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Everett Griffith, Jr. & Associates Inc.
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January 25, 2010

Mr. Gale L. Baker, P.G.
Municipal Solid Waste Permits Section
Waste Permits Division, MC-124
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Re: Angelina County Waste Management Center
MSW Permit No. 2105A
Permit Modification Request
Part Four - Site Operating Plan

Dear Mr. Baker:

On behalf of Angelina County, and pursuant to the authority granted by the Applicant Certification in the Part I Application that is attached, we request the following permit modification for Angelina County Waste Management Center, Permit No. MSW 2105A, Angelina County, Texas:

- ▶ Updating of Part IV - Site Operating Plan in accordance with 30 TAC §305.70(k)(1).

The Angelina County Waste Management Center desires to update their current Site Operating Plan to permanently allow for an additional alternate daily cover (ADC) material to be used at the landfill. The proposed ADC, Posi-Shell, was temporarily used (with TCEQ approval) during 2009, with no problems.

This Permit Modification will, upon approval, become part of the facility's Site Development Plan. It is noted that the permit modification requires public notice. This application package will be included on Angelina County's website.

Attached are:

- ▶ Part I Application
- ▶ Revised Part IV - Site Operating Plan - The revised portions include the Part IV cover, table of contents, Section 26 - Landfill Cover and Appendix D. Redline copies are included for each of these items, with the exception of the Appendix D item.

If you have any questions, please give me a call.

Sincerely,

Rick Freeman

cc: Mr. Chris Fitzgerald, Manager, ACWMC
Ms. Kristie Lemmons, TCEQ, Region 10

**ANGELINA COUNTY WASTE MANAGEMENT CENTER
TYPE I SANITARY LANDFILL
ANGELINA COUNTY, TEXAS
MSW PERMIT NO. 2105A**

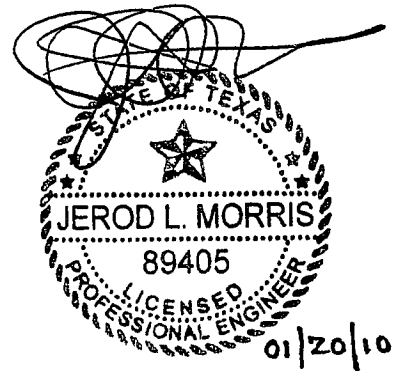
**PART IV
SITE OPERATING PLAN
JULY 2006
(REV 1 - APRIL, 2007)
(REV 2 - AUGUST, 2009)
(REV 3 - JANUARY, 2010 - SECTION 26 AND APPENDIX D)**

Applicant:

Angelina County Waste Management Center
P.O. Box 1862
Lufkin, Texas 75902-1862

Prepared by:

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26.1 DAILY COVER - Exposed waste around the working face will be covered periodically throughout the day to control the size of the working face and to ensure that no waste is exposed for more than 24- hours. The daily cover material shall consist of 6-inches of well-compacted earthen material not previously mixed with solid waste, placed at the end of each operating day or an alternative material day cover approved by the TCEQ. If soil is utilized, it will be placed in one lift with a minimum thickness of 6-inches, and compacted sufficiently to minimize rutting and erosion, and prevent the blowing of waste materials and insect and rodent problems. The surrounding undisturbed areas and areas with intermediate or final cover will be graded to direct runoff away from the working face to minimize the amount of water coming into contact with waste and daily cover and becoming contaminated. If the advancing face of the working area will be inactive for eight hours or more, it will be covered with daily cover.

Alternative Daily Cover (ADC) may be used instead of soil daily cover. Use of an ADC provides for a more prudent utilization of the landfill space.

The following ADC's have been approved for this facility:

1. One ADC that has been approved for this site (see Appendix C for approval letters) and may be utilized at the landfill is a biodegradable clay based product, such as Formula 480 as manufactured by Monsey Products Company. This type of liquid clay product is sprayed on the working face and, when dry, provides an environmentally safe cover. The clay product inhibits the activities of vectors and birds, it also controls dust, erosion, smell and blowing debris. Appendix D includes a copy of the Material Safety Data Sheet for this product.
2. A second ADC that has been approved for this site is an airtrol plaster and mulch (see Appendix C for approval letters). Airtrol plaster is an inorganic geobinder that, when mixed with water and cellulose fiber mulch, forms a cementitious binder over whatever it is applied. Airtrol plaster is nontoxic, non-combustible, totally biodegradable and harmless to fish, birds, plants and animals. It will also control dust, erosion, smell and blowing debris. Appendix D includes a copy of the Material Safety Data Sheet for this product.
3. Posi-Shell, as manufactured by the Landfill Service Corporation. Posi-Shell is a spray-applied, cement mortar coating (similar to stucco). Its composition is a mixture of water, a setting agent and fibers and can include portland cement and/or coloring agents. The setting agent is a powdered combination of finely ground volcanic clay and natural and synthetic adhesives and is non-toxic. The fibers are very fine polyester reinforcing fibers specially coated to disperse in liquid slurries without clumping. The fibers eliminate cracking and increase the durability of the ADC. Appendix D includes copies of the Material Safety Data Sheet of the various components.

ADC will not be used during periods when the landfill is closed for more than 24 hours unless authorized by the TCEQ.

During normal operations, the smallest practical working face will be maintained. Areas which have received daily cover will be inspected and maintained as necessary to minimize the exposure of previously placed wastes.

