



FRITZ, BYRNE, HEAD & HARRISON, PLLC

Attorneys at Law

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VIA FACSIMILE NO. 239-3311

Ms. LaDonna Castañuela, Chief Clerk
Office of the Chief Clerk (MC-105)
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087

CHIEF CLERKS OFFICE

2009 MAY 29 AM 8:06

TEXAS
COMMISSION
ON ENVIRONMENTAL
QUALITY

Re: SOAHDocketNo. 582-08-2178; TCEQ Docket No. 2007-1774-MSW; In re:
the Application of BFI Waste Systems of North America, LLC, for a Major
Amendment to Type I MSW Permit No. 1447A

Dear Ms. Castañuela:

Enclosed are an original and eight copies of Protestant TJFA, L.P.'s Exceptions to the Administrative Law Judge's Proposal for Decision which we respectfully request be filed among the other papers in the above-referenced proceeding. Please return a file-stamped copy of the enclosure to me in the self-addressed, postage prepaid envelope provided for your convenience.

A copy of the enclosure is being forwarded to all parties of interest as set forth below. Thank you for your assistance in this matter.

Very truly yours,

FRITZ, BYRNE, HEAD & HARRISON, PLLC

By:

Ann M. Devers
Assistant to J. D. Head

Enclosures

cc: Sec., Certificate of Service (w/encl)



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TEXAS
COMMISSION
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QUALITY

SOAH DOCKET NO. 582-08-2178 2009 MAY 29 AM 8:06
TCEQ DOCKET NO. 2007-1774-MSW
CHIEF CLERKS OFFICE

APPLICATION OF BFI WASTE § BEFORE THE STATE OFFICE
SYSTEMS OF NORTH AMERICA, §
LLC, FOR A MAJOR AMENDMENT § OF
TO TYPE I MSW PERMIT NO. §
1447A § ADMINISTRATIVE HEARINGS

**PROTESTANT TJFA, L.P.'S EXCEPTIONS TO THE
ADMINISTRATIVE LAW JUDGE'S PROPOSAL FOR DECISION**

TO THE HONORABLE COMMISSIONERS OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY:

COMES NOW, TJFA, L.P. (TJFA), a landowner protestant in the above-referenced matter, and hereby files its exceptions to the Administrative Law Judge's (ALJ) Proposal for Decision (PFD) and corresponding proposed Order issued May 8, 2009.

I. Introduction

The ALJ's PFD recommends that the Commission grant to BFI Waste Systems of North America, LLC (BFI or Applicant) an amendment to Texas Commission on Environmental Quality (TCEQ) Permit No. MSW-1447 for a vertical expansion of the existing Sunset Farms landfill in Travis County, Texas. For the reasons set forth herein, TJFA believes that the ALJ's recommendation is erroneous and contrary to applicable laws and rules. Accordingly, TJFA respectfully requests that the Commission deny the permit amendment in its entirety.

II. TJFA's Exceptions and Arguments

BFI's application to amend TCEQ Permit No. MSW-1447 failed to satisfy the requirements of 30 T.A.C. Chapter 330. Accordingly, the ALJ's PFD recommending BFI's application be granted is flawed and should be rejected.

BFI has the burden of proof in this proceeding on numerous contested issues which were referred by the Commission to the State Office of Administrative Hearings (SOAH). In this case, BFI failed to meet its burden of proof on numerous referred issues.

Specifically, BFI has failed to prove the following:

1. Whether the application demonstrates that natural drainage patterns will not be significantly altered by the expansion, in accordance with agency rules, including 30 T.A.C. § 330.56(f)(4)(A)(iv).
2. Whether the application proposes adequate protection of groundwater and surface water, in compliance with agency rules, including 30 T.A.C. §§ 330.55(b)(1), 330.56(f), 330.134, and 330.200 – 206.
3. Whether the application includes adequate provisions for proper slope stability, in compliance with agency rules, including 30 T.A.C. §§ 330.55(b)(8) and 330.56(l).
4. Whether the application includes adequate provisions for groundwater monitoring, in compliance with agency rules, including 30 T.A.C. §§ 330.230 - .233.
5. Whether the application includes adequate provisions for cover, in compliance with agency rules, including 30 T.A.C. § 330.133.
6. Whether the proposed expansion is compatible with land use in the surrounding area.
7. Whether the erosion control methods identified in the application and draft permit are sufficient.

Having failed to meet its burden of proof on one or more of the aforementioned referred issues, BFI's application should be denied.

III. Exceptions to ALJ's Consideration of Witnesses, Qualifications and Credibility

The ALJ states that TJFA's witnesses have long standing and ongoing professional relationships as retained consultants to TDSL for another landfill in Travis County. (PFD 8 – 9). This was the basis for the ALJ to find TJFA's witnesses were less credible than they would have been if they had no relationship with TDSL. TJFA excepts to this finding. Dr. Kier and Pierce Chandler, while admittedly having done consulting work for TDSL, a non-party to this proceeding, have been retained by numerous clients on numerous other municipal solid waste (MSW) facilities in their over 30 years of professional consulting. (TJFA Exs. BK-1, pp. 1 – 3 and BK-2; TJFA Ex. PC-1, pp. 2 and 5 – 10; TJFA Ex. PC-2.) The fact that Dr. Kier and Mr. Chandler have also done work for TDSL should not be relevant to their credibility. Dr. Kier and Mr. Chandler are not now, nor have they ever been employees of TDSL and are not controlled by TDSL. Neither have Dr. Kier and Mr. Chandler ever been employees of TDS or Bob Gregory or controlled by TDS or Bob Gregory. In fact, Dr. Kier testified that Bob Gregory, the CEO, president and principal owner of TDSL, never directed his work on behalf of TJFA in the course of his preparation or review of the BFI application as a testifying witness for TJFA. (TR 1787, ll. 1 – 5).

The ALJ states that “the mere fact they are being paid for their services and have testified for a competitor in the past should not completely discredit Dr. Kier and Mr. Chandler (emphasis added). It would appear that the ALJ's perception of the relationship between TJFA, Bob Gregory, TDS and TDSL impacted his analysis of the testimony and evidence presented and of the credibility of TJFA's witnesses. The fact

that TJFA has Bob Gregory as a limited partner is not a secret. Nor is the fact Mr. Gregory owns a majority of the shares of TJFA's general partner and that Mr. Gregory is the primary shareholder of TDS and TDSL. This was all presented to the Commissioners by BFI on February 1, 2008 in its "Applicant's Response to Requests for Hearing" in briefing on the affected party agenda item to be heard on February 27, 2008 and acknowledged by TJFA on February 15, 2008 in response to BFI's briefing on party status issues. On February 27, 2008, the Commissioners correctly deemed TJFA an affected person by virtue of its land ownership in relation to BFI Sunset Farms Landfill after acknowledging awareness of the same BFI concerns mentioned by the ALJ in the PFD.

TJFA, TDS and TDSL are all separate freestanding legal entities. TJFA is not in the landfill or trash hauling business. The 26 referred issues sent to SOAH by the Commissioners did not include a charge to the ALJ to determine whether he deemed a legal relationship exists between TJFA, TDS and TDSL to the effect whether they are affiliated are not.

TJFA would point out that most of BFI's experts in this case have also worked on other BFI landfills. This includes Ray Shull (Ex. RS-1, p. 4, ll. 14 - 22; p. 75, ll. 7 - 13), Mike Snyder (Ex. MS-1, p. 5, ll. 14 - 23), Greg Adams (Ex. GA-1, p. 4, ll. 4 - 9), Adam Mehevec (Ex. AM-1, p. 4, l. 1 - p. 5, l. 8), William Southern (Ex. WS-1, p. 3, ll. 15 - 19; TR 501, l. 11 - TR 502, l. 3; TR 66, ll. 9 - 21), Shari Libicki (TR p. 502 11.2-3), and John Worrall (Ex. JW-2, RS-11 and APP 000107 - APP 000109). Although these experts routinely work for BFI, the ALJ did not question their credibility. The ALJ's

finding with respect to TJFA's experts' general credibility, as it relates to consulting work for non-party TDSL, is in error.

IV. Referred Issues

A. Exceptions to ALJ's Recommendation That the Application Demonstrates That Natural Drainage Patterns will not be Significantly Altered by the Expansion, in Accordance with Agency Rules, Including 30 T.A.C. § 330.56(f)(4)(A)(iv) – Referred Issue A

TJFA excepts to the ALJ's finding that the application demonstrates that natural drainage patterns will not be significantly altered by the proposed expansion. TJFA's position is that BFI improperly compared the drainage conditions proposed in the application to the currently permitted conditions, not to "natural" drainage patterns as required by the language of § 330.56(f)(4)(A)(iv). TJFA would note the term natural drainage patterns is also used in two other related TCEQ rules, 30 T.A.C. §§ 330.55(b)(5)(D) and 330.56(f)(2). TJFA maintains that TCEQ Regulatory Guidance RG-417, Guidelines for Preparing a Surface Water Drainage Plan for a Municipal Solid Waste Facility (2004) impermissibly substituted current approved (i.e., permitted) site closure condition as the starting point for a drainage evaluation in the case of MSW permit amendments. BFI's utilization of a 2002 drainage modification (or the 2006 modification removing eleven acres from the footprint) as the baseline for drainage evaluation with the vertical expansion did not demonstrate natural drainage patterns had not been significantly altered. Rather, BFI purports to establish no significant alteration between the currently permitted condition and the proposed expansion. This comparison, TJFA asserts, is contrary to the plain language of the rule as it existed in 2006 – prior to

amendment to delete the natural drainage pattern language. The new rule states that "existing drainage patterns will not be adversely altered." 30 T.A.C. § 330.63(c)(1)(C).

As more fully set out in TJFA's Closing Argument and Reply to Closing Arguments, Guidance Document RG-417 is in irreconcilable conflict with the pre-2006 MSW rules. The rules applicable to the BFI application require the demonstration to show "natural" drainage patterns not be significantly altered as opposed to "existing" drainage patterns at the permitted site closure conditions. TJFA disagrees with the ALJ's analysis of the Code Construction Act that it was proper for the TCEQ to ascribe a technical meaning to "natural drainage pattern" so far removed from its common meaning. The definitions in RG-417 are tantamount to unauthorized rulemaking contrary to the Administrative Procedures Act.

TJFA disagrees with the ALJ's adoption of the chain of approval argument. (PFD, p. 17). If the TCEQ allows numerous alterations in drainage patterns, albeit not individually substantive, in a series of permit modifications/amendments comparing developed conditions to proposed conditions, the cumulative effect could well be, over time, a significant alteration of natural drainage patterns.

The ALJ analyzed BFI's comparison of proposed drainage conditions to those currently approved and found no significant alteration of natural drainage patterns. TJFA excepts to the ALJ's finding. Mr. Ray Shull, one of BFI's expert witnesses, testified that the drainage system proposed after the 2002 permit modification established existing conditions for regulatory purposes going forward. (TR 152, 1. 19 – TR 153, 1. 6). The existing conditions for Outfall No. 5 was 66 cubic feet per second (cfs) peak flow and the

existing condition for Outfall No. 4 was 22 cfs peak flow. (Ex. NNC-1, Figure 3). The peak flows from Outfalls Nos. 4 and 5 were carried forward without change in the 2006 permit modification. (Ex. AM-33, Figure 3). When BFI submitted its permit amendment application in January 2006, the peak flow under existing conditions for Outfall No. 5 was 113.3 cfs with a 112 cfs for proposed conditions (i.e., the vertical height increase). BFI showed for Outfall No. 4 a 40.8 cfs peak flow under existing conditions and a 41.8 cfs peak flow under proposed conditions. The peak flows for existing conditions increased appreciably in the 2006 permit application as compared to the 2002 and 2006 permit modification peak flows for the same outfalls. BFI filed its 2006 permit modification with the lower peak flows for Outfalls 4 and 5 as existing conditions either prior to or contemporaneously with the permit amendment with much higher peak flows at Outfalls 4 and 5 at existing conditions. BFI never notified or explained to the TCEQ, during permit processing, the wide divergence in these existing condition peak flow numbers. (TR 2284, 11.4 - 14).

BFI expert Adam Mehevec testified at the hearing the changes in existing drainage conditions from the 2002 and 2006 modifications and the permit amendment application were due to the fact, in part, BFI's engineers did not properly account for the landfills topography and did not include the existing buffer zone areas in their analysis. There were also time of concentration computational changes due to a revised Texas Department of Transportation (TxDOT) model. Even allowing for the higher existing condition peak flow due to changes in the TxDOT model, BFI should be bound by its prior permit representations to the TCEQ. Since 2002, and again in 2006, BFI has

represented to the TCEQ, and the community at large, much lower peak flow numbers at Outfalls 4 and 5. The peak flow numbers in the 2002 permit modification are the currently permitted condition. If the TCEQ decides to consider alteration of drainage patterns based on RG-417, then it should follow the guidance and recognize the predevelopment condition is the "currently permitted condition." (Ex. RS-34, p. 6). TJFA submits the ALJ's findings on this issue are in error.

B. Exceptions to the ALJ's Determination That the Application Proposes Adequate Protection of Ground Water and Surface Water, in Compliance with Agency Rules, Including 30 T.A.C. §§ 330.55(b)(1), 330.56(f), 330.134 and 330.200 – 206 – Referred Issue C

A review of the PFD reveals that the issue of groundwater protection was the classic dueling experts' exercise where one set of experts (BFI's) relied heavily on post-application explanations and the other experts (TJFA's) relied heavily on the pre-hearing contents of the application in the formation of their respective opinions. It was also evident that TJFA's experts' reliance on the contents of the application was not well received in light of the ALJ's evaluation of their testimony. The issue of groundwater protection was complex and, frankly, the examination and cross-examination of the parties' witnesses provided less clarity on TJFA witnesses' criticisms and opinions offered at the hearing. Candidly, the trier-of-fact had the unenviable job of making sense out of these conflicting and often controversial pronouncements by opposing counsel and testifying witnesses. It is apparent that TJFA's positions were not fully understood as the PFD reflects something more than just rejection of TJFA's arguments.

TJFA excepts to the PFD's findings and conclusions on the issue of groundwater protection found on pages 25 – 43. Moreover, TJFA feels compelled to further explain its experts' opinions in a more cogent fashion than was readily apparent from the confrontational venue of a contested case hearing, all the while tying this explanation to the record evidence.

