr. James Kropid
Hearing Officer Division of Legal Counsel, #21
Illinois Pollution Control Board Illinois Environmental Protection Agency
1021 North Grand Avenue East 1021 North Grand Avenue East
Post Office Box 19274 Post Office Box 19276
Springfield, Illinois 62794 Springfield, Illinois 62794

PLEASE TAKE NOTICE that today I have filed with the Office of the Clerk of the Pollution Control Board a SECOND AMENDED PETITION FOR ADJUSTED STANDARDS TO ADDRESS POLLUTION CONTROL BOARD COMMENTS ON PREVIOUS AMENDED PETITION and our CERTIFICATE OF SERVICE in the above-titled matter. Copies of these documents are hereby served upon you.

Respectfully submitted,

Nobel Risley

By: LIVINGSTON LAW FIRM



PENNI S. LIVINGSTON #06196480

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DATED: February 28, 2008

Introduction

1. Consistent with Section 27 of the Illinois Environmental Protection Act, 415 ILCS 5/27, (hereinafter the "Act"), the Board may adopt substantive regulations that make different provisions as required by circumstances for different contaminant sources and which may include regulations specific to individual persons or sites. Furthermore, in accordance with Section 28.1 of the Act, 415 ILCS 5/28.1, after adopting a regulation of general applicability, the Board may grant an Adjusted Standard for persons who can justify such an adjustment consistent with Section 27 of the Act. Petitioner will demonstrate to the Board that it meets the standards set forth in these Sections of the Act with respect to its request for Adjusted Standards for chlorides and sulfates. Most important, Petitioner will demonstrate that the requested relief will not result in environmental or health effects more adverse than those considered by the Board in adopting the rule of general applicability. Petitioner believes that the requested Adjusted Standards will not result in any adverse environmental impacts as demonstrated by the evidence in the Technical Reports attached to the original Petition and the first Amended Petition previously submitted.

2. This Second Amended Petition is supported by evidence gathered together in much more detail in the reports prepared by Leggette, Brashears & Graham ("LBG"), the oldest and one of the most respected groundwater consulting firms in the nation. The reports attached to the original Petition are entitled "Technical Justification for an Adjusted Standard for Chlorides in Ground-water" and are herein adopted in full by reference in this Amended Petition. The report attached to the first Amended Petition is entitled "Technical Justification for an Adjusted Standard for Sulfates in Ground Water". These reports were prepared for Mr. Nobel Risley concerning Risley

Landfill #2. The LBG report on Chlorides and responses to IEPA Comments regarding the LBG report with supporting data and tables are dated November 7, 2006 (to be labeled as Exhibit 1 to the original Petition), and July 10, 2007 (to be labeled as Exhibit 3 to the original Petition), respectively. The reports on chlorides were previously filed unlabeled with the Board on or about September 5, 2007, with the original Petition for Adjusted Standard.

3. The first LBG report on Sulfates is dated November 6, 2007, and was filed previously with the first Amended Petition as Exhibit 2. Hereinafter, these reports are collectively referred to as the "Technical Reports." The new issue addressed in this Second Amended Petition per comments by IEPA and the Board has resulted in lowering the requested adjusted standard for sulfates in order to account for the statistical analysis of the downward trend for sulfates in Well G-104 noted by IEPA in their comments. The requested statistical analysis is contained in the attached Supplemental Report (labeled Exhibit 8 for consistency in exhibits). The previously submitted issues and the remaining issues for this request for adjusted standards are addressed in the referenced Technical Reports attached to the original Petition and the first Amended Petition. Exhibits 4 through 7 of the first Amended Petition included documentation requested by the Board and, together with the Supplemental and Technical Reports, contain the entire body of written evidence presented in support of this Second Amended Petition.

4. Proper publication of the Notice of Filing for Adjusted Standards for both chlorides and sulfates was filed with the first amended petition, contrary to the chastising of the Board's January 24, 2008 Order. Such notice is again attached hereto. Given that the requested standard in this Second Amended Petition is the same for chlorides, which the Agency has recommended

granting, and is lower for sulfates to address the statistical analysis the Agency and Board think appropriate, new notice was not published for this lowered number as the scope of relief is the same, although the number requested is lower. If the Board feels otherwise, Petitioners will gladly do a third publication.

Landfill Description/ Existing Physical Conditions/ Character of the Area

5. The site involved in this Second Amended Petition is a closed landfill located in rural Franklin County, Illinois, with an address of 9957 River Bend Road, Benton, Illinois 62812. The site is composed of a main landfill, with a footprint of about eight acres with up to 20 feet of thickness of waste which is centrally situated on a 38-acre parcel of land, and a smaller trench-filled area to the north, comprising of approximately 0.4-acres. The IEPA permit number is 1980-21-DE/OP. The IEPA Site Number is 055 802 0005.

