

RCRA Inspection Report

1) Inspector and Author of Report

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U.S. Environmental Protection Agency, Region 4
Enforcement and Compliance Assurance Division
Chemical Safety and Land Enforcement Branch
RCRA Enforcement Section
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2) Facility Information

Westlake Vinyls Inc.
2468 Industrial Parkway
Calvert City, Kentucky 42029

EPA ID#: KYD985072008
NAICS #: 325180-Other Basic Inorganic
Chemical Manufacturing

3) Responsible Officials

Shawn Holt
Environmental Specialist
sholt@westlake.com

4) Inspection Participants

Shawn Holt, Westlake Vinyls Inc.

Amber Stewart, KDEP
Scott Gerstner, KDEP
Raj Aiyar, USEPA

5) Date of Inspection

December 12, 2024, 9:00 a.m.

6) Applicable Regulations¹

Resource Conservation and Recovery Act (RCRA) Sections 3002 (42 U.S. Code – Annotated U.S.C.A. 6925 and 6927), and 40 Code of Federal Regulation (C.F.R.) Parts 260 - 270, 273, 278, & 279; Kentucky Revised Statutes Title XVIII, Chapter 224, Subchapter 46-Hazardous Waste *et seq.* (2006), and Title 401 of the Kentucky Administrative Regulations (K.A.R.) Chapters 30 through 38, 43 and 44 (2006)

State Code for Kentucky: Kentucky Revised Statutes Title XVIII, Chapter 224, Subchapter 46-Hazardous Waste *et seq.* (2006), and Title 401 of the Kentucky Administrative Regulations (K.A.R.) Chapters 30 through 38, 43 and 44 (2006)

¹ As the State's authorized hazardous waste program operates in lieu of the federal RCRA program, the citations of those authorized provisions will be to the authorized State program. However, for ease of reference, the federal citations will follow in brackets.

Pursuant to 401 KAR 39:005, Section 1 [40 C.F.R. § 260.10], a large quantity generator (LQG) of hazardous waste is a generator who generates greater than or equal to 1,000 kilograms (2,200 pounds) of non-acute hazardous waste in a calendar month.

Pursuant to 401 K.A.R. 32:080 Section 1(1) [40 C.F.R. § 262.15(a)], a generator may accumulate as much as 55 gallons of non-acute hazardous waste in containers at or near the point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or without having interim status, as required by KRS § 224.46-520 [Section 3005 of RCRA, 42 U.S.C. § 6925], and without complying with 401 KAR 39:080, [40 C.F.R. § 262.16(b)], except as required in 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.15(a)(7) and (8)], provided that the generator complies with the satellite accumulation area conditions listed in 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.15(a)] (hereinafter referred to as the “SAA Permit Exemption”).

Pursuant to 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.17], an LQG may accumulate hazardous waste on-site for 90 days or less without a permit or without having interim status, as required by KRS § 224.46-520 [Section 3005 of RCRA, 42 U.S.C. § 6925], provided that the generator complies with the conditions listed in 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.17] (hereinafter referred to as the “LQG Permit Exemption”).

Pursuant to 401 KAR 39:080, Section 3(1) [40 C.F.R. § 273.9], a small quantity handler of universal waste (SQHUW) is a universal waste handler who does not accumulate 5,000 kilograms or more of universal waste (batteries, pesticides, mercury-containing equipment, lamps, or aerosol cans, calculated collectively) at any time.

7) Purpose of Inspection

The purpose of this inspection was to conduct an unannounced compliance evaluation inspection to determine Westlake Vinyls Inc. compliance with the applicable requirements of RCRA and the corresponding Kentucky regulations. This was an EPA lead inspection.

8) Facility Description

Westlake Vinyls Inc. (Westlake) was established in 1952 and is located in the Calvert City Industrial Complex immediately adjacent to the Tennessee river. The chemical complex which was formerly owned and operated by B.F. Goodrich, now contains three separate unrelated facilities: Westlake Chemicals, Lubrizol and Cymetech. A fourth facility, PolyOne Corp. is also present at the complex and operates/maintains the groundwater remediation system. Westlake currently has approximately 350 employees and operates 24/7. Potable water is supplied to the site by the Calvert City Water Department. Sanitary and Industrial wastewater is treated onsite by a KPDES permitted treatment plant which discharges to the Tennessee river.

The Westlake facility is organized into four main operational areas. Chlor-Alkali Plant, Ethylene Plant, Monomers Plant and Energy and Environmental Operations.

