



February 28, 2025

Roger Bellas
Program Manager
Waste Management Program
PA Department of Environmental Protection
2 Public Square
Wilkes Barre, PA 18701

Re: Odor Correspondence Dated February 18, 2025

Dear Mr. Bellas:

As requested in the above referenced correspondence, Keystone is submitting to the Department the following comments:

It is Keystone's contention that the 97 odor complaints logged on January 31, 2025, were not caused by the landfill's operation. Some of the complainants correctly identified an odor, which is why the Dunmore Fire Department and UGI were summoned. Rarely if ever does a resident make such notifications because of a fugitive landfill odor.

One of the UGI employees dispatched (see attached photograph) to the area noted to a Department inspector that upon his arrival he experienced an unpleasant odor, but he wasn't experiencing anything currently. A Department inspector, in training, confirmed a slight and persistent landfill gas odor at residences located on Barnard Street, E. Drinker Street, E. Warren Street and Allen Street. Keystone knows it can be difficult at times to properly identify odors. It is KSL's belief that this inspector detected mercaptan from a natural gas leak in one of UGI valves and not a landfill odor. This conclusion is further supported by the fact that the same inspector noted on his inspection log that the wind was out of the south at 3 mph, which puts KSL downwind of the complainants' residences.

Another Department inspector conducted an odor patrol on January 31st from 11:30 am to 2:25 pm. He visited 17 different locations and only experienced a landfill gas odor on Route 6 and a slight intermittent garbage odor at another location. No odors were experienced at the other 15 locations. These findings do not give much credence to the validity of the 97 complaints.

A third Department inspector, while patrolling the area, was contacted by his office and was informed that the office just received 3 additional complaints. Presumably the inspector reacted to this information immediately and detected nothing at two locations and the third complainant was unwilling to meet with the inspector. This inspector visited 23 different locations during his patrol and reported only two moderately persistent garbage odors in nonresidential areas. Again, the reliability of the 97 complaints comes into question.

Rob Laczi conducted his landfill inspection on January 15, 2025. He also followed up on 18 complaints that were made January 12, 2025, and the only odor he detected off-site was a slight, localized leachate lagoon odor on Marshwood Road.

Bradley Lester conducted his routine inspection of KSL on February 12, 2025, and detected no off-site odors.

During many of Keystone's off-site odor patrols, especially when the barometric pressure is relatively low, Keystone personnel have noticed a significant increase in sewer gas odors. These sewer gas odors become more prevalent in the winter months when the traps on Storm Inlets (which are part of a combined Sanitary/Storm system) have no water in the inlet to create a seal. This condition, while unrelated to the Cooney/Smith Street incident, can certainly be the reason for some of the complaints.

There is no question that KSL is an easy target. Anytime there is any kind of odor within a 3-mile radius it is automatically assumed that it must be caused by the landfill. The situation is further exacerbated by Friends of Lackawanna (see attached) encouraging anyone and everyone to call PADEP when there is an odor even when the complainant is not experiencing the odor. Even the PADEP log is called "Keystone Landfill Odor Complaint Log". It clearly implies that all odor complaints in the area must come from KSL.

On February 3, 2025, Keystone took a sample at the old guard shack at 1430 hours with the Jerome H2S analyzer and recorded 3.0 ppb H2S. According to Keystone's onsite weather station the wind was blowing 3.2 mph from 351 degrees which indicates an off-site H2S source was blowing back into Keystone (see attached map).

Just because there is an odor complaint regarding KSL does not mean there is, or was, an odor detected by the complaining person(s). The Department has investigated numerous purported odor complaints regarding Keystone where no odor was detected. And just because there is an odor detected in the local community does not mean it originated from Keystone. Many odor complaints regarding Keystone are reported from locations at significant distances (a mile or more) from the landfill, and without any intervening complaints, which, alone, strains the credibility of such complaints. Other complaints regarding KSL, moreover, ignore the undeniable fact that there are any number of other sources of potential odor-causing air emission releases in the vicinity of the landfill, both man-made and naturally occurring. These other sources of potential odor include, but are not limited to, numerous industrial facilities, an asphalt plant, solid waste transfer stations, public and privately owned wastewater treatment facilities, a mulch processing facility, a meat packing plant, the community's sewage, stormwater and combined sewer overflow systems (which are well known to emit odors in the community and homes), natural gas leaks, utility pipeline repair/replacement (in both public rights-of way and on private property), stormwater retention basins, the major highway system surrounding the landfill, and off-site abandoned mine operations. The municipalities surrounding KSL also conduct solid waste storage, collection and transportation activities throughout the week, which can result in repeated and intense localized odors.

