



Region 6 - Enforcement & Compliance Assurance Division
INSPECTION REPORT

Inspection Date(s):	02/15/2024	
Media Program:	Air	
Regulatory Program(s)	Title V, NESHAP, NSPS, SIP	
Company Name:	Chevron Phillips Chemical Company	
Facility Name:	Orange Plant	
Facility Physical Location:	5309 Farm to Market Road 1006	
(city, state, zip code)	Orange, Texas 77630	
Mailing address:	5309 Farm to Market Road 1006	
(city, state, zip code)	Orange, Texas 77630	
County/Parish:	Orange County	
Facility Phone Number	1-409-985-0726	
Facility Contact:	Kevin Mercy	Environmental Supervisor
	mercyk@cpchem.com	
FRS Number:	110034635367	
Identification/Permit Number:	Title V Federal Operating Permit: O-1310	
Media Identifier Number:	AFS 48-361-00014	
NAICS:	325111-Plastics Material and Resin Manufacturing; 325199-All Other Basic Organic Chemical Manufacturing	
SIC:	2821-Plastics Materials and Resins	
Personnel participating in inspection:		
Nicholas Bobbs	EPA OECA AED	Lead Air Inspector
Daniel Heins	EPA OECA AED	Air Inspector
Philip Myers	EPA NEIC	Environmental Engineer
Conor Goulding	EPA NEIC	Physical Scientist
Kevin Mercy	Chevron Phillips Chemical Company	Environmental Supervisor
Connie Weber	Chevron Phillips Chemical Company	EHSS Manager
Davis Turner	Chevron Phillips Chemical Company	Technical Manager
Gina James	Chevron Phillips Chemical Company	Environmental Specialist
Carrie Phillips	Chevron Phillips Chemical Company	Plant Manager
Kent Marze	Chevron Phillips Chemical Company	Ops Supervisor
EPA Lead Inspector Signature/Date		
	Nicholas Bobbs	Date
Supervisor Signature/Date		
	Gregory Fried	Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

EPA inspectors Nicholas Bobbs and Daniel Heins (EPA Office of Enforcement & Compliance Assurance - Air Enforcement Division), accompanied by Philip Myers and Conor Goulding (EPA National Enforcement Investigations center, “NEIC”) arrived at the Chevron Phillips Chemical Company – Orange Plant (the “Facility”) at 12:00 on 2/15/2024 for an unannounced inspection. We met Kevin Mercy, Environmental Supervisor, Connie Weber, EHSS Manager, and other facility personnel for an opening conference. Credentials were presented to Mr. Mercy, and we informed them that this was an EPA inspection to evaluate potential sources of excess emissions using EPA’s Geospatial Measurement of Air Pollution (“GMAP”) vehicle and evaluate compliance with the facility’s Title V Air Permit and the Clean Air Act. The scope of the inspection is a partial evaluation (“PCE”). This inspection occurred as part of a multi-scale monitoring project in the Beaumont-Port Arthur area. A video taken during the inspection can be found in Appendix 1. The sign-in sheet for the opening conference is attached as Appendix 2.

FACILITY DESCRIPTION

The Facility is a polymer manufacturing plant that operates under Title V Permit number O-1310 issued March 17, 2021. The Facility manufactures high-density polyethylene (“HDPE”), a thermoplastic polymer with high strength-to-density used in durable consumer products like kayaks and toys.

The Facility produces different varieties of HDPE in two separate reactor units: A gas phase reactor unit (“GPO”) and a particle form C loop reactor (“CPF”). The main feed into the reactors is ethylene. Additives to the process include isobutane, hexene, and isopentane. Propane is also used as a refrigerant. The site also has several bullet storage tanks, and a wastewater treatment plant for physical removal of plastic pellets using dissolved air flotation (“DAF”).