The Chlor-Alkali Plant processes treated salt brine to produce chlorine, sodium hydroxide and hydrogen gas using a membrane cell electrolyzer process. The primary function of the Ethylene Plant is to produce high-purity ethylene through thermal cracking of ethane feed stock to produce co-products including propylene, mixed C-4's, aromatic gasoline, fuel oil and fuel gas. This is performed by high temperature cracking furnaces. Ethylene is separated from the by-products largely through distillation and is sent to the Monomer Plant where it is reacted with chlorine to produce ethylene dichloride (EDC). The Westlake Monomers Plant produces vinyl chloride monomer (VCM) through thermal decomposition of 1, 2 dichloroethane (EDC) to form VCM and hydrochloric acid (HCl). The majority of VCM produced is directly piped to the Westlake PVC plant and the remainder is sent out by pressurized rail car or cylinders. The Energy and Environmental process area provides utilities such as steam for the Westlake facility and manages the wastewater treatment plants.

There are wide varieties of hazardous waste generated during the production processes. The waste codes for the waste generated at Westlake are D001, D009, D018, D019, D028 and D043. Most of the waste generated onsite is solid waste. Occasionally, liquid hazardous waste is generated and is shipped offsite in tanker trucks for disposal. Records indicate the quantity of hazardous waste shipped in Calendar year 2023 and 2024 was 749 kg and 281 kg respectively. Westlake uses AES Environmental LLC (KYD985073196) to dispose of their hazardous waste. There are various construction projects on site resulting in excavated soil. The soil is managed as hazardous waste until it is sampled and tested.

Westlake is a member of CIMAP (Calvert City Industrial Mutual Aid Program). CIMAP is an organization composed of industrial facilities operating in the Calvert City, Kentucky industrial complex with a purpose of establishing a plan of cooperative action whereby members can assist another member facility during an emergency which is beyond the member facility's ability to control. The purpose extends to facilitating communication and cooperation with local civic agencies, CIMAP members and the public. The organization conducts annual drills at various industrial facilities that are members of CIMAP.

9) Previous Inspection History

Westlake was last inspected by KDEP on April 19, 2023, and by EPA on June 20, 2018. There were no deficiencies observed during both the inspections.

10) Opening Conference

On December 12, 2024, EPA Inspector, Raj Aiyar, accompanied by KDEP Inspectors, Amber Stewart and Scott Gerstner arrived at the Westlake facility at approximately 9:00 a.m. Facility Representative Shawn Holt, received and escorted the inspectors to a conference room. The inspectors introduced themselves, showed their credentials, stated the purpose of the visit. The inspectors discussed the scope of the inspection and described the anticipated use of

equipment, a digital camera during the inspection. The inspectors later requested a list of records to be reviewed as part of the inspection.

The EPA inspector explained that the Small Business Regulatory Enforcement Fairness Act's classification of a "small business" is generally set by the Small Business Administration using the business' SIC/NAICS code and annual receipts or number of employees. A copy of the EPA's information sheet for small businesses can be found at <https://www.epa.gov/sites/production/files/2017-06/documents/smallbusinessinfo.pdf>.

The EPA inspector also discussed the facility's ability, pursuant to 40 C.F.R. § 2.203, to assert a business confidentiality claim for information submitted to EPA. The company did not assert a business confidentiality claim.

Shawn Holt provided an overview of the facility's history and current operations during the opening conference. The inspection participants also discussed health and safety protocols and the required personal protective equipment. Since the inspectors did not have intrinsically safe cameras, no photographs were taken due to ignitable and flammable materials stored in the production area. Shawn Holt led the inspectors on a tour of the facility's operations.

11) Inspection Observations

Satellite Accumulation Areas (SAAs)

Storage Room Building

The building is used for storing products; however, some hazardous waste is stored in the storage room. The inspectors observed one 55-gallon satellite container containing D001 waste. The container was observed to be closed and labeled with the words "Hazardous Waste" and with indication of the hazards of the contents. Near the satellite container, the inspectors observed nonflammable cylinders and flammable waste propane cannisters and waste methylacetylene propadiene and propyne (MAPP) cylinders. The cannisters and MAPP cylinders were intact, dated and labeled with the words "Hazardous Waste" along with DOT Class 9 miscellaneous labels.

This is an Area of Concern. The regulations require the generator to mark or label the container with the words "Hazardous Waste", an indication of the hazards of the contents. The DOT Class 9 miscellaneous labels may be used when applicable to meet the DOT standards. However, it does not indicate any specific hazards associated with the waste. The inspectors recommended "Toxic" label to be used as indication of the hazards of the contents.

The inspectors observed two universal waste containers containing spent aerosol cans and waste batteries. Both the containers were observed to be closed, labeled and dated. The oldest accumulation date was observed to be 07/31/24.

Ethylene Plant

The inspectors observed two 55-gallon satellite containers near the rail sidings at the Ethylene Plant area. Both the satellite containers were observed to be closed, labeled with the words "Hazardous Waste", an indication of hazards of the contents.