KSL is keenly aware that, from time to time, an odor generated by KSL will travel off-site. In April 2023, SCS Engineers, a solid waste consulting and engineering firm, conducted an odor study at

KSL. Data from this study supported an initial screening impact analysis of odors from Keystone operations on adjacent public areas immediately surrounding the landfill. The SCS study, which was provided to the Department, concluded that, while off-site odors can occur as a result of KSL operations, these potential impacts are minor, short lived, and do not reach far from the landfill boundary (less than 1 km). As found by the SCS study effort, and consistent with Keystone's own odor log, the most prevalent off-site area of odor impact occurs immediately east of KSL along the Route 6 corridor, a nonresidential area. These impacts are primarily driven by solid waste placement activities in the region of the landfill. These impacts are a result of winds that are predominately from the northwest and west-northwest that can carry odorous gases and particles off-site. These wind conditions typically occur about 12% of the time (based on upon a 5-year wind rose of KAVP data) and are the most prevalent during daylight hours. A secondary area of potential impact occurs near the northern boundary of KSL in close proximity to the leachate lagoons. Off-site impacts in this area (which is an industrial, non-residential area) are not as prevalent as those along KSL's eastern boundary.

Additionally, it is evident from the upwind and background data in the SCS study that many operations and activities within the Dunmore region have the potential to emit odorous substances into the atmosphere. It is further evident from the upwind and background data collected in the SCS study that it is important to gain an understanding of the actual odor impact contribution these other odor sources (both man-made and natural) present on the local community.

Keystone takes any off-site odor situation very seriously and works diligently to identify the cause and immediately implement whatever corrective actions are necessary to eliminate the problem. Specifically, on January 31, 2025, there were no significant odor issues on-site; certainly not to the extent that would support such an uproar by so many residents in the surrounding area. If it was a landfill odor KSL would have been the first to know. With regard to February 3, 2025, complaints, a staff member of KSL attended the sporting event at Mid Valley High School (referred to by one of the claimants) and reported no odors on the way to, while at the event, or on the way home. His travel route included the E. Drinker, the Swinick Development, Reeves Street, the lower section of Marshwood, and Underwood Road.

Nuisance Minimization and Control Plan

Keystone has a very aggressive, robust, up-to-date and comprehensive NMCP. Keystone complies with requirements of this Plan. Keystone, at the Department's request, will undertake a review and evaluation of the Plan over the next 30-45 days and provide the Department any appropriate updates.

Consent Order and Agreement Dated March 29, 2024

Thus far KSL has been 100% compliant with all the requirements contained in the COA. Undoubtedly, the completed tasks contained in the Agreement have significantly reduced the potential for fugitive odors. It is Keystone's intention to use the COA as a model for future activities.

Capping Activities

A liner installation crew is scheduled to arrive on-site the week of March 3, 2025. Weather permitting, the Phase II access road (1.88 acres) and an intermediate slope in Phase III will be capped. Keystone recently installed more shallow collectors along the Phase II ramp which is expected to help reduce any emissions until final capping is complete. The installation of these devices commenced February 3, 2025, and the task was completed February 7, 2025.

Concentrate Transportation and Disposal

Keystone recently introduced a product to the concentrate tank designed to reduce hydrogen sulfide emissions. Early results are favorable, but more time is needed before a definitive conclusion can be determined.

