

Attachment I

a

From: Lee, Jae
Sent: Wednesday, July 27, 2016 4:08 PM
To: 'Miller, Brett' <bmillier2@wm.com>
Cc: Setnicar, Mary <setnicar.mary@epa.gov>; Blough, James <Blough.James@epa.gov>
Subject: Vickery draft RCRA permit Emission Control Plan

Brett:

The U.S. Environmental Protection Agency is in the process of conducting its technical review to support issuance of a draft RCRA permit to Vickery. During the course of this review, EPA has found that there is a compliance issue concerning vapor emissions from a hazardous waste unit operated by Vickery. Specifically, Vickery operates a Filter Pressure (FP) unit to remove solids from the hazardous waste. The FP is located in a room enclosed by room walls, and the hazardous cakes from the FP are manually removed and dumped into a roll-off box. There is no vent or control device in the room. The room where the FP is located is considered as enclosure as defined in 40 CFR § 265.1081.

As currently operated, we consider the FP unit to be a "miscellaneous unit" regulated under 40 CFR § 264.600 (Subpart X). 40 CFR § 264.601 requires that Subpart X units must comply with the air emission standards as defined in 40 CFR § 264.1080 (Subpart CC). Unless this unit is modified to operate in a different manner, we believe that the most appropriate requirements in Subpart CC for the FP unit are found at 40 CFR § 264.1084(i) because the FP unit (which resembles a tank) is located in an enclosure. 40 CFR § 264.1084(i) would require the emissions generated from the FP unit in the enclosure to be vented through the closed vent system to the enclosed control device in accordance with 40 CFR § 264.1087.

We see a need to modify the current operation of the FP unit to be compliant and included in a RCRA permit. One option to achieve compliance would be through the submission of an Emission Control Plan (ECP) to comply with the requirements set forth in 40 CFR § 264.1084(i). Vickery is also free to propose a different resolution for compliance, in the ECP, for review and approval by EPA. The current system can be upgraded, modified, or terminated to comply with the applicable regulations.

EPA would like to hear from Vickery on this approach or other approaches to achieve compliance at the FP unit so it can be permitted in a RCRA permit.

Your prompt response will be appreciated.

Jae Lee
Region 5 EPA
Land and Chemicals Division
312-886-3781

b

From: Lee, Jae
Sent: Tuesday, September 6, 2016 3:53 PM
To: Miller, Brett <bmillier2@wm.com>
Cc: Setnicar, Mary <Setnicar.Mary@epa.gov>
Subject: Re: Vickery RCRA Permit

Brett:

Thank you for your response regarding the vapor emission issue from the Filter Pressure (FP) unit.

During our August 29 call, we discussed issuing a RCRA permit to Vickery containing a requirement to submit an Emission Control Plan (ECP) by Vickery. The ECP would include Vickery's proposal how the FP unit will comply with the emission requirements specified in 40 CFR § 264.1084(i).

We discussed this matter EPA's legal team, and the opinion was voiced that Vickery should propose, upfront, how the vapors from the FP will be controlled, so as to ensure a mutually agreed upon path towards compliance under an issued permit. Otherwise, the concern is that the permit could be the subject of drawn out disputes or appeals if the parties do not agree on an emission control strategy that complies with 40 CFR § 264.1084(i).

Thus, we need to receive from you your written proposal to modify the current operation of the FP unit to be compliant in order for this unit to be covered under the up-coming permit renewal. Once we agree on a general path forward, as well as a timeframe, your proposal could be implemented via a more detailed ECP submitted under a permit.

During the call, we discussed briefly that the enclosure, where the FP is located, can vented and the vapors from the enclosure can be routed to the on-site control device. This could be one of strategy that can be considered.

Please let me know if you have any questions concerning this request.

c

From: Miller, Brett [mailto:bmiller2@wm.com]
Sent: Tuesday, September 27, 2016 10:25 AM
To: Lee, Jae <lee.jae@epa.gov>
Cc: Miller, Brett <bmiller2@wm.com>
Subject: Emission Control Plan

Hi Jae,

Attached for your consideration is a proposed emission control plan for the how vapors are controlled from the facilities filter press. This proposed ECP documents vapor control through the blowdown of the filter press prior to opening the filter press for cleaning or before any maintenance is performed. Those vapors are directed to the facilities wet scrubber.

Again, we thank you for your help and please email me if you have additional suggestions.

Thank you,

Brett A. Miller
Environmental, Health, and Safety Manager

bmiller2@wm.com

d

From: Lee, Jae

Sent: Tuesday, November 29, 2016 11:27 AM

To: 'Miller, Brett' <bmillier2@wm.com>

Cc: Bradley.Mitchell@epa.ohio.gov; Setnicar, Mary <setnicar.mary@epa.gov>

Subject: Emission Control Plan Vickery

Brett:

On July 27, 2016, U.S. Environmental protection Agency send an email to Vickery Environmental Inc. (Vickery) for the need of Emission Control Plan (ECP) submittal concerning potential volatile organic (VO) emissions from Filter Pressure (FP) unit. EPA emailed again on September 6, 2016 to request that Vickery should propose, upfront, how the vapors from the FP will be controlled.

On August 29, 2016, EPA and Vickery had a conference call to discuss the ECP submittal. On September 27, 2016, Vickery submitted FP ECP. On November 3, 2016, EPA and Vickery had another call to discuss the submitted ECP.

During the November 3, 2016 call, EPA indicated its concern that there might be potential VO emissions even after considering pre-purging process in the FP. The ECP needs to include any potential VOC emissions from the cakes during the maintenance period. If, as argued by Vickery, the wastewater processed in the FP contains low organic materials, then the analytical organic data of the wastewater processed in the FP and its potential volatility would be presented. The VO data from the cakes and/or air monitoring data around the enclosure room where the FP is situated would also be presented.

As suggested during the call, updating the system with vent and control devices should be also considered.

Please submit the revised ECP by December 31, 2016.

Jae Lee
RCRA Branch
US EPA, Region 5

e

From: Miller, Brett [<mailto:bmiller2@wm.com>]
Sent: Wednesday, December 28, 2016 2:34 PM
To: Lee, Jae <lee.jae@epa.gov>
Cc: Miller, Brett <bmiller2@wm.com>
Subject: RE: Emission Control Plan Vickery

Dear Mr. Lee:

Vickery Environmental, Inc.(VEI) received your email dated November, 29 2016 requesting that an Emission Control Plan for the facilities filter press unit be submitted by December 31, 2016.