As stated in TJFA's Reply to Closing Arguments, the proper focus of a contested landfill hearing is the application itself. This is borne out by the TCEQ's permitting rules and its longstanding practice of incorporating into the permits it issues the application documents. These become the enforceable representations by which a permittee's regulated activities are measured. (See, 30 T.A.C. § 330.51(b)(1); Ex. ED-1, Section II. p. 3). The contested case hearing provides all parties an opportunity to test each other's views but, in the final analysis, the application and the permit that come out of that process is what ultimately matters. This reality is not lost on TJFA's experts. These experts are seasoned veterans with decades of experience in permitting matters. Their job, as protestant experts, was to critically evaluate the contents of the application and measure it against both regulatory and technical standards of their areas of professional expertise. As the applicant bears the burden of proof for its application, protesting parties are not required to undertake the multi-year investment of experts and consultants to develop a sound application nor engage experts in costly studies and independent investigations to prove up its case. Rather, protesting parties' experts rely upon the representations contained in the application and opine on its sufficiency from a technical and regulatory perspective. That said, TJFA believes that while BFI may have

successfully diverted the ALJ's attention from the deficiencies of its application by focusing on issues involving non-parties, there remain some plausible and technically defensible criticisms of the application document that bear further analysis.

Let's first assume, for the sake of argument, that every relevant representation on this topic contained in the application is true. Let's further assume that the contents of the application are properly sealed by engineers and geoscientists and are intended to be relied on by technical reviewers, regulators and the general public. That is, after all, the intent of the permitting process identified in the MSW rules. TJFA's experts repeatedly testified that their review and analysis was based on representations contained in the application. (TR 1574 - 1575). This in TJFA's view is totally appropriate and should not lend itself to claims of bias, unprofessional conduct nor pre-conceived expert opinions. TJFA's experts did not invent what was contained in the application, they simply pointed out certain inconsistencies and deficiencies from their perspective as seasoned permit reviewers and drafters.

Examining the issues related to groundwater protection, there is a significant amount of testimony in the record that relates to the sub-issues of groundwater monitoring, potential liner leakage, leachate levels in landfill gas recovery wells and offsite contamination. While BFI may have come forward in the hearings to offer what its application failed to adequately explain, nonetheless the permit application document, not the after-the-fact explanations, remains the "*sine qua non*" for both the permitting decision and subsequent permit compliance.

The contents of BFI's permit application indicates that, as of December 1999, projected, inferred or actual water levels in cross-sections of its existing landfill are, in some places, higher than the ground surface. (BFI Ex. RS-11, APP 000712). In groundwater parlance, this is problematic. We are not talking about pre-construction conditions or even potential levels of groundwater. In December 1999, the landfill already existed, excavations completed, and liners were in place and waste had been disposed in the vicinity of this "groundwater mounding" or "groundwater divide" as the case may be. Even recognizing that the BFI landfill was originally sited on a topographic high and even if the groundwater tracked or mimicked this surface topography, none of that continued to exist in December 1999, much less when the application was submitted in 2005. The only way that the actual, potential or inferred levels of groundwater represented in the cross-sections and contours contained in the application could exist is if the landfill was being "recharged" from either below or above. Nothing in the application materials addressed or explained this phenomenon. Nothing in the application mentioned or discussed that the signed and sealed cross-sections in the application which were labeled "Groundwater Level From December 1999 (Approximate)" were intended to represent pre-construction potentiometric surfaces. They were represented as groundwater levels as of 1999 whether real, imagined, inferred, potential or otherwise. Moreover, certain of these water levels exceeded the elevation of the ground surface. To any competent groundwater scientist, this raises a red flag. But it does not stop here.

The application also sets forth BFI's proposed groundwater monitoring system. Its proposed system consists of 32 wells, 17 of which are currently existing. All of the existing wells and the new wells proposed for this system are "point of compliance" wells. By definition, point of compliance wells are "downgradient" from the waste disposal areas. While TJFA has issues related to the sufficiency of the proposed groundwater monitoring system (addressed later in this brief), the salient point here is that groundwater levels must be higher in the vicinity of the landfill in order for it to flow downhill or "downgradient" and intercept these monitoring wells. The logical and technically permissible conclusion that may be reached from these application materials is that groundwater levels are higher at the landfill to enable these wells to function as "point of compliance" monitoring wells.

Acknowledging the two phenomena identified above, the picture becomes clear. The only way that one can have actual or projected levels of groundwater in the landfill that will flow downgradient to the proposed groundwater monitoring system is if the groundwater can move from the landfill downward to the wells. Hence, in order for the representations contained in the application to be true and accurate, the landfill must leak. There is physically no other explanation that would conform to these representations. The only other possible explanation is that the application contains erroneous representations and fails to sufficiently explain these representations. Either condition provides grounds for denial of this application.

TJFA contends that the subject of these proceedings (i.e., the application) fails to reflect that it meets the burden of proof to demonstrate that BFI's landfill is protective of

groundwater. BFI's experts can explain all day that the application does not mean what it says but, in the final analysis, that document and the representations contained therein remain problematic. TJFA's experts correctly pointed out these flaws in the application and the corresponding conclusions that follow if these representations accurately reflect landfill conditions. If BFI had intended otherwise, it should have submitted a technically-sufficient application with accurate representations of actual and proposed conditions and identified them as such. At a minimum, BFI should have revised its application to correct these deficiencies. It did not; choosing instead to attack TJFA and its testifying experts rather than address problems with its application.

1. 3a. Exploration of Subsurface

TJFA takes exception to the accuracy of the ALJ's statement that BFI conducted a subsurface investigation to determine the feasibility and soundness of the proposed vertical expansion. (PFD p. 25). While TJFA concurs that a subsurface investigation section is included in the application, the investigation referenced in the third paragraph of p. 25 of the PFD was expressly undertaken for the purpose of a possible lateral expansion. The lateral expansion was later abandoned when the decision was made to proceed with a vertical expansion only.

TJFA takes exception to the ALJ's statement that all of the borings associated with Mr. Snyder's 2004 boring plan "were conducted in accordance with established field exploration methods." (PFD p. 26). Record evidence and testimony reflect that many of the boring activities and logging techniques fell short of both established field techniques as well as TCEQ well logging rules. (TJFA Ex. PC-1, pp. 33

- 43). TJFA further points out that the record reference to TR 1486 (footnote 62) is in error as it relates to slope stability issues rather than groundwater protection.

TJFA excepts to the statement at the top of page 27 of the PFD that indicates the borings of which Mr. Chandler was critical related to the "abandoned vertical expansion." TJFA believes the statement was intended to reference the abandoned "lateral" expansion. TJFA further believes that Mr. Chandler's concerns are relevant as the deficiencies cited in his testimony underscores the inaccurate representations made by BFI's experts in the application.

2. 3d. Liner Leakage from Representations in Application

TJFA strongly excepts to the ALJ's pronouncements regarding its expert witnesses found on pages 30 and 31 of the PFD. As pointed out above, these experts provided critiques of the application that were well founded. The representations contained in the application, if true, lead to the experts' conclusions that the landfill would have to leak to comport to the conditions identified therein. Did they conduct independent investigations for potential leaks? No, nor was it necessary. Did they review available groundwater data? Yes. Can anyone definitely say what is going on in the entire subsurface at a landfill? No. Can anyone knowledgeable in groundwater science opine on the cause and effect of conditions and representations included in an application? Absolutely. While TJFA's experts expressed strong opinions, all of those opinions are directly and unreservedly linked to the application. Absent these controversial representations in the application, TJFA's experts have no basis to suggest "recharge" occurring within the landfill or probable leaking. It's all about the application

and the consequences that flow from representations contained in the application that lead to these conclusions.

TJFA's experts are neither charlatans nor hired-gun technical assassins. They would never advance such serious claims absent a technical basis. That is precisely why all of their opinions and testimony about groundwater mounding and probable landfill leakage were irrevocably tied to representations in the application. They neither possessed nor professed to have any physical proof of actual leakage (other than the fact that all of BFI's proposed groundwater monitoring wells were downgradient and the confirmed release from MW-30). They merely considered the technical merits of the contents of the application and explained what the consequences of those representations meant if taken at face value. (TR 1593 – 1595; TR 1518 – 1519, TR 1521). TJFA would respectfully request the ALJ to amend the PFD by deleting the contents of all of page 30 and the top of page 31. It is one thing to assess the credibility of expert witnesses. It is something altogether different to impugn the character, honesty and integrity of highly-regarded experts based on face-value interpretations of BFI's application materials.

3. 3d. (i) Water Level Drawings

TJFA takes exception to the statements contained in the second paragraph of page 31 of the PFD. While factually correct, the statements fail to recognize that the opinions were all tied to contents of the application. The burden of disproving obvious flaws in an application should not be borne by protesting parties. The fact is that if an application either fails to adequately explain or has erroneous representations contained in it, that is the applicant's problem. Protesting experts, by pointing out such

deficiencies, should not be charged with anything more onerous than identifying such deficiencies and explaining the import and technical consequences of them. It is not the protesting parties' role to "clean up" an otherwise faulty application.

In the ensuing discussions on pages 32 and 33 of the PFD, one should note that the use of terminology can lead to some real confusion in the record and in the testimony. For example, use of the term "cross-sections" refers to the dotted-dashed lines depicted on the drawings prepared by Mr. Snyder reflected in TJFA Ex. 8. The term "contours" refers to the solid lines depicted on drawings prepared by Mr. Olson or Mr. Carel, as the case may be, in Exhibits. TJFA 8 and 12. In typical geoscience practice, the use of solid lines means that is the interpreted level of groundwater at any point along the contour. Solid lines represent actual groundwater levels of which the drafter has reasonable certainty. Nowhere in the application or in the discovery materials was there any explanation that these solid lines were intended to reflect anything different than what is customary practice. Dashed-dotted lines are typically used to differentiate those lines from other lines on a drawing. Even so, the dashed-dotted lines in the application's cross-sections were labeled to indicate water levels on the drawing's legends which, if true, may have made them either actual water levels or predicted potentiometric water levels. (TR 1614). So the cross-section drawings may reasonably be interpreted to mean actual water levels in the landfill (i.e., leachate levels) or elevated levels beneath the landfill (i.e., potentiometric groundwater levels). Either way, however, taking the drawings at face value, they showed the landfill to be a source of recharge that,

coupled with the proposed downgradient monitoring well system, prompted Dr. Kier to conclude that the landfill had to leak to be consistent with these conditions.¹

TJFA notes (at the top of page 33 of the PFD) Mr. Snyder's testimony wherein he discusses his drawings and the "high potentiometric surface elevations due to a 'groundwater divide' from which groundwater flows to the east and west." Assuming Mr. Snyder's after-the-fact explanations of his drawings are accurate, TJFA questions why these drawings were not identified consistent with his later testimony and why this was not explained fully in the application. Certainly Mr. Snyder was cognizant that even a predicted potentiometric surface map which showed elevations of groundwater higher than the existing ground surface should raise eyebrows. Any geoscientist should recognize, at a minimum, that a potentiometric surface above existing ground surface is not what one would expect in an existing landfill with presumably a functional liner system.

TJFA further excepts to the ALJ's conclusions contained at the bottom of page 33 and the top of page 34 of the PFD. These statements illustrate that the ALJ accepted the "apples vs. oranges" comparison of BFI's water level information contained in its application to the historic groundwater level information related to the pre-construction phase of TDSL's application. (BFI Ex. 18). As correctly pointed out in the record, BFI Exhibit 18 reflected water level measurements in pre-construction borings at

¹ Another source of confusion appears to be the often imprecise use of the term "groundwater." When the term "groundwater" is used, it refers to subsurface water outside of the landfill. For water or fluids inside the landfill, the correct term is "leachate." Many incorrect inferences and conclusions appear in the record, post-hearing briefing and the PFD due to the imprecise use of these terms by BFI's lawyers and the inferences drawn therefrom.

the TDSL site. They were never represented to be anything else. BFI's water levels, on the other hand, were represented to be water levels at an existing landfill some 20 years into its existence and following excavation and substantial waste disposal. Dr. Kier clearly pointed out that the TDSL water levels did not represent any projections or inferences of future water levels, they were actual measurements in borings prior to the existence of the TDSL landfill. Counsel for BFI attempted to direct Dr. Kier into drawing a "potentiometric" surface (as the term is used by BFI) across water elevations in the TDSL borings in BFI Exhibit 18 but, again, Dr. Kier clarified and distinguished it from representations contained in BFI's application. Dr. Kier did not apply a different standard of interpretation in these two instances as, simply put, the TDSL and BFI drawings are not factually comparable. (TR 1764, TR 1767 - 1769).

4. 3d.(ii) Applied Materials' Site

TJFA respectfully excepts to the entire section in the PFD related to issues involving the Applied Materials' site, a business located immediately across Giles Lane from the BFI facility. (PFD, pp. 34 - 37). While TJFA will specifically comment on some of the details contained in this section of the PFD, the bigger picture deals with what relevance, if any, does the past groundwater monitoring at the Applied Materials' site have to any issue presented in the BFI hearing? Further, what relevance, if any, should contaminated groundwater have at a facility located downgradient from three (3) existing landfills, when one of these (Waste Management) has a long and documented history of groundwater problems and disposal of industrial/hazardous wastes? The focus of the PFD in this section appears to be disproving any relationship of BFI to any

groundwater issue at Applied Materials. TJFA wholly agrees that BFI is not the source of any groundwater quality issue at Applied Materials and supported that conclusion in pre-filed testimony, live testimony and trial exhibits. (TJFA Ex. BK-8; TR 1589, 1591). That is not the point. The point simply is that there is probative evidence of groundwater problems at Waste Management. Groundwater flows directionally from Waste Management's facility and, in part, crosses BFI's land before arriving at Applied Materials' groundwater monitoring wells. The essence of this record evidence was not to suggest BFI had anything to do with any constituents of concern in Applied Materials' groundwater, rather it was to emphasize that BFI's site is in a unique setting and specific site conditions must be considered in the development of its proposed groundwater monitoring system and its GWSAP. That is clearly a requirement of the applicable TCEQ rules. 30 T.A.C. § 330.231(e)(1).

TJFA excepts to the statement found in the first paragraph of section 3.d (ii) of the PFD that indicates that Dr. Kier holds BFI responsible for any contamination at the Applied Materials' site. (PFD, p. 34). Numerous record references suggest otherwise. (See, citations in preceding paragraph). Dr. Kier does, however, consider the Waste Management facility adjacent to BFI as a probable source of contamination in Applied Material's groundwater monitoring wells nearest such facility. (TJFA Ex. BK-8; TR 1589 – 1590). Evidence developed by Dr. Kier in 1998 as well as groundwater maps developed by BFI witness Mr. Carel support the direction of groundwater flow to be from the Waste Management facility, traversing a portion of the BFI property then on to the Applied Materials' site. (TJFA Exs. BK-5, BK-6 and BK-8 and TJFA-12).

