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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

June 13, 2008

The Honorable Wes Suiter
Angelina County Judge
P.O. Box 908
Lufkin, TX 75902-0908

Re: Angelina County Waste Management Center - Angelina County
Municipal Solid Waste - Permit No. 2105A
Permit Modification – Alternate Final Cover Demonstration; Second Notice of Deficiency (NOD)
Tracking Nos. 11976665, 11996726; RN101947323 / CN600833511

Dear Judge Suiter:

We have reviewed your application for a municipal solid waste permit modification received on January 14, 2008, and revisions dated April 11, 2008, for changes to Part III, Attachment 12 (Final Closure Plan), to allow for an alternative final cover design. The modification included an Alternate Final Cover Demonstration and Final Cover System Quality Control Plan as appendices to Attachment 12.

Our review indicates that insufficient information has been provided to demonstrate compliance with Title 30 of Texas Administrative Code (30 TAC) Section (§)305.70. Therefore, we are unable to complete processing of your request at this time. Please review and address the following comments:

Final Closure Plan

1. The response to Comment No. 2 under Final Closure Plan in our first NOD dated March 13, 2008, stated that the references to the Texas Commission on Environmental Quality (TCEQ) rule interpretation of §330.457(d) have been removed. The marked (redline/strikeout) version shows that the referenced paragraph had been strikeout but the clean copy shows that the referenced paragraph still remains. Please revise Section 2.1.2 (Alternate Final Cover System) in the clean copy as instructed in the first NOD.
2. The response to Comment No. 3 under Final Closure Plan did not address how the criterion proposed for the coefficient of permeability in Section 2.2 (MSW Landfill Units With No Synthetic Liner) complies with the rule 30 TAC §330.457(a)(2). Moreover, this rule does not contain criterion for using an average of the permeabilities for the underlying compacted clay liner system to determine the pre-construction permeability criteria for the final cover system. Please understand that with the criterion as currently proposed in Section 2.2, the constructed clay-rich soil cover layer in the final cover system may not meet all of the permeability requirements of the above rule. The word average needs to be deleted in Section 2.2 for the criterion proposing using an average coefficient of permeability.
3. Section 4 (Largest Area Requiring Final Cover) states that 35 acres represents the largest area of the landfill requiring final cover. Comment No. 5 under Final Closure Plan stated, in part, that a permit modification application for changes in the final closure cost estimate must be submitted

pursuant to 30 TAC §305.70(j)(30) to reflect the change in the largest area requiring final cover, etc., and to address these issues accordingly and in a separate permit modification application(s) as applicable.

The response to Comment No. 5 stated, in part, that a permit modification to change the closure/post-closure cost estimates and financial assurance is being prepared and will incorporate necessary changes resulting from this modification. Please know that in accordance with 30 TAC §37.141, that whenever the current cost estimate increases to an amount greater than the amount being provided in the financial assurance mechanism(s), the owner or operator must either cause the amount of the financial assurance to be increased and submit evidence of such increase to the executive director, or obtain additional financial assurance in accordance with 30 TAC Chapter 37 to cover the increase. This adjustment must be made within 60 days after the owner or operator becomes aware, or is notified by the executive director, of the increase.

4. Comment No. 6 under Final Closure Plan referenced §II.E (Facilities and Operations Authorized/Waste Volume Available for Disposal) in the Permit that states:

“Total available waste disposal capacity of the landfill is approximately 9,291,965 cubic yards. The remaining disposal capacity of the landfill as of January 1, 1996 is 7,000,000 cubic yards.”

Comment No. 6 requested an explanation of the difference in the maximum inventory of waste and the total available waste disposal capacity and that it be revised as necessary. The first paragraph of the response to Comment No. 6 stated the following:

“9,291,965 cubic yards, as detailed in §II.E (Facilities and Operations Authorized/Waste Volume Available for Disposal) in the Permit, is the total permitted capacity of landfill including daily and final cover. 8,000,000 cubic yards is the estimated total waste capacity of the facility excluding final cover, therefore this number represents the ‘maximum inventory of waste’ that will ever be on-site during the active life of the landfill.”

Please revise Section 5 (Maximum Inventory of Wastes) to include the documentation in the first paragraph of the response to Comment No. 6.

5. The response to Comment No. 8 under Final Closure Plan states, in part, the following:

“... Additionally, all text revisions required as a result of this response are marked in the redline/strikeout copies included within this submittal.

Regarding the justification for the revisions to the drawings, we request the revisions to Exhibit 4.4 and Exhibit 4.5, Sheet 1 of 2 to adjust the final contours of Tract 1 and to revise the tie-in details to differentiate between the Subtitle D and pre-Subtitle D areas. As shown on Exhibit 4.4, the final cover system for Subtitle D areas will be 18” lower than the final cover system for the pre-Subtitle D area due to replacing the 18” clay infiltration layer in the Subtitle D final cover system with a geosynthetic clay layer. Additionally, we request revisions to Exhibit 4.1 to remove notes no longer applicable to the site and to Exhibit 4.3 to

revise the final cover system details for the Subtitle D areas to represent the alternative final cover system design.”

No text revisions were made for Section 7 (Final Contour Map) based upon the redline/strikeout copies included in the submittal in response to Comment No. 8. These revisions in the response to the first NOD did not include Exhibits 4.1, 4.3, 4.4, and 4.5 as referenced in the response to Comment No. 8. These drawings need to be submitted as revised per the response to Comment No. 8 for review to determine compliance with the rules.

6. Comment No. 9 under Final Closure Plan asked that the computations be revisited to determine if the values/assumptions used in the calculations are still valid based on the proposed final closure plan and current conditions (*e.g., percent (%) slopes, slope lengths, soil erodibility factor, etc.*). Comment No. 9 also stated that a narrative needs to be provided that explains the results of the calculations and compliance with the rule 30 TAC §330.305(d)(2) (*relating to Additional Surface Water Drainage Requirements for Landfills*). Comment No. 9 also required Appendix 5.1 (Soil Erosion Losses Computations) be revised accordingly

The response to Comment No. 9 stated:

“The Soil Erosion Losses Computation from the current closure plan are still valid as the percent (%) slopes, slope lengths, soil erodibility factor, etc. have not changed and are not being revised as a result of this modification.

“Upon completion of the revisions to the permit to comply with 30 TAC §330.305(d)(2) (*relating to Additional Surface Water Drainage Requirements for Landfills*), Appendix 5.1 will be reviewed and permit modification will be submitted, if required.”

The cover letter for this original permit modification application stated in part:

“Please note that the enclosed SDP Attachment 12, Final Closure Plan will fully replace the current SDP Attachment 12, therefore, we request review as an entirely new document. ...”

The Final Closure Plan submitted as an entirely new document must comply with all of the rules. The rule 30 TAC §330.457(e)(5) requires that the closure plan include “a final contour map depicting the proposed final contours, establishing top slopes and side slopes, proposed surface drainage features, and protection of any 100-year floodplain. [emphasis added]

The proposed surface drainage features and protection of any 100-year floodplain must comply with the applicable rules under Chapter 330, Subchapter G (Surface Water Drainage). It appears that the permit modification for compliance with Chapter 330, Subchapter G must be complete and issued so that the documentation in Section 8 (Soil Erosion Losses Computations) and Appendix 5.1 in this permit modification will be consistent and in compliance with the rules.

Please clarify the status of the revisions to comply with 30 TAC §330.305(d)(2) as referenced in the response to Comment No. 9, including the date of the original permit modification submittal and dates for all revisions.

7. The response to Comment No. 10 under Final Closure Plan stated that Appendix 5.2 (Slope Stability Analysis) has been revised to include references on how the friction angle (degrees) for each component interfaces was obtained. The response to Comment No. 10 also stated that all calculations were reviewed to verify that the values used in the calculations are consistent with the final cover design.

The marked version (redline/strikeout) that was included with this submittal consists of only two pages while the clean copy consists of the complete Appendix 5.2 with a revision date of April 11, 2008. A complete marked version, highlighting all revisions, must be submitted for Appendix 5.2 in accordance with 30 TAC §330.57(g)(6).

Alternate Final Cover Demonstration – Appendix 5.3

8. The response to Comment No. 12 under Alternate Final Cover Demonstration – Appendix 5.3 needs to be included in Section 2 (Modeling Approach) of Appendix 5.3.
9. The response to Comment No. 13 under Alternate Final Cover Demonstration – Appendix 5.3 needs to be included in Section 2 of Appendix 5.3.
10. The response to Comment No. 14 under Alternate Final Cover Demonstration – Appendix 5.3 needs to be included in Section 3 (Alternative Final Cover Performance Criteria) of Appendix 5.3.
11. The response to Comment No. 15 under Alternate Final Cover Demonstration – Appendix 5.3 needs to be included in Section 4 (Alternative Final Cover Model) of Appendix 5.3.

Final Cover System Quality Control Plan – Appendix 5.4

12. The response to Comment No. 16 under Final Cover System Quality Control Plan – Appendix 5.4 states:

“The definition for constructed soil infiltration layer has been revised to remove the reference to bentonite-amended soils.”

