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VIA EMAIL

March 3, 2023

Jonathan Lamb, Senior Air Quality Analyst
Michigan Department of Environment, Great Lakes, and Energy (EGLE)
Air Quality Division
3058 W. Grand Boulevard
Suite 2-300
Detroit, MI 48202

RE: EQ Detroit, Inc. (DBA US Ecology – Detroit South) – Response to Violation Notice dated February 10, 2023, for Alleged Nuisance Odors on February 8, 2023

Dear Mr. Lamb:

Please accept this letter as EQ Detroit, Inc.'s (EQD) response to the Violation Notice (VN) dated February 10, 2023, regarding odors allegedly caused by EQD's operations in violation of PTI No. 269-04H; General Condition 6 and R336.1901(b) on February 8, 2023. The letter stated that inspections conducted by EGLE-AQD in response to complaints reportedly found persistent and objectionable odors of moderate to strong intensity (level 3 and 4), attributable to US Ecology's operations, impacting residential areas downwind of the facility.

It is important to note that the sheer presence of an odor does not constitute a violation. Rule 901 states a person shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following: (a) Injurious effects to human health or safety, animal life, plant life of significant economic value, or property. (b) *Unreasonable* interference with the comfortable enjoyment of life and property.

Timeline

On Wednesday February 8, 2023, EQD received a call from AQD at 10:16 am stating multiple odor complaints were received from the Farnsworth neighborhood beginning at 6:30 am and a violation will be issued due to level 3 and 4 odors reported by AQD at the corner of Elmwood and Farnsworth for at least 5 minutes at approximately 9:30 am. See Figure 1 on page 2 for the location of the complainant and the wind direction.

Facility personnel began driving the area at 10:25 am (see Figure 2 for routes), separately, and did not smell odors from EQD during the entire drive. An earthy-type odor with a hint of trash was detected at Dubois and Hendrie by the Environmental Manager and, separately, the Operations Manager detected an earthy-type odor with an oily scent detected at Dubois and Palmer. These locations are marked with a red "x" on the map, and both are the correct wind direction for the Waste Management facility and the steel scrap yard. However, the odors observed were not of an intensity to be considered "*unreasonable*" but certainly could have been misconstrued for the earthy-type lime odor sometimes associated with the Chem Fix building. Lastly, no odors were observed on site at EQD during the time of the complaints.

At approximately 10:44 am EQD and AQD met at the corner of Elmwood and Farnsworth. At that time there were no odors present. AQD indicated that the complainant had just called to say the odors were gone. EQD asked AQD about the odors detected by EQD personnel on Dubois, noting the similarity to the Chem Fix odor and whether the odors were from another source. AQD insisted the odor was from Chem Fix. EQD also asked AQD about the level and duration of the odor which was described as a 3 and 4 for at least 5 minutes.

It is unclear how the odor intensity would have changed from a 3 and 4 at approximately 9:30 am to a zero level at 10:44 am when the operations in Chem Fix did not change and the weather conditions were consistent from the time of the first complaints at 6:30 am until 11:00 am.

Figure 1. Map of facility location, complainant location (red circle), and wind direction (blue arrows)

