



# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217)782-3397

JB PRITZKER, GOVERNOR

JOHN J. KIM, DIRECTOR

## MEMORANDUM

DATE: January 19, 2022

TO: Maureen Wozniak, Eric Jones, Kent Mohr,  
Ron Robeen and Bill Marr

FROM: Yasmine Keppner-Bauman, Compliance Unit

RE: Proposed Compliance Commitment Agreement from  
Koppers Inc  
Violation Notice A-2021-00492  
I.D. 031300AAJ

Please find attached a proposed Compliance Commitment Agreement (CCA) received from the facility in response to the above-referenced Violation Notice dated November 9, 2021. This facility is requesting a meeting.

January 13, 2022

*Via E-mail and Certified U.S. Mail*

Yasmine Keppner-Bauman  
Illinois Environmental Protection Agency  
Bureau of Air/Filed Operations Section  
1021 North Grand Ave. East  
P.O. Box 19276  
Springfield, IL 62794-9276  
Yasmine.Keppner-Bauman@Illinois.gov

**Re: Violation Notice A-2021-00492  
ID: 031300AAJ**

RECEIVED  
STATE OF ILLINOIS  
JAN 14 2022  
ENVIRONMENTAL PROTECTION AGENCY  
BUREAU OF AIR

Dear Ms. Keppner-Bauman:

Koppers Inc. (“Koppers”) appreciates this opportunity to provide the Illinois Environmental Protection Agency (“IEPA”) with its initial response to Violation Notice A-2021-00492, which was received by Koppers on November 30, 2021. It is Koppers’ intention to cooperatively participate in the Section 31 enforcement process and, if determined to be necessary, to provide IEPA with a proposed Compliance Commitment Agreement following the meeting with IEPA requested herein. Koppers willingness to participate in the Section 31 enforcement process is not, and should not be, construed as an admission of liability and Koppers expressly reserves its rights and any defenses with respect to the alleged violations.

Koppers, below, and preserving the foregoing arguments, responds to each of the alleged violations as set forth in Attachment A to the Violation Notice.

**I. Response to Specific Alleged Violations**

**1. Sections 9(b) and 9.1(d) of the Act, Condition 3 of Construction Permit 08040005 and 40 CFR 63.2470: Koppers Inc. failed to meet each emission limit in Table 4 of 40 CFR 63 Subpart FFFF-National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing for its pitch storage tanks on June 7, 2021.**

**Koppers’ Response:**

Koppers initially notes that Table 4 is for Group 1 storage vessels. There are no MON Group 1 storage vessels and, therefore, 40 C.F.R. § 63.2470 does not apply. There are MON Group 1 process vents that are required to be controlled, but that is under a different section.

This alleged violation was reported by Koppers to IEPA in a 30-day deviation report on July 6, 2021 (see Attachment 1) and, subsequently, in Koppers’ August 30, 2021 MON MACT Semi-

Annual Compliance Report, January 1, 2021 – June 30, 2021 Reporting Period 40 C.F.R. Part 63, Subpart FFFF, § 63.2520(e) (see Attachment 2).

As explained in the deviation and compliance reports, the Pitch Thermal Oxidizer (TO) shut down from June 7, 2021 at 10:42 p.m. until June 8, 2021 at 9:46 a.m. Due to a communication error, operations continued to produce hard carbon pitch until 8:20 a.m. on June 8, 2021. This equates to 442 minutes (7 hours, 22 minutes) of venting process fumes to the atmosphere without treatment in the TO.

Fume System #5 (FS-5) collects the fumes from the pitch tanks and scrubs them before they go to the TO. Prior to the incident, there were signs of potential plugging in FS-5, so the plant was shut down for several days to clean piping and do other preventative maintenance to ensure continued operation of emissions controls. When the system was restarted the dynamics had changed such that when the firing rate of the thermal oxidizer was between 17-20% the flame sensor indicated flame instability.

The instability of the signal from the flame sensor could be caused by a faulty instrument or by actual flame instability. In the event that there was actual flame instability, the area engineer was working with the supervisors to balance the vent system so that the TO would operate at a firing rate either above or below the problematic range. This was an iterative process because the problem was not consistent - sometimes it seemed to be fine and then would become erratic again.

On the night of the incident in question, the TO malfunctioned right before a shift change. During the shift change, the outgoing operator told the incoming operator that the supervisor was working on the TO. The supervisor restarted it and went back to other duties expecting that if there were additional problems the operator would inform him. The TO tripped again and the operator acknowledged the alarm thinking that the supervisor was still working on the TO. As a result of this failure to communicate, the TO was down for the remainder of the shift, until the next incoming shift found the situation and corrected it.

