

**Illinois Environmental Protection Agency  
 Bureau of Air  
Complaint Record**

GENERAL INFORMATION			
Complaint #:	A2024-0506-001 through -015 (15) A2024-0507-003 A2024-0507-004 A2024-0508-003 A2924-0509-002	IEPA ID #:	031300AAJ
(Other) ID #:	N/A	# of Complaints Represented:	19
Received by:	Deirdre McQuillen	Received from:	Various complainants
Complaint(s) Received Date:	May 7, 2024 May 8, 2024 May 10, 2024	Time:	Various
RECEIVED VIA			
<input type="checkbox"/> Phone	<input type="checkbox"/> Email	<input type="checkbox"/> Mail	<input type="checkbox"/> Online Complaint Form
<input checked="" type="checkbox"/> BOA	<input type="checkbox"/> BOL	<input type="checkbox"/> OER	<input type="checkbox"/> USEPA
<input type="checkbox"/> Other			
COMPLAINANT INFORMATION		SUSPECT SOURCE INFORMATION	
Name:	Various Complainants from the suburbs of: Oaklawn, Berwyn, Brookfield, Riverside, Cicero, Lyons	Name:	Koppers, Inc.
Address:		Contact Person:	Seth Herring / Plant Manager
City:		Address:	3900 South Laramie Street
State:		City:	Cicero
ZIP Code:		State:	Illinois
Phone #:		ZIP Code:	60804
County:		County:	Cook
Email:		Phone #:	(708) 556-9984
Return Call Requested:		Email:	Herringsl@koppers.com
CONTACT AND FINAL DISPOSITION			
Complainant(s) Contacted:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Date:	Various Dates
USEPA Contacted:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Representative:	NA
Final Disposition:	<input type="checkbox"/> GIR Generated <input type="checkbox"/> No Further Action (NFA) <input type="checkbox"/> Tracking <input checked="" type="checkbox"/> VN Recommended <input type="checkbox"/> REFERRED:		

**COMPLAINT TYPE / CATEGORY**

Odor                       Open Burning                       Fugitive Dust                       Asbestos  
 Other:

**COMPLAINT(S) DESCRIPTION**

A2024-0506-001:

Stench of fertilizer and chemicals to the point you cannot have windows open or be outside. All spring and summer.

A2024-0506-002:

Strong gas like odor outside.

A2024-0506-003:

Outside air in my backyard had a tar/chemical smell that made my child feel nauseous. After going inside and closing all windows I took a ride by the plant, and it was definitely coming from there. At that location the smell was very bad. I live in Brookfield. This is my first-time reporting, but this has happened at least 20 times in the past.

A2024-0506-004:

Chemical odor, terrible odor.

A2024-0506-005:

There is a strong nauseating tar or gas smell, it is hard to breathe outside and there's a smell inside our home. 5/6/23 has been ongoing since 9:30 pm. I'm making this complaint at 10:30 pm.

A2024-0506-006:

Strong odor of tar. Started around 10 pm

A2024-0506-007:

The smell of gas and tar is so strong I am lightheaded. I have lived here 10 years and never smelled an odor like this. 9 pm - 11 pm +

A2024-0506-008:

Very strong odor in air, feeling burning in eyes and lingers in your nose. Penetrating clothes with the same smell. Noticed by everyone inside the household. Started at 8:30 5/6/24.

A2024-0506-009:

Smell like gas or something in the air.

A2024-0506-010:

Burning tar smell. Overwhelming and penetrating smell of burning tar or some other industrial petrochemical tar smell permeated the air for hours. 9:30 pm 5/6/24.

A2024-0506-011:

Terrible chemical smell outside. Smells like mothballs. Monday 5/6.

A2024-0506-012:

Smells like a foul chemical smell its alarming.

A2024-0506-013:

Dry strange smell in the North Riverside area. Unknown source. Unable to describe but maybe close to plastics or metal. Not like a bonfire smell. Around 10:15 pm to current as of this writing (11:22 pm).

A2024-0506-014:

Strong smell, fee like burning your eyes. Couldn't breathe properly. I don't know exactly. I just noticed coming back home around 9:30 pm. Had to close all the windows at home.

A2024-0506-015:

Strong chemical smell in air, making it difficult to breathe and cannot have windows open or walk. Smells of off gassing. Concerned for our air quality and lungs. Very strong in evening of 5/6/24 throughout the night. Have experienced it in days leading up.