The facility does not agree with US EPA's interpretation that the facilities filter press unit should be regulated under the tank standards at 40 CFR 264.1084. US EPA considers the filter press unit 'tank-like' because the definition of a tank at 40 CFR 260.10 states that a tank is stationary. The definition of a tank at 40 CFR 260.10 is as follows:

Tank means a stationary device, designed to contain an accumulation of hazardous waste which is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic) which provide structural support.

A tank is designed and engineered not to move. The facilities filter press unit conversely is designed and engineered as a non-stationary device with portable filtering plates that can be and are removed occasionally.

The filter press unit contains up to 54, non-stationary, horizontal filtering plates. Each non-stationary plate has a perimeter gasket. When the plates are pressed together, they create a filter housing. The gaskets prevent wastewater from exiting the housing when the plates are pressed together. Each non-stationary plate has filtering clothes attached inside the perimeter gasket area. Filter media (diatomaceous earth (DE)) is applied to the clothes. Waste water flows through the filter media (DE) and suspended solids are collected on the filter media (DE) to create a filter cake. Once a sufficient amount of suspended solids has been collected on the filter media (DE), a significant pressure drop occurs through the filter press unit. At this time, the collected suspended solids along with the filter media (DE), must be removed.

In order to remove the collected suspended solids, the filter press unit housing must be opened. The non-stationary plates must be separated to

allow the filter media (DE) and collected solids to be removed. All non-stationary plates must be separated to remove all collected solids. If needed, the filter plates are removed from the filter press unit and transported to another location. Several times each year, all the non-stationary plates are removed from the filter press unit.

The individual non-stationary plates are supported on support rails. These rails allow the efficient separation and closure of the non-stationary plates. The separation and closing of the non-stationary plates is achieved with the use of a hydraulic ram. The hydraulic ram presses the non-stationary plates together to create the filter housing.

The portable nature of the non-stationary plates and the physical means of opening of the filter press unit housing to remove treated suspended solids that collected on the filter media (DE) demonstrates the filter press unit is 'container-like'. As such, the definition of a container (see below) is appropriate thus the regulations at 40 CFR 264.1086 are applicable.

Container means any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

Vickery Environmental, Inc. has prepared a revised Emission Control Plan that details compliance with the regulations at 40 CFR 264.1086 for the facility's filter press unit based on the facilities position that the filter press is more container-like as described above. The proposed plan is attached.

Brett A. Miller
Environmental, Health, and Safety Manager
bmiller2@wm.com

f

From: Miller, Brett [mailto:bmiller2@wm.com]
Sent: Friday, March 10, 2017 8:49 AM
To: Lee, Jae <lee.jae@epa.gov>
Cc: Miller, Brett <bmiller2@wm.com>
Subject: Emission Control Plan Vickery

Hi Jae,
Vickery Environmental received your email dated Monday March 6, 2017 requesting further information on the facilities filter press unit. Listed below is your question in bold, italics. The facility's response is in standard form.

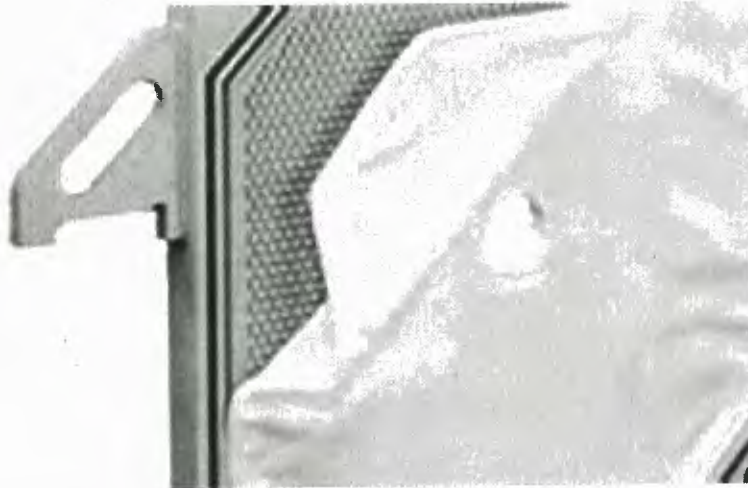
Question 1. The State RCRA permit issued on March 5, 2012 classifies the filter pressure unit (70 cu.ft) as a miscellaneous treatment unit. Any thoughts on this?

Vickery Response to Question number 1.
The facilities filtration system does not fit the definition of a tank or tank system and therefore not subject to 264 Subpart J regulations (Ohio OAC 3745-55-90). Additional, the filtration system does not fit the definition of a container and therefore not subject 264 Subpart I regulations (Ohio OAC 3745-55-70). The filtration system is classified as a miscellaneous unit under 264 Subpart X (Ohio OAC 3745-57-90) because the definition of a tank and the definition of a container do not apply.

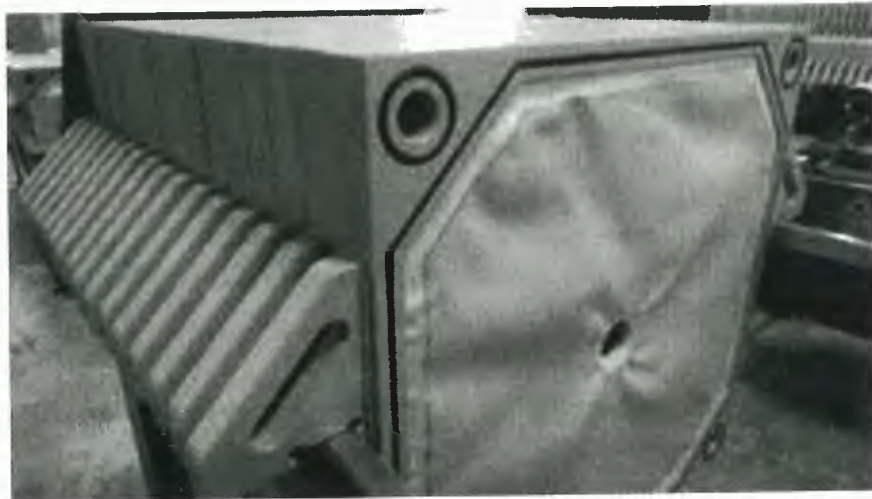
Question 2. We are also contacting the OEPA how the FP unit was classified as a Subpart X not as a container. In a meantime, can you email us a photo or a diagram of the FP unit, if possible?