6. Landfill #2 was constructed by removing naturally occurring unconsolidated earth materials of glacial derivation which are present above a thick shale formation, leaving the shale formation in place, then filling the excavation with non-hazardous municipal solid waste, and, finally, placing cover material consisting of unconsolidated earth material.

7. Per the permit requirements for site development set forth in the July 29, 1980, letter from IEPA to Petitioner (Exhibit 6 of the first Amended Petition), construction of the landfill required that all sand, silt, and other soil layers which are located between ground level and the shale layer and have a permeability greater than 1×10^{-7} cm/sec. be removed from the Sealing Trench and replaced with clay having a maximum permeability of 1×10^{-7} cm/sec. and be compacted in two-foot layers to a density of 95% (Proctor method). In areas where clay is placed

directly on the shale layer, the clay had to be keyed at least two feet into the shale layer. A minimum of 10 feet of clay with a maximum permeability of 1×10^{-7} cm/sec. over the entire width and length of the Sealing Trench had to be laid. The Sealing Trench had to be certified as to construction, permeability and density in 300-ft. long sections. The old well near B-6 had to be backfilled with clay. Permanent markers extending at least three feet above ground level had to be placed at all breaks in the property line and at 300-ft. intervals over the Sealing Trench. A vegetative screen had to be maintained between the landfill site and the neighboring Edward Timberend property.

8. According to the permit, no liner was required for construction. Specific areas were designated where the landfill would operate by trenches. Area 1 began adjacent to the west property line. The trenches in Area 1 ran north and south with the first trench being excavated along the west property line with the operation moving in an easterly direction.

9. According to Attachment VII of the permit application (Exhibit 6 of the first Amended Petition), surface water pollution had to be controlled by providing temporary ditching around areas of operation to prevent surface runoff from flowing to operating portions of the landfill and by maintaining daily cover of the refuse.

10. Final cover construction began with the preparation of the subgrade by the stripping and removal of all vegetation, top soil, and deleterious material from the area. Any shallow depressions were stripped, drained, and filled with structural fill to the level of the surrounding ground elevation. This fill was compacted to achieve 90% of the maximum dry density (standard Proctor method). Once the subgrade was prepared, a compacted clay layer was constructed over

the entire landfill area to achieve a minimum final cover thickness of two feet and to at least 90% compaction. Further description of the cap is provided in the August 1999 EMCON Report (Exhibit 4 of the first Amended Petition).

11. Landfill #2 began operations in February 1981, ceased receiving non-hazardous municipal solid waste in 1988, and closed both landfill areas between May 11, 1999 and July 19, 1999, lasting a period of approximately 18 years. According to Attachment VIII, Item C. 35, of Petitioner's Landfill Application, the Landfill was required to have two full-time employees (a supervisor and an equipment operator) and to hire additional personnel as needed on a part-time basis (Please see Exhibit 6 of the first Amended Petition). At the time operations began, the Landfill required four employees to operate and maintain the landfill. These employees consisted of a manager, pit person, bulldozer operator, and a mechanic. When only maintenance was required, particularly since closure, only one employee was present at the Landfill. At this time, there are no employees other than the owner. The landfill is closed.

12. The July 13, 2000, Supplemental Permit No. 1999-285-SP (Exhibit 7 of the first Amended Petition), outlines the specific closure requirements for Landfill #2, including those pertaining to groundwater monitoring. As to specific references to closure requirements cited by the Technical Reports, Sections 1.4, of both the Technical Justification for Chlorides, dated November 7, 2006, and the Technical Justification for Sulfates, dated November 6, 2007, refer to correspondence between IEPA and LBG (on behalf of Petitioner). Further, Exhibits 4 through 5 of the first Amended Petition also address closure requirements set forth by permit. Statistical analysis for sulfates, resulting in a lower requested adjusted standard is contained in Exhibit 8 attached

hereto.

13. As to any leachate and gas emissions from Landfill #2, none were observed during a 4-year quarterly inspection period performed by EMCON/Shaw Environmental, Inc. (Exhibit 5 of the first Amended Petition, Shaw/EMCON January 2005 Report, Appendices C and D). While there is no pollution control equipment at the landfill, there is an engineered cap that is in place and certified (Exhibit 4 of the first Amended Petition, EMCON August 1999 Report).

14. The surrounding area is rural and sparsely populated with light agricultural use. The nearest town is Benton, Illinois, approximately two miles Northeast with a population of 7,000. There are two rural residences immediately next to the 38-acre parcel, one on the east and one on the west along the frontage road.

