

**Part III
Attachment III-D
Appendix III-D.8**

ALTERNATIVE FINAL COVER DEMONSTRATION

**Pescadito Environmental Resource Center
MSW-2374
Webb County, Texas**

PESCADITO
ENVIRONMENTAL RESOURCE CENTER

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Attachment III-D.8-1: HELP 3.07 Output

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1.0 INTRODUCTION

A water balance (WB) alternative final cover system (AFC) is proposed to be used at the Pescadito Environmental Resource Center (PERC) (MSW No. 2374). This final cover will consist of an erosion control layer and infiltration layer that provide the capacity to store water until it can be removed through evaporation and transpiration. This ability to store water within the final cover minimizes percolation or infiltration of stormwater into underlying waste material, thereby reducing the volume of leachate generated at the facility. Vegetation or other appropriate material will be established on top of the erosion control layer to minimize soil loss but has not been utilized in the model to reduce infiltration.

Type I Landfills are typically designed with compacted clay liners (CCL) and geomembrane barrier layers. This document presents the design of the AFC and a demonstration that this design provides equivalent performance to a CCL/geomembrane final cover configuration based on standards recognized by the TCEQ. This final cover system has been designed in accordance with 30 TAC 330.457(d) and TCEQ's "Guidance for Requesting a Water Balance Alternative Final Cover for a Municipal Solid Waste Landfill" (Revised January 27, 2012).

Pursuant to 30 TAC 330.457(d), an AFC may be approved if it meets the following performance standards:

1. The final cover achieves an equivalent reduction in infiltration as a clay-rich soil cover layer specified in 30 TAC 330.457(a)(1) and (2)
2. The final cover provides equivalent protection from wind and water erosion as the erosion layer specified in 30 TAC 330.457(a)(3)