



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604**

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
DuPont Pontchartrain, LaPlace, Louisiana

FROM: Constantinos Loukeris
AECAB (MI/WI)

THRU: Sarah Marshall, Section Supervisor
AECAB (MI/WI)

TO: File

BASIC INFORMATION

Facility Name: DuPont Pontchartrain

Facility Location: 586 Highway 44, LaPlace, Louisiana 70068

Date of Inspection: April 13, 2022 and April 22, 2022

EPA Inspector(s):

1. Constantinos Loukeris, Environmental Engineer
2. Jason Schenandoah, Environmental Engineer
3. Richard Helmich, EPA National Enforcement Investigation Center
4. Ali Gitipour, EPA Office of Research and Development
5. Christopher Williams, EPA Air Enforcement Division HQ

Other Attendees:

1. Brandon Saunier, Louisiana Department of Environmental Quality (LDEQ)
2. Jason Walker, DuPont EHS Consultant
3. Corey Blanchard, Environmental Coordinator
4. Damen Williams, Environmental Manager
5. Toni Martin, EHS Resources
6. Whanne Mullen, Alliance LDAR Contractor

Contact Email Address: jason.walker@dupont.com

Purpose of Inspection: leak detection and repair inspection and mobile monitoring onsite

Facility Type: chemical plant

Regulations Central to Inspection: National Emission Standards for Hazardous Air Pollutants (NESHAP) from the Synthetic Organic Chemical Manufacturing Industry, at 40 C.F.R. Part 63, Subparts F, G, and H (HON), National Emission Standard from Benzene Waste Operations, at 40 C.F.R. Part 61, Subpart FF, and the National Emissions Standard for Benzene Emissions from Benzene Storage Vessels, at 40 C.F.R. Part 61, Subpart Y

Arrival Time: April 13, 2022 8:18 am and April 22, 2022 12:30 pm

Departure Time: April 13, 2022 1:00 pm and April 22, 2022 3:50 pm

Inspection Type:

- ☒ Unannounced Inspection
- ☐ Announced Inspection

OPENING CONFERENCE

- ☒ Presented Credentials
- ☒ Stated authority and purpose of inspection
- ☒ Small Business Resource Information Sheet not provided. Reason: Not a small business
- ☒ Provided CBI warning to facility

The following information was obtained verbally from DuPont personnel unless otherwise noted.

Process Description:

DuPont Pontchartrain (DuPont) operates a chemical manufacturing facility that produces paraphenylenediamine (PPDA). PPDA is a chemical that is further processed to make Kevlar at another DuPont site. The PPDA process consists of a few steps, including a synthesis and refining area. Pilot flares are used to control any emissions for each of the areas. The PPDA process generates two byproducts from the process, benzene and 4-aminodiphenyl. Prior to 2018, DuPont sold benzene as a product, but currently the benzene is being sent to the hazardous waste boiler onsite. The facility generates wastewater that falls under Group 2 wastewater under the HON. The Group 2 wastewater is managed by deep-well injection.

DuPont operates 24 hours a day, 7-days a week with approximately 280 employees and contractors. The PPDA process is shutdown for routine maintenance for 1-month, approximately two times a year. The facility was preparing for a routine maintenance shutdown the week of April 18, 2022.

In 2015, DuPont sold the neoprene manufacturing portion of the facility to Denka Corporation. In addition to the PPDA process, DuPont also operates a hazardous waste boiler and natural gas powerhouse to generate steam for the operations across the facility. DuPont uses a contractor to implement the leak detection and repair (LDAR) monitoring that takes place at the PPDA process. Alliance, the LDAR contractor formerly known as EMSI, has been at this facility for at least five years. Alliance maintains the monitoring and repair results in an LDAR database.

TOUR INFORMATION

EPA Tour of the Facility: Yes

Photos and/or Videos: were not taken during the inspection.

Field Measurements: were taken during this inspection.

- The following information was gathered during the April 13, 2022 inspection:
 - EPA conducted Method 21 monitoring using Thermo's toxic vapor analyzer, Model 2020, in the PPDA process as well as the deck fittings and vents on the benzene waste tank, #1500-34C. EPA calibrated the instrument at 8:15 am on April 13, 2022 using a zero gas, 500 parts per million (ppm) methane in air, and 10,000 ppm methane in air.
 - EPA monitored 77 valves and 2 pumps in the PPDA process and the emergency vent and pressure/vacuum valve on the benzene tank.
 - In the PPDA process, EPA found one open-ended line from a valve (tag #6613) and one valve (tag #6464) leaking above the leak definition (EPA's reading – 542 ppm/DuPont's reading – 767 ppm).
 - On the benzene tank, EPA found the emergency vent (tag# 7254) to be venting at 20,100 ppm (DuPont's reading – 1,653 ppm), and the pressure/vacuum valve (no tag on this valve but EPA identified tag#7603 nearby) to be leaking at 1,933 ppm (DuPont's reading – 2,030 ppm).
 - The emissions from the benzene tank are normally routed to one of the pilot flares that is in the PPDA process.
 - At the time of the inspection, contractors were installing insulation around the deck fitting components on top of the benzene tank. DuPont indicated that the insulation installation would not resume until the venting was repaired.
- The following information was gathered during the April 22, 2022 inspection by conducting mobile air monitoring survey of the facility using Geospatial Measurement of Air Pollution (GMAP). Mr. Williams from EPA explained to the company that he would use an FLIR optical gas imaging (OGI) camera, model GF-320, and a handheld PID to locate any hydrocarbon emission sources upwind of detections made by GMAP:
 - DuPont shutoff the feed systems on April 22, 2022 at 12:01 A.M. in preparation for a planned maintenance turnaround.
 - At around 2:05 P.M., EPA began the site tour. Conditions were sunny, and moderate winds coming from the east to southeast. In the mobile air monitoring vehicle, Mr. Helmich, Mr. Gitipour and Mr. Williams from EPA were escorted by Ms. Martin throughout the facility. In a company vehicle following, Mr. Saunier from LDEQ was escorted by Mr. Hill. The mobile air monitoring vehicle drove on all available roads.

CLOSING CONFERENCE

☒ Provided U.S. EPA point of contact to the facility

Requested documents:

- CPT for hazardous waste boiler
- Total Annual Benzene Reports from 2019 – 2021
- LDAR database backup file from EMSI
- 3rd quarter 2021 TVA calibrations from EMSI
- Notification of Compliance Status Report for SOCMIG
- Second half 2021 reports (Benzene Y, SOCMI HON Devices, LDAR)

Concerns: At the closing conference, EPA identified the following areas of concern:

1. Emissions from the benzene tank were not being routed to the flare during normal operation due to venting from the normal pressure/vacuum valve and emergency vent.
2. One open-ended line or valve that was not capped or plugged.

DIGITAL SIGNATURES

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