15. The Franklin County area obtains its public water supply from Rend Lake. There are no private water wells located down gradient of the landfill. The natural groundwater in the area of the landfill is sporadic in occurrence and is significantly mineralized, thereby precluding its use for drinking water or other purposes. This groundwater in this area is not capable of supporting sustained yield of water given the limited horizontal area of the aquifer, the limited saturated thickness, and the very low hydraulic conductivity. The groundwater at the landfill is unsuitable for domestic use and is practically inaccessible.

16. The receiving body of any groundwater from the landfill area is the Big Muddy River. The average flow of the Big Muddy River is 605 cubic feet per second. According to the Technical Reports prepared for Nobel Risley, "[t]he change in chloride concentration in the Big Muddy River due to the inflow of impacted groundwater is 3.33×10^{-4} percent. The reason

for the extremely low impact to chloride concentration in the Big Muddy River is because the flow is over 1.7 million times greater than the groundwater flow emanating from the Landfill.”

17. As to sulfates, “[t]he change in the sulfate concentration in the Big Muddy River due to the inflow of impacted groundwater is 4.62×10^{-6} percent. The reason for extremely low impact to chloride concentration in the Big Muddy River is because the flow is over 5 million times greater than the groundwater flow emanating from the Landfill.”

18. There is virtually no practical scenario in which the groundwater down gradient of Landfill #2 would be used for industrial, domestic, or agricultural use.” Furthermore, as previously stated, there are no private water wells down gradient of Landfill #2.

**Issues of Technical Feasibility and Economic Reasonableness
of Compliance Alternatives for Reducing Chlorides and Sulfates
Apparently Coming from the Closed Risley Landfill #2**

19. The evidence makes clear that reducing the chlorides that showed up in two monitoring wells and sulfates that showed up in six monitoring wells from this old landfill is technically infeasible and economically unreasonable. Full analysis is found in the supporting evidence to this Petition (Exhibits 1 and 3 of the original Petition and Exhibit 2 of the first Amended Petition). Treatment options considered to comply with the standard include pumping and dewatering the landfill and treating the effluent for a cost of about \$615,000 with an annual operation and maintenance cost of \$81,000 per year. A second option is a possible groundwater trenching system with treatment of groundwater for a cost of \$583,000 with an annual operation and maintenance cost of \$78,000. The final and most expensive option is to relocate the landfill for a cost of about \$17.5 million. While developing treatment options was considered with all

seriousness, Mr. Risley, who recently had a kidney transplant and is unable to continue to work for a living, is not in a financial position to pay any of these costs.

20. Please see Appendix N of the Chlorides Technical Report (Exhibit 1 of the original Petition) for details on treatment option costs.

Substantially Different Factors

21. The landfill at issue in this case has been closed for years and cannot obtain certification of closure without these Adjusted Standards. Mr. Risley would like to obtain certification of closure now that the landfill has met its post-closure care obligations. Although there have been measurements of chlorides in the leachate of the landfill as high as 680 mg/L, the average chloride concentration in monitoring wells around the landfill is 26 mg/L, much lower than the allowable standard. This average, as shown by the monitoring data, the geological and hydraulic data, and the modeling, indicates that there is virtually NO IMPACT on the Big Muddy River as the receiving water. As to sulfates, there is even less of an impact to the Big Muddy River. Furthermore, any health effects due to the concentration of sulfates emanating from the site are essentially non-existent.

**Petitioner Seeks Adjustment from Class II Groundwater Standards
Under 35 Ill. Adm. Code 620.420(a)**

22. The regulation at issue in this Petition is found at 35 Ill. Adm. Code 620.420(a). Section 620.420 establishes Class II requirements for general groundwater quality standards to be met in waters of the State in order to protect groundwater. Section 620.420 (a)(2) establishes limits for chlorides at 200 mg/L and sulfates at 400 mg/L.

23. The “*Technical Justification for an Adjusted Standard for Chlorides in Ground-Water*” prepared by LBG in November 7, 2006, lists the Groundwater Classification as “Class I: Potable Resource Groundwater”. However, as part of work performed to address IEPA comments to the LBG November 7 “*Technical Justification*” report, hydraulic conductivity values derived from slug tests of monitoring wells at the site indicate groundwater does not meet criteria for a Class I groundwater (i.e., hydraulic conductivity values are less than 1E-04 cm/sec; see Page 5 of the LBG report “*Technical Justification for an Adjusted Standard for Chlorides in Ground-Water, Response to IEPA Comments,*” dated July 10, 2007). Therefore, the groundwater classification for the Adjusted Standards for both chlorides and sulfates should be “Class II: General Resource Groundwater”, in accordance with 35 Ill. Adm. Code 620.250.