Treatment Plant

As previously disclosed in various COA correspondence, BIOREM (see attached) is the vendor tasked with the design and construction of a vapor capture system for the two new leachate holding tanks. This company has been commissioned to prepare a proposal for a similar system specifically designed for the Keystone's waste water treatment facility. This process system will be designed to manage and negate emissions and odors generated from the various holding tanks within the treatment plant building. BIOREM has been provided with the 4th quarter concentrate and composite raw leachate lab analysis to ensure the system is customized to satisfy Keystone's needs. KSL will provide the Department with periodic updates and subsequently generate a Minor Permit Modification and Request for Determination prior to installation.

Also, a subcontractor just completed installation of an odor neutralizing misting system on the roof of the treatment plant. The system was activated Wednesday, February 26, 2025.

In closing, KSL understands landfills on occasion can generate odors that travel off-site. The facility also understands that the Department must react to complaints logged by the public against Keystone. When an off-site odor is the result of Keystone's operations Keystone takes ownership and immediately implements corrective measures. What Keystone doesn't understand is the automatic assumption that any odor complaint received by the Department must be "**landfill associated odor**". Of the 195 complaints received that were assumed to be "landfill associated odors" only a small number of them were verified by Department staff and 4 of those, in Keystone's opinion, were the result of incorrect identification of the odor detected. It is abundantly clear to Keystone that FOL, by means of their Facebook page, strongly encourages residents to complain resulting in a significant number of inaccurate and unsubstantiated odor complaints.



Dan O'Brien
Business Manager
Keystone Sanitary Landfill, Inc.

cc: Greg Wolff, Dunmore Borough Manager, email: greg.wolff@dunmore.gov
Ms. Robin Galli, Secretary/Throop Borough, email: lcimini@throopboro.com



Friends of Lackawanna



Jan 31 · 🌐

We are getting nonstop messages about how bad the Landfill stinks lately. You can make a difference by reporting issues to DEP at 570-826-2511, even after hours. Logging your issues makes a big difference. Please call it in and let us know here if you have any questions. This is out of control. And we are in year 1 of a 40+ years of this if we don't stop it.



