

Attachment E

BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.

IN THE MATTER OF)	RCRA Appeal _____
VICKERY ENVIRONMENTAL, INC.-)	
)	AFFIDAVIT OF STEPHEN C.
VICKERY ENVIRONMENTAL, INC.)	LONNEMAN IN SUPPORT OF VICKERY
)	ENVIRONMENTAL, INC.'S PETITION
RCRA Permit no. OHD 020 273 819)	FOR REVIEW
)	

STATE OF OHIO)
) ss:
County of Sandusky)

I, STEPHEN C. LONNEMAN, being first duly sworn, depose and say:

1. I have personal knowledge of the facts contained in this affidavit.
2. I have a Bachelor of Science in Chemical Engineering.
3. I have been employed by Vickery Environmental, Inc. ("VEI") since 1989. At all times during my employ at VEI, in addition to other responsibilities, I have worked at the VEI facility located at 3956 State Route 412, Vickery, Ohio 43464 ("Facility"). The Facility is my current primary office. From 1989-1999, I held various responsibilities, including Process Engineer and Environmental Engineering Manager for the Facility. As Environmental Engineering Manager, I was responsible for all permitting for the Facility. From 1992-1999, I was Operations Manager, which included responsibility of management of all operations for the Facility. From 1999 until the present, in addition to other responsibilities, I have been General Manager for the Facility. As General Manager, my responsibilities include all Facility operations

and management of the business operations for VEI. I currently hold the position of Senior District Manager. Based upon my duties and responsibilities since 1989, I have a working knowledge of the equipment and processes at the Facility.

4. The Facility operates four (4) Class I hazardous underground injection wells. The wells are used to dispose of liquid industrial wastes and hazardous wastes.

5. The Facility maintains an Integrated Aqueous Waste Treatment System (IAWTS) for the unloading, storage, treatment and transfer of waste prior to disposal in the hazardous underground injection wells. The IAWTS system consists of (1) the truck unloading facility, cartridge filters and ancillary baskets strainers and pumps, waste receiving tanks, waste head-gas caustic scrubber and solids handling unit; (2) the waste storage and treatment tank system; (3) the filters and filter buildings; (4) the pumps and pump houses; and (5) the yard piping.

T-Tanks

6. The IAWTS waste storage and treatment tank system consists of six tanks, a total of two 100,000 gallon tanks and a total of four 200,000 gallon tanks (T-1, T-2, T-5, T-6, T-9, and T-10) ("T-Tanks").

7. Each of the T-Tanks are equipped with a fixed roof and there are no visible cracks, holes, gaps, or other open spaces between roof section joints or between the interface of the roof edge and the tank wall.

8. Each of the T-Tanks is equipped with closure devices designed to operate such that when the closure devices are secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure devices or between the perimeter of the opening and the closure devices.

9. Each of the T-Tanks are equipped with Level 1 pressure-vacuum relief valve conservation vent that vents to atmosphere (See Attachment 1- T-Tank Diagram- Conservation Vents identified as Numbers 1 -6). Conservation Vents Numbers 1-6 ensure protection of the integrity of the physical tank.

10. Each T-Tank is connected to a head gas manifold system. The manifold system transitions into a single line. Inline, on the single line, is a Level 1 pressure-vacuum relief valve conservation vent (See Attachment 1 – T-Tank Diagram- Vent identified as Number 7). Gases only vent out of the T-Tank tank farm manifold system when the combined head gas pressure is sufficient to open the Number 7 conservation vent pressure relief valve. When this occurs, organic vapors are vented to the atmosphere through an acid vapor scrubber system. The manifold system reduces the total tank farm emissions by allowing vapors from tanks being filled to move to tanks that are being emptied which is referred to as a vapor balance system. By design of the manifold system, gases in the T-Tanks only vent to atmosphere when the pressure-vacuum relief valve conservation vent- Vent Number 7- is activated at which time gases are vented through the acid vapor scrubber. During normal operations, the only time Vent Number 7 is activated is when waste is being unloaded from trucks at a rate greater than the rate waste is being removed from the tank system. The manifold system results in less volatile organic compound emissions to the atmosphere than if there was no vapor balance system and each T-Tank directly vented to the atmosphere through its individual conservation vent (Vents 1-6).

11. The facility acid vapor scrubber is designed to remove acid vapors from tank head space by contact with alkaline water. It is a counter-flow contact scrubber. The alkaline water has a pH ranging from 8 to 12. The scrubber is used for removal of acid vapors, not for removal of

organic vapors.

12. The T-Tanks head gas manifold system as currently configured has been in place since the Subpart CC regulations came into effect in December 6, 1996.

Filter Press

13. Prior to injection in the deep wells, some liquid hazardous waste is sent to a recessed plate filter press ("Filter Press"). The Filter Press is approximately 70 ft³ constructed of polypropylene plates, covered with polypropylene filter cloth, mounted on a steel frame with a horizontal compression system. Liquid hazardous waste is fed into the center of the plates and filtrate exits the press through four drain eyes.

14. The Filter Press removes most of the precipitates and other suspended solids from the wastes prior to deep well injection. As liquid waste passes through the Filter Press, precipitates and other suspended solids are retained on a cloth located inside the Filter Press unit. The solids retained on the cloth inside the Filter Press is referred to as filter cake.

15. The Filter Press is a closed unit while in operation. When closed, the sealed filter press has no gaps or openings. To minimize emissions of volatile organic compounds, the filter press is kept closed at all times except when filter cake is being removed from the unit during maintenance or during inspection.

16. As filter cake accumulates, the Filter Press needs to be cleaned by removing the filter cake retained on the cloth.

17. As part of the cleaning process, in order to reduce volatile organic compound emissions, prior to opening the Filter Press to remove the filter cake, clean water is flushed through the filter cake to displace the free liquid waste which had been retained in the filter cake. Once

the clean water has been flushed through the filter cake, VEI typically injects air using an air compressor with a design capacity of 215 actual cubic feet per minute (ACFM) for a minimum of twenty (20) minutes to displace the clean water in filter cake. The process by which VEI uses an air compressor to displace the clean water in the filter cake is referred to as "blow down." The use of clean water and blow down while the Filter Press is closed results in less volatile organic compound emissions to the atmosphere than if the Filter Press was opened and filter cake removed without using this process.

18. There are times when blow down cannot physically happen due to the nature of the filter cake. If blow down does not occur, the filter cake remains wet and is removed wet when the Filter Press is cleaned.

19. Vickery has utilized the blow down process since at least prior to the 2005 Final RCRA permit issued to Vickery on April 14, 2005.

DATED this 30th day of September, 2019.




Stephen C. Lonneman

SUBSCRIBED AND SWORN to before me this 30th day of September 2019, in Vickery, Ohio.



BRETT MILLER
Notary Public, State of Ohio
My Commission Expires 3/28/2021



NOTARY PUBLIC for the State of Ohio
My Commission Expires: 3/28/2021