



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

Air Branch

Air Branch Inspection Report
Unannounced Partial Compliance Evaluation
Trans Chemical Corp
419 E DeSoto
St. Louis, MO 63147
FRS# 110000441932

Inspection Date(s):
September 6, 2023

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Authorized for Release by:

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- A Facility Map (1 page)
- B Construction Permit (5 pages)
- C Confidential Business Information Form (2 pages)
- D Receipt for Documents and Samples (1 page)
- E Video Log (1 page) [Confidential Business Information]

**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 (PCE) inspection was to determine compliance of the facility with the Clean Air Act (CAA) and identify possible sources of volatile organic compound (VOC) emissions. The facility was identified as a possible source of further investigation based on VOC emissions identified during the U.S. Environmental Protection Agency's (EPA) geospatial measurement of air pollution screening conducted between September 12-15, 2022, in the St. Louis area. The inspection was part of the EPA's Creating Cleaner Air for Communities National Enforcement Compliance Initiative.

This inspection was conducted by Christopher Appier, EPA Region 7, Enforcement and Compliance Assurance Division, Air Branch.

FACILITY CONTACT INFORMATION

Table 1 lists the primary facility contacts.

Table 1. FACILITY CONTACT INFORMATION		
Name, Title	Phone No.	Email Address
John Hummel, Vice President	314-231-6905	John.hummel@transchemical.com
Jason Grubb, Operations Manager	314-231-6905	jason.grubb@transchemical.com

FACILITY OPERATIONS SUMMARY

Trans Chemical is a chemical distribution facility that receives, stores, blends, and delivers industrial and food chemicals. Products are mostly received by rail or truck and moved in overhead pipes to the tank farm. Products are then stored until shipped in totes, drums, and trucks. Mixing is only done for a small portion of product and is predominantly the addition of bittering denaturant to ethanol. The facility has the capability to handle food grade products, which are housed in a separate building known as the Benedict Warehouse. The South Warehouse is not currently in use since a fire destroyed a portion of the building in September of 2022. See **Appendix A** for a map of the facility. The chemical storage tanks and loading/unloading processes were the main focus of the inspection due to their potential for being sources of fugitive VOC emissions.

FACILITY OVERVIEW

The City of St. Louis Department of Public Safety Division of Air Pollution Control issued a construction permit (Permit No. 97-12-109) to Trans Chemical on March 20, 1998 (the permit). The facility is a true minor source with a potential to emit 24.99 tons of VOCs and 2.95 tons of hazardous air pollutants (HAPs) per year. The permit is included as **Attachment B**.

Section II(A) of the permit limits the maximum allowed truck loading and transfer volumes to 45 million gallons per year.

Section III(B) requires that all VOC and HAP containing materials be stored and covered properly when not in use.

Section IV(D)-(E) require a monthly record of the total throughput in the bulk storage tanks, calculated monthly records of the total emissions from the facility, and adequate monthly records of loading and transfer throughput.

Recent enforcement actions consist of a formal administrative enforcement action based on violations of the Emergency Planning and Community Right-to-Know Act Section 313, also known as the Toxic Release Inventory. The action was settled on April 25, 2023.

FIELD ACTIVITIES SUMMARY

I arrived at the facility on September 6, 2023, at 08:45 and completed a drive by surveillance inspection. I did not observe visible emissions coming from the facility. I made entry at the front gate at 08:55 and introduced myself, presented my credentials, and provided my business card to Mr. John Hummel. I was shown a site brochure that contained safety information about the site by Mr. Hummel. 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. I explained that after asking for some general business information, I would observe work practices and emission units, review associated records demonstrating compliance with the permit, and inspect the facility for fugitive VOC emission using a forward looking infrared (FLIR) camera. I explained to Mr. Hummel that the facility could make a claim of business confidentiality and provided them with a Confidential Business Information form. Mr. Hummel did make a claim of confidentiality. The Confidential Business Information form is included as **Appendix C**.

