



United States Environmental Protection Agency
Region 7
Enforcement and Compliance Assurance Division

Air Branch

Air Branch Inspection Report
Unannounced Partial Compliance Evaluation
Evonik Corporation
6601 South Ridge Road
Haysville, KS 67060
FRS# 110000446679

Inspection Date(s):
April 30 – May 1, 2024

Christopher Appier, Inspector, ECAD, Air Branch

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APPENDICES

- A - Title V Operating Permit (68 pages)
- B - Receipt for Documents (1 pages)
- C - List of Documents Received (1 pages)
- D - Confidential Business Information (2 pages)
- E - Toxic Vapor Analyzer Calibration Form (1 pages)
- F - Inspection Notebook (2 pages)

**This Contents page shows all the sections contained in this report
and provides a clear indication of the end of this report.**

INSPECTION OVERVIEW

INSPECTION OBJECTIVE

The objective of the partial compliance evaluation inspection was to determine compliance of the facility with the Clean Air Act (CAA), specifically those requirements listed in **Table 3** below.

Table 1 lists the inspection team members.

Table 1. PROJECT TEAM MEMBERS		
Team Member	Organization	Project Role
Christopher Appier	EPA Region 7, ECAD, Air Branch	Lead Inspector
Joshua Webb	Kansas Department of Health and Environment	Field team member
Mickey Haynes	Kansas Department of Health and Environment	Field team member

FACILITY CONTACT INFORMATION

Table 2 lists the primary facility contacts alphabetically by last name.

Table 2. FACILITY CONTACT INFORMATION		
Name, Title	Phone No.	Email Address
Ross Arnold	-	ross.arnold@evonik.com
Lindsey Bailey	-	lindsey.bailey@evonik.com
Alan Flint	-	alan.flint@evonik.com
Darby Kiley	-	darby.kiley@evonik.com
Julie Stroud	316-529-9676	julie.stroud@evonik.com

FACILITY OVERVIEW

The Evonik Corporation (Evonik) facility in Haysville, Kansas, began doing business in the 1960s. The facility was purchased and expanded by Air Products Manufacturing Corporation in the mid-1980s. The facility was then purchased by the current owner, Evonik Corporation, in 2017. The facility produces specialty tertiary amines used in foam production to prevent breakdown and the release of volatile organic compounds (VOCs). The facility is a major source for VOCs and an area source for hazardous air pollutants (HAPs). The facility operates 24 hours per day, 7 days per week, 365 days per year, and employs 68 people.

The last onsite compliance monitoring activity at the facility was on August 26, 2021, and consisted of a full compliance evaluation conducted by the Kansas Department of Health and Environment (KDHE). KDHE completed a Title V certification review on February 13, 2024.

According to Environment and Compliance History Online, there has been one formal enforcement action and one informal enforcement action at this facility in the past five years. KDHE issued the following enforcement notifications to the facility:

- KDHE issued a Written Informal Notice to Evonik, on September 9, 2022, for a violation of standards applicable to generators of hazardous waste under the Resource Conservation and Recovery Act. The facility returned to compliance on September 14, 2022.
- KDHE issued an Administrative Order to Evonik, on March 9, 2023, for failure to submit a Title V permit renewal application on time. The facility returned to compliance on May 5, 2023.

According to Evonik's Title V operating permit (**Appendix A**) issued by KDHE on July 12, 2018, the facility is subject to the following regulations and standards subject to review during this inspection (**Table 3**):

Table 3. APPLICABLE PERMIT CONDITIONS, REGULATIONS AND STANDARDS	
Code of Federal Regulation	Standard Name
40 CFR Part 60	Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 (NSPS Kb)
40 CFR Part 63	Subpart EEE, National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors (MACT EEE)

According to NSPS Kb, the facility is required to determine and record the maximum true vapor pressure (MTVP) for three tanks (TK-NPVOLTKS30, TK-SPVOLTKS20, and TK-ACNTANK) with a MTVP less than 27.6 kPa. The records are to be kept for at least 2 years.

According to NSPS Kb, the facility is required to control emissions via a closed vent system and control device for two tanks (TK-THFNSPSTK1 and TK-THFNSPSTK2) with a MTVP greater than 27.6 kPa. NSPS Kb has additional requirements for the closed vent system and control device that include testing, monitoring, recordkeeping, and reporting.

As an area source of HAPs, Evonik has chosen the option for the Coen Boiler to remain subject to some of the emission standards found in the Boiler and Industrial Furnace regulations in 40 CFR 266 Subpart H in lieu of complying with the standards for metals, hydrogen chloride, chlorine, and particulate matter in MACT EEE.

FACILITY OPERATIONS SUMMARY

The facility consists of reactors, distillation columns, boilers, and tanks used in production, packaging, and distribution. Five of the 67 tanks are regulated under NSPS Kb. Two of these NSPS Kb regulated tanks are required to have emission controls and a closed vent system.

The facility combusts hazardous waste in the Coen Boiler, and it is subject to MACT EEE requirements.

The facility is equipped with three gas scrubbers and a flare to control VOCs and HAPs. The tetrahydrofuran (THF) scrubber is used to control emissions from the two NSPS Kb tanks requiring emission controls.