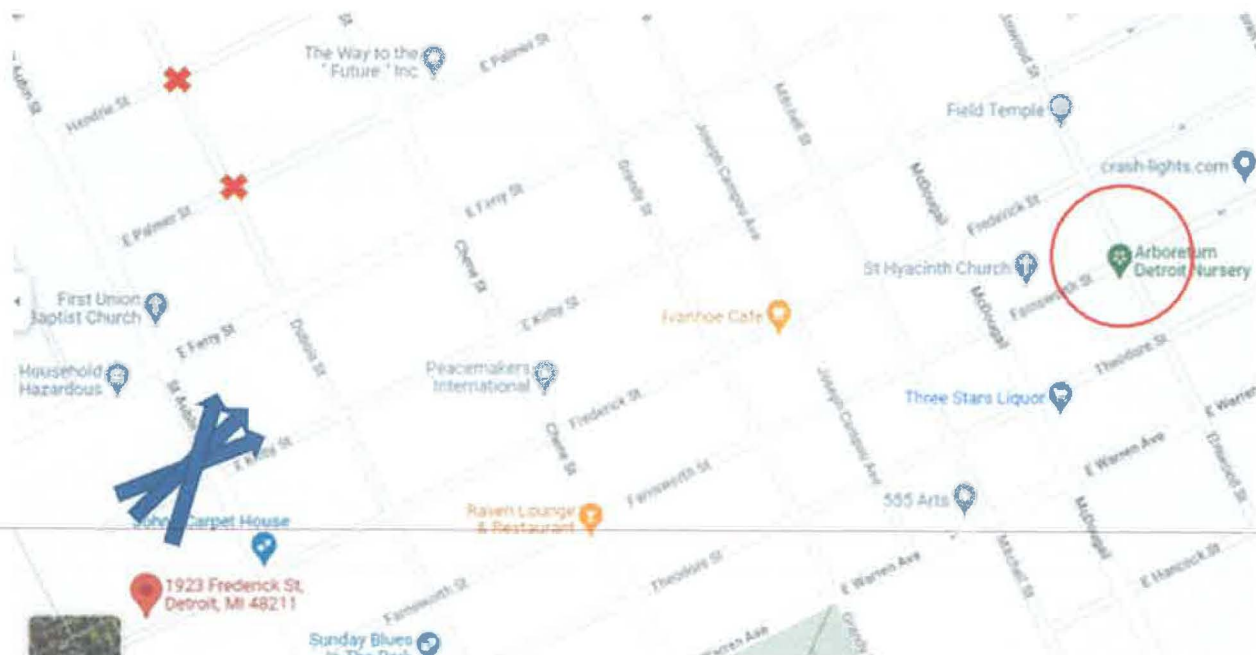
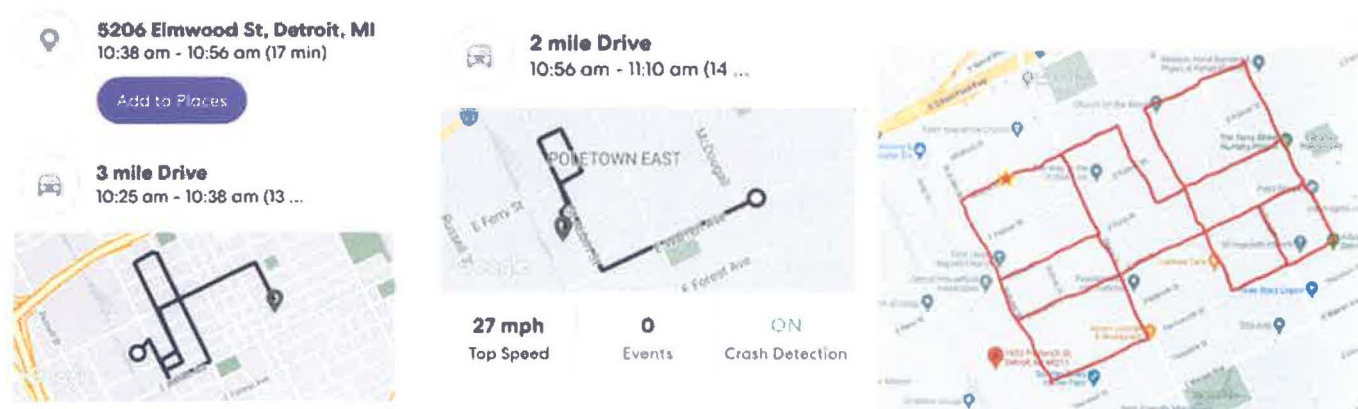


Figure 2. Maps of internal investigation routes.



Weather Conditions

DATE (EST)	Wind Direction 60 mins.	Wind Speed (mph) 60 mins.	Temperature (F) 60 mins.	Relative Humidity (%) 60 mins.	Pressure (mb) 60 mins.	Precipitation (mm) 60 mins.	Wind Speed (mph) NAM12	Wind Direction NAM12
Feb 08/23 06:00	WSW (243°)	4	36	74	1000.7	0	5	245
Feb 08/23 07:00	SW (232°)	4	36	77	1001.2	0	5	233
Feb 08/23 08:00	WSW (247°)	4	35	79	1001.6	0	5	230
Feb 08/23 09:00	WSW (246°)	4	35	79	1001.9	0	4	239
Feb 08/23 10:00	WSW (244°)	3	37	75	1002.1	0	4	234
Feb 08/23 11:00	SSW (203°)	4	39	70	1002.5	0	5	216
Feb 08/23 12:00	SSW (196°)	6	41	67	1002.9	0	7	209

Actions Taken by EQD

Over the course of several years, EQD has made significant changes to improve offsite odors. Again, EQD continues to diligently apply the following odor controls:

