

May 31, 2024  
File No. 27223106.00

Mr. Geoff Spain  
Iowa Department of Natural Resources  
Land Quality Bureau  
6200 Park Avenue  
Des Moines, Iowa 50321

Subject: Leachate Collection System Shut-Down Evaluation Schedule  
Cherokee County Sanitary Landfill  
Closed MSWLF Unit  
Permit No. 18-SDP-01-75P

Dear Geoff:

In correspondence dated January 29, 2024 (Doc #109094), the Iowa Department of Natural Resources (DNR) required an evaluation of the potential impact of shutting down the leachate collection system for the closed municipal solid waste landfill unit areas at the Cherokee County Sanitary Landfill. A schedule for completing this evaluation was requested by April 25, 2024. An extension to May 31, 2024, for the evaluation schedule submittal was approved in email correspondence on April 24, 2024. The anticipated tasks for completing the leachate collection shut-down evaluation are as follows:

1. Review and consolidate site information necessary for the following:
  - Development of a site conceptual model to provide context for the evaluation.
  - Identification of existing source concentration data and hydrogeological data necessary for fate and transport modeling and other data reviews relevant to the shut-down evaluation.
  - Identification of data gaps that need to be addressed to complete the evaluation.
2. Prepare a work plan to collect the necessary additional data. It is anticipated that the primary data gap will be source concentration analytical data as the existing data is expected to consist of samples from the storage lagoon and include an insufficient number of parameters.
3. Implement the work plan following DNR approval.
4. Prepare the shut-down evaluation report following completion of the work plan activities. It is anticipated that the report will include the following at a minimum:
  - Introduction to include:
    - Background information relevant to the evaluation.
    - Description of the existing leachate collection system.
    - Summary of historical volume and analytical information for leachate collected from the Area B MSWLF unit.



- Work plan implementation description and summary of data collected.
- Leachate collection system shut-off evaluation anticipated to include the following:
  - Comparison to regulatory standards.
  - Stability and trending evaluations as appropriate for the data sets.
  - Fate and transport modeling to include the following:
    - Description of the model used, assumptions, and limitations. It is anticipated at this time that the Domenico fate and transport model will be used with model runs to include consideration of only dilution and dispersion and also supplementary and separate consideration of adsorption and biodegradation, as appropriate, for attempting to calibrate the model to measured downgradient concentrations.
    - Description of the input variables with source and justification for the data used in the model.
    - Discussion of model runs and results.

It should be noted that the above tasks are preliminary and may be altered as the evaluation process progresses. The anticipated preliminary schedule for the above tasks is included in the table below.

**Preliminary Leachate Shutdown Evaluation Schedule**

Task No.	Task Description	Schedule	Estimated Completion Date
1.	Existing Site Information Review and Consolidation	1 month	June 30, 2024
2.	Work Plan Preparation <sup>(1)</sup>	1 month	July 31, 2024
3.	Work Plan Implementation <sup>(2)</sup>	15 months	October 31, 2025
4.	Evaluation Report Preparation	2 months	December 31, 2025

Notes:

- 1) The preliminary schedule will be revised, if necessary, and presented in the Work Plan based on the proposed data collection activities.
- 2) Schedule anticipates one month for DNR review, two months to contract for the implementation activities, and 12 months to complete the proposed activities.

If you have any questions regarding this schedule, please contact Nathan Ohrt at (319) 331-9613.

Sincerely,

Timothy C. Buelow, P.E.  
 Senior Project Advisor  
 SCS Engineers

Nathan Ohrt  
 Senior Project Professional  
 SCS Engineers

TCB/NPO

Copies: Mr. Tony Agnitsch, Cherokee County Sanitary Landfill