Vickery Response to Question number 2.
Below are images of the filter press style we use. Images are courtesy of MW Watermark

The individual filtering plate is a two-part design: 1.) a Filter cloth and 2.) a filter plate that the filter cloth attaches to. The filter plate contains a perimeter gasket that prevent wastewater from exiting the housing when the filter plates are pressed together.



When multiple filtering plates are pressed together, they form a filter housing. Filter media (diatomaceous earth (DE)), is applied to the cloths. As waste water flows through the filter media, suspended solids are collected on the filter media.



Once a sufficient amount of suspended solids are collected on the filter media, a significant pressure drop occurs through the filter press. At this time the collected solids along with the filter media must be removed. To remove the solids and filter media, the filter press is opened and the individual plates are separated. If needed, the filter plates are removed from the filter press and transported to another location.



Regards,

Brett A. Miller
Environmental, Health and Safety Manager
bmiller2@wm.com

Waste Management
Vickery Environmental, Inc.
3956 State Route 412
Vickery, Ohio 43464
(419)547-7791

From: Lee, Jae
Sent: Friday, March 17, 2017 1:31 PM
To: 'Miller, Brett' <bmillier2@wm.com>
Subject: Vickery Filter Press Subpart CC compliance

Brett:

As we discussed, we would like to issue a draft federal RCRA permit to Vickery. Based on the review of the Part B application, discussion with OEPA, site visits, and Vickery's responses, we believe that the Filter Press should be considered as a tank-like Subpart X unit. As specified in 40 CFR 264.601, Subpart X units should comply with Subpart CC requirements. Since there is potential volatile emissions from the FP during the cake-removing process which would be released to the atmosphere, we believe that the FP needs to be operated in accordance with 40 CFR 264.1084(i) to control such emissions.

The following is a portion of the draft federal permit, which depicts requirements of the FP from the Subpart CC regulations. We are tentatively targeting May 2017 for issuance of the draft permit.

Please let us know if you would like to continue communicating with us on compliance options for the FP.

If you have any questions or comments, please let me know.

Jae Lee
RCRA Branch
EPA, Region 5
312-886-3781

III.C MISCELLANEOUS UNITS REQUIREMENTS

According to the Application, your facility operates 7 types of miscellaneous units which process hazardous waste. These miscellaneous units are 1) 4 Basket Strainer units, 2) 2 Bag Filter units, 3) 1 Filter Press unit, 4) 4 Primary Cartridge Filter units, 5) 4 Secondary Cartridge Filter units, 6) 5 Bypass Cartridge Filter units, and 7) 1 Thief Pole Rinsing unit. These 7 types of units are considered as miscellaneous units defined in 40 C.F.R. Part 264, Subpart X. The miscellaneous units are subject to and shall comply with the requirements set forth in 40 C.F.R. Part 264, Subpart CC. (40 C.F.R. § 264.601).

III.C.1 You shall operate the 4 Basket Strainer, 2 Bag Filter, 4 Primary Cartridge Filter, 4 Secondary Cartridge Filter, and 5 Bypass Cartridge Filter units in a closed system. While in operation, there shall be no openings in these units to emit vapors into the atmosphere. You shall comply with the following specifications:

- (a) The closure devices must be designed and constructed to form a continuous barrier over the entire surface area of the unit.
- (b) The units shall be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces.
- (c) The unit shall be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the closure devices throughout their intended service life.
- (d) Whenever a hazardous waste is in the unit, all openings must be securely closed to prevent releases of vapors into the atmosphere, except for routine inspections, maintenance, and other approved activities.
- (e) You must inspect these miscellaneous units at least once per year, or retest the units to ascertain that the air emissions from these units comply with the design and with the requirements specified in 40 C.F.R. § 264.1084(c)(4).
- (f) You are allowed to open these units during the maintenance, cleaning, and/or inspection. You shall not operate these units during the maintenance, cleaning, and/or inspection, and when the maintenance, cleaning, and/or inspection is completed, the units' closure devices shall be promptly secured in the closed position and the operations shall be resumed.

III.C.2 The Thief Pole Rinsing unit includes an open-top container which contains residual of the poles from sampling of the hazardous waste in the tanks. You shall control organic air emissions from the Thief Pole Rinsing unit. For the storage of the residual hazardous waste from the poles and its rinsing water waste in the top-opened container unit, you shall prepare a procedure to control organic air emissions from this unit. The procedure shall be retained at the facility.

III.C.3 You shall operate the Filter Press in accordance with requirements specified in Section III.C.1, above. During all phases of the removal and transfer of hazardous cake waste or other hazardous materials from the Filter Press to the roll-off box, you shall comply the requirements specified below:

The emissions shall be controlled through complying with 40 C.F.R. §§ 264.1084(i). The emission control shall consist of: (1) an enclosure housing the Filter Press and its attached doors and openings, (2) a closed vent system, including an exhaust fan with a capacity to maintain a negative pressure inside the enclosure and ductwork connecting the enclosure to a control device, (3) a control device, and (4) closure and monitoring of the roll-off box.

(a) Enclosure System

The gases, vapors, and fumes emitted from hazardous waste in the enclosure room must be vented by the closed vent system to the control device to be treated. The enclosure room shall comply with the following requirements:

1. You shall design and operate the enclosure room in accordance with the criteria for a permanent total enclosure as specified in "Procedure T – Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 C.F.R. § 52.741 (Procedure T). You shall perform the verification procedure for the enclosure room as specified in Section 5.0 of such Procedure T annually. The first such test shall be performed within 60 days after the effective date of this permit. 45 calendar days before you conduct the annual Procedure T test, you shall notify the EPA including a brief description and date of the test, monitoring equipment to be used, calibration and

design specification of the monitoring devices, and other related information.

2. All access doors or other openings whose areas are not included in determining the total area of natural draft openings (NDOs) under paragraphs 4.1 (with reference to paragraph 3.3) and/or 5.2 of Procedure T shall be kept closed during routine operation of the process. Routine operation of the process includes those times when hazardous waste is present in the enclosure room, when gases, vapors, or fumes from hazardous waste are present in the enclosure room, and/or when the Filter Press is in operation. In cases of emergency or malfunction, the doors may be open in such conditions, but only as long as necessary to allow authorized personnel equipped with all necessary safety devices and other equipment, to enter and exit the enclosure room to safely address the emergency or malfunction.
3. Each time you perform the verification procedure in Section 5 of Procedure T, you shall prepare written documentation accurately recording all results of the procedure. All such documentation shall be maintained as part of the facility operating record for at least three years.

