



December 4, 2023

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

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**Re: Violation Notice A-2023-00162  
ID: 031300AAJ**

RECEIVED  
STATE OF ILLINOIS

DEC. 08 2023

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-2023-00162, which was received by Koppers on October 6, 2023. Koppers requested and received an extension of time from IEPA to provide its initial response on or before December 4, 2023. 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 has recently invested in and commissioned several process control projects at its Stickney Plant to address safety and air quality issues. These projects are summarized as follows:

1. Installation of automatic shutdown of tank farm pumps if Fume System #2 opens to atmosphere to automatically stop transferring and blending of creosote.
2. Installation of automatic shutdown of the naphthalene process if Fume System #2 opens to atmosphere to stop production to tanks and subsequent emissions.
3. Elimination of safety issues with automatic transference of waste gas to the Tar Plant Thermal Oxidizer (Tar TO) to control emissions if a Tube Heater goes down.
4. Installation of automatic diversion of flow going to the blending tanks (Group 1 process vents) to T-49 (MON Group 2 storage tank) or T42 (Tar TO controlled tank) if the Pitch Thermal Oxidizer (Pitch TO) goes down.

As of the date of this letter, these projects have been fully commissioned and will result in minimizing many of the self-reported deviations cited in the agency's violation notice. These

projects, summarized above, are referred to in this response letter as the “**process automation project.**”

Additionally, faulty programming previously implemented in the naphthalene plant will be corrected to automatically shut down the distillation process in the case of malfunction of the environmental control equipment.

Koppers, reserving all rights and any defenses, responds below to each of the alleged violations as set forth in Attachment A to Violation Notice A-2023-00162.

## **I. Response to Specific Alleged Violations**

1. Sections 9(a) and 9(b) of the Act, 35 Ill. Adm. Code 218.301, and Condition 1.1.3-1(a) of Construction Permit 02020104: Koppers Inc. caused or allowed the discharge of more than 8 lb/hr of organic material into the atmosphere from creosote blending tanks during creosote blending while the associated thermal oxidizer was not operating on July 15 and September 24, 2022, and multiple occasions from January through June 2023.

### **Koppers' Response:**

Koppers respectfully disagrees with the stated violation. 35 IAC § 218.301 requires that owners/operators of emission units with VOM emissions in excess of 8 lb/hr must control emissions using one of the methods identified in 35 IAC § 218.302. The creosote blending operation is controlled by one of the methods identified in 35 IAC § 218.302, specifically thermal incineration. The control device malfunctioned and Koppers self reported the malfunction events to IEPA.

On February 24, 2023, Koppers submitted to the agency a Deviation Report covering two events on July 15 and September 24, 2022.<sup>1</sup> Koppers also submitted to the agency a Compliance Report for 40 C.F.R. Subpart MMM - *National Emission Standards for Hazardous Air Pollutants for Pesticide Active Ingredient Production (PAI)* on August 30, 2023, covering the reporting period from January – June 2023.<sup>2</sup> In Attachment 1 of the Compliance Report, Koppers listed the VOM emissions for each parameter exceedance and bypass event. Although emissions from these events were not quantified, all events listed resulted in emissions below 8 lb/hr. Creosote blending emissions calculations show uncontrolled emissions are typically between 4.0 and 4.5 lbs/hr. No creosote blending emission calculations exceed 8 lb/hr.<sup>3</sup> These calculations are based on (1) vapor displacement calculations, which include temperature, flowrate, and type of raw materials to calculate vapor pressure, and (2) VOM emissions using USEPA emission estimating calculations.

These events were caused by equipment malfunctions and emissions were minimized as required under 40 C.F.R. § 63.1360(e)(4) by following the facility's startup, shutdown, malfunction

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<sup>1</sup> Attachment A, February 24, 2023 Deviation Report.

<sup>2</sup> Attachment B, August 30, 2023 Compliance Report for 40 C.F.R. Subpart MMM – National Emission Standards for Hazardous Air Pollutants for Pesticide Active Ingredient Production (PAI).

<sup>3</sup> Attachment C, Creosote Blending Emissions Calculations.

(“SSM”) plan.<sup>4</sup> The process automation project, summarized above, will minimize occurrence of these events in the future.

2. Sections 9(b) and 9.1(d) of the Act, 40 CFR 63.1362(b)(2), and Condition 1.1.3-1(b)(i)(A) of Construction Permit 02020104: Koppers Inc. failed to operate the thermal oxidizer controlling the creosote blending tanks in compliance with the requirements in 40 CFR 63.1362(b)(2)(ii) through (iv) on July 15 and September 24, 2022, and multiple occasions from January through June 2023.

**Koppers’ Response:**

Koppers respectfully disagrees with the stated violation. Koppers recognizes that the thermal oxidizer controlling the creosote blending tanks experienced malfunctions during July 15, 2022, September 24, 2022 and on occasion from January through June 2023, as documented in the Deviation Report submitted by Koppers on February 24, 2023 and the PAI Compliance Report submitted by Koppers on August 30, 2023.<sup>5</sup> These events were caused by equipment malfunctions and emissions were minimized as required under 40 C.F.R. § 63.1360(e)(4) by following the facility’s SSM plan. The process automation project will minimize occurrence of these events in the future.

3. 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 blending tanks and associated thermal oxidizer, including periodic inspection, routine maintenance, and prompt repair of defects.

**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.<sup>6</sup> Koppers, further, followed the facility’s SSM plan during the subject malfunction events in accordance with the applicable regulations.

4. Sections 9(b) and 9.1(d) of the Act, 40 CFR 63.1366(b)(1)(xiii), and Condition 1.1.8(b) of Construction Permit 02020104: 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.

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<sup>4</sup> Attachment D, Startup, Shutdown, and Malfunction Plan, November 2020 (Revision 03).

<sup>5</sup> Attachments A & B.

<sup>6</sup> Attachment E, Good Operating Practices Documentation.

**Koppers' Response:**

Koppers respectfully disagrees with the stated violation. Koppers complies with 40 C.F.R. § 63.1366(b)(1)(xiii)(A) and condition 1.1.8(b) of Construction Permit 02020104 and has continuous records.<sup>7</sup> 40 C.F.R. § 63.1366(b)(1)(xiii)(B) does not apply to Koppers.

5. Section 9(b) of the Act and Condition 1.1.10 of Construction Permit 02020104: Koppers Inc. failed to timely notify the Illinois EPA, Bureau of Air, Compliance Section, of deviations from Construction Permit 02020104 associated with events on July 15 and September 24, 2022, and February 2, 2023.

**Koppers' Response:**

Koppers respectfully disagrees that there was a failure to timely notify IEPA of deviations from Construction Permit 02020104 associated with events on July 15 and September 24, 2022, and February 2, 2023. Condition 1.1.10 of Construction Permit 02020104 only requires a notification if a material is stored in Tanks 301, 302, and 303 with a vapor pressure greater than 0.5 psia. All materials stored in these tanks were less than 0.5 psia and, therefore, no notification was required to be submitted. Koppers, nonetheless, timely reported these events to the agency in the Deviation Report submitted on February 24, 2023 and the PAI Compliance Report submitted on August 30, 2023.<sup>8</sup>

6. Section 39.5(6)(a) of the Act and Condition 7.7.8(d)(i) of Clean Air Act Permit Program (CAAPP) Permit 96030134: Koppers Inc. failed to operate the continuous emissions monitoring system (CEMS) for the Phthalic Anhydride Reactor Trains A and B to provide permanent records of the hourly average sulfur dioxide (SO<sub>2</sub>) emissions based upon three minute samples of air flows and SO<sub>2</sub> concentrations, on multiple occasions from August 2022 through June 2023.

**Koppers' Response:**

Koppers recognizes that the CEMS monitor experienced infrequent downtime during August 2022 through June 2023. The majority of the downtime was from one event from 11-24-2022 to 12-9-2022. Koppers contracts to procure calibration gases with an outside supplier. The extended downtime for this event was due to contract issues with the outside supplier of calibration gases. The contract with the calibration gas supplier was resolved and a long-term supply contract is in place. It is not anticipated that there will be an interruption in calibration gas supply in the future.

Monitor availability during the during the period from July 1, 2022 (2<sup>nd</sup> half 2022) through June 30, 2023 (1<sup>st</sup> half 2023) was 94.3%. In other words, the SO<sub>2</sub> monitor was down only 5.7% of the time the process was operating. While this level of monitor availability is slightly below the range of certain federal rules, such as 40 C.F.R. Part 75, which has a monitor availability requirement of 95%, those rules, unlike the Koppers' CAAPP permit, have provisions for substituting missing data. Instead of data substitution routines, the Koppers' CAAPP permit has a requirement to take

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<sup>7</sup> Attachment F, Closed Vent System Monitoring Data.

<sup>8</sup> Attachments A & B.

feed samples and to not increase the feed rate to ensure that SO<sub>2</sub> emissions normally measured by the CEMS do not increase or exceed the permit limit. As discussed in the response to items 7 and 8, below, the SO<sub>2</sub> emission limit of 260 lb/hr was not exceeded during this time frame.

7. Section 39.5(6)(a) of the Act and Condition 7.7.8(d)(ii) of CAAPP Permit 96030134: Koppers Inc. failed to maintain Phthalic Anhydride Reactor Trains A and B feeds at previous feed rates during failure of the CEMS and may have failed to sample and analyze the feed stock to demonstrate compliance with SO<sub>2</sub> emission limitations on multiple occasions from August 2022 through June 2023.

**Koppers' Response:**

There was a single event during the stated timeframe when the naphthalene feed rate increased when the CEMS unit was down. The event occurred on December 8-9 2022. Increasing the feed rate was necessary for safety reasons. The rate had to be increased due to the loss of steam supplied to the entire plant. Maintaining steam at the facility is critical for safe operation of processes throughout the facility because it is tied to maintaining vacuum on tanks and processes, and loss of vacuum can lead to unsafe conditions at the plant. The available data and calculations, discussed in item 8 below, demonstrate compliance with the allowable hourly SO<sub>2</sub> emission rate and no excess emissions occurred during the event.

8. Section 39.5(6)(a) of the Act and Condition 7.7.6(a)(i)(A) of CAAPP Permit 96030134: Koppers Inc. may have caused or allowed emissions of SO<sub>2</sub> to exceed 260 lb/hr on multiple occasions from August 2022 through June 2023.

**Koppers' Response:**

Koppers did not cause or allow emissions of SO<sub>2</sub> to exceed the 260 lb/hr limit in the CAAPP Permit.

On February 28, 2023 and August 30, 2023, Koppers submitted to the agency two Semi-Annual Monitoring Reports covering the July – December 2022 and January – June 2023 reporting periods, self reporting the amount of CEMS downtime during the periods.<sup>9</sup>

Naphthalene is the only source of sulfur at the PAA plant. Naphthalene throughput during CEMS downtime was compared to naphthalene throughput during the highest measured SO<sub>2</sub> rate to estimate SO<sub>2</sub> emissions when the CEMS was down. The highest measured SO<sub>2</sub> rate was 88 lb/hr, which was measured on April 20, 2023 for the B-train. The naphthalene throughput on that date (April 20, 2023) was more than double any throughput when the CEMS unit was down. Therefore, the hourly SO<sub>2</sub> emission rates during the CEMS downtime are less than 88 lb/hr per train or 176 lb/hr total, well below the 260 lb/hr limit.

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<sup>9</sup> Attachments G & H, 2<sup>nd</sup> half 2022 and 1<sup>st</sup> half 2023 Semi-Annual Monitoring Reports.

The results of the naphthalene sampling show that the percent sulfur was below 0.8% in all cases. These results are attached.<sup>10</sup>

9. Sections 9(b) and 9.1(d) of the Act, 40 CFR 63.2470, and Condition 3 of Construction Permit 08040005: 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 during multiple occasions from July 2022 through August 2023.

**Koppers' Response:**

Koppers respectfully disagrees that the pitch storage tanks were not in compliance with the requirements of 40 C.F.R. § 63.2470. Table 4 of 40 C.F.R. 63 Subpart FFFF is for Group 1 storage tanks or tanks that store liquid that contains ethylene oxide. There are no MON Group 1 storage tanks or storage tanks that store a liquid that contains ethylene oxide and, therefore, 40 C.F.R. § 63.2470 and Table 4 do not apply. There are MON Group 1 process vents that are required to be controlled, but that is under a different section, as well as Group 2 storage tanks that do not require control under the MON.

The alleged violation was self reported by Koppers to IEPA in Koppers' MON MACT Semi-Annual Compliance Reports, July 1, 2022 – December 31, 2022 and January 1, 2023 – June 30, 2023.<sup>11</sup> The MON report for July 1, 2023, through December 31, 2023 will be submitted as required in the MON. The process automation project will minimize occurrence of these events in the future.

10. 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) from July 2022 through August 2023.

**Koppers' Response:**

Koppers respectfully disagrees with the stated violation. Prior to August 12, 2023, Koppers relied on the SSM provisions in the MON rules. An element of the process automation project specifically addresses conditions where the alleged violations occurred. The alleged violation was self reported by Koppers to IEPA in Koppers' MON MACT Semi-Annual Compliance Reports, July 1, 2022 – December 31, 2022 and January 1, 2023 – June 30, 2023.<sup>11</sup> The MON report for July 1, 2023, through December 31, 2023 will be submitted as required in the MON.

The process automation project will minimize occurrence of these events in the future.

11. Sections 9(a) and 39.5(6)(a) of the Act, 35 Ill. Adm. Code 218.301, and Condition 7.2.3(b) of CAAPP Permit 96030134: Koppers Inc. caused or allowed the emission of more than 8 lb/hr of

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<sup>10</sup> Attachment I, Naphthalene Sampling Results.

<sup>11</sup> Attachments J & K, H2 2022 and H1 2023 MON MACT Semi-Annual Reports.

organic material into the atmosphere from its pitch tanks on multiple occasions from July 2022 through August 2023.

**Koppers' Response:**

Koppers respectfully disagrees with the stated violation. 35 IAC § 218.301 requires that owners/operators of emission units with VOM emissions in excess of 8 lb/hr must control emissions using one of the methods identified in 35 IAC § 218.302. The pitch tanks are controlled by one of the methods identified in 35 IAC § 218.302, specifically thermal incineration. The control device malfunctioned and Koppers self reported the malfunction events. The 2009 pitch thermal oxidizer stack test shows the uncontrolled emissions from the pitch tanks is 3.8 lb/hr; therefore, when the pitch thermal oxidizer is down the process emissions do not exceed the 8 lb/hr threshold under 35 IAC § 218.301.<sup>12</sup>

12. Section 9.1(d) of the Act and 40 CFR 63.983(a): Koppers Inc. failed to operate and maintain the closed vent systems for carbon pitch and coal tar distillation processes on multiple occasions from July 2022 through June 2023.

**Koppers' Response:**

Koppers respectfully disagrees with the stated violation. 40 C.F.R. § 63.983(a) provides:

*Closed vent system equipment and operating requirements.* Except for closed vent systems operated and maintained under negative pressure, the provisions of this paragraph apply to closed vent systems collecting regulated material from a regulated source.

The closed vent systems are operated and maintained under negative pressure and, therefore, fall within the exception stated in 40 C.F.R. § 63.983(a).

13. Sections 9(a) and 39.5(6)(a) of the Act, 35 Ill. Adm. Code 218.301, and Condition 7.4.3(e)(i) of CAAPP Permit 95030134: Koppers Inc. caused or allowed the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from the coal tar distillation process on multiple occasions from July 2022 through September 2023.

**Koppers' Response:**

Koppers respectfully disagrees with the stated violation. 35 IAC § 218.301 requires that owners/operators of emission units with VOM emissions in excess of 8 lb/hr must control emissions using one of the methods identified in 35 IAC § 218.302. The coal tar distillation process is controlled by one of the methods identified in 35 IAC § 218.302, specifically thermal incineration. The control device malfunctioned and Koppers self reported the malfunction events.

Koppers recognizes that the Tar Thermal Oxidizer experienced malfunctions during the July 2022 through September 2023 period as documented in the following reports:

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<sup>12</sup> Attachment L, 2009 Pitch Thermal Oxidizer Stack Test.

1. July - December 2022 Compliance Report submitted on February 28, 2023
2. January - June 2023 Compliance Report submitted on August 30, 2023
3. August 12, 2023, through September 7, 2023, Deviation Report submitted on September 8, 2023
4. September 8, 2023, through October 5, 2023, Deviation Report submitted on October 6, 2023.<sup>13</sup>

Also, Koppers will submit the July – December 2023 Compliance Report as required under the MON.

The events documented in the submitted reports were a result of malfunction events and the facility's SSM plan was followed to minimize emissions. As IEPA is aware, as a result of USEPA regulatory amendments, the SSM provisions were removed from the MON MACT effective August 12, 2023. The process automation project will minimize occurrence of these events in the future.

14. Sections 9(a) and 39.5(6)(a) of the Act, 35 Ill. Adm. Code 218.966(a), and Condition 7.4.3(f)(i) CAAPP Permit 96030134: Koppers Inc. failed to comply with emission capture and control techniques which achieve overall reduction of at least 81 percent of volatile organic material (VOM) emissions from the coal tar distillation process on multiple occasions from July 2022 through September 2023.

**Koppers' Response:**

Koppers respectfully disagrees with the stated violation. *See* response to item number 13 above.

15. Sections 9(a) and 39.5(6)(a) of the Act, 35 Ill. Adm. Code 218.991(a)(3)(A), and Condition 7.4.10 of CAAPP 96030134: Koppers Inc. failed to notify the Illinois EPA, Bureau of Air, Compliance Section, of deviations of CAAPP permit 96030134 and 35 Ill. Adm. Code 218, Subpart RR.

**Koppers' Response:**

Koppers respectfully disagrees with the stated violation. Koppers submitted the reports listed in item number 13 above, including monthly Deviation Reports, starting on August 12, 2023. These reports were submitted within 30 days of discovering the potential deviation.

16. Sections 9(b) and 9.1(d) of the Act, 40 CFR 63.113(a)(2), and Condition 2.1.2-l(a) of Construction Permit 14100012: Koppers Inc. failed to reduce the total organic hazardous air pollutants (HAPs) by 98 weight-percent or to a concentration of 20 parts per million by volume from process vents at the naphthalene distillation plant on January 3 and March 23, 2023.

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<sup>13</sup> Attachment J & K; Attachment M, September 8, 2023 Deviation Report; Attachment N, October 6, 2023 Deviation Report.



**Koppers' Response:**

Koppers respectfully disagrees with the stated violation. Koppers self reported these events to the agency in a Deviation Report submitted on May 30, 2023.<sup>14</sup> In Table 1 of the Deviation Report, Koppers identified the two events which occurred on January 3 and March 23, 2023. Each of these occurrences were the result of a malfunction. Koppers understands that compliance with requirements of the HON and condition 2.1.2-1(a) of the Construction Permit 14100012, which references the HON requirements, is not required during SSM events as stated under 40 C.F.R. § 63.102(a)(1).

Koppers asserts that the Naphthalene Plant was in compliance with the HON during both of these events.

17. Sections 9(b) and 9.1(d) of the Act, 40 CFR 60.662(a), and Condition 2.1.2-1(b) of Construction Permit 14100012: Koppers Inc. failed to reduce total organic compounds (less methane and ethane) by 98 weight-percent or a concentration of less than 20 ppmv (less methane and ethane) from the naphthalene distillation operation on January 3 and March 23, 2023.

**Koppers' Response:**

Koppers respectfully disagrees with the stated violation. The Naphthalene distillation operation vents are considered Group 1 process vents under the HON and are subject to NSPS subpart NNN but are only required to comply with the HON as stated in 40 C.F.R. § 63.110(d)(4) and condition 2.1.3(a) of Construction Permit 14100012.

18. Sections 9(a) and 9(b) of the Act, 35 Ill. Adm. Code 218.301, and Condition 2.1.2-2(a) of Construction Permit 14100012: Koppers Inc. caused or allowed the emission of more than 8 lb/hr of organic material into the atmosphere from the naphthalene distillation plant process vents on January 3 and March 23, 2023.

**Koppers' Response:**

Koppers respectfully disagrees with the stated violation. 35 IAC § 218.301 requires that owners/operators of emission units with VOM emissions in excess of 8 lb/hr must control emissions using one of the methods identified in 218.302. The naphthalene distillation plant process vents are controlled by one of the methods identified, thermal incineration. The control device malfunctioned and Koppers self reported the malfunction events.

The naphthalene distillation process is vented to the Naphthalene Plant thermal oxidizer. Based on the September 2020 stack test the VOM emissions from the thermal oxidizer is 0.042 lb/hr.<sup>15</sup> The uncontrolled emissions, assuming 98% control, is 2.1 lbs/hr; therefore, uncontrolled emissions from the naphthalene distillation process does not exceed the 8 lb/hr threshold under 35 IAC § 218.301. Table 1 below shows the duration of the events and VOM emission rate.

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<sup>14</sup> Attachment O, May 30, 2023 Deviation Report.

<sup>15</sup> Attachment P, September 2020 Naphthalene Plant Stack Test.

Table 1. Duration and VOM Emission Quantity from January and March Naphthalene Plant Events

| Start Time     | End Time       | Duration (hours) | Emissions (lb/hr) |
|----------------|----------------|------------------|-------------------|
| 1/3/2023 1:30  | 1/3/2023 9:00  | 7.50             | 2.1               |
| 3/23/2023 2:50 | 3/23/2023 7:40 | 4.83             | 2.1               |

19. Sections 9(a) and 9(b) of the Act, 35 Ill. Adm. Code 218.986(a), and Condition 2.1.2-2(b) of Construction Permit 14100012: Koppers Inc. failed to control VOM emissions from the naphthalene distillation emission units to achieve an overall reduction in VOM of at least 81 percent on January 3 and March 23, 2023.

**Koppers' Response:**

Koppers self reported these events to the agency in a Deviation Report submitted on May 30, 2023.<sup>16</sup> In Table 1 of the Deviation Report, Koppers identified the two events which occurred on January 3 and March 23, 2023. As stated in the deviation report, the program to automatically shutdown the process during the loss of the Naphthalene Thermal Oxidizer had an issue experiencing an unforeseen process condition. The process was eventually shutdown manually. Engineering is repairing the programming issue to account for the unforeseen process condition. The duration of the events and VOM emission rates are shown in Table 1 above.

20. Section 9(b) of the Act and Condition 2.1.4(a)(ii) of Construction Permit 14100012: Koppers Inc. failed to operate the naphthalene distillation plant oxidizer to achieve a minimum 98 percent destruction efficiency for organic material on January 3 and March 23, 2023.

**Koppers' Response:**

See response to item number 19 above.

21. Section 9(b) of the Act and Condition 2.1.4(a)(iii) of Construction Permit 14100012: Koppers Inc. failed to maintain the combustion chamber temperature of the naphthalene distillation plant oxidizer above minimum operating temperature while the affected process vent was in operation January 3 and March 23, 2023.

**Koppers' Response:**

See response to item number 19 above.

22. Section 9(b) of the Act and Condition 2.1.5(a) of Construction Permit 14100012: Koppers Inc. may have exceeded emissions limits delineated in Condition 2.1.5(a) of Construction Permit 14100012 on January 3 and March 23, 2023.

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<sup>16</sup> Attachment O.

**Koppers' Response:**

See response to item numbers 18 and 19 above.

The process was operated in configuration 2 as defined in Construction Permit 14100012.

23. Section 9(b) of the Act and Condition 2.3.2(a)(i)(C) of Construction Permit 14100012: Koppers Inc. may have failed to operate naphthalene distillation plant oxidizer at all times organic HAP emissions from the truck transfer rack were venting to it on January 3 and March 23, 2023.

Koppers respectfully disagrees with the stated violation. The truck transfer rack did not operate during the January 3 and March 23, 2023, events and, therefore, the facility was in compliance with condition 2.3.2(a)(i)(C) of Construction Permit 14100012.

**Koppers' Response:**

24. Sections 9(b) and 9.1(d) of the Act, 40 CFR 63.126(b)(1), and Condition 2.3.2(a)(ii) of Construction Permit 14100012: Koppers Inc. may have failed to reduce total organic HAPs by 98 weight-percent or to a concentration of 20 ppmv from the transfer rack on January 3 and March 23, 2023.

Koppers respectfully disagrees with the stated violation. See response to item number 16 above relating to HON compliance and response to item number 23 above relating to truck transfer operations.

**Koppers' Response:**

25. Section 9(b) of the Act and Condition 1.12 of Construction Permit 14100012: Koppers Inc. failed to timely notify the Illinois EPA of deviations of Construction Permit 14100012 from events occurring January 3 and March 23, 2023.

Koppers respectfully disagrees with the stated violation. These two events were self disclosed to the agency on May 30, 2023.<sup>17</sup> The deviations were discovered during the preparation of the Naphthalene HON periodic report and the Deviation Report was submitted within 30 days of discovering the deviations.

**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 the narrative response above.

1. Within 45 days of receipt of this Violation Notice, submit to the Illinois EPA, Bureau of Air, Compliance Section, a compliance plan which ensures the thermal oxidizer controlling the

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<sup>17</sup> Attachment O.

creosote blending tanks is in operation at all times creosote blending is occurring such that compliance with 35 Ill. Adm. Code 218.301, 40 CFR 63.1362(b)(2), and Construction Permit 02020104 is maintained. This compliance plan shall include all interim and/or permanent measures and procedures that have been taken, or will be taken, milestones, and dates by which those milestones will be achieved.

**Koppers' Response:**

The process automation project, previously summarized, will minimize occurrence of these events in the future.

2. Within 45 days of receipt of this Violation Notice, submit to the Illinois EPA, Bureau of Air, Compliance Section, a compliance plan which ensures good operating practices for the creosote blending tanks and associated thermal oxidizer, including periodic inspection, routine maintenance and prompt repair of defects in accordance with Construction Permit 02020104. This compliance plan shall include all interim and/or permanent measures and procedures that have been taken, or will be taken, milestones, and dates by which those milestones will be achieved.

**Koppers' Response:**

The process automation project will minimize occurrence of these events in the future.

3. Within 45 days of receipt of this Violation Notice, submit to the Illinois EPA, Bureau of Air, Compliance Section, a compliance plan which ensures monitoring is performed for the closed vent system in accordance with 40 CFR 63.1366(b)(1)(xiii)(A) or (B) and Construction Permit 02020104 to ensure the vent stream was not diverted through the bypass line. This compliance plan shall include all interim and/or permanent measures and procedures that have been taken, or will be taken, milestones, and dates by which those milestones will be achieved.

**Koppers' Response:**

The closed vent monitoring equipment has always functioned as designed. Koppers' environmental management and process engineering groups now meet monthly to review compliance data to ensure timely discovery of potential deviations.

4. Within 45 days of receipt of this Violation Notice, submit to the Illinois EPA, Bureau of Air, Compliance Section, records of monitoring of the closed vent system for the creosote blend tanks and associated thermal oxidizer from June 2022 through the present.

**Koppers' Response:**

The requested data is attached to this letter<sup>18</sup>

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<sup>18</sup>

Attachment F.

5. Within 45 days of receipt of this Violation Notice, submit to the Illinois EPA, Bureau of Air, Compliance Section, a compliance plan which ensures the CEMS for the Phthalic Anhydride Reactor Trains A and B are operated to provide permanent records of the hourly average SO<sub>2</sub> emissions based upon three minute samples of air flows and SO<sub>2</sub> concentrations. This compliance plan shall include all interim and/or permanent measures and procedures that have been taken, or will be taken, milestones, and dates by which those milestones will be achieved.

**Koppers' Response:**

In the past, monitor availability was affected by service contractor availability and a transition of the spare parts inventory system. Both of those issues were previously addressed and systems put in place to minimize or eliminate the conditions that led to monitor downtime. In this most recent circumstance, the contract for calibration gases lapsed. A new contract has been put in place to ensure timely delivery of calibration gases. It should be noted that during the 1<sup>st</sup> half 2023 monitor was unavailable for 42 hours, which equates to a monitor availability of 99.52% of the time. This level of monitor availability is what is expected and well within the requirements of federal CEMS programs such as 40 CFR Part 75 which has a quarterly monitor availability guideline of 95%.

The compliance plan is as follows:

1. Maintain spare parts inventory;
2. Manage the contractor to ensure availability for routine and non-routine maintenance activities;
3. Train Koppers personnel to back-up the contractor; and
4. Have long-term contract with calibration gas provider.

6. Within 45 days of receipt of this Violation Notice, submit to the Illinois EPA, Bureau of Air, Compliance Section, feed stock rates and feed stock sampling and sulfur analysis results for the Phthalic Anhydride Reactor Trains A and B for periods during August 2022 through June 2023, when the associated CEMS for the was inoperable.

**Koppers' Response:**

The requested data is attached to this letter.<sup>19</sup>

7. Within 45 days of receipt of this Violation Notice, submit to the Illinois EPA, Bureau of Air, Compliance Section, average hourly SO<sub>2</sub> emissions from the Phthalic Anhydride Reactor Trains A and B from August 2022 through the present.

**Koppers' Response:**

The requested data is attached to this letter.<sup>20</sup>

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<sup>19</sup> Attachment I.

<sup>20</sup> Attachment Q, SO<sub>2</sub> Emission Data.

8. Within 45 days of receipt of this Violation Notice, submit to the Illinois EPA, Bureau of Air, Compliance Section, the daily, monthly and aggregate annual SO<sub>2</sub> emissions from the Phthalic Anhydride Reactor Trains A and B based on average hourly SO<sub>2</sub> emissions and the operating schedule of the Reactor Trains from January 2022 through the present.

**Koppers' Response:**

The requested data is attached to this letter.<sup>21</sup>

9. Within 45 days of receipt of this Violation Notice, submit to the Illinois EPA, Bureau of Air, Compliance Section, a compliance plan which ensures the thermal oxidizer for the pitch tanks is operated in compliance with 35 Ill. Adm. Code 218.301, 40 CFR 63.2470, CAAPP Permit 96030134, and Construction Permit 08040005. This compliance plan shall include all interim and/or permanent measures and procedures that have been taken, or will be taken, milestones, and dates by which those milestones will be achieved.

**Koppers' Response:**

The process automation project will minimize occurrence of these events in the future.

10. Within 45 days of receipt of this Violation Notice, submit to the Illinois EPA, Bureau of Air, Compliance Section a compliance plan which ensures the closed vent system is operated and maintained for carbon pitch and coal tar distillation processes so as to ensure continued compliance 40 CFR 63.983(a). This compliance plan shall include all interim and/or permanent measures and procedures that have been taken, or will be taken, milestones, and dates by which those milestones will be achieved.

**Koppers' Response:**

The process automation project will minimize occurrence of these events in the future.

11. Within 45 days of receipt of this Violation Notice, submit to the Illinois EPA, Bureau of Air, Compliance Section, a compliance plan which ensures the thermal oxidizer for the coal tar distillation process is operated and maintained such that compliance with 35 Ill. Adm. Code 218.301, 35 Ill. Adm. Code 218.966(a), and CAAPP Permit 96030134. This compliance plan shall include all interim and/or permanent measures and procedures that have been taken, or will be taken, milestones, and dates by which those milestones will be achieved.

**Koppers' Response:**

The process automation project will minimize occurrence of these events in the future.

12. Within 45 days of receipt of this Violation Notice, submit to the Illinois EPA, Bureau of Air, Compliance Section, a compliance plan which ensures the naphthalene distillation plant

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<sup>21</sup> Attachment Q.

thermal oxidizer is operated and maintained at all times such that compliance with 35 Ill. Adm. Code 218.301, 35 Ill. Adm. Code 218.986(a), 40 CFR 60.662(a), 40 CFR 63.113(a)(2), 40 CFR 63.126(b)(1) and Construction Permit 14100012 is maintained. This compliance plan shall include all interim and/or permanent measures and procedures that have been taken, or will be taken, milestones, and dates by which those milestones will be achieved.

**Koppers' Response:**

See responses to items 18 through 25 above. The Naphthalene Distillation Plant has uncontrolled emissions of 2.1 lb/hr and, therefore, the process is not subject to the provisions of 35 Ill. Adm. Code § 218.301. The process does comply with the capture and control provisions in 35 Ill. Adm. Code § 218.986(a), except during times of malfunction. The process is subject to the federal Hazardous Organic NESHAP (HON) rules in 40 C.F.R. §§ 63.113(a)(2) and 63.126(b)(1) and shows compliance with 40 C.F.R. § 60.662(a) by complying with the HON. The HON rules allow for responding to malfunction events by implementing an SSM plan. Koppers has a process control program to automatically shutdown the process and eliminate emissions during the loss of the Naphthalene Thermal Oxidizer. The process control experienced an unanticipated issue due to an unforeseen process condition that resulted in the deviation. Work is currently underway to correct the programming to account for that unforeseen condition.

13. Within 45 days of receipt of this Violation Notice, submit to the Illinois EPA, Bureau of Air, Compliance Section, records of nitrogen oxide, carbon monoxide, VOM, SO<sub>2</sub>, particulate matter (PM), and PM<sub>10</sub>/PM<sub>2.5</sub> from the Naphthalene Distillation Plant Project in lbs/hour for January 3 and March 23, 2023, including calculations and supporting documentation.

**Koppers' Response:**

There were no nitrogen oxide, carbon monoxide, SO<sub>2</sub>, particulate matter (PM), or PM<sub>10</sub>/PM<sub>2.5</sub> emissions from the Naphthalene Distillation Plant associated with the January 3 and March 23, 2023, events. The VOM emissions during these events are based on the 2020 Naphthalene Plant stack test results of 2.1 lb/hr.<sup>22</sup>

14. Within 45 days of receipt of this Violation Notice, submit to the Illinois EPA, Bureau of Air, Compliance Section, an internal policy which ensures all permit required and regulatorily required deviation reports will be timely and accurately submitted to the Illinois EPA, Bureau of Air, Compliance Section.

**Koppers' Response:**

Reporting has improved over the past 3 months by implementing a policy of monthly review. Moving forward it is anticipated that the need for such reporting will drastically reduce due to the implementation of the interlock on the Tar TO and completing recommissioning of the Tar TO as a back-up control device for the Crude Tar Distillation process. Koppers will continue the monthly review moving forward to catch unforeseen events that require short-term reporting.

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<sup>22</sup>

The contents of deviation reports are as follows: 1) start time, 2) end time, 3) duration, 4) regulation and permit conditions, 5) quantified emissions, 6) cause of event, and 7) corrective/preventative action.

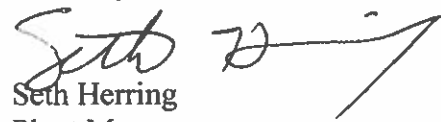
### **III. Request for Meeting**

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 708-556-9984, 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:**

Attachment A, February 24, 2023 Deviation Report  
Attachment B, August 30, 2023 Compliance Report for 40 C.F.R. Subpart MMM – National Emission Standards for Hazardous Air Pollutants for Pesticide Active Ingredient Production (PAI)  
Attachment C, Creosote Blending Emissions Calculations  
Attachment D, Startup, Shutdown, and Malfunction Plan, November 2020 (Revision 03)  
Attachment E, Good Operating Practices Documentation  
Attachment F, Closed Vent System Monitoring Data  
Attachment G, 2nd half 2022 Semi-Annual Monitoring Report  
Attachment H, 1st half 2023 Semi-Annual Monitoring Report  
Attachment I, Naphthalene Sampling Results  
Attachment J, H2 2022 MON Periodic Report  
Attachment K, H1 2023 MON Periodic Report  
Attachment L, 2009 Pitch Thermal Oxidizer Stack Test  
Attachment M, September 8, 2023 Deviation Report  
Attachment N, October 6, 2023 Deviation Report  
Attachment O, May 30, 2023 Deviation Report  
Attachment P, September 2020 Naphthalene Plant Stack Test



Attachment Q, SO2 Emission Data

**Attachment A**  
**February 24, 2023, Deviation Report**  
**Response to Violation Notice A-2023-00162**  
**Koppers Inc.**



Koppers Inc.  
Carbon Materials and Chemicals  
3900 South Laramie Avenue  
Cicero, IL 60804-4523  
Tel 708 222 3483  
Fax 708 656 6079  
www.koppers.com

02/24/2023

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

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 1 summarizes a deviation from a requirement of the CAAPP permit.

If there are any questions concerning this report, please contact Fola Fayanjuola of Koppers at (708) 427-9057  
Sincerely,

A handwritten signature in blue ink, appearing to read "Fola Fayanjuola".

Fola Fayanjuola  
Environment Manager

### Table 1 – Deviation Summary

|  |  |
|--|--|
| <p><b>Date and Description</b></p>               | <p><b>7/15/2022 5:04 am – 5:35 am:</b> Flame failure on the Thermal Oxidizer that serve as the control device for the Creosote blending process tanks.</p> <p><b>9/24/2022 6:27 pm – 6:50 pm:</b> System control issue on the Thermal Oxidizer that serve as the control device for the Creosote blending process tanks.</p>   |
| <p><b>Cause of the Event</b></p>                 | <p><b>7/15/2022 5:04 am – 5:35 am:</b> Flame failure on the Thermal Oxidizer that serve as the control device for the Creosote blending process tanks during the specified block period of blending in the Creosote process tanks.</p> <p><b>9/24/2022 6:27 pm – 6:50 pm:</b> System control issue on the Thermal Oxidizer that serve as the control device for the Creosote blending process tanks during the specified block period of blending in the Creosote process tanks.</p> |
| <p><b>Corrective Action Taken</b></p>            | <p><b>7/15/2022 5:04 am – 5:35 am:</b> Issue investigated, and Thermal Oxidizer restarted.</p> <p><b>9/24/2022 6:27 pm – 6:50 pm:</b> Control issue repaired, and Thermal Oxidizer restarted.</p>  |
| <p><b>Steps Taken to Avoid Future Events</b></p> | <p><b>7/15/2022 5:04 am – 5:35 am:</b> Ongoing engineering evaluation to interlock TO with Creosote constituent transfer pumps.</p> <p><b>9/24/2022 6:27 pm – 6:50 pm:</b> Ongoing engineering evaluation to interlock TO with Creosote constituent transfer pumps.</p>  |

**Attachment B**

**August 30, 2023 Compliance Report for 40 C.F.R. Subpart MMM –  
National Emission Standards for Hazardous Air Pollutants for Pesticide  
Active Ingredient Production (PAI)**

**Response to Violation Notice A-2023-00162**

**Koppers Inc.**



UPS Overnight Mail

August 30, 2023

Mr. Bill Marr, Manager, Compliance Section  
Illinois Environmental Protection Agency  
Bureau of Air – Compliance Section (MC 40)  
1021 N. Grand Avenue East  
P.O. Box 19276  
Springfield, IL 62794-9276

Koppers Inc.  
Carbon Materials and Chemicals  
3900 South Laramie Avenue  
Cicero, IL 60804-4523  
Tel 708 222 3483  
Fax 708 656 6079  
www.koppers.com

RE: Koppers Inc., Stickney, Cook County, Illinois  
ID Number: 031300AAJ  
Permit Number: 96030134  
Periodic Report for Reporting Period of January 1, 2023 through June 30, 2023 as  
Required by the Pesticide Active Ingredient (PAI) NESHAP, Section 63.1368(g).

Dear Mr. Marr:

Koppers, Inc. (Koppers) operates a chemical manufacturing facility in Stickney, Illinois. Three creosote blend tanks are subject to the National Emission Standards for Hazardous Air Pollutants for Pesticide Active Ingredient Production (the PAI MACT) in 40 CFR Part 63, Subpart MMM.

With this letter, Koppers is submitting the semiannual Report of Malfunctions required under 40 CFR §63.1368(i) and the PAI MACT periodic report required under 40 CFR §63.1368(g). The required elements of each report are addressed below.

### **REPORT OF MALFUNCTIONS**

Following revisions to the PAI MACT in March of 2014, affected pesticide active ingredient process units subject to the PAI MACT are no longer covered by the Startup, Shutdown and Malfunction provisions of the MACT. Rather, affected units are subject to 40 CFR §63.1368(i) *Reports of Malfunctions* as follows:

*If a source fails to meet an applicable standard, report such events in the Periodic Report. Report the number of failures to meet an applicable standard. For each instance, report the date, time, and duration of each failure. For each failure the report must include a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions.*

These failures to meet the applicable emission standards in this reporting period are reflected in Attachment 1.

## PAI MACT PERIODIC REPORT

This periodic report covers the period from January 1, 2023 through June 30, 2023, and provides all information required under 40 CFR §63.1368, §63.1363, §63.146, and the 40 CFR Part 63 General Provisions. Periodic Report information is included in Attachments 2, 3, and 4.

Based on reasonable inquiry, the information submitted in this submittal is, to the best of my knowledge and belief, true, accurate, and complete. Should you have any questions or require further information, please contact Sidney Lipp, at 708-222-3111.

Sincerely,



L. Seth Herring  
Plant Manager CMC NA

Attachment 1 – Report of Malfunctions  
Attachment 2 – Periodic Report Information  
Attachment 3 – Periodic Report Records  
Attachment 4 – LDAR Results

Copy:

Illinois EPA – Air Regional Field Office  
Illinois Environmental Protection Agency  
Division of Air Pollution Control  
9511 W. Harrison Street  
Des Plaines, IL 60016

USEPA, Region 5  
Air and Radiation Division  
77 West Jackson Boulevard (A-18J)  
Chicago, Illinois 60604-3507

Certification by a Responsible Official:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:

L. Seth Herring

Name:

L. Seth Herring

Official Title:

Plant Manager CMC NA

Telephone No.:

708-556-9984

Date Signed:

8/30/23



**ATTACHMENT 1 – REPORT OF MALFUNCTIONS**

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**Parameter Exceedences**

| Start Time    | End Time      | Duration (Hr) | VOC Emissions (lbs) |
|---------------|---------------|---------------|---------------------|
| 2/2/23 15:45  | 2/2/23 18:15  | 2.50          | 10.93               |
| 2/23/23 17:00 | 2/23/23 19:15 | 2.25          | 9.84                |

**Bypass Events**

| Start Time    | End Time      | Duration (Hr) | VOC Emissions (lbs) |
|---------------|---------------|---------------|---------------------|
| 1/27/23 9:02  | 1/27/23 9:11  | 0.15          | 0.66                |
| 1/27/23 9:28  | 1/27/23 10:24 | 0.93          | 4.08                |
| 2/2/23 15:50  | 2/2/23 16:59  | 1.15          | 5.03                |
| 2/2/23 17:01  | 2/2/23 18:19  | 1.30          | 5.68                |
| 2/3/23 13:26  | 2/3/23 13:43  | 0.28          | 1.24                |
| 2/8/23 23:12  | 2/8/23 23:17  | 0.08          | 0.36                |
| 2/16/23 9:37  | 2/16/23 9:42  | 0.08          | 0.36                |
| 2/16/23 12:27 | 2/16/23 12:33 | 0.10          | 0.44                |
| 2/17/23 20:37 | 2/17/23 20:41 | 0.07          | 0.29                |
| 2/23/23 17:00 | 2/23/23 18:21 | 1.35          | 5.90                |
| 2/23/23 18:21 | 2/23/23 19:15 | 0.90          | 3.93                |
| 2/24/23 11:13 | 2/24/23 11:24 | 0.18          | 0.80                |
| 2/24/23 11:24 | 2/24/23 11:28 | 0.07          | 0.29                |
| 2/24/23 11:28 | 2/24/23 12:58 | 1.50          | 6.56                |
| 3/7/23 21:23  | 3/7/23 21:41  | 0.30          | 1.31                |
| 3/20/23 0:16  | 3/20/23 0:27  | 0.18          | 0.80                |
| 3/23/23 8:30  | 3/23/23 8:35  | 0.08          | 0.36                |
| 4/16/23 12:20 | 4/16/23 13:29 | 1.15          | 5.03                |
| 4/16/23 13:15 | 4/16/23 13:17 | 0.03          | 0.15                |
| 4/16/23 13:17 | 4/16/23 13:25 | 0.13          | 0.58                |
| 4/16/23 13:25 | 4/16/23 14:25 | 1.00          | 4.37                |
| 4/27/23 18:25 | 4/27/23 18:49 | 0.40          | 1.75                |
| 4/27/23 19:23 | 4/27/23 19:26 | 0.05          | 0.22                |
| 4/28/23 9:03  | 4/28/23 9:08  | 0.08          | 0.36                |
| 4/28/23 9:22  | 4/28/23 9:28  | 0.10          | 0.44                |
| 5/2/23 7:25   | 5/2/23 7:55   | 0.50          | 2.19                |
| 5/9/23 13:01  | 5/9/23 13:07  | 0.10          | 0.44                |
| 5/22/23 22:54 | 5/22/23 22:59 | 0.08          | 0.36                |
| 5/23/23 16:39 | 5/23/23 16:53 | 0.23          | 1.02                |
| 5/28/23 12:06 | 5/28/23 12:26 | 0.33          | 1.46                |
| 5/28/23 12:33 | 5/28/23 13:05 | 0.53          | 2.33                |
| 6/5/23 14:38  | 6/5/23 14:46  | 0.13          | 0.58                |
| 6/8/23 9:20   | 6/8/23 9:43   | 0.38          | 1.68                |
| 6/8/23 9:43   | 6/8/23 9:55   | 0.20          | 0.87                |
| 6/8/23 9:55   | 6/8/23 10:11  | 0.27          | 1.17                |
| 6/8/23 10:11  | 6/8/23 10:31  | 0.33          | 1.46                |
| 6/8/23 10:31  | 6/8/23 12:43  | 2.20          | 9.62                |
| 6/8/23 12:43  | 6/8/23 12:52  | 0.15          | 0.66                |
| 6/8/23 12:52  | 6/8/23 13:02  | 0.17          | 0.73                |
| 6/8/23 13:02  | 6/8/23 13:47  | 0.75          | 3.28                |
| 6/8/23 13:47  | 6/8/23 14:30  | 0.72          | 3.13                |
| 6/8/23 14:30  | 6/8/23 14:42  | 0.20          | 0.87                |
| 6/8/23 17:20  | 6/8/23 17:57  | 0.62          | 2.70                |
| 6/8/23 17:57  | 6/8/23 18:00  | 0.05          | 0.22                |
| 6/15/23 11:50 | 6/15/23 11:55 | 0.08          | 0.36                |
| 6/15/23 12:07 | 6/15/23 12:39 | 0.53          | 2.33                |

| Start Time    | End Time      | Duration (Hr) | VOC Emissions (lbs) |
|---------------|---------------|---------------|---------------------|
| 6/15/23 14:09 | 6/15/23 14:10 | 0.02          | 0.07                |
| 6/19/23 17:59 | 6/19/23 19:07 | 1.13          | 4.95                |
| 6/19/23 19:22 | 6/19/23 19:59 | 0.62          | 2.70                |
| 6/19/23 20:17 | 6/19/23 20:29 | 0.20          | 0.87                |
| 6/19/23 20:29 | 6/19/23 21:29 | 1.00          | 4.37                |
| 6/21/23 1:58  | 6/21/23 2:10  | 0.20          | 0.87                |
| 6/21/23 2:11  | 6/21/23 2:23  | 0.20          | 0.87                |
| 6/21/23 2:40  | 6/21/23 2:45  | 0.08          | 0.36                |

Emissions are based on vapor displacement calculations

Source of the emissions are from the creosote blending tanks.

## ATTACHMENT 2 – PERIODIC REPORT INFORMATION

This Attachment provides all information required under 40 CFR §63.1368, §63.1363, §63.146, and the 40 CFR Part 63 General Provisions. Information is organized by regulatory reference. Regulatory requirements for this periodic report are listed below in italics, followed by Koppers' comments addressing each element or providing the required information.

### 40 CFR §63.1368 – PAI MACT PERIODIC REPORTING PROVISIONS

*§63.1368(g)(2). Content of periodic report. The owner or operator shall include the information in paragraphs (g)(2)(i) through (xii) of this section, as applicable.*

*§63.1368(g)(2)(i). Each Periodic report must include the information in §63.10(e)(3)(vi)(A) through (M) of subpart A of this part, as applicable.*

Koppers Comments: The periodic report information required by §63.1368(g)(2)(i) is provided in Table 2-1

**TABLE 2-1. PERIODIC REPORT INFORMATION IN §63.10(E)(3)(VI)(A) THROUGH (M) - "SUMMARY REPORT—GASEOUS AND OPACITY EXCESS EMISSION AND CONTINUOUS MONITORING SYSTEM PERFORMANCE"**

| Reg. Reference      | Description   | Required Information  |
|---------------------|---|---|
| §63.10(e)(3)(vi)(A) | The company name and address of the affected source;                                | Koppers, Inc.<br>3900 South Laramie Avenue<br>Stickney, Illinois 60650                              |
| §63.10(e)(3)(vi)(B) | An identification of each hazardous air pollutant monitored at the affected source; | Hazardous air pollutants monitored are: Creosote (which consists most of polycyclic organic matter) |
| §63.10(e)(3)(vi)(C) | The beginning and ending dates of the reporting period;                             | January 1, 2023 through June 30, 2023   |

| <b>Reg. Reference</b> | <b>Description</b>   | <b>Required Information</b>  |
|-----------------------|--|--|
| §63.10(e)(3)(vi)(D)   | A brief description of the process units;  | The PAI process units consist of three creosote blend tanks, specifically Tanks 301, 302, 303.   |
| §63.10(e)(3)(vi)(E)   | The emission and operating parameter limitations specified in the relevant standard(s);                      | Emission limitations required at §63.1362 is 98% reduction of HAPs. Operating parameter limitations required at §63.1366 are listed in Attachment 3. |
| §63.10(e)(3)(vi)(F)   | The monitoring equipment manufacturer(s) and model number(s);  | <ul style="list-style-type: none"> <li>• Tar Oxidizer temperature monitor: Lesman Type K</li> </ul>  |
| §63.10(e)(3)(vi)(G)   | The date of the latest CMS certification or audit;   | <ul style="list-style-type: none"> <li>• Tar Oxidizer temperature monitor: 12-6-2022</li> </ul>  |
| §63.10(e)(3)(vi)(H)   | The total operating time of the affected source during the reporting period;                                 | This information is provided in Attachment 3.  |
| §63.10(e)(3)(vi)(I)   | An emission data summary;  | This information is provided in Attachment 3.  |
| §63.10(e)(3)(vi)(J)   | A CMS performance summary;   | This information is provided in Attachment 3.  |
| §63.10(e)(3)(vi)(K)   | A description of any changes in CMS, processes, or controls since the last reporting period;                 | No changes in this reporting period.   |
| §63.10(e)(3)(vi)(L)   | The name, title, and signature of the responsible official who is certifying the accuracy of the report; and | This information is provided on the signature page of this letter.   |
| §63.10(e)(3)(vi)(M)   | The date of the report.  | This information is provided on the signature page of this letter.   |

*§63.1368(g)(2)(ii). If the total duration of excess emissions, parameter exceedances, or excursions for the reporting period is 1 percent or greater of the total operating time for the reporting period, or the total continuous monitoring system downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the Periodic report must include the information in paragraphs (g)(2)(ii)(A) through (D) of this section.*

Koppers Comments: This information is provided in Attachment 3.

*§63.1368(g)(2)(iii). For each vapor collection system or closed vent system with a bypass line subject to §63.1362(j)(1), records required under §63.1366(f) of all periods when the vent stream is diverted from the control device through a bypass line. For each vapor collection system or closed vent system with a bypass line subject to §63.1362(j)(2), records required under §63.1366(f) of all periods in which the seal mechanism is broken, the bypass valve position has changed, or the key to unlock the bypass line valve was checked out.*

Koppers Comments: Koppers elected not to meet the pollution prevention alternative requirement under §63.1362(g) and therefore HAP and VOM factors under 63.1366(f) are not applicable.

*§63.1368(g)(2)(iv). The information in paragraphs (g)(2)(iv)(A) through (D) of this section shall be stated in the Periodic report, when applicable.*

- (A) No excess emissions.*
- (B) No exceedances of a parameter.*
- (C) No excursions.*
- (D) No continuous monitoring system has been inoperative, out of control, repaired, or adjusted.*

Koppers Comments: There are no excursions and no continuous monitoring system has been inoperative, out of control, repaired, or adjusted.

*§63.1368(g)(2)(v). For each storage vessel subject to control requirements:*

- (A) Actual periods of planned routine maintenance during the reporting period in which the control device does not meet the specifications of §63.1362(c)(5); and*
- (B) Anticipated periods of planned routine maintenance for the next reporting period.*

Koppers Comments: Not applicable – no storage vessels at this PAI process unit is subject to control requirements. Tanks 301, 302, and 303 are process vessels, not storage vessels.

*§63.1368(g)(2)(vi). For each PAI process unit that does not meet the definition of primary use, the percentage of the production in the reporting period produced for use as a PAI.*

Koppers Comments: Not applicable – The only PAI process unit is the creosote process unit and this PAI process unit meets the definition of primary use as stated in the NOCSR.

*§63.1368(g)(2)(vii). [Reserved]*

*§63.1368(g)(2)(viii). Updates to the corrective action plan.*

Koppers Comments: A corrective action plan is required under §63.1368(e)(6) for fabric filters monitored with bag leak detectors. Since there are no fabric filters monitored with bag leak detectors in the affected source, the corrective action plan requirements are not applicable to Koppers.

*§63.1368(g)(2)(ix). Records of process units added to each process unit group, if applicable.*

Koppers Comments: Koppers has not elected to develop process unit groups under the PAI MACT. Therefore, process unit group records are not applicable.

*§63.1368(g)(2)(x). Records of redetermination of the primary product for a process unit group.*

Koppers Comments: The PAI process unit produces a single pesticide active ingredient which is creosote. Therefore, process unit group records are not applicable.

*§63.1368(g)(2)(xi). For each inspection conducted in accordance with §63.1366(h)(2) or (3) during which a leak is detected, the records specify in §63.1366(h)(4) must be included in the next Periodic report.*

Koppers Comments: This information is provided in Attachment 4

*§63.1368(g)(2)(xii). If the owner or operator elects to comply with the provisions of §63.1362(c) by installing a floating roof, the owner or operator shall submit the information specified in §63.122(d) through (f) as applicable. References to §63.152 in §63.122 shall not apply for the purposes of this subpart.*

Koppers Comments: Koppers did not elect to install a floating roof to comply with the storage tank requirements. Therefore, the information specified in §63.122(d) through (f) is not required to be included in this report.

*§63.1368(h). Notification of process change.*

*§63.1368(h)(1). Except as specified in paragraph (h)(2) of this section, whenever a process change is made, or any of the information submitted in the Notification of Compliance Status report changes, the owner or operator shall submit the information specified in paragraphs (h)(1)(i) through (iv) of this section with the next Periodic report required under paragraph (g) of this section. For the purposes of this section, a process change means the startup of a new process, as defined in §63.1361.*

Koppers Comment: There have been no process changes in this reporting period.

*§63.1368(j). Reports of equipment leaks. The owner or operator of an affected source subject to the standards in §63.1363, shall implement the reporting requirements specified in §63.1363(h). Copies of all reports shall be retained as records for a period of 5 years, in accordance with the requirements of §63.10(b)(1) of subpart A of this part.*

Koppers Comments: This information is provided in Attachment 4

*§63.1368(l). Reports of heat exchange systems. The owner or operator of an affected source subject to the requirements for heat exchange systems in §63.1362(f) shall submit information about any delay of repairs as specified in §63.104(f)(2) of subpart F of this part, except that when the phrase "periodic reports required by §63.152(c) of subpart G of this part" is referred to in §63.104(f)(2) of subpart F of this part, the periodic reports required in paragraph (g) of this section shall apply for the purposes of this subpart.*

Koppers Comments: Not applicable - there are no heat exchange systems in the creosote processing unit.



## 40 CFR §63.1363 – EQUIPMENT LEAK REPORTING

§63.1363(e)(5)(iii). *The owner or operator shall determine every 6 months if the overall performance of total valves in the applicable group of processes is less than 2 percent leaking valves and so indicate the performance in the next Periodic report.*

Koppers Comments: There were no leaking valves during this reporting period.

§63.1363(e)(5)(vi). *Semiannual reports. In addition to the information required by paragraph (h)(3) of this section, the owner or operator shall submit in the Periodic reports the information specified in paragraphs (e)(5)(vi)(A) and (B) of this section.*

- (A) *Valve reassignments occurring during the reporting period, and*
- (B) *Results of the semiannual overall performance calculation required by paragraph (e)(5)(iii) of this section.*

Koppers Comments: No valves were reassigned or leaking during the reporting period.

§63.1363(h)(3). *Periodic reports. The owner or operator of a source subject to this section shall submit Periodic reports.*

§63.1363(h)(3)(i). *A report containing the information in paragraphs (h)(3)(ii), (iii), and (iv) of this section shall be submitted semiannually. The first Periodic report shall be submitted no later than 240 days after the date the Notification of Compliance Status report is due and shall cover the 6-month period beginning on the date the Notification of Compliance Status report is due. Each subsequent Periodic report shall cover the 6-month period following the preceding period.*

§63.1363(h)(3)(ii). *For equipment complying with the provisions of paragraphs (b) through (g) of this section, the Periodic report shall contain the summary information listed in paragraphs (h)(3)(ii)(A) through (L) of this section for each monitoring period during the 6-month period.*

Koppers Comments: The results of the LDAR monitoring are reported in Attachment 4.

§63.1363(h)(3)(iii). *For owners or operators electing to meet the requirements of §63.178(b) of subpart H of this part, the Periodic report shall include the*

information listed in paragraphs (h)(3)(iii)(A) through (E) of this section for each process.

Koppers Comments: Koppers has not chosen to use the alternative emission limitations in §63.178, the information in §63.178(h)(3)(iii)(A) through (E) is not required.

§63.1363(h)(3)(iv) Any change in the information submitted under paragraph (h)(2) of this section shall be provided in the next Periodic report.

Koppers Comments: No changes to information provided under paragraph (h)(2).

#### **40 CFR §63.146 – WASTEWATER REPORTING**

§63.1362 (d) Wastewater. The owner or operator of each affected source shall comply with the requirements of §§63.132 through 63.147, with the differences noted in paragraphs (d)(1) through (16) of this section for the purposes of this subpart.

§63.1362 (d)(6) When the Periodic report requirements contained in §63.152(c) of subpart G of this part are referred to in §§63.146 and 63.147 of subpart G of this part, the Periodic report requirements contained in §63.1368(g) shall apply for the purposes of this subpart.

§63.146(c). For each waste management unit that receives, manages, or treats a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream, the owner or operator shall submit as part of the next Periodic Report required by §63.152(c) of this subpart the results of each inspection required by §63.143(a) of this subpart in which a control equipment failure was identified. Control equipment failure is defined for each waste management unit in §§63.133 through 63.137 of this subpart. Each Periodic Report shall include the date of the inspection, identification of each waste management unit in which a control equipment failure was detected, description of the failure, and description of the nature of and date the repair was made.

Koppers Comments: Not applicable – no Group 1 wastewater stream at the creosote processing unit.

§63.146(d). Except as provided in paragraph (f) of this section, for each treatment process used to comply with §63.138(b)(1), (c)(1), (d), (e), (f), or (g), the owner or

*operator shall submit as part of the next Periodic Report required by §63.152(c) the information specified in paragraphs (d)(1), (2), and (3) of this section for the monitoring required by §63.143(b), (c), and (d).*

**Koppers Comments:** No treatment processes are used for PAI wastewater. Therefore, this provision is not applicable.

*§63.146(e). Except as provided in paragraph (f) of this section, for each control device used to comply with §§63.133 through 63.139 of this subpart, the owner or operator shall submit as part of the next Periodic Report required by §63.152(c) of this subpart the information specified in either paragraph (e)(1) or (e)(2) of this section.*

*§63.146(e)(1). The information specified in table 20 of this subpart, or*

**Koppers Comments:** Not applicable – No affected wastewater stream.

*§63.146(e)(2). If the owner or operator elects to comply with §63.143(e)(2) of this subpart, i.e., an organic monitoring device installed at the outlet of the control device, the owner or operator shall submit the monitoring results for each operating day during which the daily average concentration level or reading is outside the range established in the Notification of Compliance Status or operating permit.*

**Koppers Comments:** Not applicable – No affected wastewater stream.

*§63.146(g). If an extension is utilized in accordance with §63.133(e)(2) or §63.133(h) of this subpart, the owner or operator shall include in the next periodic report the information specified in §63.133(e)(2) or §63.133(h).*

**Koppers Comments:** Not applicable – No affected wastewater stream.

## **40 CFR §63.10 – GENERAL PROVISIONS PERIODIC REPORTING**

*§63.10(e)(3). Excess emissions and continuous monitoring system performance report and summary report.*

*§63.10(e)(3)(i). Excess emissions and parameter monitoring exceedances are defined in relevant standards. The owner or operator of an affected source required to install a CMS by a relevant standard shall submit an excess emissions and continuous monitoring system performance report and/or a summary report to the Administrator semiannually...*

Koppers Comments: The summary report information is included in Table 2-1.

*§63.10(e)(3)(vii). If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is less than 1 percent of the total operating time for the reporting period, and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report shall be submitted, and the full excess emissions and continuous monitoring system performance report need not be submitted unless required by the Administrator.*

Koppers Comments: The excess emissions and CMS performance reports are included in Attachments 1 and 3.

*§63.10(e)(3)(viii). If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is 1 percent or greater of the total operating time for the reporting period, or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, both the summary report and the excess emissions and continuous monitoring system performance report shall be submitted.*

Koppers Comments: The excess emissions and CMS performance reports are included in Attachments 1 and 3.

