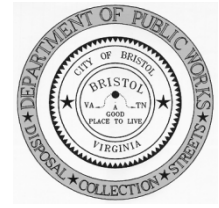




CITY OF BRISTOL, VIRGINIA
Public Works Department
Bristol, Virginia 24201



Street Maintenance Division
2103 Shakesville Road
Phone: (276) 645-7360
FAX: (276) 645-7235

Engineering Division
300 Lee Street
Phone: (276) 645-7360
FAX: (276) 645-7365

Collection Division
2125 Shakesville Road
Phone: (276) 645-7380
FAX: (276) 645-3781

Disposal Division
2125 Shakesville Road
Phone: (276) 645-3791
FAX: (276) 591-5237

July 2, 2021

Ms. Crystal C. Bazyk
Enforcement and Compliance Monitoring Manager
Virginia Department of Environmental Quality
Southwest Regional Office
355-A Deadmore Street
Abingdon, Virginia 24210

RE: Request for Higher Operating Temperatures for Landfill Gas Wells
Bristol Virginia Integrated Solid Waste Facility
2125 Shakesville Rd, Bristol, Virginia, 24201
Registration No. 11184

Sent Via: E-mail to: crystal.bazyk@deq.virginia.gov

Dear Ms. Bazyk:

The purpose of this letter is to request a higher operating temperature for several wells in the active gas collection system in the Bristol quarry landfill.

As you are aware, on Monday, June 21, 2021, the City's field technicians began monitoring temperatures at several wells that exceeded the 55°C (131°F) temperature limit specified in Limitation #2.e. of the site's Federal Operating (Title V) Air Permit. Specifically, gas wells GW – 40, 46 and 47 have had monitored temperatures greater than the limit. Please see the attached table which presents recent temperature monitoring results of these wells and the attached figure showing their locations. These wells are located in the southern end of the landfill.

Monitoring at these wells indicate that a high temperature subsurface reaction (SSR) is occurring at depth in this area. The low concentrations of methane and the presence of hydrogen gas that has been monitored at the "Southeast Chimney" (landfill gas flowing up along the quarry wall) adjacent to these wells indicate the presence of an SSR. Although high temperature readings in a landfill would normally indicate an underground fire, the hydrogen gas should be consumed by the fire and would not be detected in the landfill gas. In addition, our landfill staff and consultant personnel have not observed any signs of fire (visible smoke, odors related to burning, etc.) in the southern end of the quarry.

The industry standard for corrective action for a gas well with high temperatures is to close down the well. This assumes that the high temperatures are due to an underground fire; most probably caused by the active gas system pulling air (oxygen) into the waste. Closing the wells will decrease

air infiltration and stop the fire. However, the industry standard for corrective actions for an SSR is to pull as much landfill gas and water as possible from the impacted area. Pulling the high temperature landfill gas out of the area will lower the underground temperatures and slow the SSR.

The City therefore, intends to continue to pull landfill gas from the impacted wells instead of closing them down. The temperatures therefore will most probably remain above the 131°F limit; possibly for greater than 120 days. Accordingly, the City requests the DEQ approval, in accordance with 40 CFR 60.36(f)(3), to operate gas wells GW – 40, 46, and 47 at temperatures greater than 131°F. At this time, the City cannot estimate a timetable for when the temperatures will return to below the limit.

The City will continue to keep the DEQ informed of the monitoring results from these wells and the progress of the corrective action against the SSR. If you have any questions or require additional information, please contact me at (276) 645-7300 or at CityManager@bristolva.org or Ernest Hoch at (540) 537-0404 or at ehoch@daa.com.

Sincerely,



Randall C. Eads
City Manager, Bristol VA

CC: Jeff Hurst – Regional Director
Ernie Hoch – Draper Aden Associates
Don Marickovich – Draper Aden Associates