



## BUCKEYE TERMINALS, LLC

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Five Tek Park  
9999 Hamilton Blvd.  
Breinigsville, PA 18031  
Tel (610) 904-4000  
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July 12, 2017

Attn: Rex I. Lane  
Senior Environmental Quality Analyst  
Michigan Department of Environmental Quality  
Kalamazoo District – Air Quality Division  
7953 Adobe Road  
Kalamazoo, MI 49009

Re: Response to Violation Notice  
Buckeye Terminals, LLC – Marshall Terminal  
12451 Old US 27 South, Marshall MI

Dear Mr. Lane,

Buckeye Partners, LP. (Buckeye) is submitting this letter in response to your email dated June 27, 2017 regarding Buckeye's response to the Violation Notice issued to Buckeye's Marshall Terminal on May 17, 2017.

Comments provided in the email are addressed below:

Comment 1:

Our office agrees to consider Tanks 10 and 11 to be exempt from air use permitting requirements under Rule 284(2)(i) based on tank storage capacity and a fluid true vapor pressure < 1.5psia.

Our office disagrees with the facility response stating ethanol was not listed as a regulated Toxic Air Contaminant (TAC) until 2/9/17 so the 2006 change did not result in the release of a TAC that was not permitted before the change. The State air toxic rules were first promulgated on 4/17/92, including a TAC definition that was open-ended; TACs included all air pollutants except a list of exempted pollutants. Ethyl alcohol was not a listed exemption; so it was a TAC. Toxics Unit files indicate that the AQD did a risk assessment and set an Allowable Ambient Concentration (AAC; analogous to an ITSL) for ethanol on 4/16/92 at 19000 ug/m<sup>3</sup> (8-hr averaging time). On 2/9/17, the AQD revised the ethanol ITSL to 19000 ug/m<sup>3</sup> (1-hr averaging time). Therefore, the facility should submit a Permit to Install (PTI) application for modification of tank 28-1 from gasoline to ethanol storage. The PTI application should also address the fluid change in tank 28-3.

Response 1:

Buckeye will submit a Permit to Install (PTI) application for modification of Tank 28-1 from gasoline to ethanol storage. The PTI will also include the change in service for Tank 28-3, although ULSD storage is exempt from the requirement to obtain a Permit to Install per R336.1284(2)(d). Buckeye will submit the PTI application by August 31, 2017.

Comment 2:

Buckeye's remediation contractor (GES) stated for all three cited violations that based on the description for FG-REMEDICATION under General PTI No. 152-09, treatment technologies are not required when untreated potential VOC/gasoline and BTEX emissions are less than 10 tons/year and 1 ton/year, respectively. GES provided calculated VOC/gasoline and BTEX emissions based on June 2016 data for FG-REMEDICATION of 7.47 tons/year and 0.94 tons/year. For June 2016, the BTEX and total VOC/gasoline concentration value listed for the SVE was 206 mg/m<sup>3</sup> and 1703 mg/m<sup>3</sup>, respectively. For June 2016, the BTEX and total VOC/gasoline concentrations listed for the air stripper were 43.37 ppm and 120 ppm, respectively.

The Part 1 Air Quality Rules define "potential emissions" in part: "Annual potential emissions shall be based on the maximum annual-rated capacity of the source [emphasis added], unless the source is subject to enforceable permit conditions or enforceable orders that limit the operating rate or the hours of operation, or both." Based on remediation system reports submitted by GES to MDEQ's Remediation and Redevelopment Division, there are multiples dates between September 2015 and July 2016 where the SVE total BTEX influent concentration was higher (227 – 493 mg/m<sup>3</sup>) than the June 2016 value (206 mg/m<sup>3</sup>). The remediation system reports for the air stripper also show higher total BTEX concentrations in January 2016 (71.1 ppm), February 2016 (56.3 ppm) and September 2016 (54.4 ppm) than the June 2016 value (43.37 ppm). Thus, the use of June 2016 BTEX and VOC/gasoline data is not representative of potential emissions from FG-REMEDICATION. Based on the submitted remediation reports, the total 12-month rolling average mass BTEX emitted from the SVE system only for November 2016 was calculated to be 3,066.7 pounds or 1.53 tons/year. Therefore, the remediation systems operating under GPTI No. 152-09 have total potential BTEX emissions greater than 1 ton/year and are required to have treatment technologies installed and operating in compliance with process/operational restrictions and monitoring conditions as cited in the May 17, 2017 violation notice

Response 2:

Please see attached response from Buckeye's remediation contractor

If there are any questions regarding this matter or additional information is needed please contact me at (419)-993-8003 or at [KTrostel@buckeye.com](mailto:KTrostel@buckeye.com).