Quench Area (South Cracking)

There was one 55-gallon satellite container in the "Quench" area. The satellite container was observed to be closed, labeled with the words "Hazardous Waste", DOT Class 9 miscellaneous label.

This is an Area of Concern. The regulations require the generator to mark or label the container with the words "Hazardous Waste", an indication of the hazards of the contents. The DOT Class 9 miscellaneous labels may be used when applicable to meet the DOT standards. However, it does not indicate any specific hazards associated with the waste. The inspectors recommended "Toxic" label to be used as indication of the hazards of the contents.

Used Oil

The used oil is stored in drums on a raised platform in the maintenance area. There were several drums staged on the raised platform. All the containers were observed to be closed and labeled as "Used Oil". According to the facility personnel, Clean Earth (KYR000075531) located in Calvert City, Kentucky transports their used oil.

Central Accumulation Areas (CAAs)

Westlake has three central accumulation areas comprising of an old and a new storage pad for the roll-off containers and a drum storage pad.

Old Storage Pad

There was no waste stored in this area during the inspection.

New Storage Pad

The inspectors observed seven roll-offs containers on the new storage pad. The area was marked with a "No Smoking" sign. Three roll-off containers contained mercury contaminated soil, and the remaining four containers contained "Filter press sludge". There were six roll-off containers observed to be closed, dated and labeled with the words "Hazardous Waste", DOT Class 9 miscellaneous labels. The oldest accumulation start date was observed to be 11/19/2024. There was one roll-off container that had a label indicating "Pending Analysis", DOT Class 9 miscellaneous label.

This is an Area of Concern. The regulations require the generator to mark or label the container with the words "Hazardous Waste", an indication of the hazards of the contents. The use of a DOT Class 9 miscellaneous labels may be used when applicable to meet the DOT standard. However, it does not indicate any specific hazards associated with the waste. The

inspectors recommended “Toxic” label to be used as indication of the hazards of the contents.

The facility personnel stated that all excavated soil from the construction site is managed as hazardous waste until the soil is sampled and comes back otherwise. The inspectors recommended that for roll-off containers pending lab analysis under RCRA, the primary marking and labeling requirement is to clearly state “This Container on Hold – Pending Analysis” along with the necessary information about the waste contents including the potential hazards, the generator’s information and the date the waste accumulation began to ensure proper handling and identification while awaiting analytical results. The facility stated that most of the analytical data came back as nonhazardous based on the generator’s knowledge.

Drum Storage Pad

The storage area was identified with a sign which read “hazardous waste storage” and “no smoking”. According to the facility personnel, all employees carry radios and telephones throughout the facility. Emergency response equipment is tested and maintained. Spill equipment and fire extinguishers were observed throughout out the site.

There were four 55-gallon containers on the storage pad. One hazardous waste container was observed to be closed, dated and labeled with the words “Hazardous Waste”, an indication of the hazards of the contents. There were three hazardous waste containers closed, dated on hold with the words “Pending Analysis” and DOT Class 9 miscellaneous labels. The oldest accumulation start date was observed to be 11/18/2024. **This is an Area of Concern. The regulations require the generator to mark or label the container with the words “Hazardous Waste”, an indication of the hazards of the contents. The use of a DOT Class 9 miscellaneous labels may be used when applicable to meet the DOT standard. However, it does not indicate any specific hazards associated with the waste. The inspectors recommended “Toxic” label to be used as indication of the hazards of the contents.**

12) Records Review

Once the inspectors completed the walkthrough of the facility, the inspectors were escorted to a conference room to conduct a review of the required documentation. The records reviewed for a two-year period included the following:

- Contingency Plan and Quick Reference Guide
- Personnel Training
- Weekly Hazardous Waste Inspection Log
- Hazardous Waste Manifests
- Waste Profiles
- Annual Report
- Hazardous Waste Reduction Plan
- Documents showing emergency arrangement with local authorities.

Westlake environmental staff receive training through a computer-based system through their corporate office. Shawn Holt provided a copy of the training curriculum and provided a copy of

his own training certification completed in June 2024. Although Westlake is a member of CIMAP which is the Calvert City's industrial area's own emergency response plan, the facility has a separate contingency plan last amended in September 2022. Based on the review of the records, the records were observed to be complete.

13) Closing Conference

An exit briefing was conducted at the conclusion of the inspection. Shawn Holt, Westlake, Amber Stewart, KDEP, Scott Gerstner, KDEP and Raj Aiyar, USEPA, participated during the exit briefing. The observations made during the inspection were discussed and the inspection was concluded.

14) List of Attachments

None

15) Signed

RAJAGOPAL AIYAR

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Raj Aiyar
Environmental Engineer

16) Concurrence

ARACELI CHAVEZ

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Araceli B. Chavez
RCRA Enforcement Section