LDEQ Response to JOIN June 28, 2021 Report

July 2021

Louisiana Department
of Environmental Quality

The Louisiana Department of Environmental Quality (LDEQ) is aware that a number of concerns have been raised regarding the BWC/Blackwater facility located in Harvey, Louisiana. In particular, the LDEQ is aware of issues raised in a report entitled "Toxic Fumes and Health Complaints in the Uptown-Harvey Corridor An Analysis of Public Records Related to Operations at BWC/Blackwater Harvey, a Hazardous Material Storage and Transfer Facility" (JOIN Report), compiled by Jefferson, Orleans & Irish Channel Neighbors for Clean Air (JOIN). In response to the concerns raised in the JOIN Report, the LDEQ provides the following information:

Source of Odors

The JOIN Report states that the LDEQ has identified the BWC Harvey, LLC facility (BWC) as the "'primary source' of the toxic fumes." This statement mischaracterizes LDEQ's findings. Based on BWC's activities, BWC was initially identified as a likely potential source of asphalt-based odors as described by the complainants. However, after investigating the odor complaints coming from the Irish Channel, the LDEQ was unable to identify any individual facility as the source of odors reported to the Department. Further, the data from LDEQ's air monitoring does not show concentrations of toxic air pollutants above any health standard in or around the Irish Channel neighborhood. Additional information regarding the LDEQ's investigation and air monitoring conducted in and around the Irish Channel can be found in the LDEQ's June 2021 Irish Channel Odor Investigation report and can be obtained from the LDEQ's Electronic Document Management System (EDMS) under AI#2119.

Sham Permitting

"Sham" permitting, sometimes referred to as "piecemealing," represents a deliberate decision on the part of a permit applicant to carve out and seek separate authorizations for portions or phases of an otherwise integrated project in order to avoid requirements (e.g., PSD) that would be applicable if the project was considered in its totality. This practice is prohibited by the Clean Air Act and would subject the entire project to enforcement action if construction of any of the portions or phases commenced without a valid permit. Indeed, EPA states that:

> From the earliest days of the NSR program, we recognized that a party seeking to avoid major source NSR might attempt to break up a single physical or operational change into nominally-separate changes in order to make the emission increase associated with each change appear to be less than significant.[1]

Authorization of multiple storage vessels at BWC as insignificant activities does not constitute sham permitting because the storage vessels would *not* have been subject to any additional federal or state requirements if they had all been authorized in a single permit action. Further, any single permit action to authorize all the storage vessels would not have triggered public notice requirements under the Louisiana Environmental Quality Act or its implementing regulations.

[1] 75 FR 19570 (April 15, 2010)

Notwithstanding the number of storage vessels authorized as insignificant activities, permitted VOC emissions from BWC have decreased from 71.51 tons per year ("tpy") to 67.38 tpy since construction of the facility was authorized by Permit No. 1340-00005-08, issued March 11, 2014.[2]

Software Concerns

EPA's *TANKS* software has been used for many years to calculate VOC and toxic air pollutant ("TAP") emissions from storage vessels. JOIN suggests that *TANKS 4.09D* "was determined by EPA to be 'outdated' and 'not reliably functional' in October 2006" (p. 14). However, that is simply not the case. One, *TANKS 4.09D* was released on October 5, 2006; it was not determined to be deficient at that time. Two, the references to "outdated" and "not reliably functional" refer to the *software*, not to the underlying equations utilized to estimate emissions from storage vessels. The full statement on EPA's website reads as follows:

> The TANKS model was developed using a software that is now outdated. Because of this, the model is not reliably functional on computers using certain operating systems such as Windows Vista or Windows 7.[3]

It was not until November 2019, some 13 years after the release of *TANKS 4.09D*, that EPA finalized revisions to AP-42 Section 7.1 (Organic Liquid Storage Tanks). Consequently, *TANKS* no longer reflects current emissions estimating methodologies.

In response, LDEQ published a Potpourri Notice entitled "Calculation of Emissions from Organic Liquid Storage Tanks" in February 2020.[4] In this notice, LDEQ informed the public and regulated community that:

- *TANKS* should no longer be used to calculate VOC and TAP emissions from storage vessels;
- Permit applicants should use the most recent version of AP-42 Section 7.1 (or other software that does not rely on prior versions of AP-42 Section 7.1) in lieu of *TANKS*; and
- The Air Permits Division no longer accepts emission calculations performed using *TANKS* in air permit applications submitted after February 20, 2020.