**ATTACHMENT 3 – PERIODIC REPORT RECORDS**

---

**CMS Malfunction Summary**

| Date | Equipment Description            | Malfunction Description 63.10(C)(10) | Duration (hours) | Caused or may have caused excess emissions? | Corrective Action Taken 63.10(C)(11) | Repairs/Adjustment to CMS 63.10(C)(12) |
|------|----------------------------------|--------------------------------------|------------------|---|--------------------------------------|--|
|      | None during the reporting period |                                      |                  |   |                                      |  |
|      |                                  |                                      |                  |   |                                      |  |
|      |                                  |                                      |                  |   |                                      |  |

**Records of PAI Process Operating Hours  
Under §63.10(e)(3)(vi)(H) & 63.10(c)(13)**

| Date                  | January 1, 2023 through June 30, 2023 |
|-----------------------|---------------------------------------|
| Creosote Process Unit | 712.5                                 |

PAI MACT Periodic Report

**Control System Performance Summary Required Under §63.10(e)(3)(vi)(J)**

|  | Downtime Hours |
|--|----------------|
| <b>Control System Downtime Causes</b>                          |                |
| Monitoring equipment malfunctions                              | 0              |
| Nonmonitoring equipment malfunctions                           | 23.75          |
| QA/QC calibrations   | 0              |
| Other known causes (power failures)                            | 0              |
| Other unknown causes   | 0.00           |
| <b>Total Control System Downtime for Reporting Period (hr)</b> | <b>23.75</b>   |
| <b>Control System Downtime (% of total operating time)</b>     | <b>3.3%</b>    |

Total operating time for reporting period:

Creosote Processing Unit Total:

712.5 hours



**Emissions Data Summary Under §63.10(e)(3)(vi)(I)**

| Total duration of excess emissions:         |  | 23.75 | hours                     |
|---|--|-------|---------------------------|
|   |  | 3.3   | % of total operating time |
| <b>Duration of excess emissions due to:</b> |  |       |                           |
| Startup/shutdown 63.10(c)(7)                |  | 0.0   | hours                     |
| Control equipment problems                  |  | 23.75 | hours                     |
| Process problems                            |  | 0.0   | hours                     |
| Other known causes                          |  | 0.0   | hours                     |
| Other unknown causes                        |  | 0.0   | hours                     |

**PAI MACT Periodic Report  
Excess Emissions and CMS Performance Report**

**CMS Information Summary**

|   |                      |
|---|----------------------|
| Parameter   | Tar Thermal Oxidizer |
| Excess Emissions Duration (hours)                 | 23.75                |
| Parameter Exceedances (% of total operating time) | 0.7%                 |
| Excursions (% of total operating time)            | 0.0%                 |
| CMS Downtime (% of total operating time) *        | 0.0%                 |

\* Total CMS downtime includes the duration of power failures plus monitoring

**Duration of Excursions Required Under §63.1368(g)(2)(ii)(B)**

|                                |                      |
|--------------------------------|----------------------|
| Parameter                      | Tar Thermal Oxidizer |
| Duration of Excursions (hours) | 0.00                 |

**Monitoring Data Required Under §63.1368(g)(2)(ii)(D)**

When a continuous monitoring system is used, the information listed in §63.10(c)(5) through (13) of subpart A is required. The applicable information is provided below.

**Listing of Inoperative CMS Periods Required Under §63.10(c)(5)**

None during reporting period

**(c)(6) The date and time identifying each period during which the CMS was out of control, as defined in §63.8(c)(7);**

None during reporting period

**PAI MACT Periodic Report  
Control Device Operating Parameter Exceedances**

The following information is provided regarding the operating parameter exceedances:

Reg. Information.

- §63.1368(g)(2)(ii)(A) Daily average values of monitored parameters for all operating days when the average values were outside the ranges established in the Notification of Compliance Status Report (NCS).
- §63.1368(g)(2)(ii)(C) Operating logs and operating scenarios for all operating days when the values are outside the levels established in the NCS.
- §63.10(c)(7) The specific identification of each time period of parameter monitoring exceedances that occurs during SSM events.
- §63.10(c)(8) The specific identification of each time period of parameter monitoring exceedances that occurs during periods other than SSM events.

Operating days when the average values were outside the ranges established in the NCS.

| Parameter Exceeded <sup>1</sup> | Start Time    | End Time      | Block Average (F) |              | Minimum Allowable Value (F) | Operating Scenario |
|---------------------------------|---------------|---------------|-------------------|--------------|-----------------------------|--------------------|
|                                 |               |               | 2/2/23 15:45      | 2/2/23 18:15 |                             |                    |
| Tar TO Temperature              | 2/23/23 17:00 | 2/23/23 19:15 | 1138              |              | 1350                        | Not applicable     |
|                                 |               |               | 463               |              |                             |                    |

**PAI MACT Periodic Report  
Control Device Operating Parameter Exceedances**

The following pages provide information regarding the operating parameter exceedances.

**Reg.**

**Information.**

If the total duration of excess emissions, parameter exceedances, or excursions for the reporting period is 1 percent or greater of the total operating time for the reporting period, or the total continuous monitoring system downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the Periodic report must include the information in paragraphs (g)(2)(ii)(A) through (D) of this section.

§63.1368(g)(2)(ii)(A) 15-minute values of monitored parameters for all operating days when the average values were outside the ranges established in the NCS.

**Dates For Which 15-minute Values Are Provided**

| Date               | 15-Minute Values |
|--------------------|------------------|
| 02-Feb-23 15:45:00 | 1125.8           |
| 02-Feb-23 16:00:00 | 629.1            |
| 02-Feb-23 16:15:00 | 848.8            |
| 02-Feb-23 16:30:00 | 1090.1           |
| 02-Feb-23 16:45:00 | 1328.3           |
| 02-Feb-23 17:00:00 | 1404.6           |
| 02-Feb-23 17:15:00 | 952.6            |
| 02-Feb-23 17:30:00 | 587.2            |
| 02-Feb-23 17:45:00 | 828.6            |
| 02-Feb-23 18:00:00 | 1059.2           |
| 02-Feb-23 18:15:00 | 1310.2           |
| 02-Feb-23 18:30:00 | 1409.2           |
| 02-Feb-23 18:45:00 | 1406.5           |
| 02-Feb-23 19:00:00 | 1408.2           |
| 02-Feb-23 19:15:00 | 1407.4           |
| 02-Feb-23 19:30:00 | 1406.0           |

| Date               | 15-Minute Values |
|--------------------|------------------|
| 23-Feb-23 17:00:00 | 446.4            |
| 23-Feb-23 17:15:00 | 464.5            |
| 23-Feb-23 17:30:00 | 471.8            |
| 23-Feb-23 17:45:00 | 474.1            |
| 23-Feb-23 18:00:00 | 477.1            |
| 23-Feb-23 18:15:00 | 474.6            |
| 23-Feb-23 18:30:00 | 437.8            |
| 23-Feb-23 18:45:00 | 433.8            |
| 23-Feb-23 19:00:00 | 464.2            |
| 23-Feb-23 19:15:00 | 470.9            |

**ATTACHMENT 4 – LDAR RESULTS**

---

**PAI - LDAR Testing Summary for January 2023 through June 2023**

| 18-Aug-20<br>LDAR Test Date | Valves in gas/vapor or light liquid service |         | Pumps in light liquid service |         | Connectors in gas/vapor or light liquid service |         | Agitators in gas/vapor or light liquid service |         | Compressors <sup>1</sup> |         |
|-----------------------------|---|---------|-------------------------------|---------|---|---------|--|---------|--------------------------|---------|
|                             | Monitored                                   | Leakers | Monitored                     | Leakers | Monitored                                       | Leakers | Monitored                                      | Leakers | Monitored                | Leakers |
| Totals:                     | 11  | 0       | 0                             | 0       | 45  | 0       | 0  | 0       | NA                       | NA      |
| Percent Leakers:            | 0.0%  |         | 0.0%                          |         | 0.0%  |         | 0.0%   |         | NA                       |         |

<sup>1</sup> The process did not contain any compressors requiring monitoring during the reporting period.

**Compliance Monitoring Results for Pressure Relief Devices in Gas and Vapor Service**

| Date      | Tag ID | Result Value (ppmv) |
|-----------|--------|---------------------|
| 6/22/2023 | 2002a  | 4                   |
| 6/22/2023 | 2002b  | 4                   |
| 6/22/2023 | 2011a  | 4                   |
| 6/22/2023 | 2011b  | 4                   |
| 6/22/2023 | 2022a  | 4                   |
| 6/22/2023 | 2022b  | 4                   |
| 6/22/2023 | 2505a  | 4                   |
| 6/22/2023 | XX-4a  | 4                   |

**Attachment C**

**Creosote Blending Emissions Calculations  
Response to Violation Notice A-2023-00162  
Koppers Inc.**

Creosote Charging Emission Calculations  
 Batch emission estimates from 40 CFR 63.2460(b) are provided below:

Emissions from Charging (Vapor Displacement) - 40 CFR 63.1257(d)(2)(i)(A)

$$E = \frac{(V)}{(R)(T)} \times \sum_{i=1}^n (P_i)(MW_i) \quad (Eq. 11)$$

Where:

- E=mass of VOM emitted
- V=volume of gas displaced from the vessel
- R=ideal gas constant
- T=temperature of the vessel vapor space; absolute
- P<sub>i</sub>=partial pressure of individual VOM
- MW<sub>i</sub>=molecular weight of the individual VOM

**VOM Partial Pressure Calculations for Charging/Transferring Steps**

The partial pressure of HAP is calculated using Raoult's Law as shown below. Pure component vapor pressures are estimated using the Antoine Equation.

$$P_{VOM} = X_{VOM} * P^{sat}$$

**Charging/Transferring Emissions Estimated Using Equation 11**

| V (L)  | R (L*atm/(mol*K)) | T (K) | VOM      | P <sup>sat</sup> (atm) | X <sub>VOM</sub> | P <sub>VOM</sub> (atm) | MW (g/mole) | E <sub>VOM</sub> (g) | E <sub>VOM</sub> (lb) | E <sub>VOM</sub> (lb/hr) |
|--|-------------------|-------|----------|------------------------|------------------|------------------------|-------------|----------------------|-----------------------|--------------------------|
| 174128.86  | 0.082057          | 338.7 | NSR      | 0.000662               | 0.712975         | 0.0005                 | 160.12      | 473.2                | 1.04                  | 0.52                     |
| 174128.86  | 0.082057          | 366.5 | Creosote | 0.031                  | 0.287025         | 0.0033                 | 177         | 3361.9               | 7.41                  | 3.70                     |
| Total Charging Emissions during episode (2 hours): |                   |       |          |                        |                  |                        |             |                      | 8.45                  | 4.22                     |

Note 1 - A conservative creosote vapor pressure of 0.168 psia (SDS) was used for this calculation. Other vapor pressure estimates show a lower vapor pressure.



**Attachment D**

**Startup, Shutdown, and Malfunction Plan, November 2020 (Revision 03)**

**Response to Violation Notice A-2023-00162**

**Koppers Inc.**

REVISED REPORT



**Koppers, Inc.**

Stickney, IL

***Startup, Shutdown, and Malfunction  
Plan***

*Revision 03*

November 2020

**Environmental Resources Management**  
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## 1.0 SCOPE AND PURPOSE

The purpose of this plan is to document a Startup, Shutdown and Malfunction (SSM) Plan for equipment at the Koppers, Inc (Koppers) facility in Stickney, Illinois. The Crude Tar Distillation process, the Modified Pavement Sealer Base process and the Type A Carbon Pitch Tanks within the Koppers facility are subject to the National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing (MON MACT), 40 CFR Part 63, Subpart FFFF. Section 63.2540 of the MON MACT requires a facility to develop and implement an SSM Plan to document the procedures for operating equipment during such periods to minimize HAP emissions.

As a note, 63.2525(j) of the MON MACT states that an SSM Plan is not required for Group 2 emissions points, unless those emission points are used in an emissions average. While subject to the MON MACT, the Modified Pavement Sealer Base process has no Group 1 emission points as defined in the MON MACT nor emission points used in emissions averaging. Therefore, no SSM Plan content is required for this process.

The purpose of the SSM Plan is to:

- Ensure that at all times the process equipment, including air pollution control devices, is operated and maintained in accordance with good air pollution control practices for minimizing emissions.
- Ensure that Koppers is prepared to correct malfunctions as soon as practicable in order to minimize excess emissions.

The SSM Plan summarizes the basic approach to startup, shutdown, and malfunctions as follows:

- Provide general instructions for proper start up or shutdown of equipment or operations while minimizing pollutant emissions.
- Provide the approach for operators to correct malfunctions as soon as possible after their occurrence in order to minimize excess emissions of hazardous air pollutants (HAPs).
- Specify that operators will keep records of:
  - The occurrence, duration, and cause of each malfunction;
  - The occurrence and duration of each startup or shutdown;
  - Whether or not actions taken during a startup, shutdown, or malfunction are consistent with the procedures identified in the SSM Plan.

It should be noted that the occurrence (or even repeated occurrence) of any of the events listed in this plan would not cause Koppers to be out of compliance with the MACT Standards provided that the SSM Plan is followed and the events are documented as SSM events. The events included in this plan are those that will have the potential to cause excess emissions from the affected process operations or are malfunctions of the control equipment or monitoring equipment. Excess emissions are those beyond the expected, normal range of emissions from a given emission source.

This SSM Plan is effective immediately.

References:

40 CFR Part 63, Subpart FFFF, National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing (MON)

40 CFR 63.2540 Table 12

40 CFR 63.6 (e)(3)

## 2.0 DEFINITIONS

The definitions for startup, shutdown, and malfunction as they are applied in MON MACT, codified in §63.2550 are as follows:

### **Startup means:**

- The setting in operation of a continuous operation for any purpose.
- The first time a new or reconstructed batch operation begins production.
- For new equipment added, including equipment required or used to comply with this subpart, the first time the equipment is put into operation; or for the introduction of a new product/process, the first time the product or process is run in equipment.
- For batch operations, startup applies to the first time the equipment is put into operation at the start of a campaign to produce a product that has been produced in the past if the steps taken to begin production differ from those specified in a standard batch or nonstandard batch.
- Startup does not apply when the equipment is put into operation as part of a batch within a campaign when the steps taken are routine operations.

### **Shutdown means:**

- The cessation of operation of a continuous operation for any purpose.
- The cessation of a batch operation, or any related individual piece of equipment required or used to comply with this subpart, if the steps taken to cease operation differ from those described in a standard batch or nonstandard batch.
- Shutdown also applies to emptying and degassing storage vessels.
- Shutdown does not apply to cessation of batch operations at the end of a campaign or between batches within a campaign when the steps taken are routine operations.

**Malfunction means:**

- Any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, emissions monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded.
- Failures caused all or in part by poor maintenance or careless operation are not malfunctions.

**Maintenance wastewater means:**

- Wastewater generated by the draining of process fluid from components in the MON MACT affected process into an individual drain system in preparation for or during maintenance activities.
- Maintenance wastewater can be generated during planned and unplanned shutdowns and during periods not associated with a shutdown.
- Examples of activities that can generate maintenance wastewater include descaling of heat exchanger tubing bundles, cleaning of distillation column traps, draining of pumps into an individual drain system, and draining of portions of the MON MACT affected process for repair.
- Wastewater from routine cleaning operations occurring as part of batch operations is not considered maintenance wastewater.