TJFA excepts to the apparent misunderstanding of Dr. Kier's testimony discussed in the first full paragraph of page 35 of the PFD. This paragraph may be read to conclude that Dr. Kier "did not care" about Mr. Snyder's assumption of groundwater flow rates as it related to the transport of contaminants to the Applied Materials' site. Prior to the comment, Dr. Kier explicitly testified that he did not agree with Mr. Snyder's calculations. (TR 1616). While his answer initially might be deemed flippant, a fair reading of his testimony immediately following provides the rest of the story. Dr. Kier testified his belief that the groundwater velocity is likely much greater along the contaminant pathway from the Waste Management facility due to the breakdown and desiccation of clays in the presence of the acids, solvents and highly saline solutions deposited at the Waste Management facility over 30 years ago. (TR 1617 - 1622). The phenomenon of the effects of these materials on clays and the resulting increase in groundwater velocities was not controverted and was described in considerable detail in Dr. Kier's 1998 studies of groundwater problems at Waste Managements' landfill and resulting local impacts. (TJFA Ex. BK-8). So, reviewing the evidence as a whole, Dr. Kier was saying that he really didn't need to quibble with Mr. Snyder's groundwater velocity calculations based on one or more slug tests at BFI's facility, as it was not representative of groundwater velocities in clays that had been subjected to the breakdown effects of industrial/hazardous wastes that had been deposited at the Waste Management facility. That is the proper context of this testimony. (TR 1590 - 1591).

TJFA excepts to the second full paragraph of page 35 of the PFD to the extent the first sentence is meant to conclude that the groundwater velocity calculations

elicited by BFI's counsel were anything with which he agreed, both as to methodology or result. Having previously said he did not necessarily agree with the groundwater velocity rate of 6 to 10 feet per year suggested by Mr. Snyder (as applicable to contamination movements in the groundwater), BFI's counsel nonetheless asked him to "assume" its accuracy for purposes of calculating the time it would take for groundwater to travel from Giles Lane to a well located on the Applied Materials' property. Dr. Kier did not necessarily agree with or support the accuracy of this calculation. All of this testimony was based on assumptions provided by BFI's counsel of which his previous testimony clearly disagreed. Dr. Kier's focus was not on groundwater velocities at BFI's landfill as it was from Waste Management's, the presumed source of any contamination finding its way to the Applied Materials' site.

TJFA further excepts to the ALJ's characterization of Dr. Kier's testimony found at the bottom of page 35 and through the middle of page 36 of the PFD. The ALJ characterizes Dr. Kier's testimony as "junk science." Nothing could be farther from the truth. Even back in 1998, the groundwater wells at Applied Materials nearest Waste Management's facility exhibited high levels of total organic carbon and total organic halogens (indicators of organic compound contamination). TJFA Exhibit BK-8 sets forth in considerable detail the historic relationship between Waste Management's past disposal practices and Applied Materials' concerns about the potential impacts it may have on its groundwater. Exhibit BK-8 further details the deleterious effects that solvents, acids and highly saline wastes have on clays and these effects, in turn, resulting in increased velocities of groundwater movement. This is uncontroverted evidence in the

record. TJFA Exhibit BK-7 (the partial PBS&J report) represents but another chapter in Applied Materials' groundwater concerns. How can semi-volatile compounds associated with industrial activities appear as "hits" in some of Applied Materials' groundwater monitoring wells? The fact is they were detected in 2002. The fact is that the only probable source upgradient from Applied Materials is the Waste Management facility. Considering the extensive groundwater studies set forth in BK-8 and the relevant information contained in BK-7, the groundwater constituents found in Applied Materials' most upgradient wells clearly points to Waste Management. Mr. Snyder's calculated groundwater velocity may accurately reflect conditions present at the BFI facility in presumably clean groundwater and unaffected native clays. That calculation does not apply to groundwater velocities for contaminated groundwater in clays subject to 30 years of exposure to solvents, acids and highly saline solutions.

Can Dr. Kier prove that the 2002 groundwater monitoring results at Applied Materials are conclusively the responsibility of Waste Management? No, he cannot. Can Dr. Kier advance a plausible theory based on extensive groundwater studies, knowledge of directional groundwater flow direction, prior sampling results at Applied Materials, knowledge of Waste Management's past disposal practices, effects of certain waste streams on clays and groundwater velocities and the passage of time? Most definitely.

Dr. Kier's theory is not junk science. Neither Mr. Snyder nor anyone else can assume or prove the groundwater velocity along the contamination pathways emanating from Waste Management's old industrial disposal site. We do know the

directional flow of groundwater, the historic waste disposal activities of Waste Management, the similarity of groundwater chemistry at both Applied Materials and Waste Management, and the presence of unusual industrial chemicals and contamination markers appearing in some of Applied Materials' groundwater wells. All of these things provide relevant information to professional geoscientists in attempting to explain impacts to groundwater. Absent lab errors involving over 10 separate semi-volatile chemicals or someone intentionally contaminating Applied Materials' wells, the most logical theory is that Applied Materials' groundwater has been impacted by upgradient waste disposal activities. The ALJ's characterization of this evidence and testimony as junk science is not warranted based on this record. TJFA respectfully requests the PFD be amended to delete these erroneous conclusions.

TJFA further excepts to the PFD conclusion that a compound of concern found in one of Applied Materials' wells was "nothing more than a sampling error, since nylon rope was used in the sampling procedure." (PFD, p. 36). A review of the cited record reflects that Mr. Carel indicated in his testimony that Caprolactam (a compound found in one of the wells) is associated with the manufacture of nylon. Mr. Carel then went on to speculate that "And I think they said in their report that nylon rope was used to sample the wells, which I would suggest is not a release, but that's probably where that came from." (TR 321). TJFA challenges Mr. Carel or anyone else to identify anywhere in the PBS&J report on the Applied Materials' sampling event where it makes such a representation. Mr. Carel was mistaken. The PBS&J report does not state the use of nylon rope for its sampling event. Consequently, Mr. Carel's testimony is speculative

and of no consequence in attempting to explain away the presence of Caprolactam in Applied Material's groundwater. (TJFA Ex. BK-7 and BK-10).

TJFA excepts to the PFD's statement that "in the absence of contradictory evidence.... groundwater in the area moves at 10 feet per year or less is correct." (PFD, p. 36). TJFA does not contest the accuracy of this groundwater velocity as applied to BFI's site and Mr. Snyder's calculation. TJFA, for reasons cited above, does contest that it is an accurate measure for groundwater velocity for groundwater traveling from Waste Management's former industrial waste site to the Applied Materials' site and submits that the calculation is contradicted by Dr. Kier's testimony and record exhibits. TJFA concurs with the ALJ that any contamination found in Applied Materials' wells should not be attributed to BFI's landfill as it is not the likely source.

5. 3d.(iii) Extraction Wells and Leachate Levels

In addition to the water levels represented in the application and evidence of groundwater contamination at the adjacent Applied Materials' facility, TJFA also pointed out in its closing arguments that BFI's landfill gas extraction wells had experienced, in many instances, significantly high water levels. (TJFA Ex. 9; TR 310 – 311). As noted earlier in this brief, fluid levels of any kind within a landfill are, by definition, leachate. BFI's landfill has previously been cited by the TCEQ for high leachate levels based on TCEQ inspections from 2001. (BFI Ex. SL-10). TJFA pointed these facts out in the hearing to show that BFI has experienced some leachate level issues with its existing landfill, all of which is consistent with TJFA's concerns related to protection of groundwater and development of an adequate groundwater monitoring

system and GWSAP. Although the ALJ concluded that no other testifying expert reached this conclusion, that begs the question as TJFA used BFI's experts and evidence to make its record. Furthermore, TJFA is not aware whether any other party agrees or disagrees with its concerns about high leachate levels in BFI's landfill gas extraction wells as TJFA does not recall the other parties (other than BFI) affirmatively expressing an opinion one way or the other (PFD, p. 37).

The PFD indicates that TJFA ignores Mr. Snyder's conclusion that "liquid or condensate levels in individual LFG extraction wells is not indicative of leachate levels within the landfill itself." (PFD, pp. 37 - 38). TJFA further excepts to the statement that it ignored Mr. Snyder's testimony. In response to questions from TJFA's counsel, Mr. Snyder stated, in pertinent part:

A. ... what I would interpret from this data is that there is liquid in a leachate extraction well and that they found it at a certain level in that well, and it may or may not be reflective of any level that is anywhere around.... And this is an accumulation of either leachate or possible gas condensate in a well, and its reflective of a - either vertical or lateral connected layer." (Emphasis added). (TR 309).

As seen above, Mr. Snyder's initial testimony did not conclusively rule out the possibility that water levels within a gas extraction well can be indicative of leachate levels in the vicinity of a well, he merely opined in this testimony that one could not attach certainty to what it may or may not reflect.² Dr. Libicki, BFI's odor expert, certainly possessed

² TJFA acknowledges that Mr. Snyder, on re-direct, testified that he did not believe water in a LFG well was reflective of leachate levels above the bottom liner. Instead, he opined, it was indicative of leachate that had collected in the pipe. (TR 448). This, in TJFA's view, does not necessarily erase the impact of his prior testimony nor prove that it is representative of leachate levels in the vicinity of that well.

extensive credentials and knowledge of landfill gas collection systems (even though she does not design them). Dr. Libicki testified that, hypothetically, the presence of liquid in a landfill gas (LFG) extraction well that essentially halfway filled a 23 foot well was not indicative of LFG condensate. Indeed, she opined that LFG condensate is typically fairly small compared to the overall depth of a landfill. (TR 529). Even BFI's landfill gas expert, Mr. Stutz, recognized that small amounts of water in a well is most likely condensate and not leachate collecting in a well. (TR 920). The ALJ then concludes that "TJFA infers that it was leachate." (PFD, p. 38). Again, by definition, it is leachate as it represents liquid within the landfill waste mass.

BFI witness, Mr. Stutz, was more adamant in his opinion that it is more likely that water in an LFG well is coming from the top of the landfill down rather than the bottom up. (TR 921-922). TJFA would simply point out two things. One, while Mr. Stutz may believe it to be "more likely," that represents a general opinion and cannot be shown to be what actually is happening at BFI's landfill. Two, none of BFI's witnesses (Snyder, Libicki or Stutz) offered any explanation of why a perforated pipe (i.e., LFG well) would accumulate large volumes of water and that water not flow horizontally out from these multiple perforations and seek to move either laterally or downwardly. Logically, water will seek equilibrium and for it not to do so leaves open the possibility that either the perforations are clogged or that the area surrounding the perforations is saturated with leachate. Otherwise, one would not expect to see such significant volumes of water in certain of these wells as condensate is pretty much ruled out as a major contributing factor. Couple this with BFI's historic leachate level problems and the

potentiometric drawings in the application and the leachate levels in the LFG extraction system take on more relevance.

6. 3d.(iv) Detection Monitoring

TJFA re-asserts its position that detection of chlorinated solvents in MW-30 of BFI's current groundwater monitoring system is indicative of a release from the landfill. The PFD dismisses this statistically significant release by re-iterating the opinions of BFI witnesses Mr. Snyder and Mr. Carel. (PFD, p. 41). Both gentlemen opined that the detection of this compound was likely the result of landfill gas migrating into monitoring well MW-30. (BFI Exs. JS-1, p. 46 and KC-1, p. 21). TJFA excepts to this section of the PFD to the extent that it attempts to dismiss evidence of an actual release from BFI's landfill. The whole purpose of groundwater monitoring is to detect statistically significant releases from a landfill into the surrounding groundwater. In this instance, BFI's system worked. It matters little that BFI chooses to attempt to explain it away as a landfill gas issue. It is a documented release and it has impacted groundwater. TJFA submits that it is another factor to consider in the issue of groundwater protection and it is relevant as it relates to the adequacy of BFI's proposed groundwater monitoring system and GWSAP in this unique setting of a cluster of landfills.

7. 3d.(v) Groundwater Monitoring System

TJFA excepts to the intimation that it is playing a "word game" to suggest that BFI's downgradient "point of compliance" groundwater monitoring system is problematic. (PFD, pp. 41 - 42). TJFA re-asserts that if every groundwater monitoring well completely surrounding the landfill is downgradient that necessarily means that

BFI's landfill has to be upgradient. TJFA further excepts to the PFD's conclusion that, by surrounding its entire facility with monitoring wells, BFI has somehow exceeded regulatory requirements for groundwater monitoring. (PFD, p. 42). As will be discussed later in this brief, BFI's proposed system fails to meet regulatory requirements for groundwater monitoring systems and fails to comply with well spacing and location regulations.

8. 3f. Groundwater Protection Conclusions

For the reasons stated above and elsewhere in this brief, TJFA excepts to the ALJ's conclusions that BFI's application includes adequate provisions to ensure proper containment and isolation of deposited waste and associated leachate from groundwater and surrounding potential receptors. TJFA further excepts to the finding that BFI's application and record evidence provide adequate provisions to protect groundwater. TJFA claims are based not only on deficiencies identified in the application but concerns about the slope stability of BFI's intended expansion and sufficiency of its proposed groundwater monitoring system, among other things.

C. Whether The Application Includes Adequate Provisions For Proper Slope Stability, In Compliance With Agency Rules, Including 30 T.A.C. §§ 330.55(b)(8) and 330.56(1) – Referred Issue F

1. Applicable Rules

TJFA excepts to the PFD's recitation of applicable rules found at pages 56 and 57. The rules identified by the ALJ are correct, as far as they go, but fail to acknowledge the complete universe of rules that are relevant in assessment of landfill stability demonstrations. While the referral order specifically referenced 30 T.A.C.

§§ 330.55(b)(8) and 330.56(1), the inquiry does not stop there. The ALJ correctly notes that § 330.55(b)(8) references § 330.56(b) (related to cross sections) and that § 330.56(1) incorporates §§ 330.250-330.256 (relating to closure and post-closure). The ALJ's recitation of rules, however, omits certain other key rules that must be considered to provide a satisfactory demonstration of slope stability. Slope stability is not limited to final-cover designs, closure and post-closure care. Rather, slope stability is a function of landfill design, construction, operations and interim conditions in addition to final closure of the landfill. Although the rules relied on by the ALJ are relevant, the TCEQ's referral order cannot be read to reflect that the inquiry is so limited. The TCEQ's referral order is merely an identification of some of the relevant regulations but not all. The TCEQ's order identifies certain rules by the modifier "including." This word "including" should not be read to limit the inquiry. Instead, it should be construed to provide examples of rules that may be implicated in the analysis of the broader inquiry of the landfill's stability. It matters little if a permittee follows its closure plan to the tee if the sides of the landfill (including its protective features) slide off down the hill.

