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December 18, 2020

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 December 7, 2020 for Alleged Nuisance Odors on November 20, 2020

Dear Mr. Lamb:

Please accept this letter as US Ecology – Detroit South’s (USE-DS) response to the Violation Notice (VN) dated December 7, 2020, regarding odors allegedly caused by USE-DS’s operations in violation of PTI No. 269-04H; General Condition 6 and R336.1901(b) on November 20, 2020. The letter stated that inspections conducted by EGLE-AQD in response to a complaint reportedly found moderate to strong (level 3 and 4) lime dust and chemical-type odors attributable to US Ecology’s operations, impacting areas downwind of the facility.

A call was received by USE-DS personnel from EGLE at 12:30 pm on Friday, November 20th, informing USE-DS that EGLE was investigating an odor complaint. USE-DS personnel immediately conducted an odor survey of the area, met the EGLE Inspector and detected odor under ambient conditions. A device known as a scentometer was used by USE-DS personnel to determine the level of odor. The scentometer is a device with 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. Utilizing the scentometer, odors could not be detected at the 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 4 odors in the same area. Note that the level 4 identified by EGLE is a subjective evaluation. The EGLE field investigator decided odors were sufficiently intense to support a violation of Rule 901(b). The facility was in the process of loading out treated waste and receiving waste. These operational activities were ceased for the rest of the day in response to the complaints.

The Violation Notice citation under R336.1901(b) states “a person shall not cause or permit the emission of an air contaminant in quantities that cause the unreasonable interference with the comfortable enjoyment of life and property.” The 901(b) citation does not define an objective way of evaluating compliance with this rule. As noted in the paragraph above, USE-DS and EGLE identified two very different experiences in the same general area and, furthermore, using two

very different scales. One scale being objective and the other subjective. In an effort to reduce the subjectivity of evaluating odors, USE-DS has purchased and completed training on a device called a scentometer that is a commonly used tool in the assessment of odorous conditions. EGLE is familiar with the device and receives the same training from the same consulting firm on the use of the device as USE-DS completed earlier this year. It should be noted that while the training provided to both EGLE and USE-DS personnel includes how a scentometer could be used to assess the intensity of odors, the training does not include EGLE-AQDs current 1-4 level scale for assessing odor intensity. However, EGLE has thus far decided not to utilize the scentometer device in lieu of a subjective 1-4 level scale that is not included in the odor training. Other jurisdictions such as Illinois and Kentucky have adopted the use of instruments like the scentometer to create more objective odor management regulation. USE-DS respectfully requests EGLE's executive management consider an evaluation of its current policies/procedures for evaluation of nuisance odors in comparison to the approaches being adopted by neighboring jurisdictions with similar nuisance odor regulations.

USE-DS would like to request EGLE's participation in conducting a side-by-side review of the scentometer to establish a consistency for evaluating odors. In the event the use of the scentometer is found to have the same results in the side-by-side comparison, USE-DS asks that EGLE will consider the use of the device for odor evaluations and establish a level to be considered a violation of Rule 901(b). This would create a more objective method of assessing odors and allowing USE-DS and EGLE to work toward a common goal.

Actions Taken by USE-DS

As noted in the second paragraph, in response to the odor complaints on November 20, 2020, the operations in the Chemical Fixation Building were shut down for the rest of the day. In addition, in response to this and previous odor violations, USE-DS continues to take the corrective actions below:

- Prior to acceptance of a waste stream on-site, the customer must provide USE-DS 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.
- 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.

- The treatment process is a chemical reaction that can liberate odors from the process. In an effort to reduce odors, the drying time has been increased, which is essentially slowing the chemical reaction and consequentially reducing odors.
- Treatment of the waste streams occurs in batches. Another tactic taken to reduce odors is reducing the batch size. Ideally, this minimizes odors as well.
- In an effort 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 on a daily basis 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.
- USE-DS 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.

In order to enable USE-DS 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 USE-DS is received. This will allow USE-DS 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
Todd Zynda, EGLE
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