A2024-0507-003:

Reeks of chemicals or melting plastic outside. All evening/night of 5/6/24.

A2024-0507-004:

Strong tar smell 5/5/24 - 5/6/24.

A2024-0508-003:

Strong odor smells like burning chemicals/rubber occurring today 5/8/24 @ 7:25 pm. also occurred on 5/6/24 at around 8:30 pm up to 10 pm. On 5/6/24 the odor gave me a headache and nausea. Today (5/8/24) no headache yet, but the smell is slowly increasing as the evening is progressing.

A2924-0509-002:

On 5/2/24; terrible smell, very strong. had a headache. It was very strong. 22:30 pm; Around 10 am.

Investigating Inspector: Tom Kolokythas / Daniel Delgado

Date of Inspection: Desk-Top Investigation (Various Dates Outlined Below)

**INVESTIGATION FINDINGS**

The followings construction permits outlined below are associated with the facility incident that occurred on the evening of May 6, 2024.

<u>Permit Type</u>	<u>Permit #</u>	<u>Description</u>	<u>Date Last Issued</u>
Construction Permit – Revised	01110057	Tank #3 controlled by the Fume Scrubber #2 & Tar plant Thermal Oxidizer (TO)	December 21, 2016
Construction Permit – NESHAP Source	20020016	Storage Tank, #200, controlled by the existing Thermal Oxidizer (TO1-4)	March 19, 2020
Construction Permit – NESHAP Source	21050024	Storage Tank, #101, controlled by the Tar plant Thermal Oxidizer (TO)	December 21, 2016

5/17/24 – Meeting with source

- The authors spoke with Seth Herring/Plant Manager
- Description of event
  - Began on 5/6/24
  - Transferring tar from Tank 101 to Tank 200. To accomplish, operator needed to align valves correctly
  - Valve to Tank 3 was left open & thus majority of material went there instead of Tank 200.
  - Tank 3 is an enclosed tank
  - Spill occurred due to overfilling. Tank 3 is equipped with a pressure relief hatch, which opened
    - Spill occurred from the top
    - All the spill was contained in immediate area
    - Some of the material entered their sewer system
    - The facility's Wastewater treatment plant was shut off so it wouldn't treat the spill
    - Vacuum truck cleaned out the sewers
- Duration
  - 7:30 pm to 10:30 pm on 5/6/24

- Flow stopped to Tank 3
- Mostly cleaned up the next day (5/7/24) into 5/8/24
  - Ground & sewers
  - Some residue material on access of tank and insulation of tank
  - Placed absorbents to collect dripping from insulation
  - Will replace all insulation in a year when the tank is taken down for inspections and repairs
  - Will clean out the sewer again during their periodic sewer cleaning schedule
- To prevent from occurring in future
  - Updated work instruction for tank transfers
  - Corrective action on the person
- Quantity spilled
  - 65,000 gals spilled of Crude Coke Oven Tar
  - Vapor pressure low
- Emissions
  - Received from facility and shown further below
- Both Tanks 101 & 3 vent to control
  - Existing Scrubber & Tar Plant Thermal Oxidizer (TO1-4)
    - Scrubber
      - Pull fumes off tanks to scrubber
      - Uses naphthalene still residue
      - Condense at temp of oil
        - What doesn't condense continues to TO
      - Weekly samples of scrubbant and change as needed.
      - Most goes to TO

5/24/24

- Requested from source:
  - Root cause analysis
  - Corrective action
  - Emission Calculations

6/26/24

- The facility provided the author with the requested information.
- Per review of the information submitted, the following is the root cause analysis along with corrective actions:

**Problem Definition**

**What:** Tank 3 Overfill

**When:** May 06, 2024 22:00

**Relative When:** While transferring Tar/Carbon Black Oil from Tank 101 to Tank 200

**Where:** Koppers Stickney, Tank 3

**Summary of Events – Tank 3 Overfill**

At 22:00 on May 06, 2024, a Koppers process man observed Tar/Carbon Black Oil overflowing approximately 70,000 gallons from the top of Tank 3. The process man immediately notified his supervisor, and all transfers were stopped. No material was transferred to Tank 200.