TJFA asserts that 30 T.A.C. § 330.305 applies in any assessment of slope stability. Mr. Adams concurs that 30 T.A.C. § 330.305 (relating to unstable areas) is implicated in the proper evaluation and demonstration of slope stability. (BFI Ex. GA-1, p. 27) (TR 578 - 579). He further concurs that this regulation is applicable to vertical expansions of existing landfills. (TR 583). The import of § 330.305, from TJFA's perspective, is that the rule is drafted in such a way as to include both natural and human-induced events which are capable of impairing the integrity of some or all of a landfill's

“structural components.” 30 T.A.C. § 330.2(143) defines “structural components” to include liners, leachate collection systems, final covers, run-on/run-off systems and any other component of a landfill necessary to protect human health and the environment. Even Mr. Adams agreed that a vertical expansion was a “human-induced event” within the meaning of § 330.305. (TR 580). Hence, in reviewing a proposed vertical expansion of a landfill for its stability, one needs to take into account what and how that design may affect these structural components. If the design would potentially impair the integrity of the “structural components,” as defined in the MSW rules, it cannot meet the required “unstable area” rule demonstration.

2. Unstable Area Rule

Perhaps it is just a misnomer but TJFA does not understand the heading “The Unstable Area Rule is Not Applicable” found on page 56 of the PFD. Experts for both BFI and TJFA agreed it applied to the pending application and was a part of the necessary demonstrations borne by the applicant. (BFI Ex. GA-1, p. 27; TR 583; TJFA Ex. PC-1, pp. 52 – 53). The rule requires that the applicant consider, at a minimum, the following factors in determining if an area is unstable;

- (a) On-site or local soil conditions that may result in significant differential settling;
- (b) On-site and local geologic and geomorphologic features; and
- (c) On-site or local human-made features or events (both surface and subsurface). (330.305). (Emphasis added).

It is TJFA’s view that the rule’s minimum requirements thus require the applicant to adequately assess how its design, construction, and the interim/final closure of a vertical expansion may involve the potential for rendering the landfill “unstable.” Although the

TCEQ rules do not specify how a stability analysis should be performed, a general consensus of the types of analyses, identification of critical interfaces, establishment of conservative inputs and assignment of factors of safety have evolved in geotechnical literature and geotechnical engineering practice. (BFI Ex. GA-1, p. 28.).

TJFA is at a loss to understand the PFD's description of TJFA's position on the issue of slope stability as referenced in the middle paragraph of page 56 of the PFD. Contrary to these statements, TJFA's problems with BFI's stability analysis stem from numerous shortcomings noted by Mr. Chandler in both his pretrial and live testimony. (See, generally, TJFA Exs. PC-1, pp. 54 - 63, 66 - 72; PC-16). These criticisms addressed unrealistic inputs into slope stability calculations, unconservative assumptions about the strengths of components of the landfill, departures from geotechnical literature on the proper conduct of slope stability analyses, omissions of analyses of certain critical interfaces and failure to analyze the actual construction designs vs. "hypothetical" ones, among other things. Contrary to the PFD's proclamations, TJFA's criticisms are founded on technical deficiencies in BFI's analysis which conclusively demonstrate that BFI's analysis cannot meet the requirements of § 330.305 to demonstrate that the landfill will be stable.

TJFA excepts to the ALJ's analysis of the evidence starting in the middle of page 57 and proceeding through the middle of page 58. The gist of the PFD's analysis reflects a fundamental misunderstanding of the "unstable area" rule requirements. While it is true that BFI's landfill is not located over Karst terrain, the ALJ construes the terms

“areas susceptible to mass movement” and “poor foundation conditions” too narrowly. A review of the regulatory definitions from § 330.2 of the MSW rules is instructive.

Areas susceptible to mass movements – Areas of influence (i.e., areas characterized as having an active or substantial possibility of mass movement) where the movement of earth material at, beneath, or adjacent to the municipal solid waste landfill unit, because of natural or man-induced events, results in the downslope transport of soil and rock material by means of gravitation influence. Areas of mass movement include, but are not limited to, landslides, avalanches, debris slides and flows, soil fluction, block sliding,³ and rock fall (330.2.(7). Emphasis added.

Poor foundation conditions – Areas where features exist which indicate that a natural or man-induced event may result in inadequate foundation support for the structural components of a municipal solid waste landfill unit (330.2(102) emphasis added.).

Structural components – liners, leachate collection systems, final covers, run-on/run-off systems, and any other component used in the construction and operation of the municipal solid waste landfill that is necessary for protection of human health and the environment (330.2(143)).

These regulatory definitions are not ambiguous. When evaluating the stability or instability of a landfill, we must consider “man-induced” or “human-induced” events in addition to the “natural” or geological setting where the landfill is sited. TJFA asserts that extensive slope stability analyses are required for a vertical expansion of a landfill to prove up its stability in light of “man-made” or “human induced” events which may make it unstable and potentially compromise the “structural components” of the landfill’s protective features. “Areas susceptible to mass movement,” by definition, goes beyond mere geologic settings. “Poor foundation conditions” refers to a far broader

³ For examples of block sliding, please refer to BFI Ex. GA-1, p. 30.

scope of considerations than the excavation slopes and native soils. This is apparently lost on Mr. Udenenwu and, to a lesser extent, on Mr. Adams.⁴

At the bottom of page 57 of the PFD, the ALJ asserts that Mr. Chandler concluded that the proposed vertical expansion over an existing waste mass renders the BFI site an unstable area. TJFA excepts to this characterization of his testimony.

Although the ALJ sees it differently, both Mr. Adams and Mr. Chandler concluded that an evaluation of the waste mass is important in stability analyses.

Q: ...For purposes of a slope stability analysis, what do you consider to be critical areas to evaluate?

A. (Adams) Well, naturally, we want to look at each of the interfaces. And do -- we, typically, want to look at the waste itself..." (TR 602 - 603).

Q: And it's also important to identify the -- I believe you used the term just the wastes themselves in terms of any kinds of strengths that they may involve in the performance of a slope stability analysis, right?

A. (Adams) The waste?

Q. The waste. I believe you did mention the wastes, correct?

A. Yes.

(TR 604).

Contrary to the assertions on page 58 of the PFD, TJFA does not claim that Mr. Adams argued that the existing waste mass was an unstable area. Rather, TJFA asserted that Mr. Adams agreed that "existing waste" should be evaluated in a slope stability analysis.

⁴ The cited testimony for Mr. Adams at footnote 180 refers to "poor soil conditions" rather than "poor foundation conditions" as referenced and defined in the rules. Again, the point is not that the BFI site is an unstable area. The point is that insufficient slope stability analyses (to include certain critical liner interfaces and the actual construction designs) were never performed to satisfactorily establish its stability).

That position is supported by Mr. Adam's above hearing testimony as reflected in TJFA's closing argument brief. (See, TJFA's Closing Argument, p. 23).

TJFA strongly excepts to the ALJ's adoption of Mr. Udenenwu's pre-filed testimony as the correct interpretation of the requirements of 30 T.A.C. § 330.305. (PFD, p. 60). Mr. Udenenwu's testimony cannot be squared with 30 T.A.C. § 330.305's unambiguous wording nor the specific regulatory definitions for the terms found in § 330.2 of the MSW rules.

3. Slope Stability Analysis and Conclusions

While it is obvious that the ALJ found Mr. Adam's analyses acceptable, TJFA excepts to the statement that Mr. Chandler deviated from generally accepted standards and practices in Texas concerning landfill slope stability. (PFD, p. 63.) Notwithstanding the ALJ's assessment of credibility, it was Mr. Adams (not Mr. Chandler) whose credibility should be at issue. Mr. Chandler correctly pointed out that Mr. Adams failed to follow geotechnical literature in his stability analyses, failed to include any analyses of the smooth membrane bottom liner, failed to include any liners, geosynthetic interfaces or the clay liner in the final condition waste slope, included "hypothetical" versus actual construction designs, used unrealistic strength inputs in his calculations and dispensed with key computer runs and analyses of critical features of the landfill. (See, generally, TJFA Exs. PC-1, pp. 54 – 63, 66 – 72; PC-16). TJFA fails to understand why Mr. Chandler's credibility is at stake for pointing out the numerous technical deficiencies in Mr. Adam's analysis. Moreover, BFI and Mr. Adams failed to not only omit many of the alleged analyses, they also failed to provide them in discovery.

While TJFA is not suggesting that Mr. Adams is dishonest, the fact remains that the application is deficient as it did not contain sufficient information to back-up Mr. Adams' opinions nor were some of his critical evaluations provided to any party for independent validation.

4. Industry Standards for Side Slopes and Excavation Slopes

TJFA concurs with the PFD regarding the industry standard of 4-to-1 side slopes and 3-to-1 excavation slopes for modern landfills in most designs and geological settings. (PFD, p. 63). TJFA excepts to the conclusion at the top of page 64 that "Mr. Chandler contradictorily claimed that each of BFI's slope stability analyses was problematic and did not meet the standard of practice for slope stability analyses." While the ALJ correctly concludes that Mr. Chandler did find fault with the methodology and/or inputs for each of the slope stability analyses performed by Mr. Adams, Mr. Chandler never claimed that a 4-to-1 side slope cannot be made to work at the BFI site. Reviewing the testimony cited at footnote 215:

- Q. Mr. Chandler, what side slope ratio would you recommend for this landfill?
- A. (Chandler) I think a four-to-one is fine. I think it might require the selection of materials that are used in the final cover so that you can make it work on a four-to-one slope.

While Mr. Chandler disagreed with Mr. Adam's calculations and analyses, he still maintained that the side slope ratio was not the problem, just the materials in the design given his disagreement with Mr. Adams' calculations. Liners and geosynthetics are available in different strengths, textures and compositions to address a wide variety of site-specific applications. Here, Mr. Chandler's credibility should not suffer. Although

he had no confidence in Mr. Adams' analyses, he still recognized that the side slope ratios were acceptable, provided a different mix of component materials were employed for stability purposes. That is credible testimony based on conservative engineering assumptions.

5. Factors of Safety and Soil Strength

TJFA concurs with the ALJ that 1.5 is considered an industry standard factor of safety for long term stability considerations in most landfill designs and geological settings. Where there is a departure with this industry standard, from TJFA's point of view, is its expert's view that Mr. Adams' unconservative inputs (often using shear strengths that greatly exceeded even the upper limits of published strengths for like materials) resulted in factors of safety not representative of actual site conditions. (See, TJFA Ex. PC-16). TJFA's expert further opined that he would recommend a factor of safety of 2.0 (presumably, in part, as a result of acknowledgement of Mr. Adam's unrealistic estimates) based on a recognized EPA chart that sets forth recommended factors of safety in a variety of differing scenarios. (See, TJFA Ex. PC-5). There was a clear divergence of opinion between Mr. Adams and Mr. Chandler regarding the quality of strength test data for the local site materials. Mr. Adams believed prior testing at the site provided sufficient data to support his interpretation of what the EPA chart termed "high quality strength test data." (TR 705). Mr. Chandler disagreed and provided clear examples of what that term meant to highly-experienced engineers who have adopted a technical meaning for such data quality. (TR 1571-1573). On balance Mr. Chandler's

testimony refutes Mr. Adams and demonstrated that his expertise and experience with "high strength testing" regimens were superior.

TJFA excepts to the statement in the middle of page 65 of the PFD that "according to Mr. Chandler, the application lacks any high quality soil strength data, thus its strength is uncertain and the lowest possible strength values should be used." The record references cited by the ALJ (footnote 221; PC-16 and TR 1571) do not support this assertion. Mr. Chandler made no such representation. The cited exhibit (PC-16) is a chart prepared by Mr. Chandler for a widely accepted geotechnical reference which shows published strength values for materials like those found at BFI's site. The purpose of PC-16 was to demonstrate that Mr. Adams used strength values in his calculations that, in many instances, greatly exceeded recognized values for similar materials. It was not, as intimated in the PFD, any suggestion that "the lowest published values should be used" or, as characterized in the next sentence, "disingenuous." It represents record evidence of well-recognized geotechnical literature that Mr. Adams' inputs and assumptions (in calculating his factors of safety) were well outside the norm and not backed up by high quality strength test data. TJFA does not dispute that Mr. Adams had at his disposal a lot of "low quality soil strength data" or, for that matter, that there is considerable uniformity of soils present at the site. What Mr. Chandler did was simply conclude that the inputs for the factor of safety calculations were anything but conservative and there was an absence of "high quality strength data" for this site. Based on these conclusions, Mr. Chandler conservatively recommend a factor of safety of 2.0.

6. Slope Failures Elsewhere

TJFA generally concurs with the PFD's contents on pages 67 and 68 related to examples of slope failures. The sole and minimal purpose of TJFA's evidence regarding this topic was to merely inform the ALJ that slope failures have and do occur in Taylor marl and similar geological settings. While all parties concur that, in general, the Taylor represents a desirable geological setting for municipal solid waste landfills, even then applicants and their engineers need to be cognizant of the possibility of slope failures if their designs, construction, operations and closure assumptions are not rigorously evaluated.

7. Geosynthetic Interface Review

TJFA needs to make a couple of points about this section of the PFD. As repeatedly explained in this and earlier briefings, the problem with BFI's case on this topic is that none of the contested facts relating to what "may be the most critical" area to examine for slope stability was included in the application. Instead, Mr. Adams stated that he did, in fact, make such an evaluation for the final condition but chose not to include it in the application. He further testified that he did not recall what strength values he used for the smooth membrane or what cohesion numbers and friction numbers were utilized. (TR 643 - 644). Yet, what may be the most critical of the stability analyses, simply was not retained nor included in the application. And even then, according to Mr. Adams' testimony, the no longer available analysis for the final condition of the landfill was destroyed. (TR 643). It is long gone and not addressed in the application. Where, too, is the evaluation for the "interim" condition of this

potentially critical feature? The application certainly does not contain any of these evaluations of the smooth membrane liner interface with the clay liner for anyone's review. Even more important is the admission by Mr. Adams that he did not even evaluate the actual landfill configuration. He only modeled hypothetical or "idealized" configurations. (TR 650).

While TJFA is not casting dispersions on the veracity of Mr. Adams, we should not lose sight of the import of the omission of this data and its unavailability even during the discovery process. It is the application that is the subject of this proceeding. If documentation of slope stability of some of the most potentially critical interfaces is not in the application (or even available through discovery), the application is seriously flawed. Applicant's witnesses should not be able to simply explain away critical evidence without opposing parties having access to evaluate that evidence either from the application materials or responsive discovery submittals.