Proposed Adjusted Standards

24. Risley petitions the Board to adopt the following language to establish the requested proposed Adjusted Standard:

The concentrations of dissolved chlorides shall not exceed 600 mg/L and the concentrations of dissolved sulfates shall not exceed 2,381 mg/L in the groundwater at the Risley Landfill #2 (IEPA Site Number is 055 802 0005, IEPA permit number is 1980-21-DE/1OP) located at 9957 River Bend Road, Benton, Illinois 62812. The horizontal boundaries within which the Adjusted Standards apply shall be the property boundaries. The vertical boundaries are defined as all the groundwater that occurs below the surface and above the first occurrence of shale, the latter of which is shown on Figure 8 of the “*Technical Justification for an Adjusted Standard for Chlorides in Ground-Water*” Report dated November 7, 2006. The Class II Groundwater Standards for dissolved chlorides and dissolved sulfates as set forth at 35 Ill. Adm. Code 620.420 shall not apply to the groundwater at the Risley Landfill #2.

The legal description for the property is as follows:

Part of the South One-Half (S ½) of the Southwest One-Fourth (SW 1/4) of the Southeast One-Fourth (SE 1/4) of Section 22, Township 6 South, Range 2 East in Franklin County, Illinois, approximately eight (8) acres.

The North One-Half (N ½) of the Northwest One-Fourth (NW 1/4) of the Northeast One-Fourth (NE 1/4) and the Southeast One-Fourth (SE 1/4) of the Northwest One-Fourth (NW 1/4) of the Northeast One-Fourth (NE 1/4) of Section 27, Township 6 South, Range 2 East in Franklin County, Illinois, approximately thirty (30) acres.

Justification For Adjusted Standards

25. For dissolved chlorides, Petitioner proposes an Adjusted Standard of 600 mg/L instead of a lower level that reflects the statistically valid range of chloride levels observed at the down gradient monitoring well G103. While 516 mg/L in well G103 was interpreted to be an outlier, it was done so in accordance with statistical reporting protocol. Given the potential for spatial and temporal variation, and bearing in mind there are no exposure routes for groundwater or health concerns associated with readings at 600 mg/L, a concentration of 600 mg/L is appropriate.

26. As to dissolved sulfates, Petitioner now proposes an Adjusted Standard of 2,381 mg/L which reflects the statistically valid range of sulfate levels observed in the down gradient monitoring wells. The maximum sulfate concentration of 3,290 mg/L in well G104 was observed in January 2000. While sulfate concentrations in well G104 have never exceeded 3,000 mg/L since that time, the range of sulfate concentrations in well G104 has been highly variable, with a minimum concentration of 1,430 mg/L and an average of 2,161 mg/L over the 9-year period. Given the potential for spatial and temporal variation of sulfate data, and bearing in mind there are no exposure routes for groundwater and no health concerns exist, the Petitioner previously requested an adjusted

standard of 4,500 mg/L to be on the safe side to not ever violate regulatory standards. However, based on concerns raised by the IEPA and the Board, a statistic analysis was performed and is attached herein as Exhibit 8, which shows two methods of statistical analysis. The Petitioners chose the lower of the two numbers for request of this adjusted standard.

27. The sole purpose of requesting Adjusted Standards is to obtain Certification of Closure from IEPA. The entire justification for this request is contained in the referenced Technical Reports and supporting data including Exhibit 8 attached hereto. The most compelling reasons for granting these Adjusted Standards are that there is no adverse impact on the environment or human health from this long since closed landfill and the options for treatment to reduce two constituents of negligible impact to the quality of groundwater in the area are cost-prohibitive. It is also important to consider that a request for remediation of the Landfill has never been made by IEPA.

**Requested Adjustments Will Not Result
In Adverse Environmental or Health Effects**

28. As previously stated and shown in more detail in the Technical Reports, no private water wells are used down gradient of this landfill. Furthermore, the Big Muddy River, as the receiving water, will not experience any negative impact due to migration of the landfill's chlorides and sulfates. As stated in the Technical Reports, the reasons for the extremely low impact to chloride and sulfate concentrations in the Big Muddy River are because the flow of the river is over 1.7 million times greater than the groundwater flow of chlorides emanating from the landfill and over 5 million times greater than the groundwater flow of sulfates emanating from the landfill. There is no practical scenario in which the groundwater down gradient of the landfill would be used for

industrial, domestic, or agricultural use.

