

September 29, 2020

Tennessee Valley Authority
1101 Market Street
Chattanooga
Tennessee, 37402-2801

**Subject: Engineer's Certification of Demonstration of Compliance with Design Criteria – Post-Construction
North Rail Loop Landfill Cell 2
Tennessee Valley Authority Gallatin Fossil Plant
Gallatin, Tennessee**

1.0 PURPOSE

The purpose of this document is to certify that both the liner and leachate removal system of the Tennessee Valley Authority (TVA) Gallatin Fossil Plant (GAF) North Rail Loop (NRL) Landfill Cell 2 were constructed in accordance with the requirements specified in 40 CFR § 257.70 of the United States Environmental Protection Agency (USEPA) Coal Combustion Residuals Rule (CCR Rule). Cell 2 is defined by the CCR Rule as a lateral expansion of the existing NRL Landfill (Cell 1). Presented below is the background, summary of findings, and certification.

2.0 BACKGROUND

In accordance with the CCR Rule, new CCR landfills and lateral expansions of CCR landfills must be designed, constructed, operated, and maintained with a liner and leachate collection system that meet the requirements set forth in 40 CFR § 257.70. Prior to construction, AECOM submitted a demonstration on 30 March 2018 that certified that the proposed alternative composite liner system and the leachate collection system were designed in accordance with 40 CFR § 257.70. This demonstration certification was placed in the GAF operating record.

In addition, 40 CFR § 257.70(f) requires that upon completion of construction of the CCR landfill or any lateral expansion of a CCR landfill, the owner or operator must obtain a certification from a qualified professional engineer that the composite liner (or, if applicable, alternative composite liner) and the leachate collection and removal system has been constructed in accordance with the requirements of 40 CFR § 257.70.

3.0 SUMMARY OF FINDINGS

As part of the NRL Landfill Part II Solid Waste Disposal Facility Permit Application (Application), a Construction Quality Assurance (CQA) Plan was prepared (URS, 2013). The Application was submitted to the Tennessee Department of Environment and Conservation (TDEC) on January 26, 2013. The CQA Plan outlined proposed activities and testing to be conducted to ensure that the liner and leachate collection systems were constructed in accordance with the design documents and the requirements of 40 CFR § 257.70.

Upon completion of Cell 2 construction, AECOM prepared an Earthwork CQA Construction Record Documentation Report (AECOM, 2020a) and a Geosynthetic Liner and Leachate Collection System CQA Construction Record Documentation Report (AECOM, 2020b) to document the CQA activities and certify that the earthwork and geosynthetic components and the liner and the leachate collection systems were constructed in accordance with the design documents and the requirements of 40 CFR § 257.70.

4.0 CERTIFICATION

I, Gabriel Lang, being a Professional Engineer in good standing in the State of Tennessee, do hereby certify, to the best of my knowledge, information, and belief that the information contained in this certification has been prepared in accordance with the accepted practice of engineering; that the information contained herein is accurate as of the date of my signature below; and that the liner and leachate collection system of the North Rail Loop Landfill Cell 2 were constructed in accordance with the approved design documents and meet the requirements of 40 CFR § 257.70.

SIGNATURE:



Gabriel Lang, PE



DATE: September 29, 2020

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Morrisville, NC 27560

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REFERENCES: AECOM (2020a), *Gallatin Fossil Plant, Sumner County, Tennessee, North Rail Loop Landfill Cell 2, Earthwork CQA Construction Record Documentation Report (Rev. 0)*, March 13, 2020.
AECOM (2020b), *Gallatin Fossil Plant, Sumner County, Tennessee, North Rail Loop Landfill Cell 2, Geosynthetic Liner and Leachate Collection System CQA Construction Record Documentation Report (Rev. 0)*, April 24, 2020.
URS (2013), *TVA Gallatin Fossil Plant – Sumner County, Tennessee, Part II Permit Application, CCP Disposal Facility – North Rail Loop, Hydrogeologic Evaluation*, January 16, 2013.