8. Infinite Slope Analysis

TJFA concurs with the representations contained in the PFD in this section with one notable and important distinction. TJFA excepts to the conclusions and representations set forth in the final paragraph related to a hand-calculation Mr. Chandler performed at the direction of BFI's counsel. (PFD, p. 70). The statement that "BFI asked Mr. Chandler to calculate a slope applying his criticisms of Mr. Adams' infinite slope analysis" mischaracterizes what actually occurred. Mr. Chandler was not asked to calculate a slope applying his criticisms of Mr. Adams' calculations. Mr. Chandler was asked to calculate a slope angle of five degrees using the lowest published strength values

for a geosynthetic surface. As noted in Mr. Adams' testimony (who was present when BFI's counsel went through this exercise at Mr. Chandler's deposition):

- Q. And I believe Mr. Carlson did ask you some of the questions about this, and I believe the point he was trying to make is that a slope angle of over 11-to-1 would be far away from the norm in landfill practice today, correct?
- A. (Adams) That's what I understand, yes, sir.
- Q. And that would be based on the five degrees slope angle, correct?
- A. (Adams) Right.
- Q. Okay. And, again, you were present when Mr. Chandler hand-calculated those numbers that appear on BFI-6, correct?
- A. (Adams) Yes, sir.
- Q. What did you understand the inputs to be for him to obtain the five degree slope angle and then with the resulting slope ration of 11.43-to-1?
- A. (Adams) I understand that it's the lowest published interface strength for a geosynthetic layer.

What TJFA has been saying all along is that Mr. Chandler did not nor does not support a side slope ratio greater than 4-to-1. Mr. Chandler was asked to perform a calculation that would yield the highest possible slope ratio based on the lowest published strength data. That is altogether different than his own infinite slope calculations and is being misrepresented as his opinion. It is not his opinion. Mr. Chandler's calculations using inputs based on published strength data within the range for representative clays yielded a factor of safety of less than one. (TJFA Ex. PC-1, pp. 78 - 79). He has never testified in pre-filed or live testimony that inputs for either factors of safety or for desired side slopes ratios should be the most conservative possible. He merely has pointed out that some of Mr. Adam's inputs were off-the-charts in his calculations which resulted in dubious factors-of-safety. Neither TJFA nor anyone but Mr. Adams knows or should know what inputs were used to develop some of his stability calculations. The only thing of which

we can be certain is that he was not asked to propose the most conservative published values in his calculations or his results would have been quite different. TJFA believes the ALJ misconstrued both the context and the inferences drawn by the exercise BFI's counsel put Mr. Chandler through at his deposition. It would be outlandish and incredible to suggest a side slope ratio of over 11-to-1 to be appropriate for the BFI site. No one, including Mr. Chandler, has suggested anything other than a 4-to-1 side slope as appropriate. Mr. Chandler's credibility should not be judged on an exercise in hyperbole concocted by BFI's counsel to mischaracterize his expert opinions.

9. Slope Stability Summary

BFI's slope stability analyses contain numerous flaws which results in a failure to demonstrate that its vertical expansion will possess sufficient stability to conform to the requirements of 30 T.A.C. § 330.305. The ALJ, by adopting the Executive Director's (ED) opinion on the proper interpretation of § 330.305 has additionally interjected error into the PFD. A proper interpretation of § 330.305 is based on concise regulatory definitions that the ED chooses to ignore. In doing so, the ED's interpretation (as adopted by the ALJ) is not entitled to any deference as it flies in the face of unambiguous technical terms defined in the MSW rules. The PFD's conclusions (i.e., that BFI's application is in compliance with 30 T.A.C. §§ 330.550(b)(8) and 330.56(e)) may be correct as far as it goes. These conclusions, however, do not address BFI's satisfaction of 30 T.A.C. § 330.305. The MSW rules are clear that § 330.305 applies to both permit applications and permit amendment applications. Absent an adequate stability demonstration under § 330.305, BFI's application must be denied.

D. Whether The Application Includes Adequate Provisions For Groundwater Monitoring, In Compliance With Agency Rules, Including 30 T.A.C. §§ 330.230 - .233 – Referred Issue H

TJFA generally agrees with the summary of its two major criticisms provided in the PFD on page 74, with some clarification. While TJFA agrees that there are abundant site-specific conditions which mandate far greater investigation and justification of BFI's monitoring well system, (which were pointed out by TJFA), that is not the total substance of its criticism. BFI's application further failed to provide any rationale for the location and spacing of its proposed groundwater monitoring system, period. Simply indicating that each of the 32 proposed wells in its system will be spaced less than 600 feet apart wholly lacks any technical demonstration that individual well locations are appropriate.⁵ Fundamentally, well spacing and location are dictated by considerations of site-specific groundwater conditions and informed predictions of how contaminants will be dispersed at any given point at the site. (See, TJFA Ex. PC-15, p. 49). Plopping down 32 wells along the perimeter of a landfill so that none are farther apart than 600 feet does not provide technical justification for the well locations. Such an exercise requires neither scientific training nor characterization of specific site information. BFI's well spacing proposal totally lacks any likely contaminant flow path analysis or information to technically support its well locations. This is not science. It is merely placing dots on a

⁵ The "600 foot maximum" rule adopted in March, 2006 MSW rule revisions (30 T.A.C. § 330.403) does not stand for the proposition that less-than-600 feet equals compliance. Rather, the rules still require justification for the number, depths and spacing of wells based on site-specific data. If one is proposing spacing at greater than 600 feet intervals, even more evaluation and expansive modeling are required in addition to the initial well justifications.

page. It also falls short of the standards for the proper design of a groundwater monitoring system required by the rules.

1. Applicable Rules

The PFD covers most, but not all, of the relevant rules applicable to this section (PFD, pp. 74 - 76). Another rule of utmost importance is unfortunately omitted. 30 T.A.C. § 330.51(b)(1) provides as follows:

“All aspects of the application and design requirements must be addressed by the applicant, even if only to show why they are not applicable for that particular site.” (emphasis added).

This rule applies to every application, not just the initial application for a landfill permit. BFI's requested vertical expansion and revised groundwater monitoring system triggers this provision and places the onus on BFI to provide complete information and technical justification for its amendment application. As will be described below, BFI failed to satisfactorily justify its well locations and completely failed to provide for any upgradient well(s) in its proposed monitoring system. These omissions cannot be squared with the requirements of 30 T.A.C. §§ 330.231, 330.233 and 330.51. Approval of such a flawed groundwater system constitutes legal error.

2. Existing and Proposed Groundwater Monitoring Systems

While TJFA agrees that the PFD adequately describes the proposed groundwater monitoring system in BFI's application, it disagrees that designating all 32 wells as downgradient, point of compliance wells “provides an enhanced layer of

environmental protection.” (PFD, pp. 76 - 77).⁶ Far from it. The mere designation of additional wells without regard to their proper spacing and locations does not necessarily equate to enhanced environmental protection. It equates to more wells. Absent proper spacing to intercept likely contaminant flows, it does not, in and of itself, provide any measurable protections. Additional wells spaced at strategic positions to intercept likely contaminant pathways would afford such protections. Nothing in the record supports that contaminant pathways will magically be spaced approximately 600 feet apart and in synchronization with the proposed well locations.

TJFA excepts to the conclusion found on page 77 of the PFD that suggests that the new spacing rules do not apply to BFI's proposed monitoring system. It is legally correct that, at the time of filing its application, these new rules did not immediately apply. The portions of the new MSW rules relating to the 600 foot maximum spacing, however, specifically required all existing facilities to file permit modifications within two years of the effective date of the new rules to address any inconsistencies at their facilities. Hence, BFI would have been required to address these new requirements by March 27, 2008 anyway, except for another loophole giving applicants with pending applications additional leeway.⁷ It could have filed a permit

⁶ The transcript references cited at footnote 265 do not appear to specifically address this conclusion. The cited testimony provides general conclusions by BFI's groundwater expert that the related sections in the application comply with the rules as opposed to any enhancement of environmental protection.

⁷ TJFA notes that current Rule 330.1(a)(2) also provides applicants the ability to defer filing its permit modification applications to conform to the 2006 rules until one year after the final permitting decision unless a longer period is specified in the rules. This provision could have been relied upon by BFI, however, it would have required filing another permit application and a potential contested case on same.

modification to address the new rules but chose to roll it into the pending application (See, current 30 T.A.C. §§ 330.1(a)(1), 330.1(a)(2), and 330.401(b)).

During the course of the evidentiary hearings, Dr. Kier had the opportunity to be specific about his criticisms of the proposed groundwater monitoring system. At the end of the day, Dr. Kier maintained that the failure to include site-specific justifications for the proposed system and the want of any upgradient wells were his two key complaints. As he succinctly stated:

Q. And so what is your recommendation of what additional requirements?

A. (Dr. Kier) There needs to be two things: One is justification for where those wells are placed. Simply giving a distance isn't sufficient under the current rules. It may not be under the post-2007 rules either. That's another story.

Second, this application has designated no upgradient wells. That is a requirement under the rules. You must have an upgradient well, and there isn't one in this application. There are none that are designated. Every single monitoring well is designated as a downgradient well, so it doesn't meet the rules.

Contrary to statements in the PFD indicating that Dr. Kier's "claim makes no sense," it makes it absolutely clear that BFI's application is legally deficient.⁸

3. Justification for GWSAP and Site Specific Conditions

Once again, the ALJ concludes that there are not site-specific conditions that "necessitate a different groundwater monitoring plan. (PFD, p. 79). It appears that the ALJ may be confusing the requirements for a groundwater monitoring plan (i.e.,

⁸ TJFA acknowledges that the proposed groundwater sampling and analysis plan (GWSAP) does meet the minimal requirements and does address the minimal list of constituents of concern indicated in the MSW rules. TJFA issues are therefore limited to 30 T.A.C. §§ 330.231, 330.233 and 330.51(b)(1) as to groundwater monitoring system deficiencies.

GWSAP) with the requirements for a groundwater monitoring system. As stated in its prior briefing, nothing would prohibit BFI from monitoring for certain constituents over and above those required for the garden-variety GWSAP. Is it absolutely required to? No. Would it be prudent given the unique setting of its landfill in close proximity to other landfills? Certainly. But all of this begs the question when it comes to the proposed well system (i.e., not the GWSAP). The absence of technical justification for the location and spacing of its proposed system is problematic by itself. Couple that with its unique setting and known groundwater contamination in close proximity to its site, in TJFA's view, strongly makes a case that a technically-minimal GWSAP with a proposed monitoring well system which is absent any explanation or justification for its well locations (other than maximum distance considerations) and without any required upgradient monitoring wells, falls short of regulatory requirements and the intent of the MSW rules.

3a. Proximity of Austin Community Landfill

While TJFA generally agrees with the recitation of facts about BFI's neighbor, Waste Management, it excepts to the ALJ's conclusions as to the importance of this neighboring landfill and its reasons for introducing evidence about Waste Management's facility into these proceedings. (PFD, pp. 77 - 78).

The relevant MSW rules for this inquiry are 30 T.A.C. § 330.231(a), (e)(1) and (e)(3). Rule 330.231(a) provides, in pertinent part:

"A groundwater monitoring system must be installed that consists of a sufficient number of monitoring wells, installed at appropriate locations of depths, to yield representative groundwater samples..." (emphasis added).

Rule 330.231(e)(1) provides:

“The design of a monitoring system shall be based on site-specific technical information...”

Rule 330.231(e)(3) states:

“The owner or operator of an MSWLF unit or facility shall promptly notify the executive director of changes... in adjacent property that affects or are likely to affect the direction and rate of groundwater flow and the potential for detecting groundwater contamination from an MSWLF unit and that may require the installation of additional monitoring wells or sampling points....”

As all of the above-cited sections are sub-parts of the same rule, TJFA suggests that they should be read to complement each other. TJFA further asserts that, when read as a whole, a fair interpretation is that a groundwater monitoring system must take into account not just what may be happening as a result of its own waste disposal operations but also its geological and hydrogeological setting as it relates to properties in close proximity which may affect groundwater quality. In TJFA's view, BFI's site cannot be viewed in isolation. Its groundwater is shared with that of its neighbors, including other existing and closed waste disposal facilities.

Record evidence cited in the PFD and elsewhere demonstrates that BFI's neighbor has a history of disposal of significant amounts of industrial chemicals and wastes. (TJFA Ex. BK-8; BFI Ex. RS-11; APP 000486 – APP 000505). Record evidence acquired from BFI's own experts reflect that there likely exists some intermixing of groundwater underneath BFI's facility and Waste Management's facility. (TJFA Exs. BK-5; BK-6). Record evidence further indicates that groundwater from

Waste Management's former industrial disposal location moves northward across a portion of BFI's property and then eastward toward the Applied Materials' facility across Giles Road. (TJFA Ex. BK-8). The ALJ correctly notes that TJFA is not claiming that BFI is responsible for any contamination found at the Applied Materials' facility as that is not the point here. The point here is that the MSW rules do not differentiate about apportionment of liability for contaminated groundwater. Rather, the rules require an applicant to design a site-specific monitoring system to monitor and detect contamination from any source that is entering or exiting on the applicant's site. BFI has known about the Waste Management industrial waste disposal and the Applied Materials' groundwater concerns for years. (TR 737 - 738). Evidence even demonstrated that its consultants were initially charged with looking into these matters further but BFI chose to abandon those inquiries as the contested case hearings grew more imminent. (TJFA Ex. 6; TR 364 - 367). This "head-in-the-sand" approach to analysis of site specific conditions is not defensible when the proper evaluation, explanation and justification for any proposed groundwater monitoring system is required.

The purpose of TJFA's references to the neighboring Waste Management facility is not, as suggested by the ALJ, to target or attack Waste Management. (PFD, pp. 80 - 81). The purpose was to demonstrate that BFI's facility is sited in close proximity to other landfills at least one of which (Waste Management) has a documented history of groundwater contamination issues and whose groundwater is common to both facilities' properties. That, in TJFA's view, is probative and relevant.

TJFA further excepts to the ALJ's suggestion that evidence put forth by TJFA and Dr. Kier somehow lacks objectivity and reliability. (PFD, p. 81). Most of the information concerning Waste Management and its problems stems from groundwater studies conducted by Dr. Kier back in 1998. These studies existed prior to the filing of BFI's application and the legal existence of TJFA. Mr. Carel's maps showing groundwater directional flows, likewise, were created well in advance of BFI's permit amendment application. Industrial waste disposal activities of Waste Management's facility dating back into the 1970s occurred long before the existence of BFI's landfill, the creation of TJFA or any other of its allegedly "affiliated" entities. Because of these facts, BFI should not be given a pass on its groundwater monitoring system.

3b. Assessment Monitoring in MW-30

It is apparent from the PFD that TJFA's position with respect to MW-30 issues is misunderstood. (PFD, pp. 81 - 82). The reference to BFI's MW-30 is not to suggest that "BFI's proposed groundwater plan fails to meet the standards in the Commission's rules." (PFD, p. 82). TJFA does not claim that BFI's monitoring plan (i.e., it's GWSAP) is deficient due to detections at MW-30 requiring that well to go into assessment monitoring. The intent of pointing out that MW-30 is in assessment monitoring is to show that, by definition, entering assessment monitoring equates to the fact that there is a documented, statistically-significant release of a monitored chemical at the point of compliance. The detected chemical, 1-1 DCA, is a chlorinated solvent. It is not a naturally-occurring constituent found in groundwater. It does not matter whether

this chemical got into the groundwater via landfill gas migration or from leachate. It means that a release has taken place.