References:

*40 CFR Part 63, Subpart FFFF, National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing (MON)*

*40 CFR 63.2540 Table 12*

*40 CFR 63.6 (e)(3)*

## **3.0 PROCEDURES**

### **3.1 SSM PLAN FOR CRUDE TAR DISTILLATION PROCESS**

In the Crude Tar Distillation process, this plan will be used during a startup, shutdown, or malfunction event as defined in Section 2.0. If an SSM event occurs, the operating procedures, as well as the recordkeeping and reporting requirements outlined in this SSM Plan will be followed to ensure compliance with the MON MACT. The emission limitations of the MON MACT do not apply during SSM events if this SSM Plan is followed. However, if the source is subject to additional federal or state regulations, the reporting or recordkeeping requirements of those regulations still apply.

The Crude Tar Distillation process emissions are typically combusted in Tube Heaters 1 and 2, which utilize the fuel value of the vapors. As stated in 40 CFR 63.2550(i), a gas stream transferred for fuel value is exempt from the MON definition of a continuous process vent by the exemption in 63.107(h)(6), as referenced in 63.2550(i). Accordingly, Koppers considers the combined vent from the Crude Tar Distillation process subject to Group 1 continuous process vent requirements only when the Tube Heater(s) are not available to burn the gases as fuel. Therefore, the miscellaneous organic chemical manufacturing process unit (MCPU) for the Crude Tar Distillation process ends at the tube heaters.

When the tube heaters are not available, the process gases are routed through Fume System #2 to the #2 Fume Scrubber, then to the atmosphere. The #2 Fume Scrubber provides some level of control until the tube heaters are brought back on line or the distillation process is shut down.

#### **3.1.1 Startup**

##### **3.1.1.1 Process Startup**

Prior to starting up the Crude Tar Distillation Column, the operator(s) will confirm that the tube heaters are operational, and that vent lines are open to these units. Automated column startup procedures will then be followed.

#### **3.1.2 Shutdown**

##### **3.1.2.1 Column Shutdown**



Column operators will follow automated shutdown procedures whenever taking the column off-line. During the shutdown, all emissions will be controlled by the tube heaters.

### **3.1.3 Malfunctions**

In the event of a malfunction that impacts the operation of the Crude Tar Distillation process or the tube heaters results in emissions being discharged to Fume System #2/Fume Scrubber #2, then directly to the atmosphere, the operator must begin the emergency shutdown procedures to put the equipment into "safe mode" (i.e. no venting). After "safe mode" is achieved, the Supervisor will determine the cause of the malfunction and identify the necessary corrective actions. During a malfunction shutdown, the plant will minimize HAP emissions by one of the following methods:

- Vent emissions to the tube heaters, provided these units are operational;
- Route emissions through the #2 Fume System to the #2 Fume Scrubber.

If relief valves are blown in the process, this material is automatically routed to Tank 75. Recovered material from this vessel is held until it can be recycled back into the Crude Tar Distillation Column when the process becomes operational.

In the event of a malfunction that does not impact the operation of the Crude Tar Distillation process nor results in emissions being discharged directly to the atmosphere, the operator can continue to operate the process. The cause of the malfunction will be determined and the appropriate corrective action will be taken in order to restore the process to normal operating conditions. If the equipment cannot be restored in a timely manner, the process may be shut down to repair malfunctioning equipment.

### **3.1.4 Monitoring Devices**

The Crude Tar Distillation process routes the process vent gases to Tube Heaters 1 and 2, which utilize the gases as fuel. Therefore, there is no affected air pollution control device nor parametric monitoring device.

## 3.2 SSM PLAN FOR TYPE A CARBON PITCH TANKS

For the Type A Carbon Pitch Tanks (TK-41, TK-47, TK-48, TK-44, TK-46) this plan will be used during a startup, shutdown, or malfunction event as defined in Section 2.0. If an SSM event occurs, the operating procedures, as well as the recordkeeping and reporting requirements outlined in this SSM Plan will be followed to ensure compliance with the MON MACT. The emission limitations of the MON MACT do not apply during SSM events if this SSM Plan is followed. However, if the source is subject to additional federal or state regulations, the reporting or recordkeeping requirements of those regulations still apply.

The Type A Carbon Pitch Tanks are used as both storage tanks and process tanks. Koppers will charge materials into the tanks and blend to produce the final product which is stored in the same tank. During the charging and blending operations, these vessels are considered Group 1 Batch Process Vents. These vents are collected by Fume System #5 and controlled by the Pitch Thermal Oxidizer (Pitch TO). When the product is being stored, these are Group 2 Storage Tanks. There are no SSM requirements for Group 2 Storage Tanks.

### 3.2.1 Startup

#### 3.2.1.1 Process Startup

Prior to blending materials in the Type A Carbon Pitch Tanks (TK-41, TK-47, TK-48, TK-44, TK-46) the operator(s) will confirm that the Pitch TO and #5 Fume System Scrubber are operational.

#### 3.2.1.2 Thermal Oxidizer Startup

The Pitch TO start-up is primarily computer controlled. The start-up procedure is as follows:

- Make sure manual isolation valves for utilities (natural gas, instrument air, nitrogen, steam, and condensate) are in correct position. Confirm instrument air supply.
- Start control power selector and verify all instruments are powered.
- The safety shutdown interlocks must be in "normal" condition to start up the Pitch TO.

- Begin automated start-up procedure.
- Begin the system purge procedure.
- Start the oxidizer burner. If burner will not start after 3 attempts, a re-purge of the oxidizer is necessary.
- Insure that oxidizer temperature is above 1350°F and fume differential pressure is at a minimum of 0.25" H<sub>2</sub>O.
- The thermal oxidizer is now operational, and process emissions can be routed to the unit.

### 3.2.2 *Thermal Oxidizer Shutdown*

There are three main types of scheduled shutdowns for the Pitch TO: a normal shutdown, emergency automatic shutdown, and an emergency manual shutdown.

#### Normal Shutdown

- Prior to initiating the shut down, confirm Pitch TO is operational and ready to accept waste gas.
- Shut off the fume streams and stop any transfer to the blending tanks.
- Turn the burner off.

#### Emergency Automated Shutdown

When the process is shut down during an emergency automatic shutdown, the system automatically begins shutting down if any of the safety shutdown interlocks should trip. The Tar Distillation Operator must then:

- Stop any transfer to the blending tanks and reduce heat on these tanks until the Pitch TO is restarted and above the minimum operating temperature (1350° F).

#### Emergency Manual Shutdown

An emergency manual shutdown is started by the Tar Distillation Operator when required.

- Shut off the control power to all panel and field components.

- Stop any transfer to the blending tanks and reduce heat on these tanks until the Pitch TO is restarted and above the minimum operating temperature (1350° F).

### 3.2.3 *Malfunctions*

In the event of a malfunction that impacts the operation of the Type A Carbon Pitch Tanks, or results in emissions being discharged directly to the atmosphere, the operator must cease all material charging into the tanks. After this is achieved, the Supervisor will determine the cause of the malfunction and identify the necessary corrective actions. During a malfunction shutdown, the plant will minimize HAP emissions by one of the following methods:

- Ceasing blending operations;
- Vent emissions to the Pitch TO, provided this unit is operational; or
- If emissions are routed to the Pitch TO and the oxidizer is not operational, the #5 Fume Scrubber will provide some control, provided the scrubber is operational.

In the event of a malfunction that does not impact the operation of the tanks or does not result in emissions being discharged directly to the atmosphere, the operator can continue to blending materials in the tanks. The cause of the malfunction will be determined and the appropriate corrective action will be taken in order to restore the process to normal operating conditions. If the equipment cannot be restored in a timely manner, the process may be shut down to repair malfunctioning equipment.

### 3.2.4 Monitoring Devices

Type A Carbon Pitch MCPU is controlled by the Pitch TO. The oxidizer controls HAP emissions as necessary under the MON MACT. In order to demonstrate that the thermal oxidizer is operating correctly, the facility must continuously monitor the oxidizer combustion chamber temperature to ensure that a minimum temperature of 1350° F is achieved.

To reduce the risk of monitoring device malfunctions, Koppers will do the following:

- Calibrate the thermocouple on the routine schedule recommended by the instrument manufacturers.
- Perform the routine sensor maintenance specified by the manufacturer.

In the event that the monitoring device is observed to malfunction, the operator will cease blending operations and control emissions with the #5 Scrubber. Once the oxidizer is shutdown, troubleshoot the malfunction and repair/replace the device as necessary.

| <b>Malfunction</b>  | <b>Corrective Action</b>   |
|---------------------|--|
| General Malfunction | Determine cause of malfunction and take appropriate measures to restore malfunctioning equipment to normal operation, if possible.   |
| Failed thermocouple | Cease blending in the affected Pitch Tanks. Control emissions with the #5 Scrubber. Determine the cause of malfunction and take appropriate measures to restore the monitor to normal operation. |

### 3.3 MAINTENANCE WASTEWATER

This section describes the maintenance procedures for management of wastewaters generated from the emptying and purging of equipment in the process during temporary shutdowns for inspections, maintenance, and repair (i.e., a maintenance-turnaround) and during periods which are not shutdowns (i.e., routine maintenance).

Maintenance wastewater can be generated during cleaning operations in the Crude Tar Distillation Process, the Pavement Sealer Base process and the Type A Carbon Pitch Tanks. This generally consists of emptying process fluids from lines and equipment, wash-outs, and boil-outs.

The maintenance procedures for wastewater specify the:

- Types of process equipment or maintenance tasks that are anticipated to create wastewater during maintenance activities;
- Procedures that will be followed to properly manage the wastewater and control organic HAP emissions to the atmosphere; and
- Procedures to be followed when clearing materials from process equipment [§63.105].

#### *Management Guidelines for Maintenance Wastewaters*

Maintenance wastewaters can be generated from any piece of equipment throughout the MON MACT affected processes.

In addition to general maintenance provisions, the following procedural guidelines are intended to minimize HAP emissions to the atmosphere during clearing for maintenance activities that generate wastewater;

#### Equipment, Vessel Piping Drains

- Process fluids will be drained to the industrial sewer, if practicable.
- After initial draining of process fluids, equipment may be flushed with water and/or steamed to the industrial sewer.

- Accumulated condensate from steaming process vessels may be drained or flushed to the industrial sewer.

#### Heat Exchangers/Reboilers

- Process fluids will be transferred out of the exchanger to a storage tank, back to the process, or
- Volatile materials may be removed by steaming to the industrial sewer or flushing with clean water to the industrial sewer.

#### Pumps and Filter Housing Contents

- Pump contents may be purged back into the process, or drained to the industrial sewer via hard-pipe connection or hose to reclaim material to the extent practicable.
- If pump contents are drained to grade, they should be flushed with water to the industrial sewer.

#### Storage Tanks

- Tank contents will be transferred to another tank if practicable in order to maximize material recovery.
- Tanks may be drained to the industrial sewer via hard-pipe connection or hose.
- After initial draining of process fluids, vessels may be flushed with water to the industrial sewer, frac tank, or other container.
- Accumulated condensate from steaming process vessels may be stored in appropriate storage vessels.

#### Instrumentation/Control Valve Loop

- Instrumentation or control valve loops will be drained/purged into the process system, to the extent practicable, or collected in containers for returned to the industrial sewer as appropriate to minimize emissions.

## 4.0 RECORDKEEPING

### 4.1 GENERAL RECORDS

A copy of the current SSM Plan and any superseded versions will be maintained at the facility for a period of 5 years following each revision to the SSM Plan. The current version will be maintained at the site for at least 5 years after the life of the affected source or until the affected source is no longer subject to the MON MACT rule (40 CFR 63, Subpart FFFF). The Environmental Department will approve any revisions to the SSM Plan, or to procedures contained in it, before they are incorporated into a revision of the document.

For each startup, shutdown, or malfunction incident that results in excess emissions, information necessary to demonstrate compliance with the provisions presented in this SSM Plan will be documented. Figures 1, 2, 3 and 4 provide flow diagrams of the forms to complete and actions to take for SSM events. Documentation of the SSM events will take the form of a "checklists" that confirms conformance with the startup, shutdown, and malfunction plan and describes the actions taken for that event. Checklists are provided as part of this plan as Form #1 for the continuous temperature monitoring device for the thermal oxidizer and Form #2 for Crude Tar Distillation and the Type A Carbon Pitch Tanks.

The checklists, or their electronically-maintained equivalents, will serve as the records documenting the occurrence and duration of malfunctions of the flame monitoring system and each startup, shutdown, or malfunction of operation and each malfunction of air pollution control equipment. Files of these records will be kept readily available for inspection and review. Any SSM event shall be reported to the Environmental Department for subsequent review of the details to ensure that the SSM Plan was followed and any required reporting to the EPA is addressed.

Any actions taken during an SSM event that are consistent with this SSM Plan will be recorded in order to demonstrate that the procedures specified in this document were followed. This is fulfilled by using the SSM Checklist provided as Form #1 and Form #2. Repairs will be tracked using existing facility programs to document scheduled and actual repair dates and the status of specific repairs.

Any actions taken during an SSM event that potentially are not consistent with the procedures specified in this SSM Plan will be recorded using the Form #3. This form must be completed immediately following the event.



For each startup, shutdown, or malfunction, information necessary to demonstrate compliance with the provisions presented in this SSM Plan shall be documented [as specified at §63.998(c)(1)(ii)(D) through (G); 63.998(d)(3(ii) and 63.2520(e)(4)]. The required information includes:

- Occurrence and duration of each startup, shutdown, or malfunction of process operations or air pollution control equipment.
- Occurrence and duration of each malfunction of continuous monitoring systems.
- When excess emissions occur, were the procedures in the SSM Plan followed and, if not, then what actions were taken to respond to SSM event.

Information related to the startup, shutdown or malfunction of the MON MACT affected units will be recorded on Form #1 and #2. If the actions taken are not consistent with the SSM Plan or the event is not identified in the SSM Plan, so note when completing Form #3.

#### **4.2 RECORDKEEPING FOR MALFUNCTIONS OF THE CONTINUOUS MONITORING SYSTEM (CMS)**

Malfunctions of the continuous monitoring system that records the thermal oxidizer temperature are covered on Form #3. The required information includes:

- The date and time identifying each period that the CMS was inoperative;
- The nature and cause of any malfunction (if known);
- The corrective action taken or preventive measures adopted;
- The nature of repairs or adjustments to the CMS that was ; and
- Indication if the SSM Plan was followed when dealing with the malfunctioning CMS.

## **5.0 REPORTING**

### **5.1 COMPLIANCE REPORTS**

The MON MACT require that SSM reports be provided as part of the compliance report specified at 63.2520(e). If an SSM event occurs during this reporting period that results in excess emissions, an SSM report will be submitted as part of the compliance report to the appropriate regulatory agency for that reporting period. The report will contain information describing how the actions taken during the SSM event were consistent with the SSM Plan, or documentation of actions taken that are not consistent with the SSM Plan and include a brief description of each malfunction.

### **5.2 STATE REPORTING**

In addition to the federal SSM reporting requirements of the MON MACT, Illinois EPA has reporting requirements for equipment malfunctions with which the facility must comply. The reader is referred to the appropriate construction permit and operating permit for reporting requirements.

## **6.0 RESPONSIBILITIES**

The Environmental Manager will be responsible for reviewing the SSM events and notifying the appropriate authorities, if necessary.

## **7.0 REVISIONS TO THE PLAN AND RECORDS RETENTION REQUIREMENTS**

The Environmental Manager will, for each SSM event, review the actions taken in response to the event and the details provided in the forms to determine whether the procedures identified in the SSM Plan were followed. The Environmental Manager will also determine if the SSM Plan was adequate for the event. If the SSM Plan was not adequate to cover the event, the Plan shall be revised. When evaluating the SSM Plan, the following criteria shall be considered:

- addresses how excess emissions are to be managed for typical startup, shutdown, or malfunction events;
- provides for the operation of equipment during SSM events in a manner consistent with good engineering and air pollution control practices for minimizing emissions;
- provides adequate steps for correcting malfunctioning air pollution control equipment as quickly as practical.