(b) Closed-Vent and Control Device

The closed vent and control device shall comply with the following requirements:

1. The closed vent system shall route the gases, vapors, and fumes emitted from hazardous waste in the enclosure room to the control device.
2. The closed vent system and control device shall comply with the requirements in 40 C.F.R. § 264.1087. The closed vent system shall comply with the requirements of 40 C.F.R. § 264.1033(k)(2).
3. The closed vent system and control device shall be

operated and negative

pressure shall be maintained within the enclosure room at all times when the Filter Press is open to remove hazardous cake waste, when the roll-off box is without any cover, and/or when vapor from hazardous waste is present in the enclosure room.

4. The control device shall have a minimum removal efficiency of 95 percent by weight in accordance with 40 C.F.R. § 264.1087(c)(1)(i). You shall demonstrate that the control device achieves this performance standard as specified in 40 C.F.R. § 264.1087(c)(5) and (c)(6).
5. The closed vent system shall not include any bypass devices that could be used to divert the gas or vapor stream to the atmosphere before entering the control device, unless equipped with either a flow indicator or a seal or locking device specified in 40 C.F.R. § 264.1087(b)(3).
6. The vent system shall have an exhaust fan with a sufficient capacity to maintain a negative pressure inside the enclosure room. You shall determine an appropriate minimum fan capacity determined from a written design analysis or from a performance test. You shall maintain such a minimum fan capacity while the Filter Press is in operation. In addition, you shall maintain as part of the facility operating records either the written design analysis, or a written performance test plan and all test results.
7. You shall inspect, monitor, and maintain the closed vent system in accordance with 40 C.F.R. §§ 264.1087(b)(4), 264.1033(l), and 264.1087(c)(7). You shall inspect, monitor, and maintain the control device in accordance with the requirements in 40 C.F.R. § 1087(c)(7). You shall develop and implement a written plan and schedule to perform the inspections and monitoring required by this paragraph. You shall incorporate this plan and schedule into any

inspection plan required by the state RCRA permit.
(40 C.F.R. § 264.1088).

(c) Roll-off Box

You shall effectively cover the roll-off box while not receiving hazardous waste from the Filter Press so as to not release any vapors to the atmosphere.

III.C.4 You shall repair each defect detected during an inspection performed in

accordance with Section III.C.3(b)7, according to requirements specified in 40

C.F.R. § 264.1084(k) and 40 C.F.R. § 264.1087(c)(7).

h

From: Miller, Brett [mailto:bmiller2@wm.com]
Sent: Tuesday, April 25, 2017 10:08 AM
To: Lee, Jae <lee.jae@epa.gov>
Cc: Miller, Brett <bmiller2@wm.com>
Subject: RE: Vickery Filter Press Subpart CC compliance

Hi Jae,

As a follow-up to our phone conversation on 4/4/2017, I wanted to provide an update on the filter press unit with respect to the upcoming permit renewal.

I rented a portable PID unit to see what the ppm level of VOC's detected while removing the filter cake from the press. While the press is in operation and sealed closed, there were no VOC's detected. When the press was opened and the filter cake removed, we did have low VOC's detected. We are working on the best design to route potential vapors to a control device.

I have asked Ohio EPA to determine if a permit modification will be required for the addition of a control unit, equipment around the press and the associated hard piping. I do not have the determination from Ohio EPA yet.

How would you like to proceed at this point? I can write up a draft timeline for the completion of tasks related to the permitting and construction once I receive Ohio EPA's feedback. I will also provide additional comments on the language below.

Sincerely,

Brett A. Miller
Environmental, Health and Safety Manager
bmiller2@wm.com

Waste Management
Vickery Environmental, Inc.
3956 State Route 412
Vickery, Ohio 43464
(419)547-7791

From: Miller, Brett [<mailto:bmiller2@wm.com>]
Sent: Thursday, May 25, 2017 1:21 PM
To: Lee, Jae <lee.jae@epa.gov>
Cc: Lonneman, Steve <slonnema@wm.com>
Subject: Vickery Environmental, Inc Filter Press Unit exemption

Hi Jae,

We had a chance to look at the rules at 40 CFR 264.1082 once again while developing a workplan for a proposed control device. After this latest review, it was determined that the filter press unit would be exempt from the requirements at 40 CFR 264.1082. The waste entering the unit has an average volatile organic (VO) concentration at the point of waste origination of less than 500 parts per million.

Vickery treats hazardous waste in tanks in accordance with Vickery's Ohio EPA RCRA permit. Treated wastes from the tank treatment system are sampled and analyzed on a quarterly basis prior to injection down one of four (4) deep injection wells as per the facilities approved Ohio EPA Underground Injection Control Waste Analysis Plan(WAP). VO analysis of the treated waste demonstrate that the average VO concentration from the treatment tanks is less than 500ppm. The table below shows the average VO concentrations of the sites injectate from the past six quarters.

<u>Quarter</u>	<u>Average VO Concentration</u>
1 st Quarter 2016	11.67 ppm
2 nd Quarter 2016	11.63 ppm
3 rd Quarter 2016	16.16 ppm
4 th Quarter 2016	4.65 ppm
1 st Quarter 2017	18.66 ppm
2 nd Quarter 2017	15.19 ppm

Under 40 CFR 264.1082(c) and (c)(1), a tank is exempt from the standards specified in 40 CFR 264.1084 through 40 CFR 264.1087 provided that the hazardous waste entering the unit has an average volatile organic (VO) concentration at the point of waste origination of less than 500 ppm.

The point of origination of wastes entering the filter press unit are the facilities treatment tanks. As indicated in the table above, the average VO concentration of waste entering the filter press is less than 500 ppm, and therefore, meet the above exemption.

If you have any comments, please let me know. Have a good holiday weekend.

Brett A. Miller
Environmental, Health and Safety Manager
bmiller2@wm.com

Waste Management
Vickery Environmental, Inc.
3956 State Route 412
Vickery, Ohio 43464
(419)547-7791

From: Lee, Jae
Sent: Thursday, May 25, 2017 1:47 PM
To: 'Miller, Brett' <bmiller2@wm.com>
Cc: Lonneman, Steve <slonnema@wm.com>
Subject: RE: Vickery Environmental, Inc Filter Press Unit exemption

Brett,

This is something new. In order to review your argument, we need more information.

We need to determine whether your (less than 500 ppm VO) waste would meet the definition of "point of waste origination" defined in 40 CFR 265.1081. Please explain in detail how your waste that go through the press filter would meet the definition. Once it does, then we need to discuss the quality prospective of the VO data.