A cause map was developed following in connection with Koppers' investigation of this incident as included with the July 6, 2021 30-day deviation report. See Attachment 1.

The existing permit which governs the TO is Construction Permit #08040005. Provision 4a. of the permit requires that "the thermal oxidizer shall be operated and controlling emissions at all times when the existing Pitch Tanks are in operation and may vent to the atmosphere."

Emissions during the incident are calculated as follows:

- Emission rate = 3.8 lbs/hr (uncontrolled emissions - 2009 stack test)
- Duration = 7 hour 22 minutes = 7.37 hours
- VOM Emissions = 3.8 lbs/hr\* 7.37 hr = 28 lbs of VOM emissions.

Emissions during the incident were vented to the atmosphere through Fume System #5.

As for corrective action, upon discovery by the next shift, the TO was restarted. Koppers reached out to a subject matter expert for guidance on resolving the flame instability and has been advised that the combustion air control probably needed to be tuned. The area engineer also balanced the system to operate in the optimal range.

The following activities were also completed in response to the incident:

- The procedure has been changed to clarify that the operator has the authority and responsibility to shut down the process (previously Koppers relied on the supervisor that is not at the controls all the time seeing the alarms).
- All personnel have been trained on the updated procedure. See Attachment 3.
- Tuning has been completed, but no adjustments were required. The instability of the flame signal was resolved when the flame sensor was replaced.
- With the replacement of the flame sensor, no further maintenance was required this fall, so the TO oxidizer shut down was delayed until fall 2022.

**2. Section 9(b) of the Act and Condition 4(b) of Construction Permit 08040005: Koppers Inc. failed to operate the thermal oxidizer for the pitch tanks to achieve at least 98% destruction efficiency for volatile organic material (VOM) on June 7, 2021.**

**Koppers' Response:**

Koppers incorporates herein its response to alleged Violation No. 1, above.

**3. Sections 9(b) and 9.1(d) of the Act, Condition 1.1.3-l(b)(i)(A) of Construction Permit 02020104 and 40 CFR 63.1362(b)(2): Koppers Inc. failed to control organic hazardous air pollutants (HAP) from the creosote blend tanks in accordance with 40 CFR 63 Subpart MMM- National Emission Standards for Hazardous Air Pollutants for Pesticide Active Ingredient Production for multiple periods during the February 2021 through June 2021 timeframe.**

**Koppers' Response:**

This alleged violation was reported by Koppers to IEPA in a 30-day deviation report on September 27, 2021 (see Attachment 4) and in Koppers' August 30, 2021 Periodic Report for Reporting Period of January 1, 2021 through June 30, 2021 as Required by the Pesticide Active Ingredient (PAI) NESHAP, 40 C.F.R. § 63.1368(g) (see Attachment 5).

As explained in the deviation and compliance reports, three creosote blend tanks at the Stickney Plant are subject to the National Emission Standards for Hazardous Air Pollutants for the PAI MACT in 40 C.F.R. Part 63, Subpart MMM. In preparation of the Semi-Annual Monitoring Report required by the PAI MACT, it was discovered that there were seven instances when the creosote transfers occurred when the thermal oxidizer was down, thus not controlled. These

incidents were discovered on August 30, 2021, and, thereafter, Koppers promptly submitted a 30-day deviation notification.

Emissions from these events were discharged to the atmosphere through Fume System #2. The times of the events and estimated emissions are as follows:

***Table 2 - Times of the Event and Emissions***

Date	Start Time	End Time	Duration (Hr)	Source	VOM Emissions (lbs)
2/1/2021	10:00:00 AM	1:15:00 PM	3.25	T-302	14.21
2/13/2021	3:30:00 AM	7:00:00 AM	3.5	T-302	15.30
3/12/2021	10:30:00 AM	11:30:00 AM	1	T-302	4.37
5/12/2021	1:15:00 AM	3:25:00 AM	2.17	T-302	9.47
5/26/2021	12:00:00 PM	1:30:00 PM	1.5	T-302	6.56
6/10/2021	10:50:00 AM	3:05:00 PM	4.25	T-301	18.58
6/12/2021	11:30:00 AM	2:00:00 PM	2.5	T-302	10.93

Notes:

Emissions are based on vapor displacement calculations.

No hourly permit limit, but a requirement to control VOM with TO.

Koppers' investigation of these events determined that they were caused by process operator not responding appropriately to the Thermal Oxidizer offline status. The events were abated by the Thermal Oxidizer coming back online or the blender operations stopped.