If the SSM Plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the plan shall be revised within 45 days of the event to include procedures for similar malfunction events (40 CFR §63.6(e)(3)(viii)). Form #4 is provided in this plan to track revisions to the plan.

The current and any superseded SSM Plans shall be maintained on-site as specified in §63.6(e)(3)(v). §63.6(e)(3)(v) requires that superseded plans remain at the facility for a period of 5 years following their revision.

## 8.0 ATTACHMENTS

**FIGURE 1 - SSM EVENT DOCUMENTATION FLOW DIAGRAM**

**FIGURE 2 - SSM EVENT WITH OXIDIZER TEMPERATURE MONITORING SYSTEM**

**FIGURE 3 - SSM EVENT FOR CRUDE TAR DISTILLATION, THERMAL OXIDIZER, OR TYPE A CARBON PITCH TANKS**

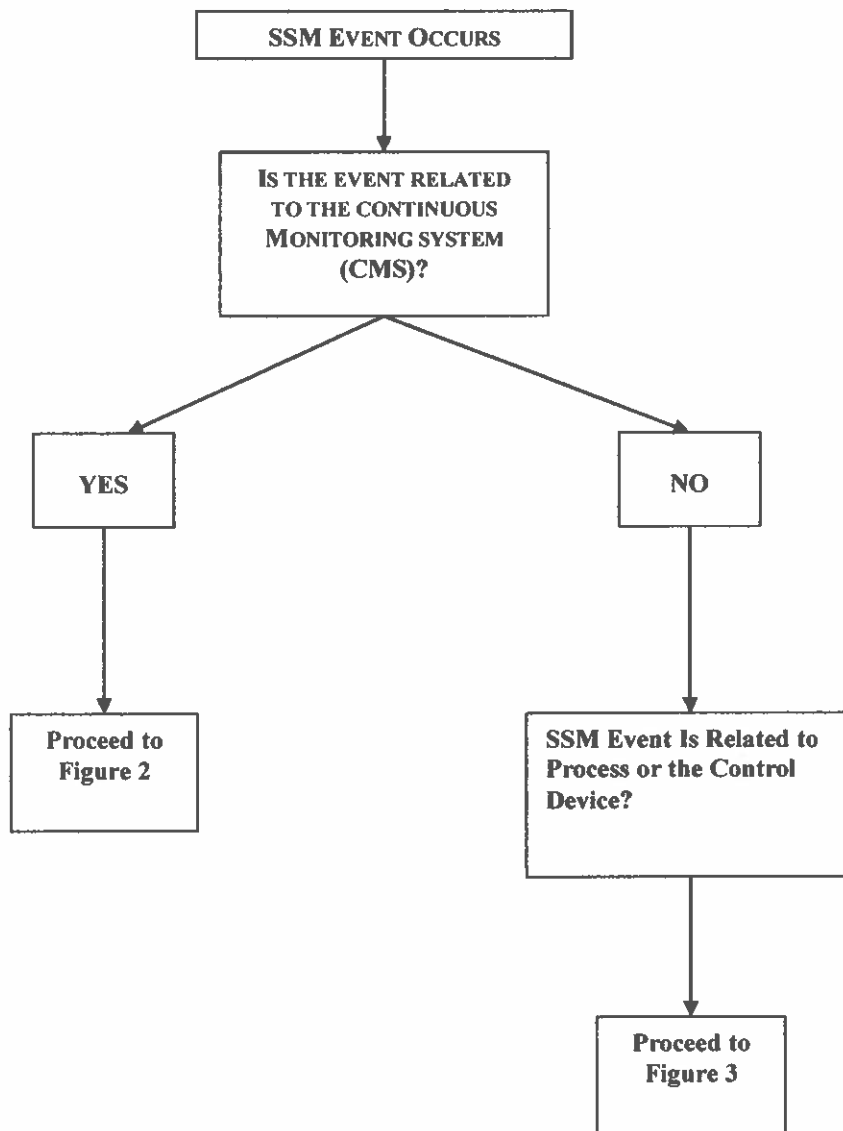
**FORM 1 - OXIDIZER TEMPERATURE CONTINUOUS MONITORING SYSTEM (CMS) - MALFUNCTION CHECKLIST & LOG**

**FORM 2 - STARTUP, SHUTDOWN AND MALFUNCTION CHECKLIST & LOG FOR CRUDE TAR DISTILLATION, THERMAL OXIDIZER, OR TYPE A CARBON PITCH TANKS**

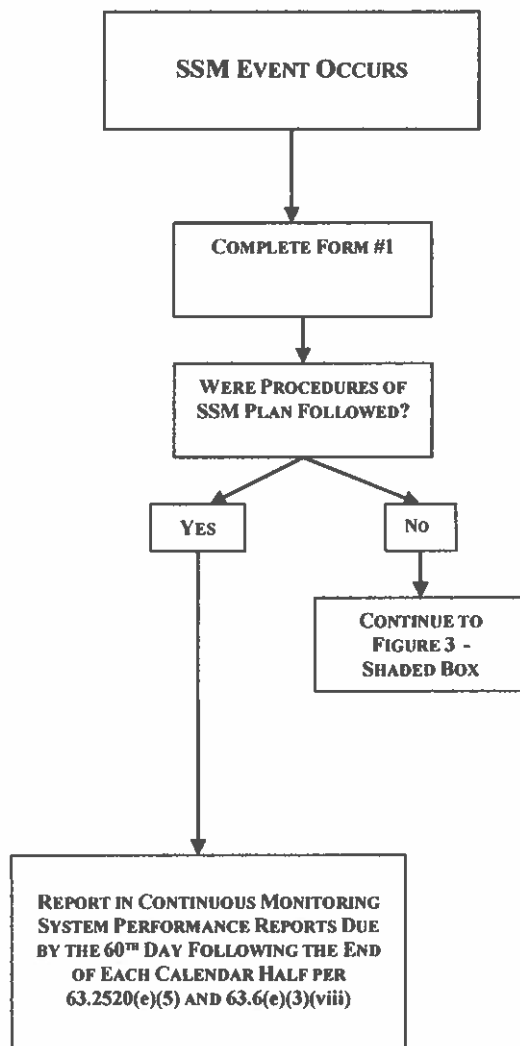
**FORM 3 - SSM EVENT REPORT**

**FORM 4 - MACT SSM PLAN REVIEW AND REVISION LOG**

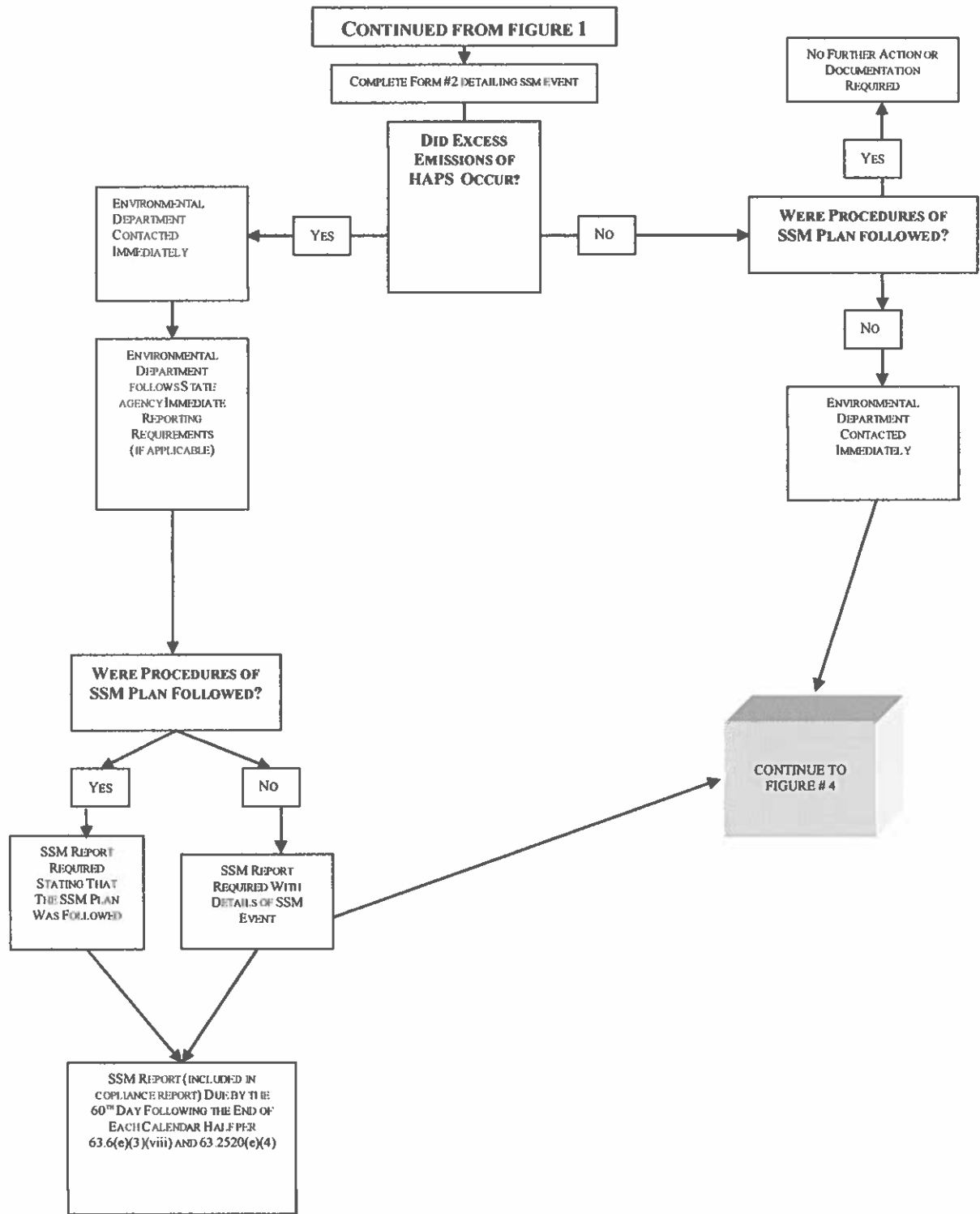
**Figure 1 - SSM Event Documentation Flow Charts**



**Figure 2 – SSM Event with Monitoring System**

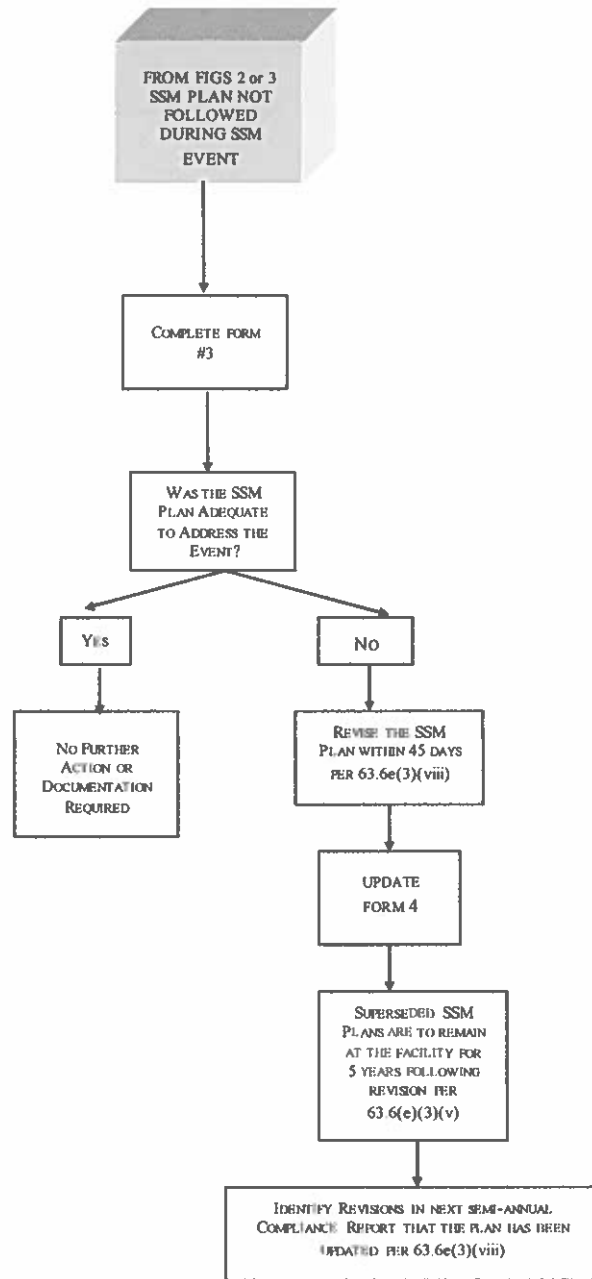


**Figure 3**  
**SSM Event for Chemical Processes and Air Pollution Control Devices**





**Figure 4**  
**SSM Event Documentation When SSM Plan Was Not Followed**



**FORM # 1 - MONITORING SYSTEM (CMS) -MALFUNCTION CHECKLIST & LOG**

Page \_\_\_\_\_ of \_\_\_\_\_

| Activity<br>(circle one)                        | Date/Time<br>Activity<br>Starts | Date/Time<br>Activity<br>Ends                     | Nature and Cause of Malfunction | Describe Corrective actions taken,<br>including repairs or adjustments to<br>monitoring system | SSM Plan<br>Followed?<br><br>Yes / No |
|---|---------------------------------|---|---------------------------------|--|---------------------------------------|
| Inoperative<br>QA/QC Calibration<br>Other Cause |                                 |   |                                 |  | Yes / No                              |
|   |                                 | <u>Env. Dpt. Only</u><br>Duration (Hours/Minutes) |                                 |  |                                       |
| Inoperative<br>QA/QC Calibration<br>Other Cause |                                 |   |                                 |  | Yes / No                              |
|   |                                 | <u>Env. Dpt. Only</u><br>Duration (Hours/Minutes) |                                 |  |                                       |
| Inoperative<br>QA/QC Calibration<br>Other Cause |                                 |   |                                 |  | Yes / No                              |
|   |                                 | <u>Env. Dpt. Only</u><br>Duration (Hours/Minutes) |                                 |  |                                       |

**FORM # 2 - STARTUP, SHUTDOWN AND MALFUNCTION CHECKLIST & LOG**

| Activity<br>(circle one) | Date/Time<br>Activity<br>Starts | Date/Time<br>Activity<br>Ends | If Malfunction, What Was Cause and<br>Corrective Action? | SSM Plan<br>Followed? | Form 3<br>Required?<br>(Note 1) | Page _____ of _____        |                           |
|--------------------------|---------------------------------|-------------------------------|--|-----------------------|---------------------------------|----------------------------|---------------------------|
|                          |                                 |                               |  |                       |                                 | For Env. Dept.<br>Use Only | Duration<br>Hours/Minutes |
| Start-up                 |                                 |                               |  | Yes / No              | Yes / No                        |                            |                           |
| Shut Down<br>Malfunction |                                 |                               |  | Yes / No              | Yes / No                        |                            |                           |
| Start-up                 |                                 |                               |  | Yes / No              | Yes / No                        |                            |                           |
| Shut Down<br>Malfunction |                                 |                               |  | Yes / No              | Yes / No                        |                            |                           |
| Start-up                 |                                 |                               |  | Yes / No              | Yes / No                        |                            |                           |
| Shut Down<br>Malfunction |                                 |                               |  | Yes / No              | Yes / No                        |                            |                           |
| Start-up                 |                                 |                               |  | Yes / No              | Yes / No                        |                            |                           |
| Shut Down<br>Malfunction |                                 |                               |  | Yes / No              | Yes / No                        |                            |                           |
| Start-up                 |                                 |                               |  | Yes / No              | Yes / No                        |                            |                           |
| Shut Down<br>Malfunction |                                 |                               |  | Yes / No              | Yes / No                        |                            |                           |
| Start-up                 |                                 |                               |  | Yes / No              | Yes / No                        |                            |                           |
| Shut Down<br>Malfunction |                                 |                               |  | Yes / No              | Yes / No                        |                            |                           |

**Notes:**  
1. Form 3 required if the following occurred: Startup, Shutdown or Malfunction occurred and SSM Plan was not followed.

