

CLOSURE PLAN

**Entergy Arkansas, LLC
Independence Plant CCR Landfill
Newark, Arkansas**

**Permit No. 0200-S3N-R2
AFIN: 32-00042**

**April 2026
Promus Project No. 250106**

Prepared for:

Entergy Arkansas, LLC



Prepared by:



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FIGURES

Figure 1 Site Layout Map



1.0 INTRODUCTION

This Closure Plan has been prepared for the Independence Plant CCR Landfill (Facility) in accordance with the Facility permit, the Arkansas Solid Waste Management Regulations (8 CAR § 60), Solid Waste Permit No. 0200-S3N-R2, and 40 C.F.R. Part 257, Subpart D. The Facility is permitted to accept nonhazardous industrial and commercial solid waste, including coal combustion residuals (CCR) such as fly ash and bottom ash.

This plan has been developed in accordance with 40 C.F.R. § 257.102(b) and provides the procedures and methods for closure of the CCR unit. The information herein will assist Entergy Arkansas, LLC (Entergy) in closing active waste units in a manner that protects human health and the environment.

The Facility, which is located approximately 2.5-miles southeast of Newark in Independence County, Arkansas, is owned by Entergy. The CCR Landfill was originally permitted by the Arkansas Division of Environmental Quality (DEQ) in 1982. The current DEQ-permitted layout of the CCR Landfill includes a total of 22 disposal cells. Cells 1 through 15 were constructed prior to October 19, 2015, the effective date of the first federal CCR regulations. Cells 12 through 15 currently comprise the active disposal area of the CCR Landfill, having received CCR materials after October 19, 2025. The original Closure Plan under 40 C.F.R. § 257.102(b) for the CCR Landfill was posted to the facility operating record and CCR website in 2016. Cell 16 has been constructed and prepared in accordance with 8 CAR § 60 and 40 C.F.R. Part 257, Subpart D and will begin receiving waste as soon as 2026, necessitating this Closure Plan pursuant to 40 C.F.R. § 257.102(b)(2)(ii).

2.0 CLOSURE PLAN

2.1. Closure Approach

Closure of the Independence Plant CCR Landfill will be conducted using a closure-in-place approach consistent with generally accepted engineering practices. CCR materials generated at the Independence Plant, as well as materials removed from on-site surface impoundments, may be placed within the landfill to achieve final grades in accordance with permit requirements.

Closure activities will include stabilization and preparation of the area to be closed, installation of the barrier and erosion layers, establishment of vegetative cover, and preparation of a certification that the closure activities were conducted in accordance with §257.102 and the facility Construction Quality Assurance (CQA) Plan.

A final cover system will be installed to minimize infiltration, control erosion, and meet or exceed the performance standards of 40 C.F.R. § 257.102(d)(3)(ii). Closure activities are designed to minimize long-term maintenance and prevent the post-closure release of contaminants.

2.2. Estimated Maximum Inventory of CCR

The estimated maximum inventory of waste on-site over the active life in the Landfill is the design capacity of approximately 12,904,000 cubic yards.



2.3. Largest Area Requiring Cover System

CCR will undergo closure in place at Independence CCR Landfill in accordance with 40 C.F.R. §257.102(d). The estimated largest area of a landfill unit ever requiring closure at any time during the active life of the Landfill will vary based on site needs. However, for estimating purposes, it is assumed that Cells 12 through 22 (159.7 acres) is the largest area that will be open and requiring final cover, in accordance with 40 C.F.R. §257.102(b)(1)(v).

2.4. Closure Performance Standard

2.4.1. Final Cover System

The final cover system has been designed to meet the requirements of 40 C.F.R. §257.102(d)(3). The proposed cover system has been designed to reduce infiltration into the landfill and to resist erosion, and to meet the requirements of §257.102(d)(3)(i).

With the type of waste that has been landfilled and the nature of the fill placement, no decomposition of the waste material is anticipated, therefore minimal settlement is expected. Due to the highly elastic nature of the geomembrane and the stable nature of the waste, the final cover system will accommodate differential settlement that may occur during the post-closure care period.

Three alternative final cover system options have been approved for the Facility as described in Section 2.4.2 below. Construction quality assurance measures will be completed to ensure the final cover system components are constructed as designed.

2.4.2. Alternative Final Cover System

The three approved alternative final cover options will consist of the following components (from top to bottom).