Comment No. 16 used the definition of “Constructed Soil Infiltration Layer” as an example of how some definitions appear to be a quasi derivative form other sources, and it was stated that it was unclear whether these definitions as proposed were intended to be redefined. Comment No. 16 required that all definitions as proposed be revisited to ensure their validity when compared to the derived sources, and their applicability for this permit modification application. Again, please revisit all of the definitions and revise accordingly.

13. Section 4 (Soil Infiltration Layer (Pre-Subtitle D Area)) lists the requirements for constructed soil infiltration layer and soil infiltration layer materials. The required value for “Permeability” still references “As outlined in Final Closure Plan.” Please provide a specific reference of where in the Final Closure Plan is this information located (e.g. Section 2 (Final Cover System Requirements), Pages 1-2). Also, please note Comment No. 2 above regarding deleting the average coefficient of permeability criterion in Section 2.2 of the Final Closure Plan.

14. The response to Comment No. 19 under Final Cover System Quality Control Plan – Appendix 5.4 stated “See response to TCEQ Comments 3 and 17, above.” Regarding the response to Comment No. 19, see Comments Nos. 2 and 13 above.
15. A definition was provided in Section 3 of Appendix 5.4 for “Geotechnical Quality Control Professional (GQCP)” as:

“A professional engineer registered in this state who possess professional experience in geotechnical engineering and testing, or a graduate geologist who has a minimum of four years experience in engineering geology and is experienced in geotechnical testing and its interpretations.”

The professional of record responsible for the final cover construction and testing quality assurance must be a Texas licensed professional engineer as this is considered engineering work. The definition for a GQCP must exclude a graduate geologist, etc. Please revise the definition accordingly. However, it is recommended that the definition be changed to “Professional of Record,” which is consistent with the TCEQ Soils/Geomembrane/Geosynthetic Clay/Liner Evaluation Report forms. All applicable portions of Appendix 5.4 will also need to be revised.

16. The response to Comment No. 22 under Final Cover System Quality Control Plan – Appendix 5.4, and the revisions or lack thereof, did not completely address Comment No. 22. Section 8 (Erosion Layer Requirements (All Areas)) in Appendix 5.4 states that the erosion layer will be placed over the infiltration layer.

Comment No. 22 stated in part “For constructability purposes it is recommended that for landfill units with a synthetic bottom liner, the clay-rich soil layer or GCL be overlain by the geomembrane, and the geomembrane be overlain by the erosion layer.” Section 8 needs to be revised to address this issue. In addition, Appendix 5.4 needs to clearly show all final cover system components for pre Subtitle D and Subtitle D areas.

17. The response to Comment No. 23 under Final Cover System Quality Control Plan – Appendix 5.4, and the revisions in Section 9 (Documentation) of Appendix 5.4, still contains an incorrect rule citation of §330.253(e)(6). As stated in Comment No. 23 in the first NOD, the correct rule citation is §330.457(f)(5).

In addition, the response and revisions did not address our comments regarding the certification of closure required by §330.457(f)(5) as being a separate document than the Final Cover System Evaluation Report (FCSER). Comment No. 23 stated that the FCSER is a report documenting the construction quality assurance/quality control testing of the final cover system, which is a part of all closure activities. The certification document can include the FCSER as part of the applicable documentation necessary for certification of closure. Please revise Section 9 accordingly.

Please revise your permit modification request and submit the revisions within 30 days from the date of this letter or your request may be considered withdrawn. In accordance with 30 TAC §330.57, please ensure that each page has a header or footer that indicates the revision number and date. Your revised and/or additional pages should be in a form suitable for replacement and/or inclusion in the initial permit modification application. In accordance with 30 TAC §305.44, please include an original certification

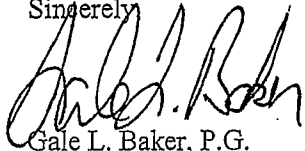
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statement with the revision. Along with the original signature, the certification statement should indicate the name, title, and address of the responsible official.

To facilitate our review, please submit an original and two copies of the revisions, in conformance with applicable regulatory requirements referenced in 30 TAC §305.70. In addition, we are requesting that one of the two copies be marked to highlight the revisions made to the permit modification request. We suggest using a redline/strikeout format. Lastly, your response should include the tracking number that is referenced above.

Failure to submit a satisfactory response to the item(s) listed above may result in a recommendation to deny this modification request. If you have questions regarding this letter, please contact me at (512) 239-6730. When addressing written correspondence, please use Mail Code 124 (MC 124).

Sincerely



Gale L. Baker, P.G.
Municipal Solid Waste Permits Section
Waste Permits Division
Texas Commission on Environmental Quality

GLB/fp

cc: Mr. Chris Fitzgerald, Landfill Manager, Angelina County Waste Management Center, Lufkin
Ms. Catherine A. Skurow, P.E., LNV Engineering, Corpus Christi