Part III
Attachment III-H

CLOSURE PLAN

Pescadito Environmental Resource Center
MSW No. 2374
Webb County, TX

PESCADITO
ENVIRONMENTAL RESOURCE CENTER

Initial Submittal March 2015
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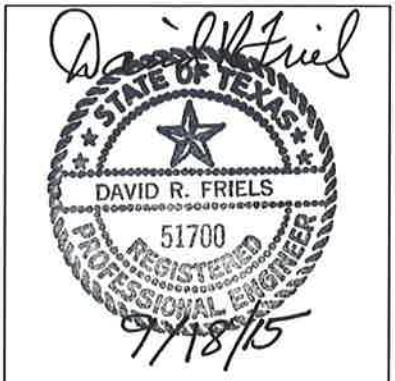

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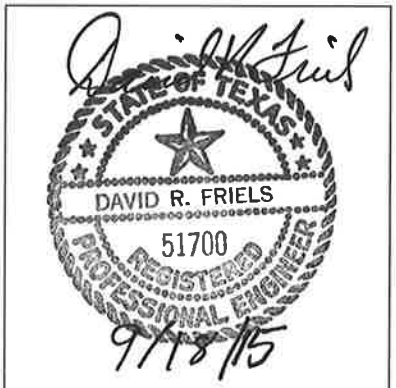

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1.0 CLOSURE PLAN

1.1 General

This Closure Plan has been prepared on behalf of Rancho Viejo Waste Management for the Pescadito Environmental Resource Center (PERC) pursuant to requirements as set forth in 30 TAC §330.63(h) and §330.457, 330.459, and 330.461. In accordance with §330.457(f)(1), a copy of the closure plan will be placed in the Site operating record. The PERC is located in Webb County, Texas. Initially, PERC will consist of two solid waste landfill disposal units. Both units will accept Type 1 Municipal Solid Waste (MSW) and non-hazardous industrial waste (NHIW). PERC may also construct and operate the following facilities as the need develops:

- Liquid Waste Solidification Unit
- Citizen Convenience Center including recyclables collection
- Leachate, Contaminated Water, and Gas Condensate Storage Facility
- Reusable Items Storage Area for inert and non-inert materials
- Storage Area for Large Items, White Goods, and Whole Tires

Consistent with §330.457(e) this closure plan addresses the final cover system design and installation, closure procedures, and the closure schedule. The final cover contour map and final cover details are presented in Appendix III-D.3.

1.2 Estimate of Maximum Inventory of Waste on Site

The estimated maximum inventory of wastes ever on-site over the active life of the facility is projected to be the total volume(s) available through this permit. Site life calculations are provided in Part III, Appendix III-D.4. The projected mass of MSW and NHIW occurring landfill units at the time of facility closure is 195,960,492 tons in the MSW landfill occurring at time of closure. Other facilities that will not be constructed initially, but are planned during the active life of PERC will close in the following manner:

- Liquid Waste Solidification – Liquid waste in the unit at time of closure will be solidified onsite, with all liquids solidified and landfilled prior to final closure.

2.0 LANDFILL FINAL COVER SYSTEM

2.1 Landfill Final Cover System Design

The final cover system design for the site is provided in Part III, Attachment III-D, Appendix III-D.8 of this Site Development Plan (SDP). Webb County is within the arid region of Texas with an average annual rainfall of approximately 20 inches. The final cover contour map and final cover details are provided in Appendix III-D.3 for reference. PERC will utilize a water balance (WB) final cover system that consists of the following (from the top down):

- 7 inches of topsoil/vegetation layer
- 30 inches of soil evapotranspiration (storage layer)
- 12 inches of intermediate cover soil

The erosion layer for the final cover will consist of a minimum of 7 inches of on-site native soil that is capable of sustaining native plant growth. The infiltration layer will consist of on-site soil that is classified as CL or CH and complies with the requirements stated in Appendix III-D.8 and also in Appendix III-D.9, Final Cover Quality Control Plan (FCQCP). The final cover will have a maximum final top slope of 6 percent and a side slope of 4H:1V (25 percent) and has been designed to provide sufficient slope to preclude ponding of surface water after taking into consideration expected subsidence.

The erosion layer will be covered with: (1) vegetation consisting of native grasses, (2) wood chips, or (3) stone to provide erosion protection from wind and surface water. The final cover system will be maintained until closure and through the post-closure period.