Jae

Point of waste origination means as follows:

(1) When the facility owner or operator is the generator of the hazardous waste, the point of waste origination means the point where a solid waste produced by a system, process, or waste management unit is determined to be a hazardous waste as defined in 40 CFR part 261.

NOTE:

In this case, this term is being used in a manner similar to the use of the term "point of generation" in air standards established for waste management operations under authority of the Clean Air Act in 40 CFR parts 60, 61, and 63..]

(2) When the facility owner and operator are not the generator of the hazardous waste, point of waste origination means the point where the owner or operator accepts delivery or takes possession of the hazardous waste.

From: Miller, Brett [<mailto:bmiller2@wm.com>]
Sent: Tuesday, June 13, 2017 9:52 AM
To: Lee, Jae <lee.jae@epa.gov>
Cc: Miller, Brett <bmiller2@wm.com>
Subject: RE: Vickery Environmental, Inc Filter Press Unit exemption

Jae,

You had asked:

"We need to determine whether your (less than 500 ppm VO) waste would meet the definition of "point of waste origination" defined in 40 CFR 265.1081. Please explain in detail how your waste that go through the press filter would meet the definition. Once it does, then we need to discuss the quality prospective of the VO data."

The point of origination for wastes that are conveyed through the filter press unit located at Vickery Environmental, Inc. (VEI) are the permitted treatment tanks. Point of Origination is defined in 40 CFR 265.1081as:

When the facility owner or operator is the generator of the hazardous waste, the point of waste origination means the point where a solid waste produced by a system, process, or waste management unit is determined to be a hazardous waste as defined in 40 CFR part 261.

VEI receives various wastes streams containing listed hazardous wastes codes, characteristically hazardous wastes codes, wastes with listed and characteristic hazardous waste codes, and non-hazardous solid wastes. VEI then treats these wastes in permitted treatment tanks by blending to obtain the desired chemical properties that best facilitates safe disposal via the on-site deep injection wells. The blended wastes are now a newly generated listed hazardous waste as defined in 40 CFR 261; specifically, at 40 CFR 261(b)(2):

(b) A solid waste which is not excluded from regulation under paragraph (a)(1) of this section becomes a hazardous waste when any of the following events occur:

(1) In the case of a waste listed in subpart D of this part, when the waste first meets the listing description set forth

in subpart D of this part.

(2) In the case of a mixture of solid waste and one or more listed hazardous wastes, when a hazardous waste listed in subpart D is first added to the solid waste.

(3) In the case of any other waste (including a waste mixture), when the waste exhibits any of the characteristics identified in subpart C of this part.

The treatment of the solid wastes in the permitted treatment tanks generates a newly listed hazardous waste as detailed above resulting in the treatment tanks being the point of origination for wastes entering the filter press unit. This appears consistent with other facilities permits that we have reviewed where treated wastes, containing less than 500 ppm volatile organic (VO) concentration after a treatment process, entering a filter press unit is exempt from Subpart CC regulations.

Brett A. Miller
Environmental, Health and Safety Manager
bmiller2@wm.com

Waste Management
Vickery Environmental, Inc.
3956 State Route 412
Vickery, Ohio 43464
(419)547-7791

From: Lee, Jae [<mailto:lee.jae@epa.gov>]
Sent: Tuesday, June 13, 2017 11:16 AM
To: Miller, Brett <bmiller2@wm.com>
Subject: RE: Vickery Environmental, Inc Filter Press Unit exemption

Brett: Would you share with me the names of RCRA permit you referenced in your response noted below?
That would be helpful to us.

“This appears consistent with other facilities permits that we have reviewed where treated wastes, containing less than 500 ppm volatile organic (VO) concentration after a treatment process, entering a filter press unit is exempt from Subpart CC

regulations.”

Jae

K

From: Lee, Jae
Sent: Wednesday, June 14, 2017 10:25 AM
To: Miller, Brett <bmill2@wm.com>
Cc: Setnicar, Mary <setnicar.mary@epa.gov>; Blough, James <Blough.James@epa.gov>
Subject: RE: Vickery Environmental, Inc Filter Press Unit exemption

Brett: Thank you for the reply.

1. Envirite in Ohio receives hazardous waste with less than 500 ppm Volatile Organic (VO) concentration from off-site generator;
2. Ross has a filter press and other tank units which process less than 500 VO ppm, and the waste entering these units originates from the units which process less than 500 ppm VO waste.

So both of these sites, all of waste stream have less than 500 ppm VO at the point of waste origination.

Your situation seems different than these two facilities. In your case, the filter press processes waste generated from other units (Tank Treatment) which receives waste more than 500 ppm VO.

Since the FP processes above 500 ppm waste (at the point of origination), the Subpart CC applies to the FP unit, except performance level specified in 40 CFR 264.1082(c)(2) to (c)(4).

Please review the relevant regulations and submit a justification whether your FP unit would be meet the exemption criteria specified in 40 CFR 264.1082(c)(2) to (c)(4).

Please let me know if you have any questions for this matter.

Jae

From: Miller, Brett [<mailto:bmill2@wm.com>]
Sent: Tuesday, June 13, 2017 12:04 PM

To: Lee, Jae <lee.jae@epa.gov>

Subject: RE: Vickery Environmental, Inc Filter Press Unit exemption

Ross Incineration and Envirite were two permits we had looked at.

Brett A. Miller

(419)547-7791

From: Miller, Brett [<mailto:bmiller2@wm.com>]
Sent: Thursday, June 29, 2017 3:10 PM
To: Lee, Jae <lee.jae@epa.gov>
Subject: RE: Vickery Environmental, Inc Filter Press Unit exemption

Hi Jae,

Your response suggests that there still is disagreement on the point of waste origination of waste entering the filter press unit because the exemption specified at 40CFR264.1082 (c)(1) is not cited (see your response below).

"Your situation seems different than these two facilities. In your case, the filter press processes waste generated from other units (Tank Treatment) which receives waste more than 500 ppm VO.

Since the FP processes above 500 ppm waste (at the point of origination), the Subpart CC applies to the FP unit, except performance level specified in 40 CFR 264.1082(c)(2) to (c)(4).

Please review the relevant regulations and submit a justification whether your FP unit would be meet the exemption criteria specified in 40 CFR 264.1082(c)(2) to (c)(4)."

The treatment tanks do receive wastes that potentially have a VO concentration more than 500ppm VO. The point of origination for those wastes would be the generator from which the waste was received. But the point of origination ends and a new point of origination begins when the waste is received and treated in the on-site permitted treatment tanks.