Insignificant Activities

JOIN claims that according to the company's own records, "BWC Harvey emitted over 30 tons of volatile organic compounds (VOCs) from loading/unloading asphalt into 'insignificant' tanks in 2019." (p. 10). It is clear from the documents attached to JOIN's website[5] that this figure includes loading emissions that are *not* attributed to the storage vessels. Barge and railcar loading emissions are not included in determining whether a storage vessel can be classified as an insignificant activity.

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2 EDMS Doc ID 9218836

3 https://www3.epa.gov/ttn/chief/software/tanks/index.html#new

4 The notice is available at https://www.deq.louisiana.gov/page/monthly-regulation-changes-2020.

5 See "air-emission-calculations-with-taps-2018-1.pdf" and "harvey-2019-emissions-tracking-jan.-dec_-002.pdf" available at https://join4cleanair.wordpress.com/bwc-pollution-records/.

In the documentation for 2018, "Total asphalt t/p emissions" (25.05 tons in 2018) reflects the sum of "Blackwater Harvey Receipts Emissions 2018 (Tanks 4.09)" plus "Blackwater Harvey Shipment Emissions 2018 (AP-42)" in the preceding spreadsheets for each calendar month. Aggregate standing and working losses from all asphalt storage tanks were only 4.59 tons in 2018.

The documentation for 2019 is even more straightforward. JOIN references page 3 of the "emissions log," but as evidenced on page 1 of this document, 33.24 tpy reflects loading emissions based on the throughput of each tank storing asphalt. Aggregate standing and working losses from all asphalt storage tanks were 4.69 tons in 2019.[6]

Actions of LDEQ's Permit Writer

In order for an activity or emission unit to qualify as an insignificant activity, the activity or emission unit must have the potential to emit less than 5 tpy of any criteria pollutant and less than the minimum emission rate ("MER") for any TAP listed in Table 51.1 of LAC 33:III.Chapter 51.[7] Further, similar activities must qualify on an aggregate basis (i.e., aggregate emissions from similar activities represented as insignificant cannot exceed 5 tons or an MER on an annual basis).

Despite JOIN's claim that "concerns are leveraged at LDEQ as a public agency and not at individual staff members," JOIN asserts that the same LDEQ permit writer issued five separate approvals for five separate tanks within a span of 15 minutes "in an obvious attempt to circumvent the 5 tons per year threshold" (p. 11).

This matter centers on the following five (5) tanks approved as insignificant activities on November 28, 2016:

- Tanks 2504, 2505, 2506, and 2507 for the storage of crude tall oil or other low vapor pressure products (0.06 tpy VOC each);[8] and
- Tank 2509 for the storage of phosphoric acid (0.03 tpy).[9]

Aggregate VOC emissions from Tanks 2504, 2505, 2506, and 2507 total 0.24 tons per year (phosphoric acid is not a VOC or a TAP). Thus, it is evident that there was no attempt to circumvent the 5 tpy threshold or any other relevant criterion. Further, the permit writer could have just as easily addressed all 5 tanks in a single response to BWC, but chose to prepare a unique response for each tank because the applications were assigned as five separate projects.

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6 See pp. 1, 5, and 6.

7 Other requirements also apply. See LAC 33:III.501.B.5.D and https://www.deq.louisiana.gov/page/casebycase-insignificant-activities.

8 EDMS Doc IDs 10400329, 10400327, 10400325, & 10396274

9 EDMS Doc IDs 10400236

Operating Rate Discrepancies

JOIN expresses concern that the normal operating rates for the storage vessels increased from 2014 to 2019, but there was no change in the normal operating rate for tank truck, rail car, and barge/ship loading. JOIN also could not locate any calculations in the permit application to support the permitted hourly VOC limit for product loading (7.42 pounds per hour).

The normal operating rate for each storage vessel is expressed in gallons per *year*, whereas that for product loading is expressed in gallons per *hour* (i.e., 18,000 gallons per hour). Thus, an increase in one does not necessarily result in an increase in the other. Regardless, the hourly rate is not a maximum operating rate and was *not* used to calculate the emission limit of 7.42 pounds per hour. The pound per hour limit stems from Permit No. 1340-00005-08, issued March 11, 2014, and equates to the hourly rate associated with loading approximately 4626 gallons of 0.75 psia product in one hour (see EDMS Doc ID 8964944, p. 58 of 243).[10] Because the products loaded at BWC may have vapor pressures considerably below 0.75 psia, BWC can load significantly greater volumes of lower vapor pressure products, including asphalt, and still be in compliance with the hourly limit.