2.2 Installation Methods and Procedures

2.3 Construction Procedures

The final cover system will be constructed in accordance with 30 TAC §330.457 and as specified in Appendix III-D.9 – Final Cover Quality Control Plan (FCQCP). The final cover will be installed in sections during the active life of the facility. The area of the sections to be closed will vary, but each section will be completed or filled to the design lines and grades prior to final

3.0 CLOSURE PROCEDURES

3.1 Landfill Final Cover/Closure Sequence

Final cover may be placed on landfill sections as they are completed (i.e., filled to the permitted grades). Likewise sections of the landfill that have received final cover may be closed during the active life. Completed final cover will be maintained until final closure and then during the post-closure care period.

3.2 Landfill Closure During Active Life

As described above, the final cover may be constructed in sections as waste fill is brought to the final design contours. Should closure of the landfill become necessary at any time during the active life of the landfill, the following steps shall be taken:

- The final waste received will be placed and properly compacted.
- Cell excavations will be filled with suitable material, and graded to promote runoff and prevent ponding.
- Sections of daily/intermediate cover (that have not received final cover) will be regraded and reshaped as needed to provide the proper slope for positive drainage.
- The final cover system will be constructed and documented according to Section 2 of this closure plan or the latest approved plan for all fill sections that have not already received approved final cover.
- Sections that have previously received final cover will receive additional soil fill as needed to eliminate ponding and promote runoff.
- Surface water management systems will be installed to minimize erosion.
- Areas without satisfactory vegetation or other approved final cover material (e.g. wood chips or rock) will be seeded with appropriate native grasses. The soil surface/seed bed will be protected from wind and water erosion with mulch, stone or other approved controls. This required action will minimize water and wind erosion.

- A closure certification will be prepared by an independent registered professional engineer and submitted to the TCEQ for approval.
- All proper notices and documentations will be filed with the appropriate agencies.

3.3 Liquid Waste Solidification Unit Closure

Upon closure of the landfill, the active liquid waste solidification unit will be closed and decommissioned. Closure of this facility will be accomplished in accordance with the following closure plan.

- Any existing liquids will either be pumped out and transported to another approved liquid waste solidification facility or managed as stated in the liquid waste solidification unit operation plan and placed in the landfill.
- If the unit is lined with HDPE, liquids that have been satisfactorily stabilized will be removed and placed in the landfill. The HDPE liner will be removed and disposed in the active area of the landfill. The area beneath the liner will be inspected for possible leakage. If leakage is detected, the affected soil will be excavated and transported to the active area of the landfill for disposal. Removal of liner and closing will be conducted in a manner that will not cause ponding or trapping of water. The area of the facility will be graded as needed to comply with the approved contours. If the soil complies with the requirements for alternate daily cover, the soil may be used for daily cover.
- If the unit is lined with concrete, liquids that have been satisfactorily solidified will be removed and placed in the landfill and concrete surfaces will be steam cleaned. Any voids will be filled with compacted soil and the facility will be covered to provide positive drainage.
- A closure report and request that the liquid stabilization unit be deemed closed will be submitted to the TCEQ after closure activities are completed.

3.4 Citizens Convenience Center Closure

If a citizens convenience center has been placed in operation, it will be closed when no longer used or upon closure of the landfill. During normal operations, MSW will be transported to the active face and disposed when containers are full or the landfill is temporarily closed. Prior to closure, any remaining MSW will be transported to the active disposal are and landfilled. Recyclables that have been separate from the MSW will be moved off site and transported to an authorized recycling facility or properly disposed in the landfill. Any combustible materials will be transported to an authorized facility for disposition. After removal of the MSW and any recyclable materials, any remaining waste or debris will be removed and properly disposed in the landfill. Soil that exhibits stains will be excavated and hauled to the landfill. Concrete surfaces will be cleaned by pressure washing or steam cleaned and wash water will be collected along with affected soil and appropriately managed.

3.5 Leachate and Contaminated Water Storage

Storage facilities for leachate, contaminated water, and gas condensate will be kept active during the post closure period, or until it is determined that the facilities are no longer required. Once the liquid storage is no longer required, any remaining liquids will be removed from the site and properly disposed. After removal of the liquids, the facility will be closed and decommissioned. Once the facility is no longer required and the contaminated water has been removed, the facility will be closed. Closure of storage ponds will include removal and disposal of any exposed geosynthetics and inspection of subgrade for leakage. Soil contaminated by leakage will be removed and properly managed, and backfill will be placed and compacted as needed to eliminate the potential of ponding water. Above ground storage tanks, if used, will be emptied and properly decontaminated and either left in place or removed from the site.