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March 6, 2019

Ms. Julie Brunner  
Michigan Department of Environmental Quality  
Air Quality Division  
525 West Allegan  
Constitution Hall, 1st Floor South  
Lansing, Michigan 48933

RE: Response to February 13, 2019 Violation Notice  
Citizens Disposal, Inc. (SRN N5991, MI-ROP-N5991-2016)  
Grand Blanc, Michigan

Dear Ms. Brunner:

Citizens Disposal, Inc. the owner and operator of the Citizens Disposal, Inc. Landfill (Citizens), received a Violation Notice (VN) issued by the Department of Environmental Quality (DEQ), Lansing District Office, dated February 13, 2019. The VN requires submittal of a written response detailing the following:

- The dates the violation occurred;
- An explanation of the causes and duration of the violation;
- Whether the violation is ongoing;
- A summary of the actions that have been taken and are proposed to be taken to correct the violation and the dates by which these actions will take place; and
- What steps are being taken to prevent a reoccurrence.

In the alternative, DEQ requests that if Central "believes the above observations or statements are inaccurate or do not constitute violations of the applicable legal requirements cited" that Central "provide appropriate factual information to explain your position"

The VN cites a violation of Rule 201 (R 336.1201 – Permits to Install). Specifically, the VN states:

The information provided with the MAERS report demonstrate that actual emissions of sulfur oxides (SOx) from the flare have increased.

The VN further states:

At a minimum, this is a violation of Rule 201 of the Administrative rules.... Be advised that Rule 201 requires that a permit be obtained prior to installation, construction, operation, reconstruction, relocation, or alteration of any process or process equipment which may be a source of an air containment.

Citizens disagrees with MDEQ that any violation has occurred. Citizens has an existing permit which it obtained prior to installation, construction and operation of the flare. Because DEQ did not choose to impose an actual hourly or annual sulfur emission rate on the landfill gas flare at this facility, no permit limit has been exceeded. In addition, no modification has occurred which would trigger Rule 201(1). "Modification" is defined in Rule 113(d) as:

*(e) "Modify" means making a physical change in, or change in the method of operation of, existing process or process equipment which increases the amount of any air contaminant emitted into the outer air which is not already allowed to be emitted under the conditions of a permit or order or which results in the emission of any toxic air contaminant into the outer air not previously emitted. An increase in the hours of operation or an increase in the production rate up to the maximum capacity of the process or process equipment shall not be considered to be a change in the method of operation unless the process or process equipment is subject to enforceable permit conditions or enforceable orders which limit the production rate or the hours of operation, or both, to a level below the proposed increase.*

Not only has there not been an increase in SO<sub>2</sub> above any applicable permit limit, no physical change was made to any process, process equipment or method of operation. Rather, emission testing subsequent to original permitting demonstrated that actual emissions of SO<sub>2</sub> were higher than the AP-42 values used and accepted by DEQ during the original permit application process over a decade ago. When Citizens became aware of the difference, it voluntarily approached DEQ to amend their permits to reflect the actual emission values.

### **Summary of Issue**

Citizens received notification from Energy Developments, LLC (EDL) gas recovery facility that EDL had received a NOV due to sulfur dioxide emission exceedances from the facility in 2018. The MDEQ requested EDL obtain additional samples of landfill gas weekly to determine the sulfur concentration in the inlet gas.

Citizens requested copies of all sulfur sampling data that had been conducted at the EDL facility. Citizens next attempted to determine what inlet sulfur values were used in the initial air permit application for the flare. These calculations indicated that a value of 49.3 ppm total sulfur was used, which is similar to the AP-42 value of 46.9 ppmv (AP-42

Chapter 2.4, 11/98). A review of past annual air emissions inventories (MAERS Reports) revealed that the AP-42 concentration for sulfur has been used at the facility in the absence of site-specific data.

Because there are no permitted emissions rates, the higher sulfur levels were not deemed to be a permit violation. However, since the tested sulfur concentration was higher than the 46.9 ppm AP-42 sulfur concentration used in the 2016 and 2017 MAERS Reports, the facility contacted MDEQ's MAERS division to determine how to correct the past inventories. Citizens submitted revised emission calculations on February 15, 2019.

Additionally, in conjunction with another facility experiencing a similar issue (Central Sanitary Landfill), the environmental manager for Citizen's Disposal Landfill reached out to DEQ's permit division in Lansing in order to set up a joint meeting with the two landfills and the DEQ permit writers. The purpose of the meeting was to discuss the sulfur issue and determine the best permitting strategy to amend each landfill's flare PTI for the increased SO<sub>2</sub> emissions rates. However, due to various federal holidays and staff vacation schedules, the meeting time was not established until February 7, 2019.

The meeting included facility representatives from Central and Citizens Disposal Landfill, the air consultants for each facility, and DEQ permitting, modeling and inspection staff. At the meeting several topics were discussed including the control devices present at each landfill (third party gas to energy plants and site-operated flares), the air permitting history, and the current information on sulfur concentrations in the gas at each landfill. The proposed permitting strategy was discussed, including the requirement for ambient air modeling. The DEQ did not mention during the meeting that they planned to issue each site a Violation Notice.

In the absence of site-specific data for a facility, DEQ and other state agencies allow the use of AP-42 factors. For landfills, the value of 46.9 ppm for inlet sulfur concentration has historically been used for landfill gas flare construction and operating permits. Neither federal nor state regulations require landfills to obtain a site-specific value for inlet sulfur.

Sulfur compounds are generated within the landfill environment when sulfur reducing bacteria decompose material that contains sulfate. The primary compound produced is hydrogen sulfide, with lesser amounts of other organic sulfur compounds such as mercaptans also produced. The potential for a landfill to generate hydrogen sulfide depends on a number of factors, including moisture content, pH, and the availability of substrate materials containing sulfur. It is a biological process that is not under the control of the landfill's employees, and not the result of a change in operations or method of operations.

The facility is unaware of any site-specific data available with respect to sulfur concentrations before EDL collected their gas sample in 2016. The measured value was 416 ppm of H<sub>2</sub>S. The initial field readings collected in September 2018 indicated that sulfur concentrations above the AP-42 value of 46.9 ppm were still present in the landfill gas. EDL began to research the sulfur concentrations at the facility and determine any fluctuations that may have occurred. Citizens also initiated efforts to meet with the MDEQ, jointly with Central Sanitary Landfill, to discuss revising the PTI's for the landfill gas flares.

### **Status**

EDL continues to collect sulfur data on a weekly basis, and concentrations above the AP-42 value of 46.9 ppm are still present in the landfill gas. The facility will be able to compare their current flare flow rates and measured concentration to the requested concentration in the revised PTI. Should either landfill gas flow to the flare and/or inlet sulfur levels increase, the facility will be able to react more quickly to avoid emitting SO<sub>2</sub> in excess any new permitted levels.

### **Summary of Action To be Taken**

At the meeting held on February 7, 2019, it was agreed that Citizens would prepare and submit the amendment to the flare PTI for the Zink and Grof flares. This application will be submitted on or before April 15, 2019.

### **Conclusion**

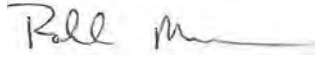
No violation of Rule 201(1) has occurred. Citizens has a permit for the flare. There was no alteration of any process or change to process equipment made by facility employees, nor was any change made in the operation or method of operation of the landfill or the landfill gas flare. No change was made to the gas by Citizens. Any increase in SO<sub>2</sub> was the direct result of a biological process inside the landfilled waste, which is outside of the control of Citizens and was not a modification requiring a permit to install.

Since no alteration to any process or process equipment (landfill gas collection system) was made, nor was any emission limit exceeded, there is no violation of the permit or rules. Central requests that DEQ acknowledge that no violation has occurred and this VN be rescinded. If DEQ disagrees with Citizens' conclusion that no violation has occurred, we would request a meeting with DEQ, with legal counsel attending.

For any correspondence, or if you have any questions regarding this information, please contact Robb Moore at 810-655-6906.

Sincerely,

CITIZENS DISPOSAL, INC.

A handwritten signature in black ink, appearing to read "Robb Moore", with a horizontal line extending to the right.

Robb Moore, P.E.

Environmental Manager

cc: Ms. Mary Ann Dolehanty, DEQ  
Dr. Eduardo Olaguer, DEQ  
Mr. Christopher Ethridge, DEQ  
Ms. Jenine Camilleri, DEQ  
Mr. Brad Myott, DEQ  
Site Operating Record

