

# CLOSURE PLAN

**CCR 257.102(b)**

Landfill Area

Welsh Power Plant  
Pittsburg, Texas

October, 2016

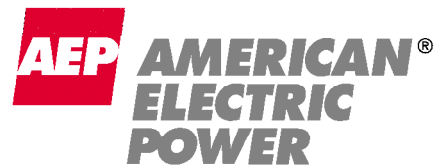
Prepared for : Southwest Electric Power Company – Welsh Plant

Pittsburg, Texas

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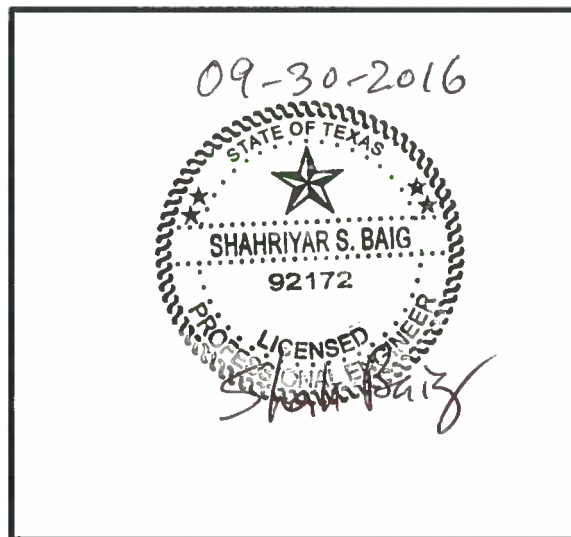
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CLOSURE PLAN  
CCR 257.102(b)  
WELSH POWER PLANT  
LANDFILL AREA

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I certify to the best of my knowledge, information, and belief that the information contained in this closure plan meets the requirements of 40 CFR § 257.102

I certify to the best of my knowledge, information and belief that design of the final cover system as described in this closure plan meets the requirements of 40 CFR § 257.102.

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## **1.0 OBJECTIVE**

This report was prepared by AEP- Geotechnical Engineering Services (GES) section to fulfill requirements of CCR 257.102(b) for Closure Plans of Existing CCR Units.

## **2.0 DESCRIPTION OF THE CCR UNIT**

The AEP J. Robert Welsh Plant is located in southern Titus County, approximately 8 miles northeast of Pittsburg, Texas, and approximately two miles northwest of Cason, Texas. It is owned and operated by Southwest Electric Power Company (SWEPCO). The facility operates a landfill for the disposal of CCR materials.

The Welsh Landfill is a Class 2, Industrial Solid Waste Facility per the Texas Commission on Environmental Quality, Industrial Solid Waste Management Technical Guideline No. 3.

## **3.0 DESCRIPTION OF CLOSURE PLAN 257.102(b)(1)(i)**

*[A narrative description of how the CCR unit will be closed in accordance with this section]*

The Welsh Landfill Area will be closed by closure in place. The closure will consist of re-grading the existing onsite materials and the installation of an impermeable cap with vegetative cover. The existing surface will be graded to achieve a gently sloping surface to promote surface water runoff. The re-graded surface will be covered with 3-ft of re-compacted clay soil material with a permeability of  $1 \times 10^{-7}$  or less and 18-inches of vegetative soil cover that is capable of sustaining native plant growth. The surface soil will be seeded and mulched to promote the growth of a vegetative cover.

## **4.0 CLOSURE IN PLACE 257.102 (b)(1)(iii)**

*[If closure of the CCR unit will be accomplished by leaving the CCR in place, a description of the final cover system, designed in accordance with paragraph(d) of this section, and the methods and procedures to be used to install the final cover. The closure plan must also discuss how the final cover system will achieve the performance standards specified in paragraph (d) of this section.]*

The final cover system will consist of 3-ft of re-compacted clay soil material with a permeability of  $1 \times 10^{-7}$  cm/sec or less and 18-inches of vegetative soil cover that is capable of sustaining native plant growth. The final cover will be seeded and mulched to promote growth of a vegetative cover. The final cover slope will be a minimum of 2% and will convey water to a TPDES permitted outfall.