Compacted Clay Option

- 12" Erosion Layer
- 18" Compacted Clay (1×10^{-7} cm/s)
- In-place CCR material

Geomembrane Option

- 24" Erosion Layer
- Drainage Geocomposite
- 60 mil HDPE Geomembrane
- 6" Soil Protection Layer
- In-place CCR material

Geosynthetic Clay Liner Option

- 24" Erosion Layer
- Geosynthetic Clay Liner (GCL)
- 12" Soil Protection Layer
- In-place CCR material

2.4.3. Performance Standards

Closure of the facility will be conducted in a manner that minimizes the need for further maintenance and controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, the post-closure escape of uncontrolled leachate, surface runoff, or waste decomposition products to the groundwater, surface water, or the atmosphere.

The final cover system consisting of an erosion layer with run-on and run-off controls will minimize the need for post-closure maintenance. The final slopes of the landfill will promote runoff. Diversion berms and down drain pipes will convey surface water runoff to sediment basins designed for removal of sediment prior to discharge. A hardy stand of vegetation will be established and, along with the diversion berms and storm water conveyance channels, will minimize erosion of the final cover system.



A low-permeability final cover system will be constructed and maintained that minimizes the infiltration of precipitation into the waste mass. By minimizing infiltration, the final cover will minimize leachate generation. The final slopes of the landfill will not be less than four percent to prevent ponding.

The CCR unit will be closed in a manner that includes measures to prevent major slope instabilities, sloughing or movement of the final cover system. To ensure that the stability of the erosion layer in the final cover system, adequate drainage will be provided to prevent the soil from becoming saturated and subject to seepage forces.

The final cover system will be finished within six months following the beginning of closure construction unless otherwise approved. If more than six months are necessary, steps to prevent threats to human health and the environment from the unclosed landfill unit will be undertaken.

2.5. Schedule

Closure will begin in accordance with 40 C.F.R. § 257.102(f) following the known final receipt of waste or the known final removal of waste for the purpose of beneficial use of CCR. Partial closure of individual cells may occur during the operational life of the landfill.

Whenever closure activities are initiated, a notification will be placed in the facility operating record and website that closure activities will be performed, in accordance with §257.102(g). The notification must include a certification by a professional engineer for the design of the final cover system.

Closure construction is expected to be completed within approximately 180 days following initiation, subject to operational and regulatory conditions.

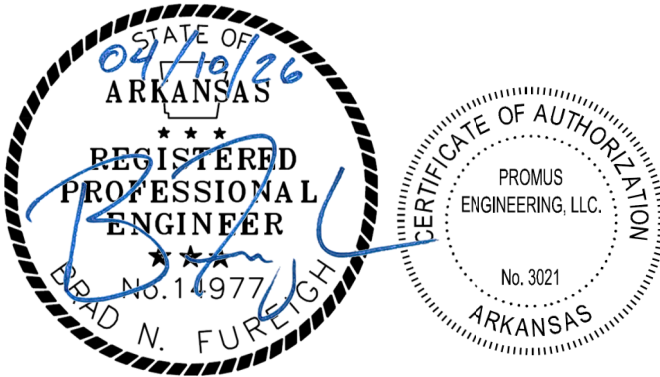
Estimated Closure Schedule

Closure Activity/Task	Number of Days to Complete
Notify the DEQ of intent to perform closure for each cell	1
Begin closure activities	19
Perform grading of waste	10
Install final cover system	120
Seed and mulch	10
Installation of erosion and sediment control structures	10
Complete certification report	10
Estimated Total Time to Complete Closure	180



3.0 QUALIFIED PROFESSIONAL ENGINEER CERTIFICATION

I, Brad N. Fureigh, PE, of Promus Engineering, LLC. (Promus), being a Registered Professional Engineer in the State of Arkansas, do hereby certify, to the best of my knowledge, information, and belief, that the CCR unit that is the subject of this report, dated April 10, 2026 was prepared in accordance with the requirements of 40 C.F.R. § 257.102, and that this report is true and correct and has been prepared in accordance with generally accepted good engineering practices.



Brad N. Fureigh, PE
AR Registered Professional Engineer No.: 14977

April 10, 2026

Date



LEGEND

- PROPERTY BOUNDARY
- PERMITTED LANDFILL BOUNDARY
- CELL BOUNDARY

REV	DATE	DES. BY	DRA. BY	APPR. BY	DESCRIPTION

PREPARED FOR:

 **entergy**

PREPARED BY:

 **PROMUS**
ENGINEERING

1200 MOUNTAIN CREEK ROAD
CHATTANOOGA, TENNESSEE, 37405

PLANT SITE MAP

INDEPENDENCE PLANT LANDFILL
NEWARK, ARKANSAS

PROJECT NO.: 250160
SHEET NUMBER

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