April 5, 2022
File No. 23212007.10

Ms. Maria Lammers
Ohio EPA Southwest District Office
401 East Fifth Street
Dayton, Ohio 45402-2911

Submitted Electronically

Subject: Village of St. Bernard Landfill
Request to Continue Not Operating the Gas Migration Control System

Dear Ms. Lammers:

SCS, on behalf of the Village of St. Bernard, has conducted an 18-month test of the effect of not operating the gas migration control system at the closed St. Bernard Landfill. With your approval, the system was turned off on July 6, 2020, and remains off. As part of the test, the gas monitoring frequency at the site was increased. At the start of the test, monitoring was performed daily, then weekly, then monthly, and finally quarterly, combined with the semi-annual compliance monitoring required by the EGMP.

Results

Exceedances were encountered on September 2, 2020, at MP-7E and MP-9. Contingency monitoring was performed until the criteria to end contingency monitoring were met. The combustible gas concentration first fell below the threshold limit at MP-7E on September 23, 2020, and at MP-9 on September 30, 2020. Prior to this contingency monitoring period, there had been no exceedance of combustible gas at the landfill for the previous three years (since September 2017, when it was detected during a quarterly monitoring event).

Exceedances were encountered again on September 8, 2021, at MP-9. Contingency monitoring was performed until the criteria to end contingency monitoring were met. The combustible gas concentration first fell below the threshold limit on November 10, 2021. During these exceedances, there were no alarms of the combustible gas indicators in the homes reported by the nearby residents.

Historically, similar exceedances have occurred at this time of year when the gas migration control system was operating. Typically, an exceedance occurs after a significant rain storm(s) which results in infiltration and rising water levels in the soil. When the soil has dried out, exceedances can occur in the probes. The lack of significant positive pressures measured in the probes shows that it is unlikely that gas moves beyond the probes on to the adjacent properties. This has been confirmed by the negative bar punch readings performed between MP-9 and the nearest residence.

Safety

Continuing to not operate the gas migration control system will not present additional risk to the residents living within 200 ft of the limits of waste. Based on years of data, exceedances are most likely to occur in the Fall, if they occur at all; therefore, potential gas migration should be detected by the monitoring probes during the semi-annual monitoring event conducted in September. If the detection of combustible gas in a probe persists over time, bar punches can be performed to check for further migration towards the nearby residence(s). Finally, the combustible gas alarms that are

present in most of the residences within the 200 ft limit will provide an early warning of the entry of combustible gas into a residence.

Therefore, on behalf of the Village of St. Bernard, SCS requests Ohio EPA approval to continue to not operate the gas migration control system. The blower will be stored off site out of the weather, but will be available for quick reinstallation if appropriate. The rest of the system will remain in place at the site. Because no actual condensate will be generated with the system off, condensate will not be collected. The gas migration control system will remain available and can be reactivated if necessary, for example, as part of a contingency monitoring remedial plan.

Should you have any questions or comments, please contact the undersigned.

Sincerely,

Randall C. Mills

Randall C. Mills, P.G.
Senior Project Scientist
SCS Engineers

James J. Walsh, P.E.
Principal
SCS Engineers

RCM/JJW

cc: Dylan Dyer, OEPA
Nick Schapman, GHD
Tom Paul, Village of St. Bernard
Jonathan Stuchell, Village of St. Bernard
Chuck DeJonckheere, R.S., Hamilton County Public Health