Koppers, in response to these events, has taken the following steps to avoid future deviations: (1) Koppers has conducted additional work practice training (see Attachment 6) and applied corrective action as appropriate; and (2) Koppers has added a "Shutdown All Transfers" on the alarm annunciator.

**4. Sections 9(b) and 9.1(d) of the Act, Condition 1.1.3-1(b)(i)(C) of Construction Permit 02020104 and 40 CFR 63.1362(j): Koppers Inc. failed to comply with the requirements of Table 3 and Section 63.1362(j) of 40 CFR 63 Subpart MMM-National Emission Standards for Hazardous Air Pollutants for Pesticide Active Ingredient Production, for its closed vent system with bypass line for its creosote blend tanks for multiple periods during the February 2021 through June 2021 timeframe.**

**Koppers' Response:**

Koppers is providing its bypass events records (see Attachment 7) and, otherwise complies with all of the identified requirements, as applicable.

***Condition 1.1.3-1(b)(i)(C) (Construction Permit 02020104)***

*If the closed vent system has a bypass line the system, must comply with 40 CFR 63.1362(j).*

Koppers complies with this permit condition and is meeting the requirements in 40 C.F.R. § 63.1362(j), as shown below.

***40 C.F.R. § 63.1362(j)***

*(j) Closed-vent systems. The owner or operator of a closed-vent system that contains bypass lines that could divert a vent stream away from a control device used to comply with the requirements in paragraphs (b) through (d) of this section shall comply with the requirements of Table 3 of this subpart and paragraph (j)(1) or (2) of this section.*

*(j)(1) Install, calibrate, maintain, and operate a flow indicator that is capable of determining whether vent stream flow is present and taking frequent, periodic readings. Records shall be maintained as specified in §63.1367(f)(1). The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere; or*

Koppers complies with this requirement and continuously monitors bypass events.

*(j)(2) Secure the bypass line valve in the closed position with a car- seal or lock-and-key type configuration. Records shall be maintained as specified in §63.1367(f)(2).*

This provision is not applicable.

***Table 3 and Section 63.1362(j)***

*Flow indicator installed at all bypass lines to the atmosphere and equipped with continuous recorder*

*Thermal incinerator - Temperature monitoring device installed in firebox or in ductwork immediately downstream of firebox*

Koppers complies with these requirements.

**5. Section 9(b) of the Act and condition 1.1.5(b) of Construction Permit 02020104: Koppers Inc. failed to follow good operating practices for the creosote blend tanks and associated closed vent system.**

### **Koppers' Response:**

Koppers, respectfully, disagrees that it failed to follow "good operating practices" for the creosote blend tanks and associated closed vent system. Condition 1.1.5(b) of Construction Permit 02020104 provides that "[t]he Permittee shall follow good operating practices for the affected tanks and associated close vent system with the thermal oxidizer, including periodic inspection, routine maintenance and prompt repair of defects." Koppers' records indicate that it has followed good operating practices as stated in the permit.

**6. Sections 9(b) and 9.1(d) of the Act, Condition 1.1.8(b) of Construction Permit 02020104 and 40 CFR 63.1366(b)(l)(xiii): Koppers Inc. may have failed to perform monitoring for the closed vent system in accordance with 40 CFR 63.1366(b)(l)(xiii)(A) or (B) to ensure the vent stream was not diverted through the bypass line.**

### **Koppers' Response:**

With respect to 40 C.F.R. § 63.1362(j), Koppers incorporates herein its response to alleged Violation No. 4. With respect to 40 C.F.R § 63.1366(b)(l)(xiii)(A), Koppers complies with this provision and has continuous records (see Attachment 7). 40 C.F.R. § 63.1366(b)(l)(xiii)(B) does not apply to Koppers.

## **II. Response to Recommendations**

The Violation Notice request certain records be provided in connection with Koppers response. Koppers, with this initial response, is providing the following information, some of which is referenced in narrative response above.

**3. Within 45 days of receipt of this Violation Notice, submit to the Illinois EPA, Bureau of Air, Compliance Section, all records required to be maintained pursuant to Conditions 1.1.9(a)-(c) of Construction Permit 02020104 and 40 CFR 63.1367(f)(3) for time period of January 2020 through the present.**

### **Koppers Response:**

The requested records are provided as Attachment 7. Koppers notes that Construction Permit 0202104 was modified during the referenced time period. Koppers has provided the requested records under both the current and former Construction Permit 02020104, as applicable. Koppers additionally notes that Condition 1.1.9(c)(iv) of Construction Permit 02020104 is not applicable, as the subject tanks have not been used as storage vessels, but only for blending operations and, further, that 40 C.F.R. § 63.1367(f)(3)(ii) is not applicable.

