

**NEW BOSTON LANDFILL
BOWIE COUNTY, TEXAS
TCEQ PERMIT APPLICATION NO. MSW 576C**

PERMIT AMENDMENT APPLICATION

PART III:

Attachment A – Site Development Plan Narrative

Attachment B – General Facility Design

Attachment C – Facility Surface Water Drainage Report

Attachment C1 – Permit Boundary Drainage Analysis and Design

Attachment C2 – Regional Drainage and Flood Control Analysis

Attachment C3 – Drainage System Plans and Details

Volume 2

Prepared for



Waste Management of Texas

July 2013

Prepared by



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TEXAS BOARD OF PROFESSIONAL ENGINEERS
FIRM REGISTRATION No. F-256

TEXAS BOARD OF PROFESSIONAL GEOSCIENTISTS
FIRM REGISTRATION No. 50222

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**PART III – FACILITY INVESTIGATION AND DESIGN
ATTACHMENT A
SITE DEVELOPMENT PLAN
NARRATIVE**

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1 NARRATIVE

30 TAC §330.63(a)

Consistent with 30 TAC §330.63(a), this site development plan narrative is included as Attachment A – Site Development Plan Narrative. Attachment A provides the criteria used in the selection and design of this facility for the safeguarding of the health, welfare, and physical property of the public and environment through the consideration of the geology, soil conditions, drainage, land use, zoning, adequacy of access roads and highways, and other considerations specific to this facility.

1.1 General Facility Design

Consistent with 30 TAC §330.63(b), the general facility design information is included in Attachment B – General Facility Design. Attachment B includes narrative and drawings that provide the required general facility design information including a discussion on facility access control as required by §330.63(b)(1), a generalized process design and working plan of the facility that describes waste movement as required by §330.63(b)(2), a description of how solid waste processing facilities will be designed to facilitate proper cleaning as required by §330.63(b)(3), a description of how all liquids resulting from the operation of solid waste processing facilities will be disposed of in a manner that will not cause surface water or groundwater pollution as well as the treatment of wastewaters resulting from the process or from cleaning and washing as required by §330.63(b)(4), and a general discussion of how the facility is designed to protect endangered and threatened species as required by §330.63(b)(5).

1.2 Land Use and Zoning

An analysis of land use and potential impact on the area surrounding the facility was prepared by MTG Engineers and Surveyors, Inc. The Land Use Analysis is included in Part II, Appendix IIB.

The existing New Boston Landfill is located in Bowie County, within the extraterritorial jurisdiction of the City of New Boston, Texas. The facility is located east of the intersection of IH-30 and US 82.

1.3 Adequacy of Access Roads and Highways

A transportation study was prepared by MTG Engineers and Surveyors, Inc. to provide information related to access roads and vehicular traffic with respect to the facility expansion. The transportation study is included in Part II, Appendix IIC. There are no existing or planned restrictions on the main access roadways within 1 mile of the site that would preclude safe and efficient operations for landfill vehicles and other traffic in the area.

Access will continue to be provided to the New Boston Landfill via U.S. Highway 82 and existing entrance road. The primary local and regional access routes to the facility

remain Interstate Highway 30 (IH30) and U.S. Highway 82. There are no known weight restrictions on the local or regional roads in the proximity of the facility other than the maximum legal weight limit of 80,000 pounds. Refer to Part II, Appendix IIC, Transportation Study for TxDOT approval letter.

1.4 Facility Surface Water Drainage Design

Consistent with 30 TAC §330.63(c), the facility surface water drainage design information is included in Attachment C – Facility Surface Water Drainage Report. Attachment C includes a narrative discussion, drawings, and calculations that demonstrate how the facility was designed to meet the drainage and flood control requirements of §330.63(c) and §§330.303, 330.305, and 330.307. The surface water drainage design report includes analyses of the current permitted conditions, postdevelopment conditions, and design of the surface water management system, including final cover drainage facilities, perimeter drainage channels, and detention and sedimentation ponds, and also includes an erosion and sediment control plan for all phases of landfill development. The facility surface water drainage design report demonstrates that currently permitted drainage patterns will not be adversely altered. In addition, an evaluation of the 100-year floodplain is included.