👍 333

192 comments 143 shares



Like



Comment



Copy



Share



Friends of Lackawanna

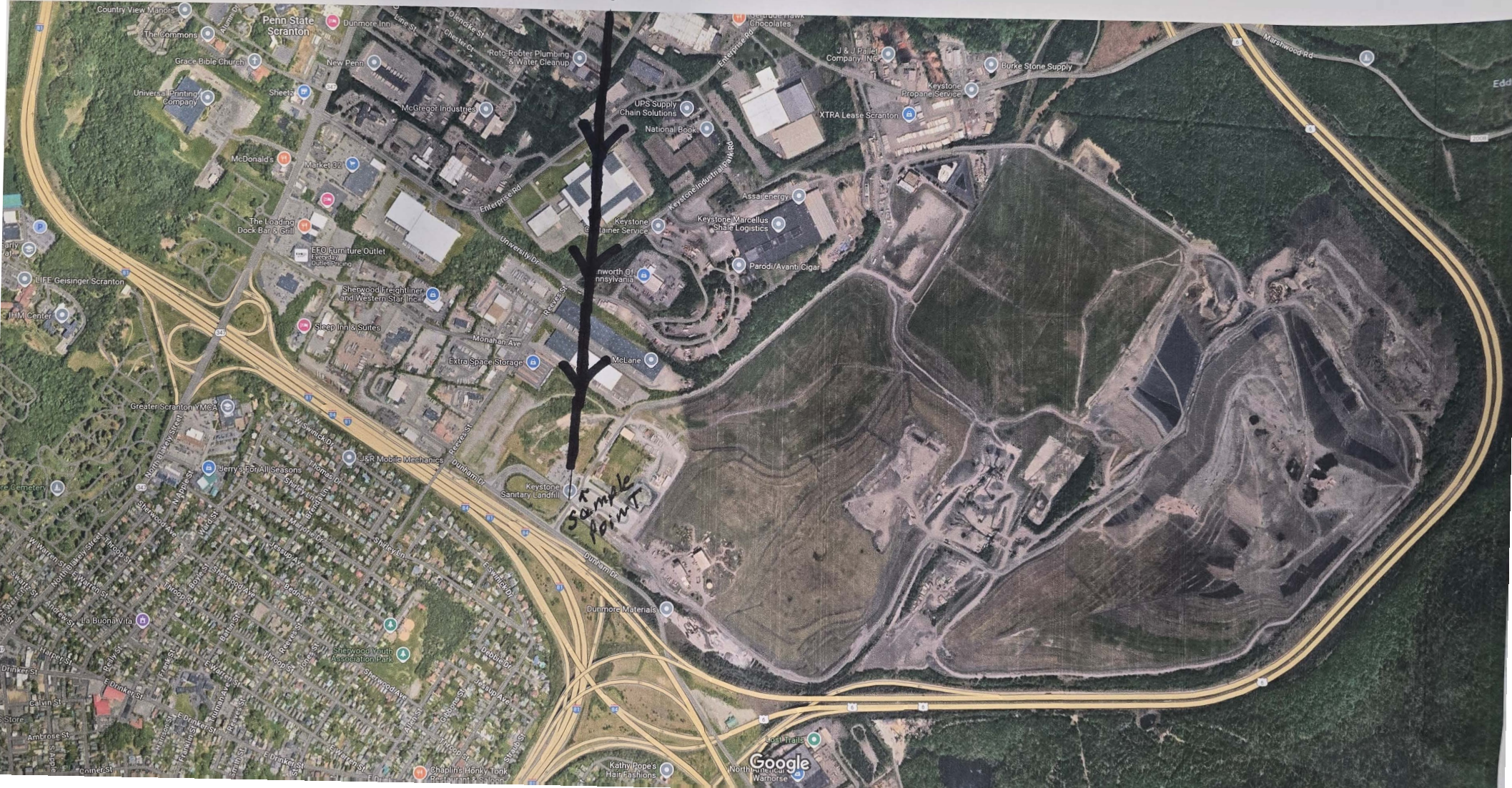


Jan 12 · 🌐

Experiencing the landfill stench? Odor complaints are increasing. You can make a difference by reporting issues to DEP at 570-826-2511, even after hours.



Wind
Direction
↓





Over 30 Years of Proven Performance

Founded in 1990, BIOREM® is a global clean technology engineering company with one objective: engineer, design, manufacture and distribute the most innovative and effective air emissions abatement technologies in the world. As a leader in environmental solutions, our engineering teams have installed more than 1,400 projects worldwide. We specialize in tackling the exceptionally difficult problems of odor, volatile organic compounds (VOCs), and hazardous air pollutants, then engineering innovative solutions for the lowest life cycle cost of any technology.

BIOREM offers a lifetime commitment that our engineered systems will solve your air emissions and odor control problems. At the core of our business strategy is to be your trusted partner. This means you can rely on BIOREM for any project, any size, anywhere and be certain you have the best available technology and support to solve your most difficult challenges.

Engineering the Difference

Superior physical, chemical and biological solutions that effectively and reliably control air emissions require advanced engineering knowledge and expertise. This is why all BIOREM teams are multidisciplinary units comprising biological, chemical, environmental and mechanical engineers and scientists.



Board of Directors



William B. White
Chairman

Bill White is a senior executive with broad global experience in leading businesses to deliver step change improvements in bottom line results. He has more than 30 years in business and corporate leadership.

Bill is a partner with CBW Associates Inc., providing strategic advice and executive coaching on Leadership, Business growth, Operational excellence and Organizational improvement. He is on the Board of Directors of several private and public companies drawing on his broad global business experience. He is a graduate of Purdue University and chairs the Mechanical Engineering advisory council and chairs the Schulich graduate school of business Center of Excellence for Responsible Business.



Derek S. Webb, P.Eng
Director

Derek received his Bachelor's (Hons.) degree in environmental engineering at the University of Guelph, where he focused his studies on air pollution control. He also holds a Masters in Business Administration from Wilfred Laurier University. Derek has intimate knowledge of

gas and air abatement solutions, having been directly involved with the design, manufacture and management of over 1500 installations, throughout the Americas, Europe, the Middle East and Asia. His extensive theoretical and practical knowledge has been instrumental with the successful completion of a wide spectrum of industrial and municipal projects handled over his twenty years at BIOREM. Currently the CEO for BIOREM Inc., Derek is responsible for the