

April 17, 2019
File No. 25216072.18

Mr. Rob Saunders
Ottumwa Generating Station
20775 Power Plant Road
Ottumwa, Iowa, 52051

Subject: Groundwater Monitoring System – Zero Liquid Discharge Pond Certification
Ottumwa Generating Station, Ottumwa, Iowa

Dear Mr. Saunders:

The groundwater monitoring system for the Zero Liquid Discharge Pond (ZLDP) at the Ottumwa Generating Station (OGS) is designed and constructed to meet the requirements of 40 CFR 257.91. The monitoring network is sufficient to accurately represent the quality of background groundwater that has not been affected by leakage from the coal combustion residual (CCR) unit and the quality of groundwater passing the waste boundary of the CCR unit.

Based on the design information provided for our review, the number, spacing, and depths of the monitoring system components were determined using site-specific information in accordance with 40 CFR 257.91(b).



The groundwater monitoring system consists of one upgradient and three downgradient monitoring wells, which meets the minimum requirements of 40 CFR 257.91(c)(1). The minimum number of monitoring wells is appropriate at the OGS ZLDP for the following reasons:

- Groundwater flow in the uppermost aquifer at the downgradient margin of the ZLDP is generally to the northeast.
- Site geology is consistent along the downgradient edge of the ZLDP, based on the boring logs for the three downgradient wells.
- The three downgradient monitoring wells are sufficient to reflect groundwater quality at the downgradient margin of the ZLDP.


A separate groundwater monitoring system exists for the OGS Ash Pond. The two groundwater monitoring systems share the same upgradient background well.

Based on the installation documentation provided for our review, the monitoring wells have been cased in a manner that will maintain the integrity of the monitoring wells borehole and were constructed in accordance with the requirements of 40 CFR 257.91(e).



	<p>I, Eric J. Nelson, hereby certify that that the groundwater monitoring system for the Zero Discharge Pond at the Ottumwa Generating Station has been designed and constructed to meet the requirements of 40 CFR 257.91. This certification is based on my review of documentation in the operating record regarding the design, installation, and development of the groundwater monitoring system components. I am a duly licensed Professional Engineer under the laws of the State of Iowa.</p>
	<p> (signature) 4/11/2019 (date)</p>
	<p>Eric J. Nelson (printed or typed name)</p>
	<p>License number <u>23136</u></p>
	<p>My license renewal date is December 31, <u>2020</u>.</p>
	<p>Pages or sheets covered by this seal: Groundwater Monitoring System – Zero Liquid Discharge Pond Certification</p>

Sincerely,


Eric J. Nelson, PE
Senior Project Manager
SCS Engineers


Thomas J. Karwoski
Senior Project Manger
SCS Engineers

NDK/AJR/TK/SCC

cc: Jeff Maxted, Alliant Energy
Matt Hanson, Ottumwa Generating Station