Sincerely,  
  
Kimberly Trostel  
Sr. Specialist, Air Compliance

cc: Tom Nash, Buckeye  
Keith Ocheski, Buckeye  
Lee Beck, Buckeye  
Jeff Brudereck, Buckeye



July 7, 2017

Jeff Brudereck  
Senior Project Manager, Remediation  
Buckeye Terminals, L.P.  
5 Tek Park, 9999 Hamilton Boulevard  
Breinigsville, PA 18031

**RE: MDEQ-AQD Violation Notice Response**  
Marshall Terminal, 12451 Old U.S. 27 South, Marshall, Michigan

Dear Mr. Brudereck,

Groundwater & Environmental Services, Inc. (GES) has reviewed the Michigan Department of Environmental Quality – Air Quality Division (MDEQ-AQD) comments (received June 27, 2017) to Buckeye’s response to the Violation Notice sent on May 17, 2017. The MDEQ-AQD did not agree with GES’ assessment that treatment technologies were not required for the site. The MDEQ-AQD requested a summary of actions that have been taken and are proposed to be taken to prevent a reoccurrence of the cited violations. A summary of actions taken and to be taken is presented below.

#### Completed Actions

After reviewing the MDEQ-AQD comments, GES mobilized to the site on June 28, 2017 to shut down the groundwater extraction and soil vapor extraction systems. There have been no emissions from the remediation system since June 28, 2017. Additionally, the vapor-phase granular activated carbon (VGAC) associated with the treatment of the air stripper off-gas was changed out on July 6, 2017.

In addition to addressing the treatment equipment associated with the groundwater extraction system, GES contacted Falmouth Products (Falmouth), the manufacturer of the catalytic oxidizer used to treat soil vapor extraction system emissions on June 28, 2017 to determine the appropriate actions to be taken to increase the treatment efficiency of contaminants entering the unit. Falmouth recommended measuring depth to the catalyst bed in the oxidizer to determine whether additional catalyst should be added to increase the treatment efficiency. GES completed these measurements on June 30, 2017. Based on the measurements, the requirement to meet the 98% treatment efficiency, and the inability of the unit to meet the designed 99% treatment efficiency, Falmouth recommended refurbishing the unit.

#### Proposed Actions

##### *Groundwater Treatment System*

As replacement of the VGAC in the two-stage vessels has been completed, GES anticipates restarting the groundwater treatment system during the week of July 17, 2017. Further information regarding the plan for completing the system restart is presented below.

##### *SVE System*

As outlined above, based on the recommendations from Falmouth products, refurbishment of the catalytic oxidizer appears warranted to ensure the required treatment efficiency can be maintained. As such, GES



will ship the unit to Falmouth for further evaluation. However, to determine the most cost-effective means by which to treat the soil vapors extracted from the subsurface, GES is also evaluating replacement of the catalytic oxidizer with two-stage VGAC treatment. The SVE system will remain inactive until such time that compliance with the permit can be achieved. A startup plan detailing the approach to confirm compliance is presented below.

#### *Start-up Plan*

GES will take a phased approach to restarting the groundwater and SVE systems as a means to ensure compliance with the conditions of the permit. Following completion of the work discussed above, each system will be temporarily restarted for a period of one (1) day. During the temporary start-up phase, GES will collect field measurements using a photoionization detector (PID) to ensure that treatment efficiencies meet the permit requirements. Vapor samples will also be collected for laboratory analysis at the end of the temporary start-up phase to verify field measurements. For the VGAC treatment system(s), the influent, mid-stage, and final effluent sample points will be monitored. For the catalytic oxidizer system (if applicable), the oxidizer influent and effluent sample points will be monitored. Each remedial process will be permanently restarted upon laboratory verification of permit compliance.

#### Reoccurrence Prevention

GES will continue to collect data as required by the permit. Treatment efficiencies will be field monitored once every two weeks, at minimum, with a PID. Additionally, samples for laboratory analysis will be collected on a monthly basis. Should either the field or laboratory data indicate that treatment efficiencies are not being met as required by the permit, the system will be shut down until appropriate actions can be taken to ensure the treatment efficiencies meet permit conditions.

In the event that field or laboratory data indicate breakthrough of the first VGAC stage, a carbon change out will be scheduled as soon as possible. If the concentration at the mid-stage sample point is 20 percent or more of the influent concentration, the system will be immediately shut down until the carbon change out is completed.

#### **GROUNDWATER & ENVIRONMENTAL SERVICES, INC.**

on behalf of:

Robert J. Butler Jr., P.E.  
Project Engineer

Gary Schroeder  
Principal Environmental Scientist

cc: