

RCRA Inspection Report

1) Inspector and Author of Report

Raj Aiyar
Environmental Engineer
RCRA Enforcement Section
Phone: 404-562-8614
aiyar.raj@epa.gov

U.S. Environmental Protection Agency, Region 4
Enforcement and Compliance Assurance Division
Chemical Safety and Land Enforcement Branch
61 Forsyth Street, SW
Atlanta, Georgia 30303

2) Facility Information

Wacker Chemical Corporation
854 N Main Street
Calvert City, Kentucky 42029
Marshall County

EPA ID# KYR000047274
NAICS# 325510 – Paint and Coating
Manufacturing

3) Responsible Officials

Rebecca Wood, CSP
EHS Manager
Wacker Chemical Corporation
rebecca.wood@wacker.com
(270) 395-6017

4) Inspection Participants

Rebecca Wood, EHS Manager
Eric Matt, Plant Engineer

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

5) Date of Inspections

December 10, 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)

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 Wacker Chemical Corporation’s compliance with the applicable requirements of RCRA and the corresponding Kentucky regulations. This was an EPA lead inspection.

8) Facility Description

Wacker Chemical Corporation (Wacker) has a facility located at 854 North Main Street, Calvert City, Kentucky. Originally the entire site was owned by Air Products and Chemicals Inc. (Air Products). Beginning in 1998, there were two joint ventures entered into between Air Products and Wacker. These joint ventures’ entities entered into ground leases for portions of the site from Air Products. In 2008, these joint ventures’ entities became fully owned by Wacker. The portions of the site now operated by Wacker under ground leases from Air Products include the Dispersions Process facility, Powders process facility, River facility and the Administrative Office. Currently within the facility’s site fencing, there is Evonik Degussa Corporation (KYD055831838); Sekisui Specialty Chemicals America LLC (KYR000028431) and Wacker

Chemical (KYR000047274). Wacker Calvert City polymer product applications include Dispersion, Carpet, Engineering Fabrics and Coatings.

Wacker Chemical currently has approximately 156 employees and operates 24/7. Utilities are provided by Air Products, Evonik and Detroit Edison (DTE) Calvert City LLC Cogen Plant for steam, instrument air, electricity, nitrogen and water. Other services provided by Evonik are security and wastewater treatment. According to the facility personnel, Wacker 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.

Facility Process and Hazardous Waste Generation

Wacker receives vinyl acetate monomer (VAM), a raw material via barge which is stored on two onshore tanks with a tank capacity of approximately 1.0 million and 1.5 million gallons with secondary containment. The tanks clean out are carried out every five years and the waste generated from the tanks are managed as hazardous waste.

The VAM is used in the emulsion plant. Ethylene is also used as a raw material in the emulsion plant. The cryogenic ethylene is received by the rail cars. The VAM and the ethylene are reacted into the glue (VAE co-polymer). Although majority of two monomers are reacted there is still residual present. The post additions are a process where further chemical treatment is completed to react off any residual monomers. The reactors are cleaned after every bath.

Wacker uses Chemclean (Caustic Methanol) for cleaning their reactors. The cleaning solvent is reused repeatedly until the cleaning is no longer efficient and Chemclean is disposed of as hazardous waste (D001, D002).

Hazardous waste routinely generated by the process includes waste vinyl acetate (D001); waste isopropyl alcohol (D001) and sodium hydroxide (D002). Other waste generated includes used oil and universal waste (spent aerosol cans, waste batteries and waste lamps) and occasionally waste paint generated by onsite painting operation conducted by the site contractors. The waste codes for the waste generated at Wacker are D001, D002, U008, F003 and D008. Records indicate that the quantity of hazardous waste shipped approximately in Calendar year 2023 and 2024 was 156k and 408k respectively. Wacker uses Clean Harbors (MAD039322250) and Robbie D Wood Inc (ALD067138891) as transporters and AES Environmental, LLC (KYD985073196), and Clean Harbors (ARD069748192) to dispose of their hazardous waste.