Once a waste is received and treated in the treatment tanks, a new point of waste origination as defined in 40 CFR 265.1081 is created from the treatment process because a new listed hazardous waste is generated as defined at 40 CFR 261; specifically, 40 CFR 261(b)(2).

This new listed hazardous waste does not have VO concentration more than 500ppm at the point of waste origination. The maximum average VO concentration of waste entering the filter press previously provided to you was 18.66ppm. This is less than 500 ppm, and therefore, meets the exemption specified in 40 CFR 264.1082(c)(1)

Also reviewed were the exemption criteria specified above in 40 CFR 264.1082(c)(2) to (c)(4). 40 CFR 264.1082(c)(2)(v)(A) through (C), requires wastes from the treatment tanks through the point the waste enters the filter press unit be managed in units using Tanks Level 1 controls. The treatment tanks control emissions using Tank Level 1 controls. The transfers of wastes from the treatment tanks to the filter press unit are accomplished through hard piping that does not allow exposure of the waste to the atmosphere. Additionally, the average VO concentration of wastes from the treatment tanks entering the filter press is less than 500ppm (48 ppm maximum VO concentration; 18.66 ppm maximum average VO concentration,). Therefore, the requirements for this exemption is also met.

Please let me know if you have additional comments.

Sincerely,

Brett A. Miller
(419)547-7791

m

From: Lee, Jae
Sent: Friday, July 07, 2017 4:07 PM
To: 'Miller, Brett' <bmiller2@wm.com>
Cc: Setnicar, Mary <setnicar.mary@epa.gov>; Blough, James <Blough.James@epa.gov>
Subject: RE: Vickery Environmental, Inc Filter Press Unit exemption

Brett,

As you pointed out the waste that goes into the Filter Press can be exempted with Subpart CC requirements if the tank (which receives off-site generated waste above 500 ppm) meets certain performance standards specified in 40 CFR 264.1082(c)(2) through (4). The tank should remove or destroy the organics contained in the hazardous waste as specified in 40 CFR 264.1082(c)(2)(v).

Please elevate your explanation such that 1) how the organic content is removed or destroyed in the tank, 2) explain how the waste entered into the treatment tank from the receiving gate, 3) was there any air emission control in the treatment tank?, 4) was the transfer conducted in the closed system?, and 5) analytical data of the waste determined at the gate and at the treatment tank.

Please submit your response soon so we can start to prepare an appropriate draft permit.

If necessary, we can have a call next week.

Jae

From: Lee, Jae [<mailto:lee.jae@epa.gov>]
Sent: Wednesday, June 28, 2017 4:49 PM
To: Miller, Brett <bmiller2@wm.com>
Subject: RE: Vickery Environmental, Inc Filter Press Unit exemption

Thank you for the response.

I will be out of office until next Wednesday.

You can submit by July 5.

Have a good weekend and July 4th.

Jae

From: Miller, Brett [<mailto:bmiller2@wm.com>]
Sent: Wednesday, June 28, 2017 3:44 PM
To: Lee, Jae <lee.jae@epa.gov>
Subject: RE: Vickery Environmental, Inc Filter Press Unit exemption

Hi Jae,

I do apologize for the delay, I had an audit that took me away from the office all last week.

I have your response drafted and will email it to you tomorrow after I received feedback from my manager.

Thank you and have a good evening.

Brett A. Miller
(419)547-7791

n

From: Miller, Brett [<mailto:bmiller2@wm.com>]
Sent: Wednesday, July 12, 2017 2:23 PM
To: Lee, Jae <lee.jae@epa.gov>
Cc: Miller, Brett <bmiller2@wm.com>
Subject: RE: Vickery Environmental, Inc Filter Press Unit exemption

Hi Jae,

Thank you for taking the time to talk with me yesterday. As a follow-up to our yesterday's call, I am providing information explaining how the facilities filter press unit meets the criteria for Level 1 Tank Controls as specified under 40 CFR 264.1084.

Based on previous discussion, US EPAs' belief is that the facilities filter press is more like a tank, than a container. With the filter press considered tank-like, then the requirements at 40 CFR 264.1084 are applicable. The applicable emission control for a tank is determined by the requirements at 40 CFR Part 264.1084(b)(1) based on the size of the tank, the maximum organic vapor pressure of the waste and if the tank is used in a waste stabilization process. Table 1 below displays the determination path of the applicable control for Tanks subject to Subpart CC.

The requirement at 40 CFR Part 264.1084(b)(1)(i) lists the maximum organic vapor pressure limits for various tank sizes. For a tank with a volume less than 75m³ (less than 20,000 gallons), which the filter press is, the maximum organic vapor pressure allowed for Level 1 tank controls has to be less than or equal to 76.6kPa. The facilities filter press has a design capacity of 70 cu. ft. (1.98m³ or 523.6 gallons). The maximum organic vapor pressure of hazardous waste conveyed through the filter press is 2.96 kPa (1996). Subsequent sampling in 2000 obtained a maximum organic vapor pressure of 0.91 kPa. The maximum organic vapor pressure of hazardous waste conveyed through the filter press is significantly less than 76.6kPa.

The requirement at 40 CFR Part 264.1084(b)(1)(ii) and (iii), require that the waste not be heated by the owner or operator to a temperature that is greater than the temperature at which the maximum organic vapor pressure of the hazardous waste is determined or be stabilized by a process defined in 40 CFR 265.1081. The waste conveyed through the filter press is neither heated nor stabilized by a process defined in 40 CFR 265.1081, thus meeting this requirement.

Based on the above information and following Table 1, the applicable Level of Control would be Level 1 controls since the filter press unit meets the conditions specified at 40 CFR Part 264.1084 (b)(1)(i) through (b)(1)(iii)

The control of emissions using Tank Level 1 controls must meet the requirements specified in paragraphs (c)(1) through (c)(4) of 40 CFR 264.1084. 40 CFR Part 264.1084(c)(1) requires that the maximum organic vapor pressure be determined and that a new determination be performed whenever changes in wastes managed could potentially cause the maximum organic vapor pressure to increase above the limit for the specific tank design capacity. As noted above, the maximum organic vapor pressure has been determined. The types of wastes conveyed through the filter press have not changed significantly to potentially cause the maximum organic vapor pressure to increase above the specified limit for the filter press.