**4. Within 45 days of receipt of this Violation Notice, submit to the Illinois EPA, Bureau of Air, Compliance Section, all records required to be maintained pursuant to Condition 5(b) of Construction Permit 08040005 for the time period of January 2020 through the present.**

**Koppers' Response:** The requested records are provided as Attachment 7.

### **III. Request for Meeting**

Koppers believes it would be useful to meet with representatives of IEPA to discuss the alleged violations, Koppers response to those alleged violations, and the actions IEPA believes are required to address the alleged violations. Following the requested meeting, Koppers will, if necessary, supplement this initial response and submit to IEPA proposed terms for a Compliance Commitment Agreement.

Please contact me at 708-656-5900, or by e-mail [HerringLS@koppers.com](mailto:HerringLS@koppers.com), to schedule the requested meeting.

Thank you for considering this initial response to the Violation Notice and request for a meeting. We look forward to meeting with IEPA to address these matters.

Sincerely,

  
Seth Herring  
Plant Manager

#### **Attachments:**

- 1 – July 6, 2021 30-day Deviation Report
  - 2 – August 30, 2021 MON MACT Semi-Annual Compliance Report
  - 3 – Training Records
  - 4 – September 27, 2021 30-day Deviation Report
  - 5 – August 30, 2021 PAI Periodic Report
  - 6 – Training Records
  - 7 – Additional Requested Records
- \* - Records that are being provided on flash drive: Continuous Temperature and Bypass Indicator Data





# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 · (217) 782-3397

JB PRITZKER, GOVERNOR

JOHN J. KIM, DIRECTOR

866/273-5488 (TTY)

November 9, 2021

Certified Mail # 7020 1810 0000 2830 2468

Return Receipt Requested

Koppers Inc.  
L. Seth Herring, Plant Manager  
3900 South Laramie Avenue  
Cicero, IL 60804

RECEIVED  
STATE OF ILLINOIS

JAN 14 2022

ENVIRONMENTAL PROTECTION AGENCY  
BUREAU OF AIR

**RE: Violation Notice A-2021-00492**  
**ID: 031300AAJ**

Dear Mr. Herring:

This constitutes a Violation Notice pursuant to Section 31(a)(1) of the Illinois Environmental Protection Act ("Act"), 415 ILCS 5/31(a)(1), and is based upon a review of available information and an investigation by representatives of the Illinois Environmental Protection Agency ("Illinois EPA").

The Illinois EPA hereby provides notice of alleged violations of environmental laws, regulations, or permits as set forth in Attachment A to this letter. Attachment A includes an explanation of the activities that the Illinois EPA believes may resolve the specified alleged violations, including an estimate of a reasonable time period to complete the necessary activities. Due to the nature and seriousness of the alleged violations, please be advised that resolution of the violations may also require the involvement of a prosecutorial authority for purposes that may include, among others, the imposition of statutory penalties.

A written response, which may include a request for a meeting with representatives of the Illinois EPA, must be submitted via certified mail to the Illinois EPA within 45 days of receipt of this letter. If a meeting is requested, it shall be held within 60 days of receipt of this notice. The response must include information in rebuttal, explanation, or justification of each alleged violation and a statement indicating whether or not the source wishes to enter into a Compliance Commitment Agreement ("CCA") pursuant to Section 31(a) of the Act. If the source wishes to enter into a CCA, the written response must also include proposed terms for the CCA that contains dates for achieving each commitment and may also include a statement that compliance has been achieved for some or all of the alleged violations. In order to increase the likelihood of the Illinois EPA accepting such terms, the written response should specifically propose them in a manner that can be formalized into an enforceable agreement between the Illinois EPA and the source. As such, proposed conditions should be as detailed as possible, including steps to be taken to achieve compliance, the manner of compliance, interim and completion dates, etc.

Violation Notice A-2021-00492  
Koppers Inc; ID 031300AAJ

The Illinois EPA will review the proposed terms for a CCA provided by the source and, within 30 days of receipt, will respond with either a proposed CCA or a notice that no CCA will be issued by the Illinois EPA. If the Illinois EPA sends a proposed CCA, the source must respond in writing by either agreeing to and signing the proposed CCA or by notifying the Illinois EPA that the source rejects the terms of the proposed CCA.

