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October 11, 2017
File No. 25216074.17

Ms. Jennifer Hynek
Prairie Creek Generating Station
3300 C St. Southwest
Cedar Rapids, IA 52404

Subject: Groundwater Monitoring Statistical Method Certification
             Prairie Creek Generating Station, Cedar Rapids, Iowa

Dear Ms. Hynek:

This letter documents the selection of a statistical method for evaluating data from the
groundwater monitoring system at the Prairie Creek Generating Station (PCS) 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 coal combustion residue (CCR) management
area.

Groundwater monitoring data for the PCS 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 PCS is a multiunit system that includes the following
seven existing CCR units:

- PCS Pond 3
- PCS Pond 4
- PCS Pond 5
- PCS Pond 6
- PCS Pond 7
- PCS Discharge Pond
- PCS Beneficial Use Storage Area

The groundwater monitoring system consists of two upgradient and four 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, Eric J. Nelson, hereby certify that that the selected statistical method for the Prairie Creek 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 Iowa.

10/11/2017

(signature)   (date)

ERIC J. NELSON

(printed or typed name)

License number 23136

My license renewal date is December 31, 2018 .

Pages or sheets covered by this seal:
STATISTICAL METHOD CERTIFICATION (3 PAGES)

Sincerely,

Eric J. Nelson, PE
Senior Project Manager
SCS ENGINEERS

Thomas J. Karwoski
Senior Project Manager
SCS ENGINEERS

SC/lmh/TK/EN

cc: John Watts, Prairie Creek Generating Station
       Jeff Maxted, Alliant Energy

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