Section II - OBSERVATIONS

The NEIC GMAP was driven by Mr. Goulding and the instruments were operated by Mr. Myers. Facility representatives, including Mr. Mercy and Mr. Marze, accompanied the GMAP. Conditions were fair with winds from the southwest. Mr. Bobbs and Mr. Heins followed the GMAP in a secondary vehicle, and operated a Data Acquisition in Real Time (“DART”) unit on their vehicle, equipped with a photoionization detector (“PID”) that measures volatile organic compounds (“VOC”) in the air, and a wind monitor that monitors wind speed, wind direction and geolocation. The DART unit had a 10.6ev PID installed. The GMAP drove on all available facility roads measuring air pollutant concentrations downwind of each of the process areas, if possible. A full report from the GMAP will be issued by NEIC at a later date.

The GMAP detected elevated VOCs downwind of the CPF unit, at the corner of the facility’s “14th St.” and “S Ave”. Mr. Marze explained that in the CPF unit ethylene, catalyst, and isobutane are mixed into a slurry going into the reactor to make HDPE. The GMAP was downwind of two blower outlets for system 41A and 41B. Mr. Heins used a handheld “ppbRae 3000” PID to monitor the blower outlet of System

41A, and detected up to 1,960 ppb total VOCs at 2 inches from the outlet. Mr. Bobbs recorded FLIR video FLIR0025.mp4 of the blower outlet from system 41A, which was connected to F-803 System 41A (see Appendix 1). The GMAP took a summa cannister No. 117 for TO-15 analysis downwind of the system 41A blower. Mr. Mercy took a duplicate summa cannister for the facility. **[AOC 1]**

I asked Mr. Mercy if there were any HAP emissions permitted for the system 41A blower outlet. Mr. Mercy said that the blower is permitted for some hexene emissions and added that the Facility is an area source for HAP.

The site GMAP survey ended at 14:00 and we returned to the conference room/parking lot.

Section III – AREAS OF CONCERN

Mr. Bobbs conducted a closing conference at Chevron Phillips Chemical Company – Orange Plant at 14:10 on February 15, 2024 for the inspection. Mr. Myers and Mr. Bobbs summarized the facility tour and presented their emissions observations, including the following Area of Concern. The facility made no claims of confidential business information regarding the video taken. The facility was informed that a copy of the video would be made available to the facility following the inspection. We departed the facility at 14:30.

1) VOC Detection Downwind of CPF Unit System 41A Blower

As documented in the report, the GMAP detected elevated VOCs and took a summa cannister downwind of the CPF Unit System 41A Blower. The summa cannister results are not available at the time of this inspection report, but will be evaluated when they are included in the full report from the GMAP to be issued by NEIC at a later date.

Section IV – FOLLOW UP

No additional information was received by EPA after exiting the Facility on February 15, 2024.

Section V – LIST OF APPENDICES

Appendix 1 – Video Log – 1 FLIR video taken 2/15/2024

Appendix 2 – Opening Conference Sign-in Sheet

Appendix 1

Video Log



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Appendix 1

Video Log

Location: Chevron Phillips Chemical Company – Orange Plant		
City: Orange	Orange County	State: Texas



File Name: [FLIR0025.mp4](#)
Date taken: 02/15/2024
Time taken: 13:51
Videographer: Nicholas Bobbs
Description: OGI video of emissions from System 41A blower outlet of CPF HDPE unit

Appendix 2

Opening Conference Sign-In Sheet

NameTitle

Gina James	Environmental Specialist CPC
Connie Weber	EHSS Manager Orange/Dt Arthur CPC
Davis Turner	Technical Mgr Orange/Dt Arthur CPC
Carrie Phillips	Plant Manager
Kevin Marcy	Environmental Superintendent marcyke@cpchem.com
Conor Gaudin	Physical Scientist EPA NEIC
Philip Myers	Mech. Engineer EPA NEIC
Nicholas Bobbs	Env Eng EPA HQ
Daniel Heins	Inspector EPA HQ
Kent MARZE	CPchem - Ops supervisor

Visit by EPA - 2/15/2024 ~ Noon