After the opening conference, I requested a facility map and a copy of the most recent air permit for the facility. Mr. Hummel informed me that Mr. Jason Grubb was in charge of the environmental operations. Mr. Hummel was unable to locate the permit and contacted the City of St. Louis to obtain a copy, which was sent to me on September 26, 2023, via email.

After reviewing the layout of the facility, I was given a site tour by Mr. Hummel. Before the tour, I was informed that it was company policy to not allow photographs on site. I wore a hard hat, steel toed boots, safety glasses, and ear plugs during the tour. I used a FLIR camera to search for potential sources of fugitive VOC emissions at the site. Three tanks were identified as having evidence of air emissions. For more information on the air emissions from the tanks and the use of the FLIR, see the **Sampling Activities** section below. The site visit consisted of observing the railcar unloading area, the truck scale area, the tank farm, the dock, the brick warehouse, and then the Benedict Warehouse. During the tour, Mr. Hummel informed me that the facility no longer blends inks or shellacs.

After the site visit, I requested and was provided copies of the safety data sheets for the chemicals stored in the three previously mentioned tanks.

I conducted a closing conference with Mr. Hummel. I provided Mr. Hummel copies of the Receipt for Documents and Samples (**Appendix D**), a Confidential Business Information form, and a Small Business Information sheet.

On October 2, 2023, I requested the records required in Section IV of the permit. The records were sent to me by Mr. Grubb on October 18, 2023.

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

Sampling Activities

I conducted fugitive VOC screening using a FLIR camera during the onsite inspection. I first used the FLIR camera in the railcar unloading area. No emission were identified in this area, but no railcars were being unloaded at the time. Next, I used the FLIR camera to observe two tanker trucks being loaded. One truck was being loaded with ethanol, while the other was being loaded with a toluene blend. No emission were identified during these unloading events. After the truck loading, I used the FLIR camera to check for emissions in the tank farm. Using high sensitivity mode, I was able to identify the emissions shown in **Table 2** below. The FLIR camera videos have been claimed as confidential business information and are documented in **Appendix E**.

Table 1. TANK CONTENTS		
Tank Number	Tank Contents ¹	Video Number
93	Heptane	1 and 4
78	190 Proof Ethanol	2
82	Hexane	3
¹ Tank contents were identified by the facility and not verified via sampling by EPA during the inspection.		

After the tank farm, I checked for emissions at the dock and the brick warehouse areas. No emissions were identified in these areas.

All environmental measurement activities were performed in accordance with the EPA Region 7 quality system except that the time and date were not set in the FLIR camera when it was turned on.

Table 3 summarizes field measurement and field sampling activities.

Table 3. FIELD MEASUREMENT ACTIVITIES		
Date(s) and Time	Method and/or Procedure ¹ , and Equipment	Measurer Name
September 6, 2023 08:30-11:15	Region 7 procedure: SOP 2318.09B Equipment: FLIR, Model No. GF320, and Serial No. 44401969	Christopher Appier
¹ The current version of each procedure, at the time of the investigation, was followed.		

Figure 1 shows the approximate location of where each FLIR video was taken.