## **4.1 CLOSURE PERFORMANCE STANDARDS 257.102 (d)(1)**

### **4.1.1 SECTION 257.102(d)(1)(i)**

*[Control, minimize or eliminate, the maximum extent feasible, post-closure infiltration of liquids into the waste and releases of CCR, leachate, or contaminated run-off to the ground or surface waters or to the atmosphere.]*

The final cover system will cover the CCR material and will have a permeability that is less than or equal to the permeability of the natural subsoils and is no greater than  $1 \times 10^{-5}$  cm/sec.

#### **4.1.2 SECTION 257.102(d)(1)(ii)**

***[Preclude the probability of future impoundment of water, sediment, or slurry.]***

The final surface areas will be graded to a minimum slope 2% to prevent the ponding of surface runoff. Drainage features will be designed to have positive drainage.

#### **4.1.3 SECTION 257.102(d)(1)(iii)**

***[Include measures that provide for major slope stability to prevent the sloughing or movement of the final cover system during the closure and post-closure care period.]***

The final cover system will be gently graded with a minimum of 2% slope. The final configuration of the impoundment will meet the stability requirements to prevent the sloughing or movement of the final cover system during the closure and post-closure care period.

#### **4.1.4 SECTION 257.102(d)(1)(iv)**

***[Minimize the need for further maintenance of the CCR unit.]***

The landfill facility will be vegetated to prevent erosion. Maintenance of the final cover system will include mowing.

#### **4.1.5 SECTION 257.102(d)(1)(v)**

***[Be completed in the shortest amount of time consistent with recognized and generally accepted good engineering practices.]***

The CCR unit will be closed in a timeframe consistent with recognized and generally accepted good engineering practices. As the fill reaches the approved final grades, periodic closure activities may occur.

### **4.2 DRAINING AND STABILIZING OF THE SURFACE IMPOUNDMENT**

#### **257.102(d)(2)**

This section is not applicable to a landfill.

### **4.3 FINAL COVER SYSTEM 257.102 (d)(3)**

***[If a CCR unit is closed by leaving CCR in place, the owner or operator must install a final cover system that is designed to minimize infiltration and erosion , and at a minimum, meets the requirements of paragraph (d)(3)(i) of this section, or the requirements of the alternative final cover system specified in paragraph (d)(3)(ii) of this section.***

***The final cover system must be designed and constructed to meet the criteria in paragraphs (d)(3)(i)(A) through (D) of this section. The design of the final cover system must be included in the written closure plan.]***

The final cover system will consist of 3-ft of re-compacted clay soil material with a permeability of  $1 \times 10^{-7}$  cm/sec or less and 18-inches of vegetative soil cover that is capable of sustaining native plant growth. The final cover will be seeded and mulched to promote growth of a vegetative cover. The final cover slope will be a minimum of 2% and will convey water to a TPDES permitted outfall. The final cover slope will be a minimum of 2% to accommodate settling and subsidence.

#### **5.0 ESTIMATE OF MAXIMUM CCR VOLUME 257.102 (b)(1)(iv)**

*[An estimate of the maximum inventory of CCR ever on-site over the active life of the CCR unit.]*

The estimated maximum CCR volume on-site is 2,740,000 Cubic Yards for the Landfill Area.

#### **6.0 ESTIMATE OF LARGEST AREA OF CCR REQUIRING COVER 257.102 (b)(1)(v)**

*[An estimate of the largest area of CCR unit ever requiring a final cover]*

The largest area of the CCR unit requiring a final cover is 40 acres for the Landfill Area.

#### **7.0 CLOSURE SCHEDULE 257.102(b)(1)(vi)**

*[A schedule for completing all activities necessary to satisfy the closure criteria in the section, including an estimate of the year in which all closure activities for the CCR unit will be completed. The schedule should provide sufficient information to describe the sequential steps that will be taken to close the CCR unit, including identification of major milestones such as coordinating with and obtaining necessary approvals and permits from other agencies, the dewatering and stabilization phases of the CCR surface impoundment closure, or installation of the final cover system, and the estimated timeframes to complete each step or phase of the CCR unit closure.]*

At this time there are currently no plans to close this CCR unit. Once the CCR unit requires closure a schedule to satisfy this section will be prepared.