If a timely written response to this Violation Notice is not provided, it shall be considered a waiver of the opportunity to respond and meet, and the Illinois EPA may proceed with referral to the prosecutorial authority.

Written communications should be directed to Yasmine Keppner-Bauman, Illinois EPA, Bureau of Air, Field Operations Section, P.O. Box 19276, Springfield, Illinois 62794-9276. All communications must include reference to the Violation Notice number in this matter.

Questions regarding this matter should be directed to Yasmine Keppner-Bauman at 217/524-0908.

Sincerely,



Kent E. Mohr Jr., Manager  
Compliance Section  
Bureau of Air

KEM:ykb

## ATTACHMENT A

Based on available information:

### VIOLATIONS:

1. Sections 9(b) and 9.1(d) of the Act, Condition 3 of Construction Permit 08040005 and 40 CFR 63.2470: Koppers Inc. failed to meet each emission limit in Table 4 of 40 CFR 63 Subpart FFFF—National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing for its pitch storage tanks on June 7, 2021.
2. Section 9(b) of the Act and Condition 4(b) of Construction Permit 08040005: Koppers Inc. failed to operate the thermal oxidizer for the pitch tanks to achieve at least 98% destruction efficiency for volatile organic material (VOM) on June 7, 2021.
3. Sections 9(b) and 9.1(d) of the Act, Condition 1.1.3-1(b)(i)(A) of Construction Permit 02020104 and 40 CFR 63.1362(b)(2): Koppers Inc. failed to control organic hazardous air pollutants (HAP) from the creosote blend tanks in accordance with 40 CFR 63 Subpart MMM – National Emission Standards for Hazardous Air Pollutants for Pesticide Active Ingredient Production for multiple periods during the February 2021 through June 2021 timeframe.
4. Sections 9(b) and 9.1(d) of the Act, Condition 1.1.3-1(b)(i)(C) of Construction Permit 02020104 and 40 CFR 63.1362(j): Koppers Inc. failed to comply with the requirements of Table 3 and Section 63.1362(j) of 40 CFR 63 Subpart MMM – National Emission Standards for Hazardous Air Pollutants for Pesticide Active Ingredient Production, for its closed vent system with bypass line for its creosote blend tanks for multiple periods during the February 2021 through June 2021 timeframe.
5. Section 9(b) of the Act and condition 1.1.5(b) of Construction Permit 02020104: Koppers Inc. failed to follow good operating practices for the creosote blend tanks and associated closed vent system.
6. Sections 9(b) and 9.1(d) of the Act, Condition 1.1.8(b) of Construction Permit 02020104 and 40 CFR 63.1366(b)(1)(xiii): Koppers Inc. may have failed to perform monitoring for the closed vent system in accordance with 40 CFR 63.1366(b)(1)(xiii)(A) or (B) to ensure the vent stream was not diverted through the bypass line.

**ATTACHMENT A (continued)**

**RECOMMENDATIONS:**

The Illinois EPA suggests that Koppers Inc. take the following actions to address the violations stated above:

1. Within 45 days of receipt of this Violation Notice, develop, implement, and submit to the Illinois EPA, Bureau of Air, Compliance Section, a compliance plan which ensures that the thermal oxidizer for the pitch tanks is operated to achieve at least 98% destruction efficiency for VOM and to meet each emission limit in Table 4 of 40 CFR 63 Subpart FFFF—National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing at all times the pitch tanks are in operation and venting to the thermal oxidizer as required. This compliance plan should contain interim and permanent measures taken, or to be taken, and a schedule for completion.
2. Within 45 days of receipt of this Violation Notice, develop, implement, and submit to the Illinois EPA, Bureau of Air, Compliance Section, a compliance plan which ensures organic HAP from the creosote blend tanks are controlled and the closed vent system is operated in accordance with 40 CFR 63 Subpart MMM – National Emission Standards for Hazardous Air Pollutants for Pesticide Active Ingredient Production. This compliance plan should contain interim and permanent measures taken, or to be taken, and a schedule for completion.
3. Within 45 days of receipt of this Violation Notice, submit to the Illinois EPA, Bureau of Air, Compliance Section, all records required to be maintained pursuant to Conditions 1.1.9(a) – (c) of Construction Permit 02020104 and 40 CFR 63.1367(f)(3) for time period of January 2020 through the present.
4. Within 45 days of receipt of this Violation Notice, submit to the Illinois EPA, Bureau of Air, Compliance Section, all records required to be maintained pursuant to Condition 5(b) of Construction Permit 08040005 for the time period of January 2020 through the present.