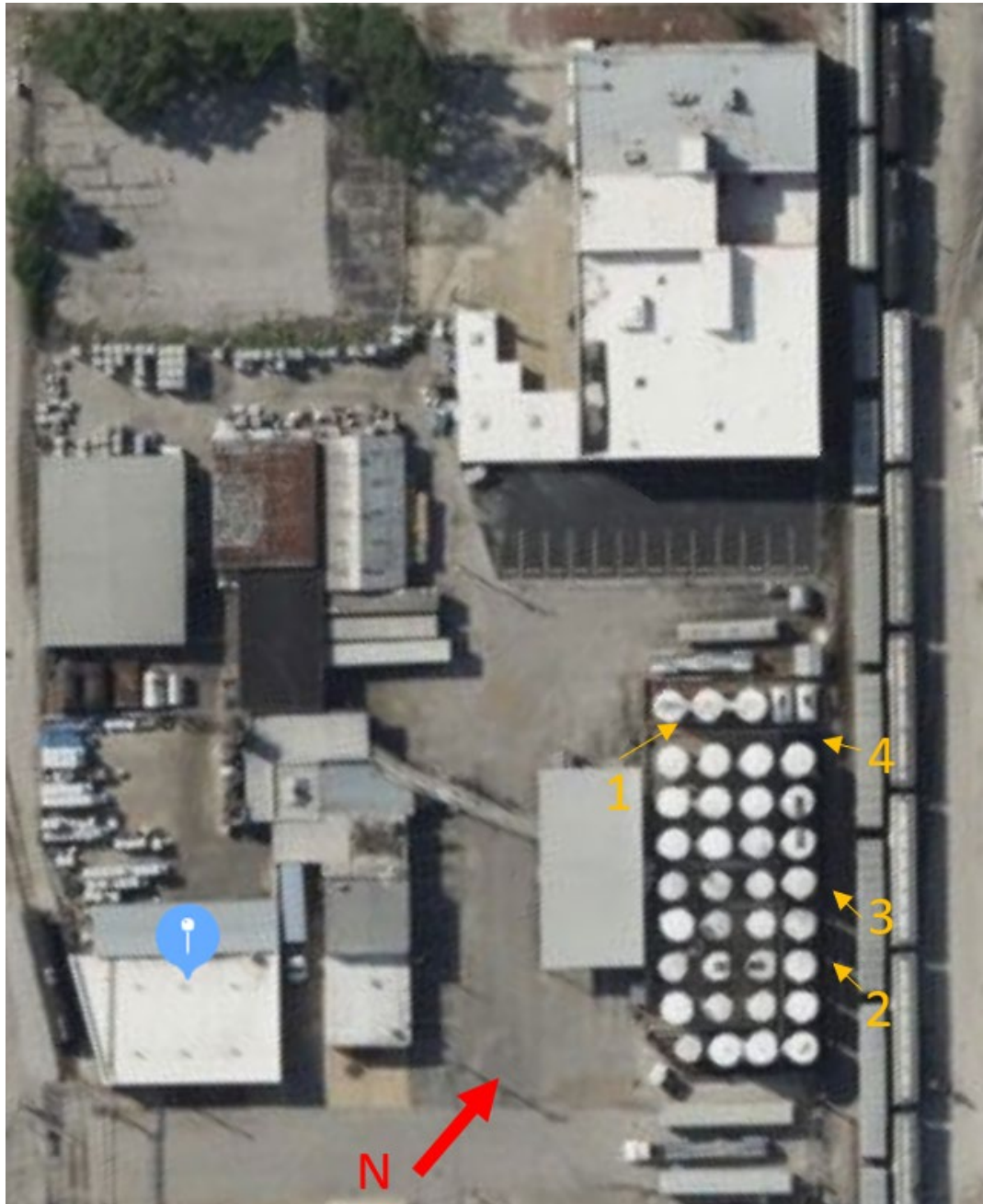


Figure 1. FLIR Video Locations

INVESTIGATION OBSERVATIONS AND POTENTIAL FINDINGS

Site conditions and activities were documented in field records. I made the following observations during the inspection. I discussed all observations with facility representatives during the closeout meeting unless otherwise noted in the observation description.

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.

The recordkeeping documentation and the loading and transfer throughput appear to be in compliance with the permit requirements.

Three tanks were found to be emitting using the FLIR camera. These tanks contained 190 proof ethanol, hexane, and heptane. Hexane is listed as a HAP in the Clean Air Act. Ethanol, hexane, and heptane are VOCs.

The permit does not accurately reflect the current operations at the facility. The permit references ink and shellac blending, which is no longer conducted on site. In addition, the Tank IDs listed in Table Two: Approved and previously permitted sources, do not seem to match the current configuration on site. For example, Tank 78 was said to contain 190 proof ethanol when I asked during the facility tour. However, in the permit there is no tank 78 listed and tanks 75, 80, and 90 are listed as containing 190 proof ethanol. In the copy of the permit provided to me, there are significant markups in this table that show various other changes that have occurred at the facility that are not documented in the permit. This finding was not discussed in the closeout meeting because the determination was made using information received after the inspection.

End of report.