1.5 Waste Management Unit Design

Consistent with 30 TAC §330.63(d)(4), the waste management unit design information is included in Attachment D – Waste Management Unit Design. Attachment D includes a narrative discussion, drawings, and calculations that demonstrate how the facility was designed to meet §330.63(d)(4) for landfill units. The waste management unit design includes provisions for all-weather operations, proposed landfill method, elevation of deepest excavation, maximum elevation of waste and final cover, waste disposal rate and operating life of the landfill, landfill unit cross sections, construction and design details of the landfill unit, and the liner quality control plan. The landfill liner system has been designed to meet the requirements of §330.331(a)(2) and §330.331(b) for a composite liner. The landfill liner system has been designed to meet the requirements of §330.333 for a leachate collection system, and to meet the requirements of §330.337 for special liner design constraints as related to construction of a passive dewatering system to reduce hydrostatic forces on the liner during construction. In addition, Attachment D includes the geotechnical design report for the facility, the liner quality control plan, the leachate and contaminated water management plan, and the final cover quality control plan.

Further, the storage, processing, and transfer units located within the permit boundary include the following: large item storage area, reusable materials storage area, citizen's convenience area, and leachate storage facility. Refer to Attachment B – General Facility Design for details on these storage, processing, and transfer units. Attachment B includes a narrative discussion and drawings that demonstrate how the facility was designed to meet §330.63(b) and §330.63(d)(1) for general facility design and waste management unit design.

1.6 Geology Report

Consistent with 30 TAC §330.63(e), the geology and soil information is included in Attachment E – Geology Report. Attachment E includes a narrative discussion, evaluations, and figures that provide the information required by §330.63(e). The geology report includes descriptions of the regional geology and hydrogeology, geologic process, regional aquifers, subsurface investigations, geotechnical properties of subsurface soils, and fault and seismic conditions. The geology report includes the evaluation and demonstrations which confirm that the geology and soil conditions remain suitable for continued operations as a municipal solid waste disposal facility.

1.7 Groundwater Sampling and Analysis Plan

Consistent with 30 TAC §330.63(f), the groundwater sampling and analysis plan is included as Attachment F – Groundwater Monitoring Plan. Attachment F includes a narrative discussion, evaluations, and figures that provide the information required by §330.63(f) and §§330.401 through 330.421. The groundwater monitoring plan includes, among other things, the point of compliance, contaminant pathway analysis, groundwater monitoring program, detection monitoring program, and groundwater sampling and analysis plan.

1.8 Landfill Gas Management Plan

Consistent with 30 TAC §330.63(g), the landfill gas management plan is included as Attachment G – Landfill Gas Management Plan. Attachment G includes narrative, evaluations, and drawings that provide the information required by §330.63(g) and §330.371. The landfill gas management plan includes the requirements for landfill gas monitoring at the landfill perimeter and in on-site structures, a landfill gas control system, and procedures to be implemented in the event that concentrations of methane in excess of the regulatory limits are measured at the facility permit boundary or in on-site structures.

1.9 Closure Plan

Consistent with 30 TAC §330.63(h), the closure plan is included as Attachment H – Closure Plan. Attachment H includes narrative, evaluations, and maps and drawings that provide the information required by §330.63(h), §330.461, §330.457 and §330.459. The closure plan includes the procedures to be taken for ongoing closure of the facility, following final acceptance of waste and certification of final closure. The closure plan describes the final cover system, closure procedures, and a closure schedule.

1.10 Postclosure Plan

Consistent with 30 TAC §330.63(i), the postclosure plan is included as Attachment I – Postclosure Plan. Attachment I includes a narrative discussion that provides the information required by §330.63(i), §330.463, and §330.465. The postclosure plan includes the procedures for postclosure care maintenance of the facility following

closure, including postclosure care certification. The postclosure plan describes the postclosure care activities, persons responsible for conducting postclosure care activities, and postclosure land use.

1.11 Cost Estimates for Closure and Postclosure Care

Consistent with 30 TAC §330.63(j), the cost estimates for closure and postclosure care are included as Attachment J – Cost Estimates for Closure and Postclosure Care. Attachment J includes a narrative discussion, evaluations, calculations, and drawings that provide the information required by §330.63(j). The detailed cost estimate for closure meets the requirements of §330.503. The detailed cost estimate for postclosure care meets the requirements of §330.507. This plan also provides procedures to adjust the cost estimates during the life of the facility and provides the evidence of financial assurance, as required.