As an isolated incident, this may not be overly significant. However, when one considers that MW-30 has experienced a documented release, is located on a common property line with Waste Management's landfill (a facility with known groundwater problems), that the application indicates potential recharge or leaking, then this release becomes more significant. It is but another fact that suggests that BFI did not properly justify its proposed groundwater monitoring system in accordance with the previously-cited MSW rules in this section.

3c. Contamination of Applied Materials' Facility

This section of the PFD is essentially a reiteration of some of the discussions set forth under Referred Issue C: Groundwater Protection. TJFA's argument and exceptions are of equal relevance here. Contamination detected at a facility which, at least in part, is downgradient of Waste Management's former industrial disposal operations and which groundwater apparently crosses a portion of BFI's property is significant. These are local conditions that demand aggressive evaluation and assessment in consideration of any proposed groundwater monitoring system. BFI consciously decided to look the other way and its application fails to contain any mention of them, much less consideration in development of its proposed system.

Mr. Snyder's estimate of groundwater velocity is just that (an estimate) and has little or no utility in assessing the groundwater velocity along a contamination path from the Waste Management facility. The velocity is based on a value of hydraulic

conductivity, an estimate of hydraulic gradient and an assumed value for effective porosity. The value of hydraulic conductivity was based on local slug tests, which are accurate only to an order of magnitude and are valid only for the immediate vicinity at which they were measured. (TJFA Ex. PC-15, pp. 31 – 34). In other words, Mr. Snyder's estimate of groundwater velocity is dependent on numerous variables, is only applicable to the immediate vicinity of the bore holes tested and presumably was not situated in contaminant-affected clays. On the other hand, if you detect contaminants at a place that is not obviously the source of origin (Applied Materials' upgradient wells), the first thing a geoscientist questions is the calculated groundwater velocity, not the existence of the contamination, validity of the data or the potential sources. In short, the groundwater velocity assumption becomes the most subjective factor of the available data as potential sources of contamination are more certain. TJFA excepts to the PFD's conclusions in this section, as the Applied Materials' contamination and established groundwater flow directions mandate that BFI take these into consideration in development of its proposed monitoring well system. Alternatively, these facts require BFI to investigate and explain why they should not affect its proposed system (30 T.A.C. § 330.51(b)(1)). BFI did neither.

4. Establishing Background Groundwater Quality

As indicated on page 83 of the PFD, BFI failed to designate an upgradient well in its proposed groundwater monitoring system. BFI further failed to explain or otherwise qualify for any exception to this longstanding requirement under both state and federal law. It is immaterial that "no other party makes that argument." (PFD, p. 83).

Without a designated upgradient well to establish background water quality, the system proposed by BFI in its application is fatally flawed.

Every one of BFI's proposed 32 monitoring wells are designated as downgradient, point-of-compliance wells. As downgradient wells, none of these wells are considered to be immune from potential influences and releases from the landfill. As all of the new wells are downgradient, that background quality must be established from an upgradient non-affected well. The fact that intrawell comparisons are to be used in developing the new wells merely indicates that the water quality testing for each well will be compared to the water quality testing for that same well in successive sampling events. If the groundwater has in any way been impacted by the existing landfill, the intrawell comparisons will reflect impacted groundwater compared to impacted groundwater. That does not provide background groundwater quality conditions nor can it. Accordingly, an upgradient well (presumably outside of the potential impacts of the landfill) is required to provide a true comparison of the water quality in the downgradient wells installed at the point-of-compliance. This is Groundwater 101 and should not be avoided by a tortured interpretation of the TCEQ's rules. These TCEQ rules were drawn from the EPA's corresponding rules⁹ and guidance for the establishment of groundwater monitoring systems to comply with the Resource Conservation and Recovery Act (RCRA) and the

⁹ The relevant EPA groundwater monitoring rules are found at 40 CFR §§ 258.1 and 258.50-61. These are made applicable to the state programs and approved states (like Texas) must have equivalent or more stringent state standards to comply with RCRA 40 CFR § 239.1.

EPA's RCRA Groundwater Technical Enforcement Guidance Document (TEGD) See, TJFA Ex. PC-15, pp. 66 - 70.

TJFA excepts to the statement that "BFI has proposed what it correctly characterizes as an aggressive monitoring system that defines the entire perimeter of the landfill site as its regulatory point of compliance." (PFD, p. 83). As pointed out by TJFA, designating 32 wells as point-of-compliance downgradient wells without any justification for their locations and spacing (other than to avoid the application of the new "600 foot maximum" rule) and without any upgradient wells to establish background quality as required by law, is anything but aggressive. It is an unacceptable monitoring system under both state and federal law and the application is lacking critical details of justification for such systems.

TJFA further excepts to the ALJ's characterization of its arguments regarding the requirements for groundwater monitoring systems as "parsing the rules" and that BFI "already knows the quality of groundwater in the area." (PFD, p. 84). TJFA submits that it is not parsing the rules. It is simply pointing out what the rules say and what have been the procedures for establishing background groundwater quality for decades. BFI has no statistically valid basis for background groundwater quality in any of the 17 new wells proposed in its application and there is but one way to correctly make such determinations. BFI must take successive samplings for two years to establish the water quality at these specific downgradient well locations and then compare it to background water quality from at least one (and preferable more than one) upgradient well.

Focusing on the requirements of 30 T.A.C. § 330.233(e), one notes that background water quality must be established in upgradient wells or in background wells that meet the requirements of 30 T.A.C. § 330.231(a). 30 T.A.C. § 330.231(a) requires that background wells shall be installed to establish background groundwater quality that has not been affected by leakage from a unit. The rule goes on to unambiguously indicate that this means an upgradient well unless the owner or operator establishes that hydrogeological conditions prevent determination of which wells are hydraulically upgradient or if sampling wells other than upgradient wells will provide better indications of background groundwater quality than upgradient wells. These are the rules and this is the law. TJFA challenges anyone to show in BFI's application the designation of any upgradient well in its proposed groundwater monitoring system. TJFA further challenges anyone to identify in BFI's application any representation, explanation, justification or identity of any discussion wherein BFI has shown that either (1) it has designated an upgradient well for purposes of establishing background groundwater quality; (2) local hydrogeological conditions prevent it from establishing such an upgradient well; or (3) its proposed downgradient wells are capable of providing superior background groundwater quality information than an upgradient well. TJFA submits that such an effort would be an exercise in futility because there is nothing there.

TJFA further excepts to the conclusion in the PFD that "BFI has collected and included in its application a substantial amount of background groundwater quality from its 17 existing wells." (PFD, pp. 84 - 85). Reviewing the data cited in footnote 285 (BFI Ex. RS-11, pp. APP 000877 - APP 000920) does not support this statement. That

data does not represent "background groundwater quality" data. The information contained in pages APP 000877 – APP 000920 reflects sampling results from BFI's required semi-annual detection monitoring events. It may well be historical information of groundwater sampling events but there is no way to square "detection monitoring" events with the establishment of "background groundwater quality." The terms are neither synonymous nor equivalent. They represent two totally different inquiries for two different purposes.

TJFA is perplexed by the rule analysis found at pages 85 and 86 of the PFD and takes exception to same. The ALJ erroneously omits key provisions of 30 T.A.C. § 330.231(a) and 30 T.A.C. § 330.233(e) (which incorporates § 330.231(a)), to justify BFI's failure to either designate an upgradient well or somehow support its decision to not designate such a well. Neither the TCEQ's MSW rules nor the federal rules allow an applicant to pick and choose which parts of the program it likes and disregard those parts it does not. The ALJ then inexplicably provides legal arguments and contentions never advanced by BFI in the hearing or in its application to attempt to qualify its proposed groundwater monitoring system for an exception to 30 T.A.C. § 330.231(a) requirements. While extraordinary, to say the least, it still does not cure the omissions in BFI's application. The application demonstrates non-compliance with the MSW rule requirements and there is no record evidence that BFI can meet these requirements. As BFI failed to satisfy the regulatory requirements for establishment of a satisfactory groundwater monitoring system in its application and at the contested case hearing, it is legal error for the ALJ to make findings and conclusions to the contrary.

E. Exceptions to ALJ's Finding the Application Includes Adequate Provisions for Cover, in Compliance with Agency Rules, Including 30 T.A.C. 330.133 – Referred Issue Q

TJFA excepts to the ALJ's finding that BFI's application includes adequate provisions for cover. According to its application, BFI has a deficit of over 2.7 million cubic yards of soil which will be required for daily, intermediate and final cover. (Ex. RS-11, APP 000392). While BFI does have a contract with Waste Management to purchase 1.5 million cubic yards at \$2.00 per cubic yard, the contract provides Waste Management must first satisfy its own soil needs before providing soil to BFI and, more significantly, Waste Management can terminate the contract on 30 days notice. (Ex. BD-5). BFI's witness testified it had no firm commitments for a guarantee of soil from any other source. (TR 1311, 11. 19 - 22).

TJFA submits that the contents of the application do not support a finding there is sufficient soil for BFI to meet the cover requirements in compliance with 30 T.A.C. § 330.133.

F. Exceptions to ALJ's Recommendation That the Proposed Expansion is Compatible with Land Use in the Surrounding Area – Referred Issue U

TJFA takes exceptions to the ALJ's conclusion that BFI has shown that the proposed expansion is compatible with land use in the surrounding area. TJFA does not contest that BFI provided to the TCEQ the information required at 30 T.A.C. § 330.53(b)(8). BFI provided information on the zoning, the character of surrounding land uses within one mile of the landfill, growth trends, proximity to residences and other uses within one mile of the landfill, and descriptions and discussions of wells within 500

feet of the landfill. As noted by the ALJ, the TCEQ rules do not include a specific standard by which to determine compatibility. The ALJ, therefore, cites to the Code Construction Act, Tex. Gov't. Code §§ 311.002 and 311.011(a) and (b). Having determined that "compatibility" has not acquired a specific technical meaning, the ALJ notes that the term compatible, as commonly used, means capable of existing together in harmony. TJFA submits that the ALJ erred in finding a harmonious relationship between the BFI landfill and the residential land use in the vicinity of the MSW facility.

Travis County submitted comments to the Solid Waste Advisory Council (SWAC) of the Capital Area Council of Governments (CAPCOG) to the effect that BFI's proposed expanded facility would not conform to the requirements for general compatibility with surrounding land use. (Ex. TJFA-24). The SWAC of the CAPCOG endorsed the comments of Travis County relating to the incompatibility of the BFI expansion with existing and proposed land uses. (Ex. RS-32). The ALJ found this no basis for a determination of non-compatibility, suggesting § 361.062, Tex. Health & Safety Code, prohibits consideration of Travis County's comments because there was no evidence of a county solid waste plan. TJFA submits the ALJ erred in reaching this conclusion. TJFA submits this statutory provision cannot be read to prohibit the ALJ from taking into account a county's view on land use issues.

TJFA would incorporate by reference the Closing Argument of Northeast Neighbor's Coalition (NNC) which includes a summary of the testimony of various residents in the vicinity of the BFI landfill. Based on this sworn testimony, odors, truck traffic, noise and storm water runoff remain problems encountered by neighbors in the

immediate vicinity of the BFI landfill. This testimony refutes the opinions of BFI experts Worrall and Heimsath that because there has been increased residential development near BFI's landfill, the landfill therefore must be a compatible land use. The testimony set out in NNC's Closing Argument establishes that the landfill is incompatible with surrounding land use. (See, TR 1642; TR 1661; TR 1667; TR 1997; TR 2037; Ex. NNC-JB-1, pp. 5 - 6; TR 2009; Ex. NNC-ER-6; TR 1999; TR 1981). The ALJ erred in discounting this testimony and ruling the BFI landfill is a compatible land use.

G. Exceptions to ALJ's Recommendation That the Erosion Control Methods Identified in the Application and Draft Permit Are Sufficient – Referred Issues C and Y

TJFA has claimed throughout this proceeding that the erosion control methods in the application are not sufficient to prevent a discharge of excessive sediment during rainfall events. Thus, TJFA has alleged BFI failed to meet its burden of proof with respect to 30 T.A.C. §§ 330.55(b)(1) and 330.56(f). The ALJ in the PFD concluded that the erosion control methods identified in the application and updated, revised draft permit are sufficient. TJFA excepts to the ALJ's conclusion on this issue. TJFA's primary criticism with respect to erosion control is the size and design of the sedimentation ponds at Outfalls 2, 3, 4 and 5. While there is no TCEQ requirement that a sedimentation pond be constructed, the ALJ agreed with TJFA that it is BFI's burden to establish that its sediment controls, including sedimentation ponds if included, will ensure surface water protection.

TJFA's expert on erosion control and surface water quality was Stephen Stecher. Mr. Stecher previously worked with the City of Austin in the Environmental and

Conservation Service Department. He served as Senior Engineer and Section Manager for the Environmental Review and subsequently Water Research and Evaluation Sections of the Environmental Research Management Division. (Ex. SS-1, p. 2, ll. 12 - 15). Mr. Stecher has extensive experience in designing detention and water quality ponds. Mr. Stecher has previously designed erosion control measures for projects such as SH-45 and the 183A Tollway. (Ex. SS-1, p. 6, ll. 2 - 5). Mr. Stecher testified that the 4 sedimentation basins at the BFI landfill were designed or maintained to have a one-half inch of runoff capture volume. Mr. Stecher testified that the one-half inch of capture volume was inadequate to retain sediment in significant rainfall events. Mr. Stecher testified that approximately 1.3 inches of rainfall will result in one-half inch of runoff volume which is significantly less than the 1-year/24-hour storm. He further testified that the capture volume in the sedimentation ponds is only about 7.5% of the 25-year/24-hour storm runoff volume. (Ex. SS-1, p. 8, ll. 14 - p. 9, ll. 20).