- Prior to acceptance of a waste stream on-site, the customer must provide EQD with details on the waste stream. The preapproval of waste streams is evaluated with more stringent criteria to identify potential odor issues before approving a customer's waste. Waste streams are not approved, at times, solely due to the potential odorous properties.
- Screening of samples for odors is a continuous process at the site. Once the waste stream arrives on-site, a sample is pulled for evaluation. If operations or laboratory personnel determine the sample of a waste stream may be too odorous, the waste stream will not be accepted on-site for treatment. Consequently, the waste will be rejected back to the customer or transshipped to another location.
- Once a waste stream is identified as odorous, these waste streams are no longer treated on site. The approvals for these wastes have been changed to 'not acceptable on-site for treatment' or 'transshipment to another facility.'
- As waste streams are identified as containing ammonia and amines, they are evaluated to determine if they should continue to be received on-site for treatment. This has, and continues to, reduce the volume of ammonia and amines waste streams received for treatment.
- The treatment process is a chemical reaction that can liberate odors from the process. To reduce odors, the drying time has been increased, which is essentially slowing the chemical reaction and consequentially reducing odors.

- Frequently the odor associated with the treatment process is from the reagents, such as lime, used to bind and dry the waste for landfill disposal. The volume of these reagents has been reduced when treating non-hazardous waste streams.
- Treatment of the waste streams occurs in batches. Batch sizes have been reduced in an effort to minimize odors and expedite processing.
- To understand the treatment process and odor production from the process, the temperature of the vaults is being logged daily to determine if there is a correlation between odor complaints and higher temperature vault activity.
- The weather conditions are also considered. The wind direction is reviewed daily as part of operation's odor evaluation. The direction of the wind is an indicator of where odors may travel and the potential receptors downwind of the site. When the humidity is higher, it traps the odor and causes it to travel farther and linger longer. Also, high winds have been found to contribute to odor complaints off-site. Operations personnel use this information to make operational decisions to further reduce the potential to impact nearby receptors. Treatment is rescheduled as appropriate.
- Personnel conduct odor evaluations each day the facility is operating in the morning and in the evening. The evaluations are completed between 7:00 am to 9:00 am and again between 7:00 pm to 9:00 pm. If odor is detected, a scentometer is utilized to determine the level of odor detected.
- EQD has an on-site initiative to encourage personnel to "say something if they smell something." This initiative has led to earlier investigation of the potential for off-site odors and efforts to remedy the odors before they contribute to any off-site impact. As stated above this was utilized on October 13 and found no off-site odors were detectable.

Summary

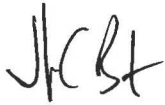
EQD does not agree the detected odors warrant a violation. Odors from the operation on the day in question were not persistent and objectionable odors of moderate to strong intensity (level 3 and 4). At this time EQD would like to contest the alleged "unreasonable interference with the comfortable enjoyment of life and property". The only Chem Fix activity in progress in this timeframe was the load out of the non-hazardous vault, which began at 5:00 am. Odors were not observed on-site, at no time were "unreasonable" odors identified anywhere in the area as investigated by numerous personnel at 7:00 am and after the call from AQD. It is unclear how the odor intensity would have changed from a 3 and 4 at approximately 9:30 am to a zero level at 10:44 am when the weather conditions were consistent from the time of the first complaints at 6:30 am until 11:00 am and, operations in Chem Fix did not change in that time frame.

EQD would like to again request the use of a scientific method of evaluating odors to eliminate subjectivity. Many states have implemented the use of a scentometer in the same manner that EQD has. For clarity, the scentometer is a device used to determine the level of odor. It has a carbon filter that allows for increments of dilution of the suspected odorous air. The amount of dilution required to smell the odor is the basis for the scale. In this case the intensity of the odor was not at a level in which the scentometer could be used and therefore the odor level was lower than the lowest dilution level of two (the State of Illinois allows up to a dilution level of 8). At the time of this complaint, EGLE found what they considered to be level 3 and 4 odors in the same area. It is EQD's understanding that the level 3 and 4 identified by EGLE is a subjective evaluation which the EGLE-AQD field investigators developed to support a violation of Rule 901(b). This makes the process of comparing the intensity nearly impossible.

To enable EQD to respond most effectively to odor concerns, we ask that AQD field personnel make every effort to notify me as soon as possible with all essential details when any odor complaint potentially relating to EQD is received. This will allow EQD to immediately investigate and potentially respond to the complaint and report the results.

If you have questions concerning this response, please feel free to contact me at (313) 347-1300.

Sincerely,



John C. Barta
General Manager

cc (via email):

Paul Max, City of Detroit, BSEED
Rich Conforti, EGLE
Jeff Korniski, EGLE
Tracy Kecskemeti, EGLE
Greg Morrow, EGLE
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