



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

**SUBJECT:** CLEAN AIR ACT INSPECTION REPORT  
Occidental Chemical, Convent, Louisiana

**FROM:** Jason Schenandoah, Environmental Engineer  
AECAB (IL/IN)

**THRU:** Nathan Frank, Section Supervisor  
AECAB (IL/IN)

**TO:** File

---

**BASIC INFORMATION**

**Facility Name:** Occidental Chemical Corporation

**Facility Location:** 7377 LA-3214, Convent, LA 70723

**Date of Inspection:** April 12, 2022

**EPA Inspector(s):**

1. Jason Schenandoah, Environmental Engineer
2. Constantinos Loukeris, Environmental Engineer

**Other Attendees:**

1. Steve Welch, Plant Manager
2. Mark Raimondi, Production Manager
3. Khalil Byrd, Production Superintendent
4. Courtney Rome, Technical Manager
5. Eldridge Landry, EDC Supervisor
6. Jake Valenti, Safety Manager
7. Sharon Coleman, HES&S Assistant
8. Joy McKenzie, TEAM Industrial (LDAR Contractor)

**Contact Email Address:** Chad\_Orillion@oxy.com

**Purpose of Inspection:** To ensure compliance with the Clean Air Act.

**Facility Type:** Chemical manufacturing facility

**Regulations Central to Inspection:** Plantwide fugitive emissions are managed using 40 C.F.R. Part 63, Subparts G and H.

**Arrival Time:** 2:00 pm

**Departure Time:** 5:55 pm

**Inspection Type:**

- ☒ Unannounced Inspection
- ☐ Announced Inspection

**OPENING CONFERENCE**

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

The following information was obtained verbally from Occidental Chemical Corporation (Oxy Chem) personnel unless otherwise noted.

**Process Description:**

The OxyChem Convent facility (the Facility) consists of three basic operations: a chlor-alkali plant utilizing modified asbestos diaphragm cells to produce chlorine, sodium hydroxide and hydrogen, an Ethylene Dichloride (EDC) plant utilizing direct chlorination technology to produce EDC, and steam generating facilities that provide support to the chlor-alkali and EDC plants.

Chlorine from the chlor-alkali plant is combined with ethylene in one of two reactors under a continuous thermosyphon loop to create “wet” EDC. A natural gas cap is used to displace oxygen in the reactors. The pH of the “wet” EDC is then adjusted before entering a distillation unit to create pure EDC. Final product is stored in one of 4 in-service EDC storage tanks where it awaits shipment via ships or barges. Emissions from the process and the storage tanks are controlled by incineration at a boiler system.

**Staff Interview:** The EDC and chlorine processes must both run together. If either the EDC or chlorine process is shut down the other unit will need to shut down as well. There is a little storage capacity for crude EDC in the EDC process equipment during a shutdown. Prior to the inspection, the previous Leak Detection and Repair (LDAR) monitoring was completed at the Facility two weeks prior to the inspection date. While EPA inspectors were performing LDAR monitoring and detecting fugitive emissions, Oxy Chem personnel stated that they believed EPA inspectors were measuring residual emissions from a nearby EDC leak on the process. EPA

inspectors were informed that a technical group (Technical Group) at the Facility analyzes releases for reporting under CERCLA; the Technical Group was unaware of the leak. Liquid that accumulates in the trenches throughout the process area will drain to a sump and is pumped to nitrogen padded tank 6D-12 and is transferred to the stripper holding tank 6D-4 to await control at an absorber/stripper preceding the boiler incineration system.

### **TOUR INFORMATION**

**EPA Tour of the Facility:** Yes

#### **Data Collected and Observations:**

EPA inspectors observed maintenance work being performed on the distillation portion of the EDC process. A measurement 1306 parts per million (ppm) was made with TVA A56584 at a trench near the maintenance project with a trickle of liquid flowing through it; the Technical Group was unaware of that the maintenance project had detectable organics being released. A second trench with residual material at the bottom had a measurement of greater than 23,000 ppm using TVA A56584. Tank 6C-13 was labeled EDC and Hypo; when asked, Oxy Chem personnel stated that tank 6C-13 is used to store wastewater. EPA performed Method 21 on some components on the lines exiting tank 6C-13; Organics were detected in a range between 50-200 ppm using TVA SL1555. The lines exiting tank 6C-13 were not part of any monitoring program. Valves 1116, 1123, 1127, 1269, 1279, and 1366 were insulated with no access to an interface to perform Method 21.

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

**Field Measurements:** were taken during this inspection.

- Method 21 field measurements are tabulated in Appendix A: Field Measurement Data
- Method 21 measurements were also conducted by Oxy Chem's third party contractor

### **CLOSING CONFERENCE**

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

#### **Requested documents:**

- Last two years of semiannual compliance reports for the EDC process
- Stack emissions test for the boiler/stripper emission control system
- The Notification of Compliance for 40 C.F.R. Part 63, Subpart H
- Wastewater report that explains which streams are group 1 and group 2
- LDAR database backup file

**Compliance Assistance:** EPA inspectors informed Oxy Chem that both the process leak and the maintenance project should be analyzed for potential reporting under CERCLA. EPA inspectors shared the locations of where each leak that was found while conducting Method 21 monitoring.

**Concerns:** The Technical Group was unaware of the need for an analysis on the process leak and the maintenance work at the EDC process.

### **DIGITAL SIGNATURES**

Report Author: JASON  
SCHENANDOAH

Digitally signed by JASON  
SCHENANDOAH  
Date: 2022.05.19  
16:04:36 -05'00'

---

Section Supervisor: Frank,  
Nathan

Digitally signed by Frank,  
Nathan  
Date: 2022.05.24  
14:20:26 -05'00'

---

**Facility Name:** Occidental Chemical Corporation  
**Facility Location:** 7377 LA-3214, Convent, LA 70723  
**Date of Inspection:** April 12, 2022

**APPENDICES AND ATTACHMENTS**

- 1.* Appendix A: Field Measurement Data

**Facility Name:** Occidental Chemical Corporation  
**Facility Location:** 7377 LA-3214, Convent, LA 70723  
**Date of Inspection:** April 12, 2022

**APPENDIX A: FIELD MEASUREMENT DATA**

| FID Instrument | TVA 2020: A56584 | TVA 2020: SL1555 |
|----------------|------------------|------------------|
| 500 ppm        | 475 ppm          | 499 ppm          |
| 10000 ppm      | 9821 ppm         | 9981 ppm         |

**Table 1: Instrument Calibration**

| Components | Number Measured |
|------------|-----------------|
| Valves     | 321             |
| Pumps      | 10              |

**Table 2: Total Components Measured**

| Component Identifier | A56584   | SL1555  | Third Party |
|----------------------|----------|---------|-------------|
| 665                  | N/A      | 774 ppm | N/A         |
| 666                  | N/A      | 763 ppm | 497 ppm     |
| 01296                | N/A      | 913 ppm | 1294 ppm    |
| 744                  | 980 ppm  | N/A     | 760 ppm     |
| 745                  | 1300 ppm | N/A     | N/A         |
| 746                  | 1600 ppm | N/A     | 1900 ppm    |

**Table 3: Leaks detected**