29. For greater detail on these issues, please review the Technical Reports' narratives for chlorides (Exhibits 1 and 3 of the original Petition) and sulfates (Exhibit 2 of the first Amended Petition and Exhibit 8 attached to this Second Amended Petition), particularly Section 4 entitled "Impact to Receiving Water" and Section 5 entitled "Toxicology" of Exhibits 1 and 3 of the original Petition and Exhibit 2 of the first Amended Petition. For supporting evidence of the narrative assessment on chlorides, see Exhibit 1 Appendix J of the original Petition entitled "USGS Surface-Water Daily Statistics for Illinois" including Table J-1 showing Average Flow calculations; Appendix K entitled "Chloride Concentration in the Big Muddy River" which includes an IEPA Chloride Data Table, Sample Location Map, and Sample Location Identity Table; Appendix L entitled "Calculators for Impact to Receiving Water"; and Appendix M entitled "World Health Organization Chloride in Drinking Water" (all within Exhibit 1 of the original Petition). Note that any changes to these documents on chlorides, based on an IEPA review and comments to the LBG technical report, are provided in LBG's "*Response to IEPA Comments*" letter report (Exhibit 3 of the original Petition).

30. For supporting evidence of the narrative assessment on sulfates, see Appendix A entitled "Sulfate Concentration in the Big Muddy River" which includes an IEPA Sulfate Data Table, Sample Location Map, and Sample Location Identity Table; Appendix B entitled "Sulfate Concentrations in Monitoring Wells"; and Appendix C entitled "World Health Organization, Sulfate in Drinking Water" (Exhibit 2 of the first Amended Petition). All of these documents, along with the sampling results at the landfill, show that Risley Landfill #2 meets the requirements for obtaining

the Adjusted Standards requested.

**The Proposed Adjusted Standards and Existing Conditions
do not Warrant an Institutional or Environmental Land Use Control**

31. As clarified above in Paragraph 22 et. seq., the applicable groundwater classification is Class II General Resource Groundwater and not Class I Potable Resource Groundwater. Due to the fact that the groundwater is no longer classified as “potable” and considering that it would be highly unlikely, if not improbable, that future landowners would install a potable water well on the site, an institutional or environmental land use control prohibiting the use of groundwater for potable purposes is not warranted. Further, potable water from the County’s water system is available along the common shared roadway at the south end of the property.

32. Even more so, the existing conditions make it impracticable for any water wells to be installed either in unconsolidated or consolidated material. Per the requirements of 77 Ill. Adm. Code 920.60, the minimum casing requirement for a drilled water well in unconsolidated material is 20 feet. Considering that the thickness of the water-bearing unconsolidated earth material at the site is between five and 30 feet, the maximum open interval for a shallow water well would be only 10 feet. It is highly impractical that a registered water well driller (a requirement for drilling/installation of potable water wells) would recommend a water well in such a shallow setting. The minimum casing requirement for a drilled water well in consolidated materials is a depth of 40 feet below ground level (77 Ill. Adm. Code 920.70). Given the fact that the start of consolidated material beneath the property and surrounding area (i.e. bedrock shale) is 25 feet, the construction and installation of a water well under these conditions is highly impractical.

33. Furthermore, the City of Benton enacted an ordinance prohibiting the installation of drilling of wells to use groundwater as a potable water supply (Ordinance 05-16 enacted June 27, 2005). Given the geological and hydrogeological characteristics of the area, it is logical that such construction would be prohibited. Although this ordinance only applies within the City of Benson's corporate limits, the Risley Landfill #2 in close proximity and the same rationale would apply.

Granting Adjusted Standards is Consistent with Federal Law

34. The Board, acting for the State of Illinois, has the primary authority and responsibility to establish water quality standards for the groundwater at Risley Landfill #2 in accordance with the Federal Clean Water Act. 33 USC 1251, 40 CFR 131.4(a). The Clean Water Act sets the policy of Congress "to recognize, preserve, and protect the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution [and] to plan the development and use . . . of land and water resources . . ." 33 USC 1251. With respect to revised standards, the Clean Water Act anticipates that "The Governor of a State or the State water pollution control agency of such State shall from time to time . . . hold public hearings for the purpose of reviewing applicable water quality standards and, as appropriate, modifying and adopting standards." 33 USC 1313(c)(1). While this last cited provision appears to be applicable to navigable waters, it is clear from the Clean Water Act that each State has the authority and responsibility to designate appropriate uses for the waters of the State and the criteria to protect those uses.

35. The National Secondary Drinking Water Standards are non-enforceable guidelines regulating contaminants that may cause cosmetic effects or aesthetic effects in drinking water.