26.2 INTERMEDIATE COVER - As referenced in 30 TAC §330.165(c), all areas that received waste but will be inactive for longer than 180 days must provide intermediate cover. This intermediate cover must include six inches of suitable earthen material that is capable of sustaining native plant growth and must be seeded or sodded following its application in order to control erosion, or must be a material approved by the executive director that will otherwise control erosion. This intermediate cover must not be less

than 12 inches of suitable earthen material. The intermediate cover must be graded to prevent ponding of water. Plant growth or other erosion control features must be maintained. Runoff from area that have intact intermediate cover is not considered as having come into contact with the working face or leachate.

As required by 30 TAC §330.165(g), erosion gullies or washed-out areas deep enough to jeopardize the intermediate layer must be repaired within five days of detection by restoring the cover material, grading, compacting, and seeding unless the commission's regional office approves otherwise, based on the extent of the damage requiring more time to repair or the repairs are delayed because of weather conditions. An eroded area is considered to be deep enough to jeopardize the intermediate cover if it exceeds four inches in depth as measured from the vertical plane from the erosion feature and the 90-degree intersection of this plane with the horizontal slope face or surface. The date of detection of erosion and date of completion of repairs, including reasons for any delays, must be documented in the cover inspection record. The intermediate cover will be inspected for erosion damage quarterly to detect the need for repairs during the entire operational life of the facility.

26.3 FINAL COVER - There are two final cover designs for the Angelina County Waste Management Center. The original developed sections of the landfill has a pre-Subtitle D liner consisting of three feet of compacted clay overlain by one foot of protective cover and will require one final cover design. All other developed sections of the landfill will consist of Subtitle D liners and will require a different final cover design. Attachment 12 of Part III, Site Development Plan contains a full discussion of the final cover components and details concerning the construction of the cover.

The overall geometry of the cap will consist of 4:1 side slopes from natural ground at the perimeter of the landfill to the top of the cap with an intermediate plateau along portions of the slope. The top of the cap will be fairly gently sloping, with slopes from 2 percent to 6 percent.

As required by 30 TAC §330.165(g), erosion gullies or washed-out areas deep enough to jeopardize the final layer must be repaired within five days of detection by restoring the cover material, grading, compacting, and seeding unless the commission's regional office approves otherwise, based on the extent of the damage requiring more time to repair or the repairs are delayed because of weather conditions. An eroded area is considered to be deep enough to jeopardize the final cover if it exceeds four inches in depth as measured from the vertical plane from the erosion feature and the 90-degree intersection of this plane with the horizontal slope face or surface. The date of detection of erosion and date of completion of repairs, including reasons for any delays, must be documented in the cover inspection record. During the active period, the final cover will be inspected quarterly and after 25-year storm events. During the post-closure period, the final cover will be inspected for erosion annually and after 25-year storm event.

26.3.1 PRE-SUBTITLE D SECTION - The section with the pre-Subtitle D liner, which has no synthetic bottom liner, will be capped with 18-inches of compacted clay as an infiltration layer, having a coefficient of permeability less than or equal to 1×10^{-7} cm/sec. A minimum of 6-inches of earthen material that is capable of sustaining native plant growth will overlay the compacted clay layer.

26.3.2 SECTIONS CONSTRUCTED AFTER OCTOBER 9, 1993 - Requirements for final cover 30 TAC §330.165(f) and in Subchapter K (pertaining to Closure and Post Closure). As required by 30 TAC §330.457(a), the owner or operator shall install a final cover system for the unit that is designed and constructed to minimize infiltration and erosion. The final cover system shall be composed of no less than two feet of soil and consist of a clay-rich soil cover layer overlain by an erosion layer as follows:

4. For municipal solid waste landfill (MSW) units with a synthetic bottom liner, a synthetic

membrane that has a permeability less than or equal to the permeability of any bottom liner system overlain by a clay-rich soil cover layer consisting of a minimum of 18 inches of earthen material with a coefficient of permeability no greater than 1×10^{-5} centimeters per second (cm/sec). The minimum thickness of the synthetic membrane shall be 20 mils, or 60 mils in the case of high-density polyethylene, in order to ensure proper seaming of the synthetic membrane.

5. For MSW landfill units with no synthetic bottom liner, the clay-rich soil cover layer shall consist of a minimum of 18 inches of earthen material with a coefficient of permeability less than or equal to the permeability of any constructed bottom line or natural subsoil present. The coefficient of permeability of the infiltration layer shall in no case exceed 1×10^{-5} cm/sec, even though the coefficient of permeability of the constructed bottom liner or natural subsoil is greater than 1×10^{-5} cm/sec or no data exist for the value(s) of the coefficient of permeability of the constructed bottom liner or natural subsoil.
6. For all MSW landfill units, the erosion layer shall consist of a minimum of six inches of earthen material that is capable of sustaining native plant growth and shall be seeded or sodded immediately following the application of the final cover in order to minimize erosion.

26.4 COVER APPLICATION LOG - The site operator will document in a daily log those areas where waste, daily cover, alternate material daily cover (ADC), intermediate cover and final cover has been placed. The log will be keyed to the site grid system. The log will be kept at the site readily available for inspection by the TCEQ or other agencies. For daily and intermediate cover and ADC, the log will specify the date cover was installed (i.e. no exposed waste), what cover procedure was accomplished and the location of the cover. For final cover, the log will specify the area covered, the date cover was applied and the thickness of cover applied on that data. Each entry will be certified by the signature of the landfill manager or his designated representative that the work was accomplished as stated in the log.

All repairs to final cover will be documented in the cover log and will specify the area repaired, the date the repair was accomplished, and a description of the repair performed. Each repair entry will be certified by the signature of the landfill manager or his designated representative that the work was accomplished as stated in the log.