

July 17, 2025
File No. 25224280.00

Mr. Jeff Maxted
Alliant Energy
4902 N. Biltmore Lane
Madison, WI 53718

Subject: Design Certification
Contact Water Swale Conversion
Edgewater I-43 Disposal Facility
Edgewater Generating Station, Sheboygan, Wisconsin

Dear Mr. Maxted:

SCS Engineers (SCS) reviewed the design of the composite liner and leachate collection and removal system prior to the construction of the Contact Water Swale Conversion liner (CWS) at the Edgewater I-43 Disposal Facility. The review was performed on the design documents supporting the May 19, 2025, Conditional Plan of Operation Approval Modification for the Development of the Existing Contact Water Swale to Coal Combustion Residual Disposal Area, issued by the Wisconsin Department of Natural Resources. The plan of operation modification follows the composite liner and the leachate collection and removal system design requirements detailed in 40 CFR 257.70.

The composite liner design for the CWS consists of two components:

- Upper component
 - 60-mil-thick high-density polyethylene (HDPE) geomembrane
- Lower component
 - Four feet of compacted clay with a hydraulic conductivity of no more than 1×10^{-7} cm/sec.

The leachate collection and removal system design includes HDPE pipe, leachate drainage layer, drainage filter, coarse aggregate bedding, and geotextile. The system is designed to be operated to maintain less than a 30-centimeter (1-foot) depth of leachate over the liner. Each of the leachate collection and removal system design components was selected to be chemically resistant to CCR and CCR-generated leachate. The 6-inch diameter SDR 11 HDPE leachate collection pipe was designed with sufficient strength to resist collapse due to pressures exerted by CCR, cover materials, and equipment used in the operation of the CWS. The drainage filter was designed to minimize the movement of fine particles into the leachate collection pipes and prevent clogging. The leachate collection and removal system is also designed with cleanout riser pipes to allow pipe cleaning and prevent clogging.



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Pursuant to 40 CFR 257.70(e), our certification of the composite liner and leachate collection and removal system design for the CWS is provided on the following page.

Sincerely,



Phillip E. Gearing, PE
Project Manager
SCS Engineers





Eric J. Nelson, PE
Project Director
SCS Engineers

DLN/lmh/EJN/PEG

cc: Keith DeBlaey, Edgewater Generating Station
Megan Hawkins, Edgewater Generating Station
Scott Pedretti, Alliant Energy

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Module_I43_PreCon_FINAL.docx

P.E. CERTIFICATION

 7/17/2025	<p>I, Phillip E. Gearing, hereby certify that the liner and leachate collection and removal system for the Contact Water Swale Conversion at the Edgewater I-43 disposal facility have been designed in accordance with the requirements in 40 CFR 257.70. This certification is based on my review of the design documents supporting the May 19, 2025, Conditional Plan of Operation Approval Modification for the Development of the Existing Contact Water Swale to Coal Combustion Residual Disposal Area, issued by the Wisconsin Department of Natural Resources. I am a duly licensed Professional Engineer under the laws of the State of Wisconsin.</p>
	<p> (signature)</p> <p>7/17/2025 (date)</p>
	<p>Phillip Gearing (printed or typed name)</p>
	<p>License number <u>E-45115-6</u></p>
	<p>My license renewal date is July 31, 2026.</p> <p>Pages or sheets covered by this seal:</p> <p>Entire document – letter and certification page.</p>