Chlorides and sulfates are of this type of constituent. There are no specified enforceable federal standards for chlorides or sulfates. However, for a discussion of these Federal Guidelines, please see Section 1.5 of the Technical Report on Chlorides (Exhibit 1 of the original Petition).

36. The natural groundwater at the closed Risley Landfill #2 is not suitable for use as potable water as it is sporadic in occurrence and is significantly mineralized, thereby precluding its use for drinking water or other purposes. Furthermore, there are no private water wells located down gradient of the landfill. This groundwater in this area is not capable of supporting sustained yield of water given the limited horizontal area of the aquifer, the limited saturated thickness, and the very low hydraulic conductivity. As stated in the Technical Reports: "There is virtually no practical scenario in which the groundwater down gradient of the Landfill would be used for industrial, domestic, or agricultural use." Discussion of the receiving body, the Big Muddy River, is found in Paragraphs 15 through 18 above where it is explained that the reasons for the extremely low impacts to the chloride and sulfate concentrations in the Big Muddy River are because the flow is over 1.7 million and 5 million times greater, respectively, than the groundwater flow emanating from the landfill.

37. Furthermore, the provisions of Section 104.420 of the Board's regulations, 35 IAC 104.420, giving any person a right to request a hearing in this proceeding and the provisions of 35 IAC 104.408 regarding Publication of Notice advising any person of a right to request a public hearing, fully satisfy the mandate of the Clean Water Act with respect to public participation as found in 33 USC 1251(e). Proof of Notice of Filing and the declaration of the rights thereunder for any person are attached hereto and have been previously provided to the Board as publication in the

newspaper of general circulation in the geographic area of the Risley Landfill.

38. For these reasons and those stated in the supporting documentation, the requested Adjusted Standards are protective of public health and welfare. The Adjusted Standards requested by Petitioner comply with all applicable Federal requirements.

Petitioner Does Not Waive Hearing

39. Proof of Notice of Filing and the rights thereunder for any person to request a hearing were provided as publication in the newspaper of general circulation in the geographic area of Risley Landfill #2. In the original Petition filed with the Board on September 5, 2007, Petitioner agreed to waive hearing in this matter as permitted by Section 104.406 *provided the Illinois EPA does not have a contrary recommendation to the requested adjusted standard* (emphasis added). It should be restated that Petitioner anticipates IEPA having a favorable recommendation as to the request for the Adjusted Standards (as the agency has recommended in favor of the adjusted standard for chlorides and Petitioner has modified the request with respect to sulfates to address concerns by the Agency with an adjustment downward according to the statistical analysis as recommended but does *not* waive its right to a hearing.

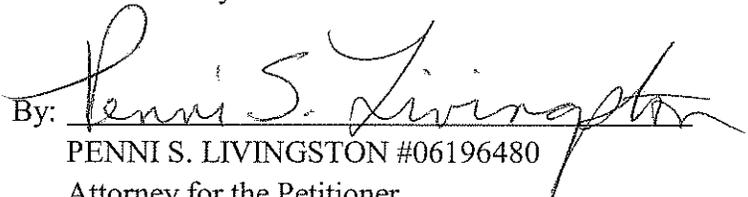
WHEREFORE, for all of the reasons stated above as more fully addressed in the Technical Reports prepared by Leggette Brashears & Graham and documents requested by the Board, the Petitioner respectfully requests that this honorable Board **GRANT** the Petitioner's request for an Adjusted Standard for chlorides in groundwater from 240 mg/L to 600 mg/L and an Adjusted

Standard for sulfates in groundwater from 400 mg/L to 2,281 mg/L after finding that:

- (1) The factors relating to the Petitioner are substantially and significantly different from the factors relied upon by the Board in adopting the general applicability regulation;
- (2) The existence of these factors justifies Adjusted Standards for chlorides and sulfates;
- (3) The requested Adjusted Standards will not result in environmental or health effects more adverse than those considered by the Board in adopting the rule of general applicability;
- (4) The Adjusted Standards are consistent with federal law; and
- (5) The Adjusted Standards are necessary and appropriate by American standards of justice and fairness in order to avoid extreme economic unreasonableness of implementation of any technical remedy to eliminate chlorides and sulfates that have virtually no impact on the receiving water body from this 8-acre landfill which stopped receiving municipal solid waste in 1988.