The filter press is a closed, sealed unit while in operation and has no gaps or opening. As 40 CFR Part 264.1084(c)(2) requires, the filter press is designed to form a continuous barrier over the entire surface area of the hazardous waste in the filter press. If there were visible holes, gaps or open spaces, filtration would not be possible because the filter press unit uses pressure filtration to separate solids from the waste liquid. Any holes or gaps would inhibit the filter press unit from building pressure and would allow waste to leak from the unit exposing waste to the atmosphere while in operation.

Table 1: Tank Level Control Determination (referenced from US EPA RCRA Organic Air Emission Standards for TSDF's and Generators guidance)

Tank Design Capacity	Max Organic Vapor Pressure of Hazardous Waste in Tank	Does Waste Stabilization Process occur in Tank	Applicable Level of Control
<75m ³ (20,000gallons)	≤76.6kPa (11.1 psi)	Yes	Tank Level 2 Controls
		No	Tank Level 1 Controls
	>76.6kPa	Yes	Tank Level 2 Controls
		No	Tank Level 2 Controls
>75m ³ (20,000gallons) and <151m ³ (40,000 gallons)	≤27.6kPa (4.0 psi)	Yes	Tank Level 2 Controls
		No	Tank Level 1 Controls
	>27.6kPa	Yes	Tank Level 2 Controls
		No	Tank Level 2 Controls
>151m ³ (40,000 gallons)	≤5.2kPa (0.75 psi)	Yes	Tank Level 2 Controls
		No	Tank Level 1 Controls
	>5.2kPa	Yes	Tank Level 2 Controls

No

Tank Level 2 Controls

As 40 CFR Part 264.1084(c)(2)(iv) requires the filter press be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. The filter press is designed with all wetted parts being constructed of, or coated with, polypropylene. Polypropylene is corrosion resistant and will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the filter press throughout its intended service life.

The requirements of 40 CFR Part 264.1084(c)(3)(i)(A) and (B) allow the opening of the filter press to for performing routine inspection, maintenance, or other activities needed for normal operations and to remove accumulated residue. The filter press is opened periodically for the purpose of cleaning and routine maintenance.

VEI performs inspections of the filter press and the scrubber in accordance with the requirements at 40 CFR Part 264.1084(c)(4). The filter press is visually inspected to check for defects that could result in air pollutant emissions. The requirement is to inspect annually at a minimum. The facility inspects the filter press daily to check for those types defects. In the event a defect is found, the defect is documented on a work order and remedied. The inspections are maintained in the operating record.

Thank you,

Brett A. Miller
(419)547-7791

From: Lee, Jae [<mailto:lee.jae@epa.gov>]

Sent: Friday, July 7, 2017 5:07 PM

To: Miller, Brett <bmiller2@wm.com>

Cc: Setnicar, Mary <Setnicar.Mary@epa.gov>; Blough, James <Blough.James@epa.gov>

Subject: [EXTERNAL] RE: Vickery Environmental, Inc Filter Press Unit exemption

Brett,

As you pointed out the waste that goes into the Filter Press can be exempted with Subpart CC requirements if the tank (which receives off-

site generated waste above 500 ppm) meets certain performance standards specified in 40 CFR 264.1082(c)(2) through (4). The tank should remove or destroy the organics contained in the hazardous waste as specified in 40 CFR 264.1082(c)(2)(v).

Please elevate your explanation such that 1) how the organic content is removed or destroyed in the tank, 2) explain how the waste entered into the treatment tank from the receiving gate, 3) was there any air emission control in the treatment tank?, 4) was the transfer conducted in the closed system?, and 5) analytical data of the waste determined at the gate and at the treatment tank.

Please submit your response soon so we can start to prepare an appropriate draft permit.

If necessary, we can have a call next week.

Jae

From: Miller, Brett [<mailto:bmiller2@wm.com>]
Sent: Monday, April 30, 2018 3:15 PM
To: Lee, Jae <lee.jae@epa.gov>
Cc: Miller, Brett <bmiller2@wm.com>
Subject: RE: Vickery additional information request

Hi Jae,

Attached is the facility's response to the additional questions. The two attachments are supporting documents referenced below.

1. Please provide us the relevant Occupational Safety and Health Administration (OSHA) regulations in protecting the worker in the Filter Press (FP) area who conducts the manual removing activities of the solid cakes from the FP unit.
 - a. It was not clear whether the OSHA regulation specifically require to equip the worker the types of the Personal Protection Equipment (PPE).

VEI Response – VEI has performed a review of the applicable RCRA standards and can not identify any requirement that requires a determination of compliance with 29 CFR regulations. This request is outside the scope and authority of 40 CFR. Please provide the regulatory reference to support this request.
 - b. Does the OSHA mandate the use of the Self-Contained Breathing Apparatus (SCBA) or other types of the PPEs in the FP area or the OSHA regulation allows the facility to conduct a self-assessment to determine the level and types of PPEs?

VEI Response – VEI has performed a review of the applicable RCRA standards and can not identify any requirement that requires a determination of compliance with 29 CFR regulations. This request is outside the scope and authority of 40 CFR. Please provide the regulatory reference to support this request.
 - c. If you had conducted any self-assessment, please provide such assessment to us.

VEI Response – VEI has performed a review of the applicable RCRA standards and can not identify any requirement that requires a determination of compliance

with 29 CFR regulations. This request is outside the scope and authority of 40 CFR. Please provide the regulatory reference to support this request.

2. For the air purging process you are conducting before the opening of the FP unit, please provide detailed information.

- a. How long the air purging process last?

VEI Response – The air purging process lasts a minimum of 20 minutes

- b. What kind of equipment do you use for such Blow-down activity?

VEI Response – An air compressor is used for the filter cake blow-down process.

- c. Please provide the Blow-down data such as air velocity, pressure drop, and/or air volume, to determine the total air purging power?

VEI Response – The compressor delivers 215 ACFM. Greater than 60psi is maintained during the blow-down cycle. Using 215 ACFM and the filter press capacity of 70 ft³, the filter press air volume is exchanged a minimum of 61 times over the 20-minute blowdown period. Equation below.

$$215 \text{ ft}^3/\text{min} \times 20\text{min} = 4,300 \text{ ft}^3 \text{ air volume}$$

$$4,300 \text{ ft}^3 / 70 \text{ ft}^3 = 61.4 \text{ volume exchanges}$$

- d. How would you know the air purging power you are engaging would be considered as adequate in drying the solid cakes in the FP to remove the potential volatile organic in the cakes?

VEI Response – The air purging process is adequate in drying the filter cake. The filter cake after purging typically falls off the filter press filter plate when the individual plates are separated. Minimal scrapping is needed. Additionally, a minimum of 61 volume exchanges occur adequately purging potential volatile organics from the filter cake.

