



Notification of Final Closure Completion Nucla Station Ash Disposal Facility

On June 22, 2022, Tri-State Generation and Transmission Association, Inc. (Tri-State) notifies the public and state agencies of the final closure completion the Tri-State Nucla Station Ash Disposal Facility, in accordance with 40 CFR 257.105(i)(8) and 40 CFR 257.102(h). The final application of cover material was placed at the facility on May 26, 2022. The enclosed certification by a qualified professional engineer documents that the final cover system meets the §257.102(d)(3)(iii) requirements for final closure completion according to the 2016 Closure Plan design.

DocuSigned by:

Chris Gilbreath

D250C711D0BF450...

Chris S. Gilbreath
Senior Manager, Reclamation & Remediation



Closure Certification

Nucla Station Ash Disposal Facility



Submitted to:

Tri-State Generation and Transmission Association, Inc.

1100 W 116th Avenue, Westminster, Colorado, USA 80234

Submitted by:

Golder Associates USA Inc.

7245 W Alaska Drive, Suite 200, Lakewood, Colorado, USA 80226

+1 303 980-0540

21476845-43-R-0

June 20, 2022



Table of Contents

1.0 INTRODUCTION	1
2.0 FINAL COVER SYSTEM	1
3.0 CLOSURE CONSTRUCTION AND CONSTRUCTION QUALITY ASSURANCE	1
4.0 CERTIFICATION.....	2
5.0 REFERENCES	2

1.0 INTRODUCTION

Golder Associates USA Inc. (Golder), a member of WSP, prepared this document for Tri-State Generation and Transmission Association, Inc. (Tri-State) to provide certification that closure of the Nucla Station Ash Disposal Facility (the Facility), located in Montrose County, Colorado, has been completed in accordance with the Facility's closure plan (Golder 2022) and the requirements of 40 CFR 257.102. The known final coal combustion residuals (CCR) or non-CCR waste was received at the Facility by December 31, 2021. Notification of Tri-State's intent to close the Facility was provided on January 28, 2022, in accordance with 40 CFR 257.102(g) (Tri-State 2022). Closure of the Facility was completed on May 26, 2022. As required by 40 CFR 257.102(f)(3), this document includes certification by a qualified professional engineer that closure of the Facility was completed in accordance with the Facility's closure plan and the requirements of 40 CFR 257.102.

2.0 FINAL COVER SYSTEM

The Facility has been closed with CCRs left in place in accordance with the requirements of 40 CFR 257.102(d). As described in the closure plan, the final cover system for the Facility has been designed to minimize infiltration and erosion and meet the requirements of 40 CFR 257.102(d)(3). It is an alternative final cover system meeting the requirements of 40 CFR 257.102(d)(3)(ii), as well as applicable regulations of the Colorado Department of Public Health and Environment (CDPHE). The final cover system is a water balance (or evapotranspiration) cover system that functions by storing moisture from precipitation in the pore spaces between soil particles and then releasing the moisture to the atmosphere via evaporation and plant transpiration, thereby limiting infiltration into the underlying waste. The design of the water balance cover system was developed in accordance with the "Final Guidance Document: Water Balance Covers in Colorado" (CDPHE 2013). The final cover system consists of a monolithic water storage layer composed of a minimum of 30 inches of earthen material that is capable of storing moisture and sustaining native plant growth. The water storage layer comprises, from bottom to top, a 21-inch-thick (minimum) infiltration layer and a 9-inch-thick erosion layer.

3.0 CLOSURE CONSTRUCTION AND CONSTRUCTION QUALITY ASSURANCE

The CCR disposal footprint for the Facility covers approximately 61 acres. As described in the closure plan, the final cover system was already in place over areas totaling approximately 43 acres where CCR placement had already reached the final grades as of January 28, 2022. Therefore, approximately 18 acres remained to be closed on the top surface across the southern half of the facility as of that date.

Subgrade preparation and final cover system installation in this area was carried out by an earthworks contractor using conventional soil placement techniques and common earthmoving equipment, such as excavators, haul trucks, and low ground-pressure bulldozers. Prior to installation of the final cover system in this area, the subgrade was reshaped to establish slope gradients that will promote positive surface water drainage and limit the potential for erosion after closure. The subgrade was compacted to establish a suitably firm surface for final cover system installation. Suitable final cover soils were excavated from on-site stockpiles and hauled to the placement locations. After placement, final cover soils were spread in a single lift to limit densification, which enhances the moisture storage capability and helps to avoid exceedance of the growth-limiting soil bulk density. Seeding and mulching of the final cover system was completed after final cover soil placement.

Golder provided construction quality assurance (CQA) services during and/or after installation of the final cover system to verify that closure of the Facility has been completed across the CCR disposal footprint in accordance

with the requirements of the closure plan, 40 CFR 257.102, and applicable CDPHE regulations. CQA activities included:

- Reviewing the contractor's survey information and excavating test pits to verify that the final cover system thickness requirement was met.
- Conducting laboratory testing to verify that final cover soils were suitable for use in a water balance cover system and to characterize the moisture-density relationships for final cover soils. Laboratory testing included:
 - Particle-size distribution with hydrometer (ASTM D422)
 - Standard Proctor compaction (ASTM D698)
 - Calcium carbonate content (ASTM D4373)
 - Soil pH (ASTM D4972)
- Conducting field moisture-density testing (ASTM D6938) to verify that suitable in-place soil densities were achieved.
- Visually observing subgrade conditions and final cover soil placement in the area remaining to be closed as of January 28, 2022, to verify that the methods and procedures satisfied applicable requirements.
- Visually observing final conditions and the contractor's survey information to verify that the long-term closure surface is suitable, including establishment of acceptable slopes and grades.

The observation, testing, and other CQA activities confirmed that closure of the Facility was completed in accordance with the requirements of the closure plan, 40 CFR 257.102, and applicable CDPHE regulations. Reports documenting the CQA activities and findings will be maintained in the Facility's operating record.

4.0 CERTIFICATION

The undersigned professional engineer registered in Colorado attests to the veracity of this document and certifies that closure of the Facility was completed in accordance with the Facility's closure plan and the requirements of 40 CFR 257.102.

5.0 REFERENCES

CDPHE (Colorado Department of Public Health and Environment). 2013. Final Guidance Document: Water Balance Covers in Colorado. March.

Golder (Golder Associates USA Inc.). 2022. Closure Plan, Nucla Station Ash Disposal Facility. Prepared for Tri-State Generation and Transmission Association, Inc. February 23.

Tri-State (Tri-State Generation and Transmission Association, Inc.). 2022. Notification of Intent to Close CCR Unit, Nucla Station Ash Disposal Facility. January 28.

June 20, 2022

21476845-43-R-0

Signature Page

Golder Associates USA Inc.



Jason Obermeyer, PE
Practice Leader



Brendan Purcell
Consultant

JEO/BJP/df

https://golderassociates-my.sharepoint.com/personal/dfabyanic_golder_com/documents/21476845-43-r-0-closure_certification_20jun22.docx



golder.com