Respectfully submitted,

Nobel Risley

By: 

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DATED: February 27, 2008

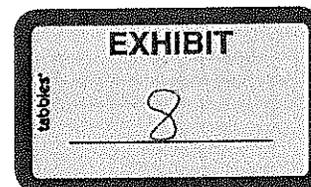
Risley Landfill #2
Franklin County, Illinois
Permit # 1980-21-DE
Supplemental Permit #1996-324-SP

Technical Justification for an Adjusted Standard for Sulfates in Ground Water, in
Response to IPCB Order of January 24, 2008

To address the concern the Illinois Pollution Control Board shares with the Agency (IEPA) regarding the lack of support in the petition for the Landfill's request for an increase of the sulfate limit from 400 mg/L to 4500 mg/L, in that the proposed sulfate limit was higher than the highest sulfate concentration in down gradient monitor well G104, this technical justification has been prepared and the adjusted standard for sulfate in ground water originally proposed is amended. The original proposal of 4500 mg/L for sulfate in ground water was provided to account for spatial and temporal variability but is considered a value not justified by the IPCB. Given the original proposed value was viewed as somewhat arbitrary, and upon further examination the revised proposed adjusted standard herein is supported with the following statistical analysis.

The sulfate concentrations in ground water in well G104 were statistically reviewed. First, the data were reviewed to determine the presence of statistically significant outlier data via Dixon's Test for Outliers. No outliers were identified at a 95% confidence level. Next, the data were tested for normality via the Shapiro-Wilks Test of Normality. The data were found to be normally distributed. The normal distribution and absence of outliers, means the data is reasonably representative of site conditions and further analysis of the data is appropriate. Analysis for trends in the data was conducted via the Mann-Kendall Test for Trends. An overall downward trend in sulfate concentration was identified. The arithmetic mean (Mean) and standard deviation (SD) of the data were calculated. The Mean is 2,161 mg/L and the SD is 584 mg/L. Following generally accepted statistical practices, the Mean + 1 SD is a reasonable proposed standard. Under this scenario, the proposed adjusted standard for sulfate would be 2,745 mg/L.

Employing an additional line of thought regarding a statistical based prediction limit, the 95% Upper Confidence Level (UCL) of the data was calculated to be 2,381 mg/L. The relative closeness of the Mean + 1 SD and the 95% UCL confirms the non-outlier and normality-based indication, that the data is representative of site conditions. The result of the more conservative of the two statistical techniques is proposed as the adjusted standard. Therefore the 95% UCL value of 2,381 mg/L is proposed as the adjusted standard for sulfate.



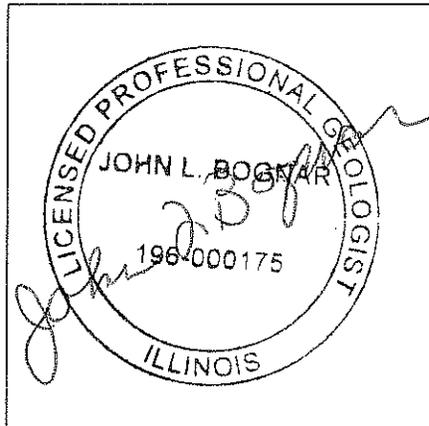
SUBMITTAL CERTIFICATION

**Risley Landfill #2
Franklin County, Illinois
Permit #1980-21-DE
Supplemental Permit #1996-324-SP**

**Technical Justification for an Adjusted Standard
for Sulfates in Ground Water, in Response to IPCB Order of January 24, 2008**

by
**John L. Bognar, PG
Senior Associate
Leggette, Brashears and Graham, Inc.
February 26, 2008**

I attest that all geologic interpretations and work that are the subject of this report were performed under my direction. This document, figures and attachments were prepared under my direction and reviewed by me, and, to the best of my knowledge and belief, the report has been completed in accordance with generally accepted practices, and the information presented is accurate and complete.



Professional Geologist License No. 196-000175
Expiration Date: 03/31/09



John L. Bognar, P.G.
Senior Associate

February 26, 2008

Date

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)
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from 35 Ill. ADM. CODE 620.420) (Adjusted Standard-Water)
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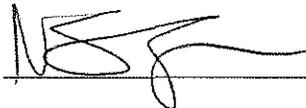
CERTIFICATE OF PUBLICATION

Pursuant to 35 Ill. Adm. Code 104.408 and 104.410, Nobel Risley's Landfill #2 ("Risley"), by and through its attorney, Nick M. San Diego, of the Livingston Law Firm, files its certificate that the appropriate public notice was filed with a newspaper of general circulation within 14 days of the filing of its Amended Petition for Adjusted Standards. The Certificate of Publication issued by the Benton Evening News, a newspaper of general circulation in the Benton, Illinois, area, is attached hereto and incorporated herein as Exhibit A.

