Environmental Consultants
and Contractors

2830 Dairy Drive
Madison, WI 53718-6751

608 224-2830
FAX 608 224-2839
www.scsengineers.com

SCS ENGINEERS

October 11, 2017
File No. 25216068.17

Mr. Jim Jakubiak
Edgewater Generating Station
3739 Lakeshore Drive
Sheboygan, WI 53081-7233

Subject: Groundwater Monitoring Statistical Method Certification
Edgewater Generating Station, Sheboygan, Wisconsin

Dear Mr. Jakubiak:

This letter documents the selection of a statistical method for evaluating data from the groundwater monitoring system at the Edgewater Generating Station in accordance with the requirements of 40 CFR 257.93(f). The selected statistical method is appropriate for evaluating the groundwater monitoring data for the CCR management area.

Groundwater monitoring data for the Edgewater Generating Station CCR units will be evaluated in accordance with 40 CFR 257.93(f)(3), using a tolerance or prediction interval procedure, in which an interval for each constituent is established from the distribution of the background data and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit.

A narrative description of the selected statistical method is provided below.

Groundwater Monitoring System Information

The groundwater monitoring system at the Edgewater Generating Station is a multiunit system. The facility consists of four existing CCR units that are contiguous:

- Slag Pond
- North WPDES Pond (North Pond A)
- South WPDES Pond (South Pond A)
- Primary Pond (Pond B)

The multiunit system is designed to detect monitored constituents at the waste boundary of the facility as required by 40 CFR 257.91(d). The groundwater monitoring system consists of one upgradient and three downgradient monitoring wells.

Narrative Description of Statistical Method

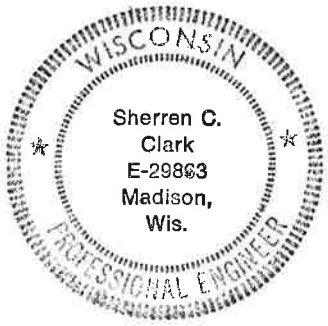
For evaluation of groundwater monitoring results under detection monitoring or assessment monitoring, statistical analysis will be conducted to evaluate whether or not there is a statistically

significant increase (SSI) over background values for each required constituent. The statistical analysis will use a prediction interval approach as recommended for detection monitoring in the March 2009 United States Environmental Protection Agency Unified Guidance for Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities. The approach will meet the statistical method requirements of 40 CFR 257.93(g).

For the prediction interval evaluation, interwell or intrawell testing will be selected based on the considerations outlined in Chapter 6 of the Unified Guidance. Background data for each parameter will be analyzed to assess whether the data fit a normal distribution or can be transformed to fit a normal distribution (e.g., lognormal). The calculation of the prediction limit(s) for each parameter will be appropriate for the distribution (parametric, parametric with transformed data, or non-parametric).

Monitoring results from the compliance wells will be compared to the upper prediction limits to evaluate whether an SSI over background has occurred. Assessment monitoring results will also be compared to the site-specific groundwater protection standards developed in accordance with 40 CFR 257.95(h).

PE Certification



I, Sherren Clark, hereby certify that that the selected statistical method for the Edgewater Generating Station is appropriate for evaluating the groundwater monitoring data for the CCR management area in accordance with the requirements of 40 CFR 257.93(f)(6). I am a duly licensed Professional Engineer under the laws of the State of Wisconsin.

SL Clark 10-11-17

(signature) (date)

Sherren Clark

(printed or typed name)

License number 29863-6

My license renewal date is July 31, 2018.

Pages or sheets covered by this seal:
Letter (3 pages)

Sincerely,

Sherren C. Clark, PE
Project Director
SCS ENGINEERS

Thomas J. Karwoski, PG
Senior Project Manager
SCS ENGINEERS

SC/lmh/TK

cc: Eric Sandvig, Edgewater Generating Station
Jeff Maxted, Alliant Energy

I:\25216068.00\Reports\EDG_Stat_Method_Letter_171011.docx