Calculations Used to Derive Permit Limits

JOIN asserts that there is "no definitive public information about the methods and calculations used to derive BWC's permitted emissions" because the "calculated VOC total in BWC's application (57.24 tons per year) does not match the value in the final permit (67.38 tons per year)." Here, JOIN references a summary table that reports tpy rates for various groupings of tanks (i.e., "Original Tanks," "2016 Mod Tanks," "2018 Mod Tanks," "Case by Case Tanks," and "2019 Mod Tanks"). The table also lists loading emissions separately.[11] However, the permit is not constructed in such fashion.

Aggregate VOC emissions from storage vessels and product loading are capped under GRP 0008 (VOC/TAP CAP - Tanks and Loading) at 64.79 tpy. Accordingly, the application does not necessarily have to include annual emissions calculations for each source, the sum of which equates to the aforementioned value. BWC demonstrates compliance with the cap as described in Specific Requirements 25-33 of Permit No. 1340-00005-12.

Regardless, the difference between the application and permit can be explained. The calculations provided by BWC did not account for the adjustment to the VOC/TAP CAP made with the additional information dated March 16, 2018,[12] associated with Permit No. 1340-00005-11, which increased the tpy limit for GRP 0008 to 56.00 tpy. Adding 8.79 tpy for the "2019 Mod Tanks" equates to the current limit for GRP 0008 of 64.79 tpy. Adding 0.01 tpy for the Emergency Generator (EQT 0047), 0.97 tpy for Fugitives (FUG 0002), 1.26 tpy for Boilers 4 and 5 (EQTs 0535 and 1040), and 0.35 tpy for the Process Heater (EQT 0057), which was not addressed in the summary table, equates to the current facility-wide total of 67.38 tpy.

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[10] Materials with a vapor pressure greater than or equal to 0.75 psia cannot be stored in the tanks at the Harvey Terminal. See Specific Requirement 27 of Permit No. 1340-00005-12.

[11] See EDMS Doc ID 11647350 (pp. 90-92 of 107)

[12] EDMS Doc ID 12784736

Activity Log Discrepancies

The JOIN Report alleges that BWC's activity logs concerning the Asphalt Sailor and Da Tai Shan vessels are inaccurate. However, the LDEQ reviewed the facility's activity logs onsite after the loading activity was completed and determined that both vessels are accounted for in the logs on the dates reflected in the JOIN Report. The JOIN Report references activity logs purportedly for the period of December 27-30 (EDMS Doc ID 12580017). However, these activity logs only cover the loading and/or unloading activities at BWC on December 27 and 30, 2020. The JOIN Report inaccurately references these logs as covering dates which they do not in fact cover. The Asphalt Sailor was docked at BWC on December 28 for 24 hours; therefore, the activity logs referenced in the JOIN Report would not reflect this activity, since the activity logs referenced by the JOIN Report are for activities occurring on December 27 and 30 only.

Caustic Soda

The JOIN Report alleges that there is no reference to caustic soda in BWC's activity logs from September 2018. The comments attributed to Ms. Sisto were made in regards to the BWC New Orleans (Westwego) facility, not BWC Harvey. Nevertheless, per LAC 33:III.501.B.5, Item B.40, caustic storage tanks that contain no VOC need not be included in a permit application.

LDEQ's Continuing Response

The LDEQ notes that odor complaints originating from the Irish Channel continue to be investigated and that LDEQ continues to initiate periodic odor patrols in the area. If violations are discovered, LDEQ will take appropriate enforcement action. LDEQ is establishing an air monitoring station in the Irish Channel, which will collect data on ambient air quality in the area. The continuous analyzers will monitor for H_2S, $PM_{2.5}$, SO_2, CH_4, NMHC, and THC. A 24-hour VOC canister sample will be collected every 6th day and a 24-hour PAH sample will be collected every 3rd day. All continuous monitoring data will be available on our website in near real-time and the VOC & PAH results, which requires laboratory for analysis, will also be available on the website.