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Air Quality Division
Detroit Office

February 16, 2017

Jonathan Lamb
Senior Air Quality Analyst
Air Quality Division
Department of Environmental Quality
Cadillac Place
3058 West Grand Boulevard
Suite 2-300
Detroit, Michigan 48202-6058

RE: SRN 4545 Violation Notice dated January 26, 2017.

Dear Mr. Lamb:

This letter is in response to the "Violation Notice" dated January 26, 2017. In the letter, the Michigan Department of Environmental Quality (MDEQ), Air Quality Division (AQD) notified US Ecology- Detroit South (USEDSD) of the violations noted below. The following provides a response to the alleged violations listed in that letter.

Date	Process Description	Rule/Permit Condition Violated	Comments
01-24-17	Chem-Fix	R 336.1901(b); PTI No. 269-04E, General Condition 6	Moderate to strong (Level 3 to 4) lime dust and chemical-type odors, attributable to US Ecology's operations and impacting areas downwind of the facility.
01-24-17	Chem-Fix	R 336.1901(b); PTI No. 269-04E, EUTREATMENT, Special Condition III.3	A steam plume was observed emanating from the Chem-Fix Building throughout the duration of the investigation indicating that negative pressure requirements are not being met.

During the post-incident review, US Ecology was unable to identify any waste streams that would have created an abnormal odor issue. As per the agency's

request, the batch reports for January 24, 2017 are provided on disk. The lime odor detected is from the routine solidification of our materials in our Chem-Fix operation.

As a result of recent violations, however, USEDS is in the final stages of an odor neutralization system. The piping into the stack for introduction of the neutralizer is in place. The odor neutralizer product is on site. The PLC programming to ensure this system will work in conjunction with the baghouse to optimize the application of the neutralizing agent is in place and awaiting testing. A final electrical disconnect is on order and testing is expected to take place by the end of next week. USEDS anticipates the system to be up and running in the next 10-14 days depending on the weather and any unforeseen computer integration issues. We are eager to start using the system and will notify the MDEQ when the system is up and running.

On December 19, 2016, a negative static pressure verification test was performed according to Special Conditions V.1 (R 336.1901) to demonstrate the Chem-Fix building's ability to maintain negative pressure. The report associated with this test is included for the departments review. The day of the observation, the Chem-Fix building was maintaining negative pressure. However, the steam generated during processing was greater than the system could handle. Over \$1 million in enhancements to the company's Chem-Fix Building and its air system are on schedule for later this Spring/Summer. Capital funding has already been approved. In the meantime, changes to the exothermic treatment processes will continue in order to minimize steam generation. The company is confident that the expenditure of this capital further reinforces US Ecology's commitment to mitigating any odors and remaining in full compliance with all applicable rules and regulations that apply.

Additionally, USEDS has implemented several important efforts to minimize the chances of future issues arising from our normal operation. To summarize, the company continues to be diligent in its efforts to prevent nuisance odors by thoroughly reviewing waste profiles before approval, proactively monitoring for odors offsite of the facility and continuing routine preventative maintenance on the baghouse.

Should you have any additional questions, please contact me at (313)347-1328.

Sincerely,



Krystal K. Brown
EHS Manager

Enclosures

cc: Raymond Landsberg, USE Detroit South (via email)
Andy Marshall, USE Boise (via email)
Paul Haratyk, USE Detroit South (via email)
Dan Belisle, USE Romulus (via email)



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January 4, 2017
File No. 07.0062204.00

Ms. Krystal Brown
EHS Manager
US Ecology
1923 Frederick Street
Detroit, Michigan 48211

Re: 2016 Negative Static Pressure Verification Test -
Waste Stabilization Process Building
US Ecology Detroit South Plant – Detroit, Michigan

Dear Ms. Brown:

GZA GeoEnvironmental, Inc. (GZA) is pleased to provide US Ecology Detroit South (USEDSD) with this letter report with regard to the negative static pressure field observations conducted within the Waste Stabilization/Chemical Fixation Process Building (Chem-Fix Building) at USEDSD on December 19, 2016.

The Chem-Fix Building is used for the stabilization/chemical fixation of hazardous and nonhazardous waste shipped to the site. Stabilization/fixation of waste is accomplished utilizing various reagents, including lime, cement kiln dust, ferrous sulfate, sand, and fly ash. Emissions from the stabilization building are controlled by a baghouse which is vented to the atmosphere through two stacks. The USEDSD facility operates the Chem-Fix building under Michigan Department of Environmental Quality Air Permit to Install (PTI) No. 269-04E. Special Condition EUTREATMENT III.3. requires the building to be operated under negative pressure during normal operation, and Condition EUTREATMENT V.1 further requires a negative static pressure verification test annually, as follows:

Verification of the negative static pressure in the waste treatment building by testing, at owner's expense, in accordance with Department requirements, will be required for operating approval. The negative static pressure in the waste treatment building shall be determined by using smoke tubes, or an alternative method as approved by the AQD. Alternative testing procedures and associated operational parameters must have prior approval by the AQD District Supervisor. Permittee shall conduct the verification tests at least once every year. Any request for a change in the testing frequency must be submitted to the AQD District Supervisor for review and approval.

On December 19, 2016, USEDSD personnel conducted a negative-pressure smoke test within the Chem-Fix Building. Observations were documented on the field observation sheet, presented as Attachment 1. According to the field observation sheet, USEDSD used three smoke candles to conduct the exercise to verify negative static pressure within the Chem-Fix Building. The three candles were lit and placed in the center of the building to allow for even dispersion. The candles are designed to emit smoke for three minutes. The doors on the north and south sides of the building were observed during the test. The smoke plume initially moved to the north and east, however, within one minute of lighting the candles, smoke was moving toward the center system duct. The smoke was steadily pulled through the center system duct for the duration of the three minutes of emittance. All smoke exited



through the air system within 14 minutes of starting the test. No smoke was observed exiting the building through the doors or other gaps in the building's structure.

Based on the provided observation sheet, the smoke test and airflow direction observations demonstrate a negative static pressure condition within the Chem-Fix Building, and indicate that the Chem-Fix Building continues to meet the negative static pressure criteria of Permit No. 269-04E.

If you have any questions or require additional information, please contact the undersigned at (734) 779-2405 or jennifer.calnen@gza.com

Sincerely,

GZA GEOENVIRONMENTAL, INC.

A handwritten signature in cursive script that reads "Jennifer A. Calnen".

Jennifer A. Calnen
Senior Project Manager

A handwritten signature in cursive script that reads "John A. Schneider".

John A. Schneider, P.E.
Associate Principal
Consultant Reviewer

Attachments

Field Observation

CLIENT: MARK CASTEELE, LEAD OPERATOR

DATE: 12/19/16

SITE LOCATION: US Ecology Detroit South
1923 Frederick St. Detroit MI 48211

EXERCISE: Air System Smoke Test

OBSERVATION/TIME: 2:20 am 12/19/16

3 smoke bombs with 3 minute duration were set off
to demonstrate that the Air System is working
correctly

SUMMARY: The Smoke tubes were lit, Smoke started to plume to
the north and east. The air duct then started to pull the
Plume back to the west toward it, 1 minute into the Test.
The whole cloud started moving toward the duct, it was
steadily pulling the cloud through out the 3 min. duration
of the tube emittance. The cloud was completely consumed
after 14 minutes from the time of the Test starting.