Although BFI complied with the City of Austin requirements of one-half inch capture volume for sedimentation ponds, Mr. Stecher testified that the City of Austin Land Development Code criteria for one-half inch capture volume for sedimentation ponds was not intended for above grade landfill projects (TR 1933, 11. 1 - 8). He specifically testified he was familiar with the City of Austin rules and the one-half inch capture rule is not applicable to landfills. *Id.*

The ALJ found that there was more than enough evidence to conclude that the sedimentation ponds will control erosion. (PFD p. 120). TJFA contends that the ALJ erred in making this finding. TJFA would clarify that sedimentation ponds do not control

erosion. They hopefully control off site drainage of silt. The ALJ relied on the City of Austin's Land Development Code which requires a sedimentation pond to capture the first half inch of runoff. (PFD p. 120). The ALJ notes that Mr. Kelly, the City of Austin's witness with regard to drainage, did not personally cross check the calculations the City reviewed for the sedimentation ponds, but the ALJ fails to see this as significant. The ALJ states "other Austin staff members did." There is no evidence in the record that any other Austin staff member cross checked the calculations with regard to erosion control from the sedimentation ponds. The ALJ seems to conclude that the fact that the City of Austin issued BFI a permit for the sedimentation ponds at Outfalls 4 and 5 is evidence that the four sedimentation ponds will control sediment leaving the site. TJFA submits the ALJ erred in this conclusion. While sedimentation ponds at Outfalls 4 and 5 may comply with the City of Austin standard for sedimentation ponds, this does not negate the testimony of Mr. Stecher that the one-half inch capture volume is not appropriate for a landfill facility.

In citing his disagreement with Mr. Stecher on the issue of the appropriate size of the sedimentation ponds, the ALJ cites to BFI Exhibit 29 which was a TCEQ investigation report, conducted March 29, 2005 and April 14, 2005 of the BFI Sunset Farms Landfill. The quoted section in the PFD of the inspection report seems to indicate that there was no sedimentation discharge from Outfalls 4 and 5 after a massive rainfall event in 2005 equivalent to approximately 20 inches in an hour. The ALJ relies upon this as a factual basis that the sedimentation ponds are appropriately sized. TJFA excepts to this as evidence of appropriate sizing of the sedimentation ponds. In the first place, BFI

Exhibit 29 references an exceedance at Outfall 2 of the total suspended solids (TSS) benchmark. Outfall 2 is connected to what TJFA submits is an undersized sedimentation pond. More significantly, in a 2007 sampling event at Outfall 5 following a 1.34 inch rain, the 100 Mg/L TSS benchmark was greatly exceeded at the BFI facility. The sampling results from Outfall 5 was 240 Mg/L TSS. (Ex. RS-36, P. 303). In other words, two years after the 2005 inspection, a rain of only 1.34 inches caused an exceedance of the TSS benchmark at Outfall 5 exiting Sedimentation Pond No. 5. TJFA submits this is evidence that the sedimentation ponds are undersized. TJFA asserts the ALJ erred in concluding that because no violations were noted after a few inspections, this is adequate evidence the sedimentation ponds are sized appropriately. TJFA would also point out that the TCEQ permit reviewers did not analyze the sedimentation ponds for sediment control. (TR 2283, II. 3 – 16). Thus, the TCEQ did not evaluate the ponds for their water quality function.

In the PFD, the ALJ found that Drainage Areas 1 and 3 are effectively treated by Ditch K to control erosion. (PFD p. 124). TJFA submits the ALJ erred in this finding. Mr. Stecher, TJFA's expert witness on erosion and water quality, testified that the erosion controls in Ditch K will not be adequate to control erosion and the resulting potential silt going to Outfall 1. Mr. Stecher testified that the wetland pools in Ditch K were not designed to be a sediment control trap or basin and that the drainage area is too large for these types of structures. Furthermore, Mr. Stecher testified that any sediment trap in Ditch K would be undersized. Finally, Mr. Stecher testified that the rock berms in Ditch K might be useful for temporary control but not for any kind of major detention or

retention. (TR 1922 – 1923). The ALJ notes in the PFD that no other expert took Mr. Stecher's view. While that may be true, TJFA submits this does not discount the testimony of Mr. Stecher. Mr. Stecher has far ranging experience in water quality and sediment control matters and his testimony was persuasive that the erosion control methods in Ditch K are inadequate. The ALJ erred in determining that the erosion controls in Ditch K were adequate.

The ALJ notes that the primary method of erosion control with regard to Ditch L is silt fences. (PFD p. 125). Mr. Stecher testified these silt fences will not be effective with regard to erosion control. (SS-1, pp. 25 – 26). Because no other expert expressed this concern, the ALJ concluded the silt fences are effective. TJFA submits that this was an error on the part of the ALJ. TJFA submits that because no other expert raised concerns about the silt fences in Ditch L, it is not the basis for the ALJ to discount the testimony of Mr. Stecher that the silt fences will be inappropriate for erosion control in Ditch L which flows to Outfall 1.

V. Transcript Costs

The ALJ recommends that transcript costs be allocated one half to BFI and one half to TJFA. To the extent the ALJ recommends no assessment to NNC, TJFA is in agreement. TJFA, however, excepts to the basis for assessment of transcript costs to TJFA.

30 T.A.C. § 80.23(d)(1) sets out seven factors to consider in assessing reporting and transcription costs. In allocating one half of the costs to TJFA, the ALJ does not apply the factors set forth in § 80.23(d)(1)(A) through § 80.23(d)(1)(F). Therefore, the

ALJ must be relying on "any other factor which is relevant to a just and reasonable assessment of costs." Without any record evidence in these proceedings to support this conclusion, the ALJ finds TJFA's participation was a transparent attempt by Mr. Bob Gregory, a nonparty, to delay, complicate, increase BFI's cost and perhaps gain a business edge on BFI. In so finding, the ALJ essentially adopts BFI's Reply Brief on this issue. The ALJ imputes motive to a nonparty in assessing transcript costs to TJFA, an adjacent landowner with Commission approved party status in this proceeding. The only record evidence established Mr. Gregory had no input whatsoever on Dr. Kier's engagement as an expert witness for TJFA, or any person working under Dr. Kier's direction. (TR 1787, ll. 1 - 15). There was absolutely no testimony or evidence that TJFA sought to delay, complicate, increase costs or gain a competitive advantage against BFI. There was likewise no evidence to this effect regarding Mr. Bob Gregory, a limited partner of TJFA. TJFA is a free standing legal entity and a landowner in the immediate vicinity of the BFI landfill. TJFA is not engaged in landfill operations or trash hauling. TJFA is not a subsidiary of TDS or TDSL. TJFA respectfully submits it was improper for the ALJ to base his recommendations on assessment of transcript costs on supposition tendered by BFI related to a party's motives with no evidentiary support, particularly when those suppositions relate to a nonparty.

TJFA submits the ALJ erred in disregarding its status as a free standing legal entity, a Texas limited partnership, in the determination of assessment of transcript costs. Because this was the sole basis for assessment, TJFA submits BFI should be assessed the entire transcript cost.

VI. Findings of Fact and Conclusions of Law

Based upon the evidence of record and the arguments set forth herein and in TJFA's previously filed briefs, TJFA respectfully requests the Commission reject the ALJ's findings of fact including numbers 37 through 40, 62, 73, 74, 91, 98, 122, 123, 135, 137, 139, 140, 143, 144, 161, 170, 171, 172, 176, 184, 278, 358, 367, 368, 370, 393 through 405¹⁰ and 406; and conclusions of law including numbers 5, 8, 9, 10, 15, 18, 19, 24, 42, 44, 50, 51, 53, 56, 59, 60, 64, 65, 70 and 71 and ordering provisions 1 and 3. TJFA incorporates by reference its proposed findings of facts and conclusions of law and ordering provisions provided in its Reply to Closing Arguments, attached as Exhibit A.

VII. Conclusion and Prayer

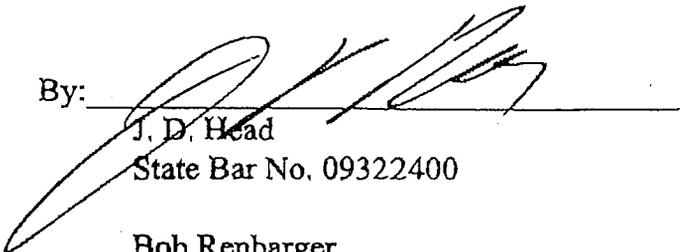
In conclusion, TJFA excepts to the PFD that recommends the permit amendment request be granted. TJFA excepts to all the findings of facts and conclusions of law included in the PFD that are contrary to the positions taken by TJFA as discussed herein. As such, TJFA would recommend that its findings of fact and conclusions of law attached herein as **Exhibit A** be adopted by the Commission.

WHEREFORE, PREMISES CONSIDERED, TJFA respectfully requests that the Commission issue an order denying this application.

¹⁰ Findings of Fact 393 through 402 were stipulated to at the hearing. However, TJFA submits that these findings are not pertinent to the issues referred by the Commission. TJFA submits findings of fact 403 through 405 are, likewise, not pertinent to the issues referred to SOAH by the Commissioners.

Respectfully submitted,
FRITZ, BYRNE, HEAD & HARRISON, PLLC
98 San Jacinto Blvd., Suite 2000
Austin, TX 78701
TEL: 512/476-2020
FAX: 512/477-5267

By: _____


J. D. Head

State Bar No. 09322400

Bob Renbarger

State Bar No. 16768100

ATTORNEYS FOR TJFA, L.P.

CERTIFICATE OF SERVICE

By my signature above, I hereby certify that a true and correct copy of the foregoing document has been served this 28th day of May, 2009, via e-mail, facsimile transmission or U.S. First Class mail, to the following:

Mr. Paul G. Gosselink
Mr. John E. Carlson
Lloyd, Gosselink, Rochelle & Townsend, P.C.
816 Congress Ave., Suite 1900
Austin, TX 78701
TEL: 512/322-5800
FAX: 512/472-0532
E-MAIL: pgosselink@lglawfirm.com
E-MAIL: jcarlson@lglawfirm.com
BFI WASTE SYSTEMS OF NORTH AMERICA, INC. and
GILES HOLDINGS, L.P.

Mr. Paul Terrill
The Terrill Firm, P.C.
810 W. 10th St.
Austin, TX 78701
TEL: 512/474-9100
FAX: 512/474-9888
E-MAIL: pterrill@terrill-law.com
GILES HOLDINGS

Mr. Steve Shepherd
Ms. Susan White
Environmental Law Division (MC-173)
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087
TEL: 512/239-0464
FAX: 512/239-0606
E-MAIL: sshepher@tceq.state.tx.us
E-MAIL: swhite@tceq.state.tx.us
EXECUTIVE DIRECTOR

Ms. Christina Mann
Attorney
Office of Public Interest Counsel (MC-103)
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087
TEL: 512/239-4014
FAX: 512/239-6377
E-MAIL: cmann@tceq.state.tx.us
OFFICE OF PUBLIC INTEREST COUNSEL

Mr. Kevin W. Morse
Assistant Travis County Attorney
P.O. Box 1748
Austin, TX 78767
TEL: 512/854-9513
FAX: 512/854-4808
E-MAIL: kevin.morse@cq.travis.tx.us
TRAVIS COUNTY

Ms. Holly C. Noelke
Assistant City Attorney
City of Austin Law Department
P.O. Box 1088
Austin, TX 78767
TEL: 512/974-2630
FAX: 512/974-6490
E-MAIL: holly.noelke@ci.austin.tx.us
CITY OF AUSTIN

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CHIEF CLERKS OFFICE

Mr. Jim Blackburn
Ms. Mary W. Carter
Blackburn & Carter, P.C.
4709 Austin St.
Houston, TX 77004
TEL: 713/524-1012
FAX: 713/524-5165
E-MAIL: jbb@blackburncarter.com
E-MAIL: mcarter@blackburncarter.com
**NORTHEAST NEIGHBORS COALITION; MARK
MCAFFEE; MELANIE MCAFFEE; ROGER JOSEPH;
DELMER D. ROGERS; and WILLIAMS, LTD.**

Hon William G. Newchurch
Administrative Law Judge
State Office of Administrative Hearings
300 West 15th St., Suite 502
Austin, TX 78701

EXHIBIT A

V. Proposed Findings of Fact

A. Alteration of Natural Drainage Patterns (Referred Issue A)

1. The BFI application did not include a comparison of the proposed drainage conditions, i.e., post-development condition, to natural drainage patterns. Exhibit RS-1, p. 40, l. 18 – p. 41, l. 14.

2. BFI's application included a comparison of the proposed drainage condition, i.e., post-development condition to the drainage conditions under the existing permitting conditions at closure. Exhibit RS-1, p. 40, l. 18 – p. 41, l. 14.

3. The existing drainage conditions, as established in the 2002 permit modification for BFI were peak flows of 26 cfs at Outfall No. 4 and 66 cfs at Outfall No. 5. Exhibit AM-32; TR 984, ll. 11 – 25; TR 985, ll. 1 – 17.

4. The 2006 permit modification for BFI represented peak flows at Outfall No. 4 to be 26 cfs and peak flows at Outfall No. 5 to be 66 cfs. Exhibit AM-33; TR 986, ll. 16 – 25. In the application, BFI changed the pre-existing conditions from the 2002 and 2006 permit modifications to 65.8 cfs at Outfall No. 4 and 175.4 cfs at Outfall No. 5. Exhibit AM-16.

5. BFI never informed the TCEQ that it had modified the pre-existing conditions in the application from those represented in the 2002 permit modification and the 2006 permit modification. TR 2284, ll. 4 – 14.

6. The peak flows in the proposed drainage conditions after the landfill expansion is represented as 61.4 cfs at Outfall No. 4 and 171.1 cfs at Outfall No. 5, a significant increase over the peak flows from Outfall Nos. 4 and 5 represented in the 2002 permit modification and the 2006 permit modification. Exhibit AM-17.

B. Protection of Groundwater and Surface Water (Referred Issue C)

1. Representations contained in BFI's application indicated that there were elevated levels of groundwater in the western and southern portions of the landfill. (Exhibit RS-11, APP 000409; APP 00708 – APP 00715; Exhibit JS-4; Exhibit TJFA-3; Exhibit BK-1, p. 7, ll. 15 – 19; Exhibit PC-1, p. 86, ll. 9 – 11; TR 1615, ll. 9 – 18)

2. These elevated water levels were reflective of a "groundwater mound" or "groundwater divide" within the waste disposal footprint. (Exhibit PC-1, p. 86, ll. 18 – 20; p. 87, ll. 1 – 3; Exhibit RS-11, APP 000409; APP 000711; Exhibit TJFA-8; TR 440, ll. 6 – 13).

3. As the entire perimeter of the landfill is surrounded by downgradient groundwater monitoring wells, water levels within the landfill are necessarily higher than outside the landfill for these monitoring wells to be downgradient. (Exhibit RS-11, Figure 5A.1, APP 000874).

4. MW-30, a downgradient well at BFI's facility, is in assessment monitoring for certain organic compounds. Assessment monitoring is indicative of a release of

contaminants at a statistically significant level. (TR 717, ll. 19 – 25; TR 718, ll. 1 – 24; TR 1588, ll. 7 – 11).

5. BFI has experienced high water levels in its landfill gas extraction wells, some of which have exceeded the heights of the tops of the groundwater monitoring wells at its facility. (Exhibit TJFA-9; TR 310, ll. 7 – 9; TR 311, ll. 9 – 17).