- e. What happens the purged vapors from the cakes?

VEI Response – The purged vapors from the blowdown process are routed through the closed-vent system to the facilities wet-scrubber.

3. On April 25, 2017, you indicated that a portable photoionization

detector (PID) unit was used to monitor the parts per million (ppm) level of volatile organic compounds (VOCs) detected while removing the filter cake from the press.

VEI Response – The facility rented a portable PID unit to test for potential VOC's while removing the filter cake from the press and while the filter press is in operation. While the filter press is in operation and sealed closed, there were no VOC's detected. While the filter press was opened and the filter cake removed, the maximum VOC concentration detected was 6ppm . The data is tabulated below.

4/18/2017 Rental PID results			
Time	Max Conc. detected		
1:30pm	0 ppm	Filter press closed	Before Press down for cleaning
4:00pm	0 ppm	Filter press closed	New Press Cycle
2:35-2:40pm	2 ppm	Filter press opened for Cleaning	
2:40-2:45pm	6 ppm	Filter press opened for Cleaning	
2:45-2:50pm	4 ppm	Filter press opened for Cleaning	

You also indicated that there might be VOC data monitored from personal hygiene perspective. If you have any VOC data available monitored at the FP area while the FP unit is opened for the cake removal activity, please provide us.

VEI Response – Personal industrial hygiene monitoring resulted in no OSHA PEL's exceeded for monitored volatile organics. The data was collected with sampling pumps located on the employee and is not location specific. Results from the hygiene monitoring are attached. Only VOC's with detections are included.

4. Is there any data you have in measuring potential volatile organic compounds in the solid cakes dropped into the roll-off box? Please provide us if you have.

VEI Response – Lab analysis of filter cake for volatiles in the filter cake is attached.

5. Please provide information of cake removal activity, such as duration and frequency, and amount of cakes removed from the FP unit.

VEI Response – the average amount of filter cake removed per press cycle is 4,283 pounds. The average duration that the press is open during cleaning is

approximately 43 minutes

The frequency of cleaning the press ranges from once every 2 days to once every 5 days.

6. We are considering to require you to install a Hydrogen-Carbon minoring device in the FP area to monitor VOCs released from the FP-cake removal activities and set an alarm to the appropriate level to protect the worker and to determine the potential vapor emission from the FP unit. Please let us know if you have any alternative of this proposal.

VEI Response – VEI respectfully disagrees with the consideration and VEI would like to understand US EPA's justification or authority to require such a device to determine compliance with 29 CFR regulations. This request is outside the scope and authority of 40 CFR. The information provided above with respect to industrial hygiene monitoring demonstrated no OSHA PEL's exceeded, thus workers are protected.

Additionally, the requirements of 40 CFR Part 264.1084(c)(3)(i)(A) and (B) allow the opening of the filter press for performing routine inspection, maintenance, or other activities needed for normal operations and to remove accumulated residue. The removal of the filter cake is an activity designed to remove accumulated residue. The regulations do not require VOC's to be monitored during those periods of time. The data supplied from the industrial hygiene monitoring indicating no OSHA PEL exceedance and the PID rental data demonstrates that the purging process is adequate.

Thank you,

Brett A. Miller
Environmental, Health and Safety Manager
bmiller2@wm.com

Waste Management
Vickery Environmental, Inc.
3956 State Route 412
Vickery, Ohio 43464
(419)547-7791

P

From: Lee, Jae <lee.jae@epa.gov>
Sent: Thursday, February 14, 2019 3:49 PM
To: Miller, Brett <bmiller2@wm.com>
Subject: [EXTERNAL] Vickery permit

I have a question.

What is number of Tank (Tank #) that receives vapors from the Filter Press. I think the tank routes its received vapors to the scrubber through closed-vent system?

Jae

Q

From: Miller, Brett <bmiller2@wm.com>
Sent: Monday, February 18, 2019 1:46 PM
To: Lee, Jae <lee.jae@epa.gov>
Subject: RE: Vickery permit

No single tank is “the designated” tank, it can change. And yes, the vapors are routed through the v-tanks to the scrubber.

Thank you,

Brett A. Miller
(419)547-7791

R

From: Lee, Jae
Sent: Tuesday, April 2, 2019 4:20 PM
To: 'Miller, Brett' <bmiller2@wm.com>
Subject: RE: Vickery permit

Brett:

We are in the process of drafting the "Response Summary" for Vickery's review comments for the draft RCRA permit.

For Comment #11, we have the following questions/request:

1. Please provide us the Piping and Instrumentation Diagrams (PID) for tanks T-1,2,5,6,9 and 10. Specifically, we are interested in whether vents to the control device have valves that can close the connection to the control device and the configuration of the connection to the conservation vent on the roof.
2. Does each of the tanks have its own conservation vent? When are the conservation vent(s) open during the normal operation?

Jae

From: Lee, Jae <lee.jae@epa.gov>
Sent: Tuesday, April 2, 2019 5:20 PM
To: Miller, Brett <bmiller2@wm.com>
Subject: [EXTERNAL] RE: Vickery permit

Brett:

We are in the process of drafting the "Response Summary" for Vickery's review comments for the draft RCRA permit.

For Comment #11, we have the following questions/request:

1. Please provide us the Piping and Instrumentation Diagrams (PID) for tanks T-1,2,5,6,9 and 10. Specifically, we are interested in whether vents to the control device have valves that can close the connection to the control device and the configuration of the connection to the conservation vent on the roof.
2. Does each of the tanks have its own conservation vent? Yes When are the conservation vent(s) open during the normal operation? **Never**

S

From: Miller, Brett <bmillier2@wm.com>
Sent: Friday, April 5, 2019 1:46 PM
To: Lee, Jae <lee.jae@epa.gov>
Subject: RE: Vickery permit

See response below in Red for question No. 2. I am in and out of the office this and next week . I will try to get the PID's for those tank by end of next week. I went back to look in the Application I sent you and the PID for those tanks were not scan into the document, so I have to get those scanned. Once I do, I will forward.

Thank you,

Brett A. Miller
(419)547-7791

T

From: Miller, Brett <bmillier2@wm.com>

Sent: Friday, April 12, 2019 3:05 PM

To: Lee, Jae <lee.jae@epa.gov>

Subject: RE: Vickery permit

Attached is a P&ID pdf of tanks T1 and T2. The other P&ID diagrams look similar and this is a good representation of them all.

Thank you,

Brett A. Miller

(419)547-7791