9) Previous Inspection History

Wacker was last inspected by KDEP on September 19, 2023, and by EPA on December 10, 2008. There were no deficiencies observed during both the inspections.

10) Opening Conference

On December 10, 2024, EPA Inspector, Raj Aiyar, accompanied by KDEP Inspectors, Amber Stewart and Scott Gerstner arrived at the Wacker facility at approximately 9:00 a.m. Facility Representative Rebecca Wood, Wacker's EHS Manager immediately 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.

Rebecca Woods and Eric Matt 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. The facility personnel expressed safety and security concerns in their production area for photography. However, the facility agreed to take pictures on their intrinsically safe camera and share the pictures with the inspectors electronically. Rebecca Wood and Eric Matt led the inspectors on a tour of the facility's operations.

11) Inspection Observations

The VAM is brought inside the facility via pipes and stored in two holding tanks. Both the tanks have a storage capacity of 31,000 gallons and 56,000 gallons enclosed by an earthen dike. According to the facility personnel the holding tanks are not double walled. The facility personnel stated that the tank system's integrity is tested; however, the facility personnel was not sure regarding the frequency of the tanks' integrity testing. In July 2024, the facility had a sulfuric acid spill from a tanker truck during unloading sulfuric acid into a bulk storage tank. The acid spill was contained in secondary containment and later neutralized and treated at the

wastewater treatment facility.

This is an Area of Concern since the tank system including secondary containment system should be in a position to collect or contain release of contents of the tank and that necessary assessment of the existing tank system integrity is conducted to ensure that the tank system is adequately designed and has sufficient structural strength and compatibility with the material stored inside the tanks to ensure that tank and its system will not collapse, rupture, fail or be unfit to use.

Satellite Accumulation Areas (SAAs)

Satellite containers are used to accumulate VAM, paint waste and acrylamide. The lab also has a 55-gallon SAA container for storing hazardous waste lab samples.

Maintenance Shop

The inspectors observed one 55-gallon satellite container with a latched funnel accumulating VAM waste stored behind the maintenance shop (Photo-1). The container was observed to be closed and labeled with the words "Hazardous Waste". There was no indication of hazards of the content.

Pursuant to 401 KAR 39:080 Section 1(1) [40 C.F.R. § 262.15(a)(5)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers with an indication of the hazards of the contents.

On 12/13/2024, the facility sent a photo of the satellite container with a label indicating the hazards of the contents.

Lab

The analytical lab provides quality control testing for inbound samples from the production area and final outbound samples from the finished product. There was one 55-gallon satellite container staged outside the lab accumulating waste VAM samples. The container was observed to be closed and labeled with the words "Hazardous Waste". The label was on the lid of the satellite container (Photo-2). The label was observed to be dirty and not clearly visible. There was no indication of hazards of the contents.

Pursuant to 401 KAR 39:080 Section 1(1) [40 C.F.R. § 262.15(a)(5)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers with an indication of the hazards of the contents.

On 12/13/2024, the facility sent photo of the satellite container with a label indicating the hazards of the contents. The inspectors also observed nitrile gloves in a 3-gallon container. On 12/13/24, the facility personnel sent an email regarding the lab glove recycle program. Wacker sends approximately 200 pounds of nitrile gloves for recycling every year.

Product Staging Area

Adjacent to the Lab SAA container, the inspectors observed few containers and several tanks of 500-gallons capacity containing products (Photo-3 and Photo-4). According to the facility personnel, they were in various stages of processing. Although there was no activity in this area during the inspection, the inspectors observed leaks and spills on the floor near the tanks as well as near the containers. The facility should make a proper waste determination and dispose of the spilled material accordingly. In addition, the facility shall take steps to ensure to prevent and/or minimize the release of hazardous substance to the environment.