Respectfully submitted,

Nobel Risley

By: LIVINGSTON LAW FIRM

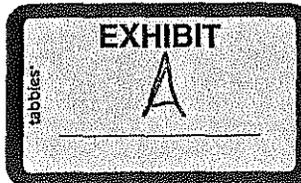


NICK M. SAN DIEGO #6293689
Attorney for the Petitioner
nick@livingstonlaw.biz
5701 Perrin Road
Fairview Heights, IL 62208
Telephone 618-628-7700
Fax 618-628-7710

DATED: December 19, 2007

CERTIFICATE OF PUBLICATION

STATE OF ILLINOIS, Franklin County - SS.



**PUBLIC NOTICE
NOTICE OF
PETITION BY THE
RISLEY LANDFILL #2
FOR ADJUSTED
STANDARDS BEFORE
THE ILLINOIS
POLLUTION
CONTROL BOARD**

The Nobel Risley Landfill #2 (9957 River Bend Road, Benton, Illinois 62812) filed an Amended Petition for Adjusted Standards with the Illinois Pollution Control Board on November

30, 2007, in which the Amended Petition is docketed as AS-08-003. This Amended Petition seeks Adjusted Standards from the Board's groundwater quality standards (35 Ill. Adm. Code 620.420) as they apply to levels of dissolved chlorides and dissolved sulfates in groundwater under the landfill. The footprint of the landfill is about eight acres with up to 20 feet of thickness of waste. The landfill stopped receiving non-hazardous municipal solid waste in 1988 and has completed its post-closure care period. Risley has documented that levels of chloride in two of nine monitoring wells are higher than the applicable groundwater quality standards but submits that the area groundwater is not capable of supporting sustained yield of water and is not suitable for use as potable water. Risley has documented that levels of sulfates in some of its monitoring wells are higher than the applicable groundwater quality

standards but submits that the area is not capable of supporting sustained yield of water and is not suitable for use as potable water. Further, there are no private water wells located down-gradient of the landfill. Treating the groundwater to meet the standards would be technically infeasible and economically unreasonable. Risley is asking the Board to increase the groundwater quality standards so that the current levels are in compliance with the Board's regulations.

Any person may cause a public hearing to be held in the above-described adjusted standard proceeding by filing a hearing request with the Illinois Pollution Control Board within 21 days after the date of the publication of this notice. The hearing request should clearly indicate the docket number of the adjusted standard proceeding, as found in this notice, and must be mailed to the Clerk of the Board, Illinois Pollution Control Board, 100 W.

Randolph Street, Suite 11-500, Chicago, Illinois 60601.

Published in the Benton Evening News on December 7, & 8, 2007.

12/07, 12/08/2007

Liberty Group Publishing, a corporation organized and existing under and by virtue of the law of the State of Illinois, does hereby certify that it is the publisher of the Benton Evening News.

That said Benton Evening News is a secular newspaper and has been published daily in the City of Benton, County of Franklin and State of Illinois, continuously for more than six months prior to, and on and since the date of the first publication of the notice hereinafter referred to and is of general circulation throughout said County and State.

That a notice of which the annexed slip is a true copy, was published 2 times in said Benton Evening News, on the following dates, to-wit:

- Dec. 7 A.D. 20 07
- Dec. 8 A.D. 20 07
- _____ A.D. 20 _____

In witness whereof, the undersigned, the said Benton Evening News Company, has caused this certificate to be signed by Terra Kerkemeyer, Publisher at Benton this 8 day of Dec A.D. 20 07

BENTON EVENING NEWS

by Terra Kerkemeyer

Publication Fee \$ 170.62

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)	
)	
Petition for Adjusted Standard)	AS 08-003
from 35 Ill. ADM. CODE 620.420)	(Adjusted Standard-Water)
For Nobel Risley's Landfill #2)	

CERTIFICATE OF SERVICE

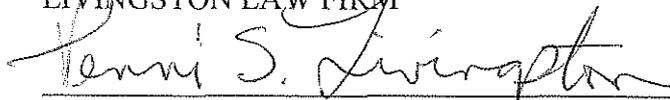
I, the undersigned, certify that I have served the attached AMENDED SECOND AMENDED PETITION FOR ADJUSTED STANDARDS TO ADDRESS POLLUTION CONTROL BOARD COMMENTS ON PREVIOUS AMENDED PETITION and NOTICE OF FILING, by U.S. FIRST CLASS MAIL to the following persons:

Ms. Carol Webb
Hearing Officer
Illinois Pollution Control Board
1021 North Grand Avenue East
Post Office Box 19274
Springfield, Illinois 62794

Mr. James Kropid
Division of Legal Counsel, #21
Illinois Environmental Protection Agency
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794

Respectfully submitted,
Nobel Risley

By: LIVINGSTON LAW FIRM



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Fax 618-628-7710

DATED: February 28, 2008