After our investigation was completed, it was determined that while transferring Tar/Carbon Black Oil from Tank 101 to Tank 200 a circulation valve on Tank 3 was inadvertently left open. This valve was not noticed prior to the beginning of the transfer due to a lack of proper line walk down before the transfer was started. These three tanks share common piping which caused material to fill Tank 3. The valve had been left open

when a previous shift had circulated the tank to pull a sample and did not close the valve when they were done.

It was confirmed that via our PLC Trends that several high-level alarms for Tank 3 were activated throughout the transfer but were not noticed by our control room operator. Upon speaking with several operators, it was determined that we had a gap in our PLC Trend training.

#### Corrective Actions

- **Cause:** 70,000 Gallons of material was released from T-3 due to transfer valve being open.  
**Corrective Action:** Update work instructions to clarify that transfer inspection must be conducted every two hours including inspection of the pump, transfer lines, tank, and trends. Conduct training with all effected personnel. Complete
- **Cause:** 70,000 Gallons of material was released from T-3  
**Corrective Action:** Investigate installing an interlock that shuts down all transfers when any tank high level alarm is tripped. In Progress
- **Cause:** Transfer line was not walked down adequately during the transfer.  
**Corrective Action:** Complete refresher training with all employees responsible for completing tank transfers. In Progress

Construction Permit #01110057 states: Tank #3 is to be controlled by the existing #2 fume scrubber and tar plant thermal oxidizer at all times. Per the above description of events, the source failed to control emissions from Tank #3 due to the overflow of material. Therefore, the author recommends the following violation:

Section 9(b) of the Act and Condition 2 of Construction Permit #01110057:

Koppers Inc., failed to maintain and operate Tank #3, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.

Section 9(a) of the Act and 35 Ill. Adm. Code 201.141: Koppers Inc., caused or allowed the discharge of odorous emission so as to cause or tend to cause air pollution as evidenced by citizen complaints beyond the property boundaries.

Additionally, the source provided emission calculations for the total amount of VOM released, outlined below:

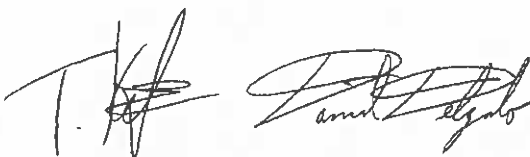
- Calculations of emissions:
  - Total Amount of Emission for Event (5/6/2024- 5/8/2024): **54.6 lbs VOM**
  - Daily Amount: **47.3 lbs VOM** 5/6/2024, **7.3 lbs VOM** 5/7/2024, No emissions on 5/8/2024.
  - Hourly Amount: **15.8 lb/hr** VOM 5/6/2024, **0.4 lb/hr** VOM 5/7/2024, No emissions on 5/8/2024.

Per the report, the source exceeded their 8 lb/hr limit of VOM on 5/6/24. Therefore, the author recommends the following violation:

Sections 9(a) of the Act, 35 Ill. Adm. Code 218.301: Koppers, Inc caused the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from Tank #3 on May 6, 2024.

#### SIGNATURE

RECORD CERTIFICATION:





112601  
KPA - JCB  
Section 31 waived

cc: Mohr  
DLC  
VH file

031300AAJ  
10K



Koppers Inc.  
Carbon Materials and Chemicals  
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Cicero, IL 60804-4523  
Tel 708 222 3483  
Fax 708 656 6079  
www.koppers.com

05/22/2024

Illinois Environmental Protection Agency  
Bureau of Air  
Compliance Section (MC 40)  
PO Box 19276  
Springfield, IL 62794-9276

RECEIVED  
STATE OF ILLINOIS

MAY 24 2024

ENVIRONMENTAL PROTECTION AGENCY  
BUREAU OF AIR

RE: Deviation Report  
Koppers Inc., Stickney Plant  
ID Number: 031300AAJ

To Whom It May Concern:

Koppers Inc. (Koppers) operates a chemical manufacturing plant in Stickney, Illinois under Clean Air Act Permit Program (CAAPP) Permit # 96030134. Condition 5.7 of the CAAPP permit requires Koppers to provide prompt notice to the Illinois Environmental Protection Agency (IEPA) of deviations from CAAPP permit requirements.

The reports are to describe the event, the probable cause of the deviations, any corrective actions or preventive measures taken, and steps to avoid future deviations. The attached Table(s) summarize deviations from a requirement of the CAAPP permit or another requirement as noted.

Koppers hereby waives the enforcement process under 415 ILCS 5/31 with respect to any deviations identified in this report. Koppers, by this waiver, is not admitting liability and expressly reserves its rights and any defenses with respect to any alleged violations.