FIELD ACTIVITIES SUMMARY

I arrived at the facility on April 30, 2024, at 8:50 a.m. and completed a drive by surveillance inspection. I did not observe visible emissions. I made entry at the gate at 8:55 a.m. and introduced myself and members of the inspection team, presented my credentials, and provided my business card to Lindsey Bailey, the production manager. I conducted an opening conference during which I explained that the purpose of the visit was to conduct an inspection to determine compliance with the CAA, specifically, to determine compliance with the regulations and standards listed in **Table 3**. I explained that after asking for some general business information, I would conduct measurements, observe process units, emission units, control equipment, and also review associated records demonstrating compliance with the facility's operating permit. I explained to Alan Flint, the site manager, that the facility would have an opportunity to make a claim of business confidentiality at the end of the inspection and provided him with a Confidential Business Information (CBI) form. After the opening conference, Ms. Bailey provided a description of the facility operations.

I was given a facility tour by Darby Kiley and Ross Arnold. I wore a hard hat, fire retardant clothing, safety glasses, ear plugs, and steel toed boots during the facility tour per my site health and safety plan.

During the facility tour, I observed the entire facility while conducting optical gas imaging. We broke for lunch at 12:15 p.m. and returned to the inspection at 1:50 p.m. I then reviewed the condition of the THF and THF mix tanks.

After the facility tour, I left the facility at approximate 4:30 p.m. I returned to the facility the next morning at 9:50 a.m. I then reviewed the records listed on the Receipt for Documents (**Appendix B**). I obtained copies of the records as indicated on the Receipt for Documents. Due to IT security issues, I was not able to receive all records requested during the inspection. A

OneDrive folder link was shared on May 1, 2024, and the remaining documents were uploading to a shared OneDrive folder by May 28, 2024. See **Appendix C** for a list of documents received.

I conducted a closing conference with the facility members listed in **Table 2**. I provided the facility with a copy the Receipt for Documents (**Appendix B**). Mr. Flint did make a claim of confidentiality (**Appendix D**). I departed the facility at 12:00 p.m.

Observations and potential findings from the facility tour, and records review, and measurement activities are noted in the **Investigation Observation and Potential Findings** section below.

Measurement Activities

I conducted field measurements during the onsite portion of the inspection. I used a forward looking infrared (FLIR) camera to monitor for leaking equipment through the entire facility. I conducted equipment leak monitoring using a toxic vapor analyzer (TVA) at the THF and THF mix tanks.

All environmental measurement activities were performed in accordance with the EPA Region 7 quality system. I followed manufacturer and EPA processes for instrument calibration, and TVA calibration was documented on a Daily Calibration Form (**Appendix E**).

Table 4 summarizes field measurement activities.

Table 4. FIELD MEASUREMENT ACTIVITIES			
Location Identifier	Date	Method and/or Procedure ¹ , and Equipment	Measurer Name
Evonik	4/30/2024	Method: EPA Method 21: Determination of Volatile Organic Compound Leaks Region 7 Procedure: <i>Toxic Vapor Analyzer (TVA)</i> Equipment: Thermo Fisher Scientific, Model No. TVA 2020, and Serial No. 202019034113	Christopher Appier
		Region 7 procedure: <i>FLIR ThermoCAM™ GasFindIR, GF320, and Similar Infrared Cameras,</i> Equipment: FLIR, Model No. GX320, and Serial No. C15517 - FLIR GX320 – 10400138	
¹ The current version of each procedure, at the time of the investigation, was followed.			

INVESTIGATION OBSERVATIONS AND POTENTIAL FINDINGS

Ambient weather, site conditions, and activities were documented in field records. I made the following observations during the inspection. All observations were discussed with facility members during the inspection.

These observations are not final compliance determinations. The EPA Region 7 Air Branch case review team will make the final compliance determinations based on its review of this report and other technical, regulatory, and facility information.

I monitored a leak at a connector on the THF tank pump. On May 14, 2024, Ms. Stroud informed me via email that the leak had been repaired. Documentation of this repair was requested on June 27, 2024, but not received at the time of finalizing this report.

I monitored a leak at the THF mix tank blow off manway. On May 14, 2024, Ms. Stroud informed me that there was an unsuccessful attempted repair, and a new gasket had been ordered. Follow up documentation of the repair was requested on June 27, 2024, but not received at the time of finalizing this report. I noted the leak in my inspection notebook (**Appendix F**)

The documents reviewed on site (listed in **Appendix B**) appeared to be complete and met the relevant requirements of the permit and regulations listed in Table 3. The additional documents received to further determine compliance (listed in **Appendix C**) have not been reviewed at the time of this report.

A Title V operating permit renewal application was submitted to KDHE on March 30, 2023.

Potential Finding 1: Detectable emissions from THF mix tank
Observation Summary: Emissions above 500 ppm detected using Method 21 from the THF mix tank blow off manway.
Citation: 40 CFR § 60.112b(a)(3)(i)
Evidence: Field photographs (claimed as CBI), Inspection notebook (Appendix F), TVA Calibration Form (Appendix E)
Description of Observation: 40 CFR § 60.112b(a)(3)(i) requires that “the closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, subpart VV, § 60.485(b).” I monitored a leak at the THF mix tank blow off manway using Method 21. I noted the leak in my inspection notebook at the time of monitoring. I also took two photographs (claimed as CBI) of the TVA during the monitoring. The photographs show readings of 1915 ppm and 6.65%.

End of report.