



Stantec Consulting Services Inc.
3052 Beaumont Centre Circle, Lexington KY 40513

April 2, 2021
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Revision 0

Tennessee Valley Authority
1101 Market Street
Chattanooga, Tennessee 37402

**RE: Liner and Leachate Collection and Removal System Construction (Stage 1)
New CCR Landfill
TVA Shawnee Fossil Plant
Paducah, McCracken County, Kentucky**

1.0 PURPOSE

This letter documents Stantec Consulting Services Inc. (Stantec) certification that the construction of the liner and leachate collection and removal system for the initial cell (Stage 1) of the Tennessee Valley Authority (TVA) Shawnee Fossil Plant (SHF) New Coal Combustion Residuals (CCR) landfill were constructed in compliance with the design criteria demonstration specified in the Final CCR Rule in 40 CFR § 257.70. Pursuant to § 257.70(f), upon completion 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 alternative composite liner) and leachate and collection and removal system have been constructed in accordance with the requirements of paragraphs § 257.70 (b) through (d).

2.0 BACKGROUND

New CCR landfills are to be designed, constructed, operated, and maintained with either a composite bottom liner meeting the requirements of § 257.70 (b), or an alternative composite bottom liner meeting the requirements of § 257.70 (c), and a leachate collection and removal system meeting the requirements of § 257.70 (d). To support the assessment of construction of the landfill cell in relation to the requirements defined in § 257.70 (f), Stantec served as construction quality assurance and observed the construction of the landfill components. In addition, Stantec reviewed technical and construction quality control data associated with the composite bottom liner and the leachate collection and removal system.

3.0 SUMMARY OF FINDINGS

Based on Stantec's construction quality assurance observations of the construction and review of applicable technical and construction quality control data for the Stage 1 landfill cell alternative composite bottom liner system, the leachate collection and removal system, and the leachate pond with an alternative composite liner system, it is our professional judgement that the landfill liner and leachate components were constructed to meet the requirements of 40 CFR § 257.70 (c) and (d).

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4.0 QUALIFIED PROFESSIONAL ENGINEER CERTIFICATION

I, Michael J. Steele, being a Professional Engineer in good standing in the Commonwealth of Kentucky, do hereby certify, to the best of my knowledge, information, and belief:

1. that the information contained in this certification is prepared in accordance with the accepted practice of engineering;
2. that the information contained herein is accurate as of the date of my signature below; and
3. that the liner and leachate collection and removal system for the TVA SHF New CCR Landfill meets the requirements specified in 40 CFR § 257.70.

SIGNATURE



DATE

4/2/2021

ADDRESS:

Stantec Consulting Services Inc.
3052 Beaumont Centre Circle
Lexington, Kentucky 40513

TELEPHONE:

(859) 422-3000

ATTACHMENTS:

Liner and Leachate Collection and
Removal System Construction Demonstration