6. High water levels within gas extraction wells are not typical of just landfill gas condensate. (TR 529, ll. 7 – 20).

7. BFI's landfill has experienced leachate outbreaks on its side slopes. (Exhibit TJFA-21; TR 895, ll. 1 – 14).

8. TJFA expert witnesses concluded that the "groundwater mounding" reflected in the evidentiary record was indicative that the landfill liner system was ineffective and leaking. (Exhibit BK-1, p. 7, ll. 15 – 19; p. 10, ll. 18 – 21; p. 11, ll. 1 – 8; Exhibit PC-1, p. 88, ll. 13 – 19).

9. 30 T.A.C. § 330.51 requires an applicant to demonstrate, among other things, that an application contains sufficient information to demonstrate compliance with drinking water protection in accordance with §§ 330.200 – 330.286 and not cause a discharge of solid waste or pollutants adjacent to or into water in the State. (30 T.A.C. §§ 330.200 – 330.206).

10. Existing sedimentation basins 2 – 5 have a one-half inch capture volume. Exhibit SS-1, p. 8, ll. 15 – 16.

11. Approximately 1.3 inches of rainfall will result in one-half inch of runoff volume, which is significantly less than the one-year, twenty-four storm. The capture

volume of the sedimentation basins is only about 7.5 percent of the 25-year/24-hour storm runoff volume. Exhibit SS-1, p. 9, ll. 7 – 13.

12. Due to the size of the sedimentation basins, significant runoff and sediment loads would bypass and otherwise be ineffectively treated for numerous rainfall events. This will lead to excessive discharges of sediment in TSS. Exhibit SS-1, p. 9, ll. 13 – 16.

13. The application included no documentation that the sedimentation ponds, with a one-half inch capture volume, provide adequate protection of surface waters. Exhibit SS-1, p. 10, ll. 1 – 2.

14. Special Provision E9 of the Draft Permit, requiring BFI to remove accumulated sediment from the sedimentation ponds will not prevent a discharge of significant sediments to the outfalls in a 2-year/24-hour storm. TR 1934, ll. 5 – 24.

15. The Rule 11 Agreement and the Special Provisions to the Draft Permit do not impact the size of the existing sedimentation ponds. TR 2142, ll. 11 – 14.

16. Neither the City nor the TCEQ performed any independent analysis as to whether the sedimentation ponds' size was adequate to prevent excess sediment discharge. TR 2283, ll. 3 – 16; TR 2204, ll. 10 – 16.

17. The City's one-half inch capture volume for sedimentation ponds is not applicable to sedimentation control from an above-grade landfill. TR 1933, ll. 1 – 8.

18. The only water quality data from landfill discharges in rainfall events indicates a discharge of 240 mg/L TSS from Outfall No. 5, in excess of the benchmark value of 100 TSS. TR 116, ll. 24 – 25, TR 117, ll. 1 – 7; TR 117, ll. 4 – 11.

19. The sample of 240 mg/L TSS from Outfall No. 5 resulted from a rainfall event of 1.34 inches. TR 113, ll. 4 – 7.

20. Drainage Areas 1 and 3 do not have adequate structural controls prior to discharge to Outfall No. 1. Exhibit SS-1, p. 7, ll. 15 – 19; p. 8, ll. 1 – 2; Exhibit COA-8, p. 5, ll. 7 – 10.

C. Slope Stability (Referred Issue F)

1. BFI's application contained a section reflecting its slope stability analysis. (RS-1, Appendix 4G, APP 000751 – APP 000817).

2. Slope stability analyses, whether performed manually or by computer, are totally dependent on the accuracy of the inputs including the shear strengths of the materials analyzed. (TR 601, ll. 4 – 13).

3. To ensure that valid "factors of safety" are derived from slope stability analyses, the strengths of the materials involved in the landfill design need to be critically evaluated using conservative assumptions. (TR 604, ll. 5 – 12; TR 604, l. 25; TR 605, ll. 1 – 5).

4. BFI's slope stability analyses utilized unconservative assumptions resulting in unrealistic results for the conditions analyzed. (Exhibit PC-1, p. 62, ll. 12 – 20; p. 63, ll. 1 – 7).

5. BFI's slope stability analyses only modeled hypothetical features rather than the actual landfill design at closure. (TR 650, ll. 11 – 22).

6. One of the most critical features to evaluate in a slope stability analysis is the interface of the geosynthetic landfill materials at the interim and final closure conditions. (Exhibit TJFA-15; Exhibit TJFA-4, pp. 546, 572 – 573; TR 639 – 643).

7. An analysis of the interfaces of the geotechnical materials and of the smooth geomembrane liner interfaces at BFI's landfill were not included in the application. (TR 642, l. 25; TR 643, ll. 1 – 23).

8. 30 T.A.C. § 330.305 requires landfill permit applicants to demonstrate that natural and human-induced events will not impair the integrity of some or all of a landfill's structural components. (30 T.A.C. § 330.305; TR 591, ll. 18 – 22).

9. Vertical expansions of existing landfills are human-induced events. (TR 500, ll. 22 – 25; TR 501, ll. 1 – 12).

10. Mr. Chandler performed a slope stability analysis of the critical features of BFI's proposed vertical expansion utilizing published values for the strengths of materials involved in the landfill design and determined that the landfill will be unstable. (Exhibit PC-1, p. 78, ll. 13 – 20; p. 79, ll. 1 – 14; Exhibit PC-16).

D. Groundwater Monitoring (Referred Issue H)

1. The existing groundwater monitoring system consists of seventeen (17) wells located around the perimeter of the facility which are screened at the interface of the weathered and unweathered Taylor Marl. (Exhibit JS-1, p. 40, ll. 13 – 18).

2. The groundwater monitoring system proposed in the application will retain fifteen (15) of the existing wells and require the installation of seventeen (17) new wells

spaced approximately 600 feet apart to completely surround the perimeter of the waste disposal area. (Exhibit JS-1, p. 41, ll. 10 – 15).

3. The identification and location of the thirty-two (32) wells comprising the proposed system are included in the application. (Exhibit RS-1, Figure 5A.1, p. APP 000874).

4. BFI's landfill shares a common property line with Waste Management's Austin Community Landfill (ACL) which has operated as a solid waste disposal facility at this location at least ten (10) years prior to BFI's landfill. (Exhibit BK-1, p. 13, ll. 2 – 5).

5. The ACL has a history of disposal of industrial wastes in unlined trenches and pits in its pre-Subtitle D portions of its landfill. (Exhibit BK-1, p. 13, ll. 5 – 6; p. 15, ll. 13 – 15; p. 16, ll. 1 – 3).

6. There is evidence that there has been an exchange of groundwater from BFI's property onto the ACL property and from ACL's property onto BFI's property. (Exhibit BK-1, p. 13, ll. 7 – 20; p. 14, ll. 1 – 21; p. 15, ll. 1 – 15; Exhibit BK-5; Exhibit BK-6).

7. One of BFI's existing monitoring wells located on the BFI/ACL property line is currently in assessment monitoring due to detection of industrial solvents 1-1 DCA and PCE. (TR 348, ll. 23 – 29; TR 349, ll. 1 – 14).

8. Groundwater contamination has been detected in groundwater monitoring wells of Applied Materials, a facility downgradient from the ACL and BFI landfill facilities. (Exhibit BK-1, p. 18, ll. 4 – 9; Exhibit BK-7; Exhibit BK-8).

9. 30 T.A.C. § 330.231(a) requires that an applicant propose a groundwater monitoring system comprised of a sufficient number of monitoring wells, installed at appropriate locations and depths, to yield representative groundwater samples from the uppermost aquifer. (30 T.A.C. § 231(a)).

10. Although there was some testimony during the contested case hearing of the spacing of the proposed groundwater monitoring wells, BFI provided no justification or technical demonstration in its application to support the locations of its proposed wells, the number of its proposed wells or how the proposed system was appropriate given the unique characteristics of its site. (Exhibit RS-11, APP 000869; TR 356, ll. 3 – 11; TR 357, ll. 1 – 21).

11. The proposed thirty-two (32) monitoring wells completely surrounding the entire perimeter of BFI's facility are "point of compliance" wells for purposes of groundwater monitoring. (Exhibit RS-11, Figure 5A.1; APP 000874; Exhibit JS-1, p. 42, ll. 11 – 14).

12. All thirty-two (32) of BFI's proposed groundwater monitoring wells are downgradient of its waste disposal areas. (Exhibit RS-11, Figure 5A.1, APP 000874).

13. 30 T.A.C. § 330.233(e) requires the installation of an upgradient well or wells to establish background groundwater quality for a proposed monitoring system or demonstrations that site conditions make it infeasible to do so or that sampling of downgradient wells provide better information than could be obtained from upgradient wells. (30 T.A.C. §§ 330.231(a)(1); 330.233(e); 330.234(a); 330.235(a)).

14. The groundwater monitoring system contained in BFI's application contains no upgradient wells nor demonstrations to show why such wells were either infeasible or the proposed downgradient system would yield better data (Exhibit RS-11, APP 000855 – APP 000874; Exhibit JS-1, p. 42, ll. 11 – 14).

E. Adequate Provisions for Cover (Referred Issue Q)

1. The application represents that BFI will have a soil deficit of 2,736,320 cubic yards at closure. APP 000392. The BFI contract to purchase 1.5 million cubic yards of soil from Waste Management is terminable upon thirty (30) days notice by Waste Management. TR 1309, ll. 16 – 23.

2. BFI has no firm commitments for a guarantee of excess soil from any source. TR 1311, ll. 19 – 22.

F. Land Use Compatibility (Referred Issue U)

1. The Solid Waste Advisory Council of the Capital Area Council of Governments endorse the comments of Travis County relating to the incompatibility if the expansion of the BFI landfill with current and future land use. Exhibit RS-32; Exhibit TJFA-24.

2. The character of land uses within one mile of the BFI landfill is mixed and dynamic being on the fringe of a rapidly growing city. Exhibit JW-4, p. 3.

3. As of July 30, 2008, there were an estimated 1,387 residential units built within one mile of the BFI landfill. Exhibit JW-4, p. 4.

4. BFI's landfill is within Austin Planning Area 22, which is the most rapidly growing sector of the Austin Metropolitan Area. Planning Area 22 grew by 133 percent from 1990 to 2000. Exhibit JW-4, p. 5.

5. The residential grown increase was 248 percent from 1990 to 2000 within one mile of the BFI landfill. Exhibit JW-4, p. 6.

6. The Rule 11 Agreement between BFI, Giles and the City would not address impacts from litter, noise, lighting at night, and potentially odors. TR 2139, ll. 2 – 21.

7. Residents in the vicinity of the BFI landfill testified to noisome odors (TR 1642; TR 1661; TR 1667; TR 1997; TR 2037; Exhibit NNC-JB-1, pp. 5 – 6), runoff from the BFI landfill (TR 2009; Exhibit NNC-ER-6), and excessive noise (TR 1999; TR 1981).

VI. Proposed Conclusions of Law

1. The evidence at the hearing established that natural drainage conditions would be significantly altered by the proposed expansion in violation of 30 T.A.C. § 330.56(f)(4)(A)(iv). (Referred Issue A)

2. Evidence contained in BFI's application and adduced in the hearing demonstrate that BFI's landfill is not protective of groundwater, in violation of 30 T.A.C. §§ 330.55(b)(1) and 330.56(l). (Referred Issue C).

3. The slope stability analyses provided in BFI's application failed to demonstrate that the proposed expansion would be sufficiently stable, in violation of 30 T.A.C. §§ 330.55(b)(8) and 330.305. (Referred Issue F).

4. The groundwater monitoring system proposed in BFI's application failed to meet the requirements of 30 T.A.C. §§ 330.230 – 330.233. (Referred Issue H).

5. Evidence contained in the BFI application demonstrates that BFI's landfill is not protective of surface water, in violation of 30 T.A.C. §§ 330.55(b)(1) and 330.56(f). (Referred Issues C and V).

6. BFI failed to meet its burden of proof that it had sufficient soil available needed for cover material to comply with 30 T.A.C. § 330.133. (Referred Issue Q).

7. The expansion and operation of BFI's landfill is a land use that is incompatible with land uses in the area of its site. (Referred Issue U).

8. BFI's application failed to prove that the expanded facility will pose no reasonable probability of adverse effects on the health, welfare, environment, or physical property of nearby residents or property owners.

9. BFI's application failed to demonstrate that it will provide for the safeguarding of the health, welfare and physical property of the people and the environment through consideration of geology, soil availability, soil conditions, drainage, engineering design, groundwater protection, groundwater monitoring, surface water protection, erosion control, slope stability, odor control and other technical considerations.

10. BFI failed to demonstrate that the expansion and operation of its landfill will comply with the requirements of the Solid Waste Disposal Act, Tex. Health & Safety Code Ann. § 361.001, *et seq.*

11. BFI's application does not meet the requirements of the TCEQ for issuance of a permit to vertically expand its landfill facility.

12. The evidence in the record concerning BFI's application is insufficient to meet the requirements of the TCEQ for issuance of a permit to vertically expand the landfill facility.

13. BFI's application fails to satisfy all application provisions of the TCEQ's rules in 30 T.A.C. Chapter 330 in effect at the time of filing the application.

14. The proposed vertical expansion of BFI's landfill facility will not meet all of the applicable requirements of the TCEQ's rules found in 30 T.A.C. Chapter 330 in effect at the time of filing the application.

15. Pursuant to the authority of and in accordance with applicable laws and regulations, the TCEQ should deny the issuance of Permit No. MSW-1447A.

VII. Ordering Provisions

NOW, THEREFORE, BE IT ORDERED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY THAT:

1. The application of BFI Waste Systems of North America, LLC for Permit No. MSW-1447A authorizing the vertical expansion and operation of a Type I municipal solid waste facility be denied and all exceptions inconsistent therewith be overruled.

2. BFI Waste Systems of North America, LLC pay the total transcript costs of the contested case hearing.



Fritz, Byrne, Head & Harrison, PLLC
Attorneys at Law

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TELECOPY COVER PAGE
TRANSMITTAL INFORMATION

DATE: May 28, 2009
TO: Ms. LaDonna Castanuela (Telephone: 239-3300)
FAX NO.: 239-3311
FROM: Mr. Bob Renbarger
RE: SOAH Docket No. 582-08-2178; TCEQ Docket No. 2007-1774-MSW; BFI
CLIENT #: 15207.01

NUMBER OF PAGES: 82, including this cover page.

ADDITIONAL INFORMATION

ATTACHED: Protestant TJFA, L.P.'s Exceptions to the Administrative Law Judge's Proposal for Decision
MESSAGE: The original will follow by U. S. First Class mail.

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