Pursuant to 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.17(a)(6)], which incorporates 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.251], and is a condition of the LQG Permit Exemption, a generator is required to maintain and operate its facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

Pursuant to 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.11], a person who generates a solid waste, as defined in 401 KAR 39:080, Section 1(1) [40 C.F.R. § 261.2], must make an accurate determination as to whether that waste is a hazardous waste in order to ensure wastes are properly managed according to applicable RCRA regulations articulated in 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.11].

Central Accumulation Area (CAA)

The hazardous wastes are stored in a covered concrete pad enclosed by a chain link fence and a concrete berm (Photo-5). The inspectors observed a sign indicating the storage area and “No Smoking”. The storage area was equipped with a fire extinguisher and a spill kit. There was no hazardous waste in the storage at the time of inspection. According to the records, the last shipment was on 11/11/2024. There were no leaks or spills observed in the accumulation area.

Universal Waste

The inspectors observed three universal waste 55-gallon containers on a spill pallet. One contained Aerosol Cans-Lubricant; Aerosol Cans-Paint; and Aerosol Cans-Pesticides (Photo-6). All the containers were observed to be closed and labeled. According to the facility personnel, universal waste is picked up by Clean Harbors, Deer Park and La Porte Texas and Clean Harbors Baton Rouge, Louisiana and Eldorado Arkansas once a year and the length of time for storage is tracked using nonhazardous manifests.

Used Oil

The used oil drums are staged across the facility for recycling. All the used oil containers on spill pallets were observed to be closed and in good condition. The containers were observed to be labeled as “Used Oil”.

12) Record 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.

The quick reference guide did not include a map showing where hazardous wastes are generated, accumulated, treated and routes for accessing this waste.

Pursuant to 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.262(b)], a large quantity generator of hazardous waste that first becomes subject to these provisions after May 30, 2017 or a large quantity generator that is otherwise amending its contingency plan must at that time submit a quick reference guide of the contingency plan to the local emergency responders identified in paragraph (a) of this section or as appropriate, the Local Emergency Planning Committee which incorporates 40 C.F.R. § 262.262(b)(4), must include a map of the facility showing where hazardous waste are generated, accumulated and treated ad routes for accessing these wastes.

The Personnel training records did not include the job titles, the names of the employees, and written job description for each position related to hazardous waste management.

Pursuant to 401 KAR 39:080, Section 1(1) [40 C.F.R. § 262.17(a)(7)(iv)(A-B)], which is a condition of the LQG Permit Exemption, the large quantity generator must maintain the following documents and records at the facility: the job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job and a written job description for each position.

Based on the review of the records, the quick reference guide and the personnel training records were observed to be incomplete.

13) Closing Conference

An exit briefing was conducted at the conclusion of the inspection. Eric Matt, Wacker, Rebecca Wood, Wacker, D. J. Lutz, Wacker, 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

Attachment A: Photographs of Wacker Chemical Corporation

15) Signed

**RAJAGOPAL
AIYAR**

 Digitally signed by RAJAGOPAL
AIYAR
Date: 2025.02.10 13:35:12 -05'00'

Raj Aiyar
Environmental Engineer

16) Concurrence

ARACELI CHAVEZ

 Digitally signed by ARACELI
CHAVEZ
Date: 2025.02.10 14:43:30 -05'00'

Araceli B. Chavez
Chief
RCRA Enforcement Section

Attachment A
Photographs of Wacker Chemical Corporation
EPA ID# KYR000047274
By: Rebecca Wood, EHS Manager



Photo-1 SAA Container (Missing Indication of Hazard Label (IOH))



Photo-2 SAA Container-lab (Missing IOH)



Photo-3 Waste Products on the Floor
Adjacent to the Lab



Photo-4 Leaks and Spills of Products near the Process tanks adjacent to the Lab.



Photo-5 Central Accumulation Area



Photo-6 Universal Waste Staging Area