If there are any questions concerning this report, please contact Kerry Grigsby of Koppers at (708) 209-9462.


Sincerely,  
  
Seth Herring  
Plant Manager

Table 1: Tar Plant Summary of Deviations  
30-Day Report

Start Time	End Time	Deviation Period (Minutes)	Regulation/Permit Condition (see footnote)	Emission Rate (lb/hr)	Emission (lb)	Cause of the Event	Corrective/Preventive Actions Taken
5/1/24 1:35 PM	5/1/24 1:37 PM	2:00	6	57.3	1.9	#2 fume system vent valve opened to due to high pressure spike in the Unit 2 flash column.	Tar, Naphthalene and Acid Washer plants auto tripped to stop production right away, only #2 unit flash vacuum pump stop button malfunctioned, suspected wiring issue, troubleshooting is in progress. The operator stopped the pump in the field.
5/8/24 7:41 AM	5/8/24 7:44 AM	2:55	6	57.3	2.5	#2 fume system vent valve opened to due to high pressure spike in the Unit 2 tar column during start up.	Tar and Acid Washer plants auto tripped to stop production right away.

Footnotes

Regulation/Permit Conditions

- 1 CPE#14100012 - Permit condition 2.2.1.a. (Naphthalene Plant Tanks)
- 2 IAC 35.5 218.302 (TO control if VOM emissions are >8 Baulf)
- 3 CPE#16080025 - Permit condition 1.a. and/or 5.a. (Tube Heater #1 emission limit)
- 4 CPE#10040005 - Permit condition 4(b) (Pitch Tanks, 89% control)
- 5 CPE#11100041 - Permit condition 1.a. and/or 5.a. (Tube Heater #2 emission limit)
- 6 CPE#00040051 - Permit condition 2.d. (Tar TO, 98% Control Requirement requirement)
- 7 35 Ill. Adm. Code 218.985(d) (81% control, Tar Distillation Process)
- 8 CPE#14100012 - Permit condition 2.1.5(a) (Naphthalene Plant Emission Limit)
- 9 35 Ill. Adm. Code 218.985(d) (Naphthalene TO, 81% control requirement)
- 10 CAAPP 96030134 - Permit Condition 7.7.9(i) Total sulfur content of naphthalene feed based on daily sampling.

Table 2: PAA Plant Summary of Deviations  
30-Day Report

Date	Regulation/Permit Condition (See footnote)	Description	Cause of the Event	Corrective/Preventive Action Taken	Comments
5/12/2024	10	The naphthalene feed sample was not taken.	Operator error - sample was not taken.	Operators are instructed to take a sample at midnight and the lab/environmental will follow up if a sample is not received allowing more time remaining in the day for a daily sample.	Emissions of SO <sub>2</sub> from the process were well below the permit limit as measured by the SO <sub>2</sub> CEMS. Naphthalene feed from the storage tanks to the reactors was not sampled on 5/12/2024, however, sample results from the Naphthalene Plant to storage show the wt% sulfur was less than 0.8 wt%. Based on the CEMS and the Naphthalene Plant sampling the SO <sub>2</sub> permitted emission limit was not exceeded.

Footnote

- Regulation/Permit Conditions
- 1 CPE# 4100012 - Permit condition 2.2.1.a. (Naphthalene Plant Tanks)
  - 2 IAC 35.5 218.302 (TO control if VOM emissions are > 8 lb/day)
  - 3 CPE# 1509025 - Permit condition 1.a. and/or 5.a. (Tube Heater #1 onstand limit)
  - 4 CPE# 0904003 - Permit condition 4(b) (Pitch Tanks, 99% control)
  - 5 CPE# 1100041 - Permit condition 1.a. and/or 2.b. (Tube Heater #2 emission limit)
  - 6 CPE# 0004051 - Permit condition 2.d. (Tar TO, 98% Control Requirement)
  - 7 35 Ill. Adm. Code 218.366(e) (81% control, Tar Distillation Process)
  - 8 CPE# 4100012 - Permit condition 2.1.5(a) (Naphthalene Plant Emission Limit)
  - 9 35 Ill. Adm. Code 218.302(a) (Naphthalene TO, 61% control requirement)
  - 10 CAAP# 99030134 - Permit Condition 7.7.3(f) Total sulfur content of naphthalene feed based on daily sampling.

