

# **CCR Landfill Post-Closure Plan**

**Twin Oaks Power Generating Station**

**13065 Plant Road**

**Bremond (Robertson County), Texas 76629**

**September 29, 2016**

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## **1.0 Introduction**

The following CCR Post-Closure Plan is intended to fulfill the requirements of Coal Combustion Residual Rule 40 CFR §257.104 (Post-Closure Care Requirements) for the existing Twin Oaks Power (TOP) Utility Landfill located near Bremond, Texas. Section 40 CFR §257.104 requires that an owner or operator of a CCR landfill prepare a Post-Closure Plan describing post-closure care of the CCR unit.

The following constitutes the initial Post-Closure Plan for the CCR landfill as required under 40 CFR §257.104.

## **2.0 Post Closure Activities**

The purpose of this Post-Closure Plan is to describe the post-closure monitoring and maintenance activities at the CCR unit throughout the post-closure care period, in accordance with 40 CFR §257.104.

### **2.1 Post-Closure Period**

Part 40 CFR §257.104(c) requires a post closure care period to extend 30 years after completion of the final cover system.

Unless, as provided by 40 CFR §257.104(c)(2), if at the end of the post-closure care period the owner or operator of the CCR unit is operating under assessment monitoring in accordance with 40 CFR §257.95, the owner or operator of the CCR unit must continue to conduct post-closure care until the owner or operator returns to detection monitoring in accordance with 40 CFR §257.95.

### **2.2 Post-Closure Contact**

The designated contact during the post-closure care period for the CCR landfill is the onsite Environmental Supervisor. The supervisor's contact information is:

Environmental Supervisor  
Twin Oaks Power  
13065 Plant Road  
Bremond, Texas 76629  
(254) 746-5578

### **2.3 Inspection Plan**

A qualified person will inspect the closed landfill semi-annually or at a frequency appropriate to maintain environmental and structural integrity of the final cover system.

Inspections should include the entire site and look for evidence of settlement or subsidence, slope instability, animal burrows or damage, erosion of final surface cover, exposure of CCR material, vegetative growth, ponding of water on the final cover and any seepage from the side slopes. Groundwater monitoring wells should be inspected for signs of damage and reported. Storm water features should be checked to see that they are free from sediment or debris that may prevent the system from operating properly.

If damage to the final cover system is identified during an inspection, an investigation to identify the potential cause of the damage should also be performed. Repairs should be made as soon as practical to minimize additional damage.

## **2.4 Maintenance Plan**

During the post-closure care period, the CCR landfill will receive routine maintenance to meet post-closure care requirements. In accordance with §257.104(b) and (d), the following sections include descriptions of the methods and procedures to be used to maintain the final cover system.

### **2.4.1 Erosion Damaged Areas**

Areas of the final cover system that have been eroded will be backfilled according to the cover system design detailed in the facility's Closure Plan. The depth of disturbance or damage will govern the repair process and soils placed and grading activities utilized. Repair areas will be seeded, mulched or protected by erosion control matting (or similar means) to deter the development of new erosion.

### **2.4.2 Areas of Settlement, Subsidence and Displacement**

Minor settlement, subsidence, or displacement will be corrected by grading to promote positive surface drainage. Suspected damage to the final cover systems will be inspected and repairs made as necessary.

Signs of surface sloughing, bulging at the toe, tension cracks at the top of the slope, or seepage from the side slopes are usually an indication of potential slope instability. Signs of instability shall be reported to a qualified professional engineer for further evaluation and recommendations for appropriate course of action. Any corrective action to any potential slope instability will be based on addressing the cause of the damage. Any repairs to the final cover system will be in accordance with the final Closure Plan and conducted as soon as practical after detection.

### **2.4.3 Run-On and Run-off Control Structures**

Surface water channels and down drain entrances and exits should be inspected periodically or at least semi-annually during the post-closure care period. Drainage features should also be inspected after a significant rainfall event (i.e. 2-year, 24-hour storm event, or greater). Storm water channels and ponds will be inspected for evidence of

erosion, excessive vegetation, sedimentation and debris that would restrict the flow or prevent proper operation. Clogs will be removed from pipes or inlets to allow free flow of surface water and prevent damage to other parts of the drainage control system and facility.

#### **2.4.4 Mowing**

Mowing operations will be appropriately scheduled during the growing season or occur at least once per year. Mowing is necessary to deter growth of woody vegetation, deter habitation by animals, and to allow inspection and access to the landfill's final cover features and related structures.

Undesirable vegetation such as trees and large shrubs should be removed and any damage to the final cover system repaired. Commercially available herbicide or mechanical control may be used to control invasive or undesirable vegetation.

### **2.5 Groundwater Monitoring Plan**

Groundwater monitoring will be performed for the CCR landfill throughout the post-closure period. A Groundwater Sampling and Analysis Plan (GWSAP) has been prepared for the CCR landfill (in accordance with 40 CFR §257.90 through §257.98) and provides specific details for completion of groundwater monitoring activities at the landfill. The groundwater monitoring system will be maintained throughout the post-closure care period.

### **2.7 Post-Closure End Use**

The closed CCR landfill will be used as open space and managed turf. The post-closure use will not interfere with inspection, maintenance and monitoring activities. Deed restriction will be placed on the property to ensure that there is no impact to the closed CCR landfill. Post-closure use of the property is not expected to disturb the integrity of the final cover or other components including monitoring systems of the closed landfill.

If any disturbance is proposed at the closed landfill, the owner or operator will demonstrate that the disturbance of the final cover, including any removal of CCR material for beneficial use, will not increase the potential threat to human health or the environment. This demonstration must be certified by a qualified professional engineer and provide notification to State agencies as required by §257.104(d)(1)(iii).

**2.7 Completion of Post-Closure Care Period**

In accordance with 40 CFR §257.104(c), the post-closure care period is to extend 30 years (unless otherwise required per 40 CFR §257.104(c)(2)) from the time of complete closure of the landfill. Within 60 days after the completion of the post-closure care period, the owner or operator of the CCR landfill will provide notification verifying that post-closure care has been completed. In accordance with 40 CFR §257.104(e), a qualified professional engineer must certify the notification that the post-closure care has been completed and the notification placed in the facility's operating record.

### 3.0 Post-Closure Plan Certification

By means of this certification, (i) this initial CCR Landfill Post-Closure Plan has been prepared, and reviewed in accordance with good engineering practice, (ii) it is my professional opinion that the Plan was prepared consistent with the minimum requirements of 40 CFR §257.104, (iii) I or my agent has visited and examined the facility, (iv) this certification is not and shall not be interpreted or construed as a guarantee, warranty or legal opinion, and (v) this certification in no way relieves the owner or operator of the facility of his/her duty to fully implement this Plan.

By:   
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Dated: September 29, 2016  
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