



Shell Chemical Appalachia LLC  
300 Frankfort Rd  
Monaca, PA 15061

December 6, 2023

U.S. EPA Office of Emergency Management  
Ariel Rios Building (51404A)  
1200 Pennsylvania Avenue, NW  
Washington, DC, 20460

**RE: Benzene Release Follow Up Notification Report for National Response Center Incident #1384863**

To Whom it May Concern,

Shell Chemical Appalachia LLC (“Shell”) is submitting this follow up notification to the U.S. EPA Office of Emergency Management for a release of benzene to the atmosphere over the reportable quantity (RQ) at the Shell Polymers facility in Monaca, PA. The PA Plan Approval Permit for the site is PA-04-00740C. A malfunction report describing the root cause and emissions was submitted to the PA Department of Environmental Protection (PADEP) and EPA on November 21, 2023.

This incident did not pose an imminent and substantial danger to the public health and safety or the environment.

- **Name and location of the facility**  
Shell Polymers Monaca  
300 Frankfort Road, Monaca PA, 15061
- **Nature and cause of the incident**  
Between the night of October 21, 2023 and the early morning of October 22, 2023, benzene was released to the atmosphere from the site’s Waste Water Treatment Plant biotreaters and induced nitrogen flotation (INF) unit. During downtime of the Ethane Cracking Unit, some hydrocarbon was inadvertently sent to the Wastewater Treatment plant from a separation vessel. This resulted in higher emissions from the biotreaters. In addition, the thermal oxidizer (Spent Caustic Thermal Oxidizer) that controls the INF unit’s vent was temporarily out of service due to required system cleaning, which resulted in higher emissions from the INF vent. Calculations were performed and the resultant benzene release was determined to be 106 lbs.
- **Incident emissions**

Pollutant	Emissions (lbs)
Total VOC	159.5
Benzene	106.2
Toluene	33.6
1,3 Butadiene	7.5
HAP (Total)	146.3

Updated emissions are provided in the table above.

- **Actions Taken/Subsequent Events**

- 1.) PADEP was contacted on October 20, 2023 to report the Spent Caustic Thermal Oxidizer downtime malfunction, which commenced on the night of October 19, 2023. At the time, wastewater feed quality was normal.
- 2.) Excess hydrocarbon was sent to the Wastewater Treatment Plant on October 21, 2023, resulting in upset conditions. Five hours later, the thermal oxidizer was put back into service.
- 3.) While performing the calculations from the thermal oxidizer downtime for the required 30-day PADEP malfunction report, it was determined that the benzene reportable quantity had been exceeded. This was driven by the 5 hours of time that the Wastewater Treatment plant upset conditions overlapped with the thermal oxidizer downtime.
- 4.) Once it was determined the benzene RQ was exceeded, the NRC was notified with the late report. This occurred on the afternoon of November 21, 2023.
- 5.) The 30-day malfunction report was submitted to PADEP also on November 21, 2023, and includes more details on why the thermal oxidizer was out of service and the release calculations basis.

If you have any questions regarding this matter, please contact me at (724) 709-2467 or kimberly.kaal@shell.com.

Sincerely,

Kimberly Kaal  
Environmental Manager, Attorney-in-Fact

Cc: Mark Gorog P.E., Regional Manager Air Quality Program