**Form #3 - SSM Event Report**

**Identify the Area of the Event:** Process \_\_\_\_\_ Control Device \_\_\_\_\_

Date: \_\_\_\_\_ Shift: \_\_\_\_\_ Name: \_\_\_\_\_

**Event being reported:**

Start Up \_\_\_\_\_ Shutdown \_\_\_\_\_ Malfunction \_\_\_\_\_

**Please give a brief description of the event and corrective actions taken:**

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**Time Event started:** \_\_\_\_\_ (Date, Hour, Minute) **Time Event ended:** \_\_\_\_\_ (Date, Hour, Minute)

**Please describe in detail why the plan was not followed:**

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**THESE FORMS MUST BE FORWARDED TO THE ENVIRONMENTAL MANAGER AFTER EACH OCCURRENCE**



**Attachment E**

**Good Operating Practices Documentation  
Response to Violation Notice A-2023-00162  
Koppers Inc.**

# Finished Work Order

Identification: FWO115244 UDN-2200822

Date/Time Printed: 11/27/23 10:34:58 AM

Description: TAR-Y-RC CALIBRATIONS (EHS-006-TE-4729)

Pages/Printed By: 1 KOPPERSFABINE

Address:

Priority:

Requested: S-PM-100093

Date Created: 5/1/2022

Order Type: ISO

Supervisor: WAYNE OWENS

Date Started: 5/1/2022

Maint. Type: ELECT

Technician:

Date Completed: 12/6/2022

Work Code: ISO

OSP:

Elapsed Days: 220

Cap X: No

Job No.:

Actual Time: 8.00

Equipment ID: 50000003948 TE-4729 TEMP ELEMENT ON F-2301 (EHS-006) TE-4729

Location: 1760

Serial No.:

Enterprise:

Manufacturer:

Region: USA

Area:

Company ID:

Facility: STICKNEY

Line:

Reference:

Vend. Inv:

Cust. Inv:

| Step            | Done | Description  | Assigned        | Start Date | End Date  | Estimated Time | Actual Time | Test Results | Unit of Measure |
|-----------------|------|--------------|-----------------|------------|-----------|----------------|-------------|--------------|-----------------|
| 1               | True | SHE - YEARLY | JOSE REYES      | 3/11/2022  | 3/11/2022 | 0.00           | 4.00        |              |                 |
| AS FOUND: _____ |      |              |                 |            |           |                |             |              |                 |
| AS LEFT: _____  |      |              |                 |            |           |                |             |              |                 |
| 2               | True | SHE - YEARLY | STEPHEN SANCHEZ | 5/1/2022   | 5/1/2022  | 0.00           | 4.00        |              |                 |

# Finished Work Order

Identification: FWO115243 UDN-2200821

Date/Time Printed: 11/27/23 10:38:13 AM

Description: TAR-Y- RC CALIBRATIONS (EHS-005-TE-4744)

Pages/Printed By: 1 KOPPERS\FABINE

Address:

Priority:

Requested: S-PM-100092

Date Created: 5/1/2022

Order Type: ISO

Supervisor: WAYNE OWENS

Date Started: 5/1/2022

Maint. Type: ELECT

Technician:

Date Completed: 12/6/2022

Work Code: ISO

OSP:

Elapsed Days: 220

Cap X: No

Job No.:

Actual Time: 8.00

Equipment ID: 50000003945 TE-4744 TEMP ELEMENT ON F-2301 (EHS-005) TE-4744

Location: 1760

Serial No.:

Enterprise:

Manufacturer:

Region: USA

Area:

Company ID:

Facility: STICKNEY

Line:

Reference:

Vend. Inv:

Cust. Inv:

| Step            | Done | Description  | Assigned        | Start Date | End Date  | Estimated Time | Actual Time | Test Results | Unit of Measure |
|-----------------|------|--------------|-----------------|------------|-----------|----------------|-------------|--------------|-----------------|
| 1               | True | SHE - YEARLY | JOSE REYES      | 3/11/2022  | 3/11/2022 | 0.00           | 4.00        |              |                 |
| AS FOUND: _____ |      |              |                 |            |           |                |             |              |                 |
| AS LEFT: _____  |      |              |                 |            |           |                |             |              |                 |
| 2               | True | SHE - YEARLY | STEPHEN SANCHEZ | 5/1/2022   | 5/1/2022  | 0.00           | 4.00        |              |                 |



# Finished Work Order

Identification: FWO117095 UDN-2205198

Date/Time Printed: 11/27/23 11:06:22 AM

Description: Troubleshoot the Tar T.O.

Pages/Printed By: 1 KOPPERS/FABINE

Address:

Priority: Urgent  
 Order Type: REQUEST  
 Maint. Type: ELECT  
 Work Code: INSPECT  
 Cap X: No

Requested: on 03/28/23 03:32 AM by  
 Supervisor: WAYNE OWENS  
 Technician:  
 OSP:  
 Job No.:

Date Created: 3/28/2023  
 Date Started: 3/28/2023  
 Date Completed: 4/5/2023  
 Elapsed Days: 9  
 Actual Time: 4.00

Equipment ID: 50000000001 TAR PLANT TAR AREA

Location: 1760

Serial No.:  
 Manufacturer:  
 Company ID:  
 Reference:

Enterprise:  
 Region:  
 Facility: STICKNEY  
 Vend. Inv:  
 Area:  
 Line:  
 Cust. Inv:

| Step | Done | Description  | Assigned        | Start Date | End Date  | Estimated Time | Actual Time | Test Results | Unit of Measure |
|------|------|--------------|-----------------|------------|-----------|----------------|-------------|--------------|-----------------|
| 1    | True | Troubleshoot | STEVE FELLERS   | 3/28/2023  | 3/28/2023 | 0.00           | 2.00        |              |                 |
| 2    | True | Troubleshoot | STEPHEN SANCHEZ | 3/28/2023  | 3/28/2023 | 0.00           | 2.00        |              |                 |

# Finished Work Order

Identification: FWO115273 UDN-2203704

Date/Time Printed: 11/27/23 11:07:43 AM

Description: Troubleshoot TAR T.O.

Pages/Printed By: 1 KOPPERS/FABINE

Address:

Priority: Urgent

Requested:

Date Created: 12/8/2022

Order Type: CM

Supervisor: WAYNE OWENS

Date Started: 12/8/2022

Maint. Type: ELECT

Technician:

Date Completed: 12/7/2022

Work Code: BR

OSP:

Elapsed Days: 0

Cap X: No

Job No.:

Actual Time: 11.00

Equipment ID: 50000000001 TAR PLANT TAR AREA

Location: 1760

Serial No.:

Enterprise:

Manufacturer:

Region:

Area:

Company ID:

Facility: STICKNEY

Line:

Reference:

Vend. Inv:

Cust. Inv:

| Step | Done | Description  | Assigned              | Start Date | End Date  | Estimated Time | Actual Time | Test Results | Unit of Measure |
|------|------|--------------|-----------------------|------------|-----------|----------------|-------------|--------------|-----------------|
| 1    | True | Troubleshoot | ANDRE MARTINEZ        | 12/7/2022  | 12/8/2022 | 0.00           | 3.00        |              |                 |
| 2    | True | Troubleshoot | STEPHEN SANCHEZ       | 12/7/2022  | 12/8/2022 | 0.00           | 3.00        |              |                 |
| 3    | True | Troubleshoot | RAY O'NEIL            | 12/7/2022  | 12/8/2022 | 0.00           | 3.00        |              |                 |
| 4    | True | Troubleshoot | CONTRACTOR<br>MICHAEL | 12/7/2022  | 12/8/2022 | 0.00           | 2.00        |              |                 |

# Finished Work Order

Identification: FWO115041 UDN-2203353

Date/Time Printed: 11/27/23 11:08:35 AM

Description: TAR-FSD-R&R and bench test instruments for TAR

Pages/Printed By: 1 KOPPERSFABINE

Address:

Priority: Special Attention

Requested:

Date Created: 11/16/2022

Order Type: CM

Supervisor: WAYNE OWENS

Date Started: 11/16/2022

Maint. Type: ELECT

Technician:

Date Completed: 11/21/2022

Work Code: SD

OSP:

Elapsed Days: 6

Cap X: No

Job No.:

Actual Time: 8.00

Equipment ID: 50000003174 TAR THERMAL OXIDIZER

Location: 1760

Serial No.:

Enterprise:

Manufacturer:

Region: USA

Area:

Company ID:

Facility: STICKNEY

Line:

Reference:

Vend. Inv:

Cust. Inv:

| Step | Done | Description | Assigned     | Start Date | End Date   | Estimated Time | Actual Time | Test Results | Unit of Measure |
|------|------|-------------|--------------|------------|------------|----------------|-------------|--------------|-----------------|
| 1    | True | TAR-FSD-R&R | JOSE REYES   | 11/16/2022 | 11/16/2022 | 0.00           | 4.00        |              |                 |
| 2    | True | TAR-FSD-R&R | EDUARDO DIAZ | 11/16/2022 | 11/16/2022 | 0.00           | 4.00        |              |                 |

# Finished Work Order

Identification: FWO115234 UDN-2202645  
 Description: TAR THERMAL OXIDIZER VENT ANNUAL  
 Address:

Date/Time Printed: 11/27/23 10:21:48 AM  
 Pages/Printed By: 1 KOPPERS\FABINE

|                             |                         |                           |
|-----------------------------|-------------------------|---------------------------|
| Priority: Special Attention | Requested: DMP100007    | Date Created: 9/25/2022   |
| Order Type: PM              | Supervisor: WAYNE OWENS | Date Started: 10/2/2022   |
| Maint. Type: ELECT          | Technician:             | Date Completed: 12/5/2022 |
| Work Code: PM               | OSP:                    | Elapsed Days: 65          |
| Cap X: No                   | Job No.:                | Actual Time: 0.00         |

Equipment ID: 50000003174 TAR THERMAL OXIDIZER

Location: 1760

|               |                    |            |
|---------------|--------------------|------------|
| Serial No.:   | Enterprise:        | Area:      |
| Manufacturer: | Region: USA        | Line:      |
| Company ID:   | Facility: STICKNEY | Cust. Inv: |
| Reference:    | Vend. Inv:         |            |

Comments This PM Was Done on the OUTAGE split labor time in multiple Request WOs.f the Outage

| Step | Done | Description   | Assigned | Start Date | End Date  | Estimated Time | Actual Time | Test Results | Unit of Measure |
|------|------|---|----------|------------|-----------|----------------|-------------|--------------|-----------------|
| 1    | True | TAR THERMAL<br>AND #2 FUME SYSTEM<br><br>This procedure requires Electricians and Mechanics<br>Install blinds at the #1 and #2 vent systems<br>inspect and repair automatic valves (PCV4748, V4749 & V4751) as necessary<br>Water blast vent piping from the vent systems to the TO inlet<br>inspect and repair velocity section as necessary<br>inspect and repair heat trace and insulation<br>inspect and replace the ERV as necessary<br>inspect, clean, replace the flame sensor as necessary<br>PM the ID fan<br>Mechanic - Name _____<br>Date: _____ Hrs: _____<br>Electrician Name: _____<br>Date: _____ Hrs: _____ |          | 10/2/2022  | 12/5/2022 | 0.00           | 0.00        |              |                 |
| 2    | True | TAR THERMAL<br>AND #2 FUME SYSTEM<br><br>This procedure requires Electricians and Mechanics<br>Install blinds at the #1 and #2 vent systems<br>inspect and repair automatic valves (PCV4748, V4749 & V4751) as necessary<br>Water blast vent piping from the vent systems to the TO inlet<br>inspect and repair velocity section as necessary<br>inspect and repair heat trace and insulation<br>inspect and replace the ERV as necessary<br>inspect, clean, replace the flame sensor as necessary<br>PM the ID fan<br>Mechanic - Name _____  |          | 10/2/2022  | 12/5/2022 | 0.00           | 0.00        |              |                 |

# Finished Work Order

Identification: FWO112392 UDN-2200859

Date/Time Printed: 11/27/23 12:58:04 PM

Description: Repair Tar TO fume control valve (per engineering

Pages/Printed By: 1 KOPPERSIOTREMBIAKJW

Address:

Priority: Special Attention

Requested: on 03/30/22 12:49 PM by

Date Created: 4/12/2022

Order Type: REQUEST

Supervisor: WAYNE OWENS

Date Started: 4/12/2022

Maint. Type: ELECT

Technician:

Date Completed: 5/4/2022

Work Code: BR

OSP:

Elapsed Days: 23

Cap X: No

Job No.:

Actual Time: 10.00

Equipment ID: 50000003174 TAR THERMAL OXIDIZER

Location: 1760

Serial No.:

Enterprise:

Manufacturer:

Region: USA

Area:

Company ID:

Facility: STICKNEY

Line:

Reference:

Vend. Inv:

Cust. Inv:

| Step | Done | Description  | Assigned             | Start Date | End Date  | Estimated Time | Actual Time | Test Results | Unit of Measure |
|------|------|--|----------------------|------------|-----------|----------------|-------------|--------------|-----------------|
| 1    | True | Repair Tar TO<br>dept., fume valve is reportedly not | RON CLAY             | 4/12/2022  | 4/12/2022 | 5.00           | 5.00        |              |                 |
| 2    | True |  | ELECTRICIAN/INSTRUME | 4/12/2022  | 4/12/2022 | 5.00           | 5.00        |              |                 |

# Finished Work Order

Identification: FWO120140 UDN-2207838

Date/Time Printed: 11/27/23 11:40:29 AM

Description: TAR-Tar TO-

Pages/Printed By: 1 KOPPERSIOTREMBIAKJW

Address:

Priority: Routine  
 Order Type: REQUEST  
 Maint. Type: ELECT  
 Work Code: INSPECT  
 Cap X: No

Requested: on 10/11/23 07:34 AM by  
 Supervisor: WAYNE OWENS  
 Technician:  
 OSP:  
 Job No.:

Date Created: 10/12/2023  
 Date Started: 10/12/2023  
 Date Completed: 10/30/2023  
 Elapsed Days: 19  
 Actual Time: 2.00

Equipment ID: 50000013970 THERMAL OXIDIZER

Location: 1760

Serial No.:  
 Manufacturer:  
 Company ID:  
 Reference:

Enterprise:

Region: USA  
 Facility: STICKNEY  
 Vend. Inv:

Area:  
 Line:  
 Cust. Inv:

| Step | Done | Description   | Assigned             | Start Date | End Date   | Estimated Time | Actual Time | Test Results | Unit of Measure |
|------|------|---|----------------------|------------|------------|----------------|-------------|--------------|-----------------|
| 1    | True | TAR-Tar TO-   | ANAS KANTAKJI        |            | 10/11/2023 | 0.00           | 1.00        |              |                 |
|      |      | Electrician assistance to help troubleshoot which has shut down and cannot re-start. ume Valve #2 Vent will not open. |                      |            |            |                |             |              |                 |
| 2    | True | TAR-Tar TO-   | ELECTRICIAN/INSTRUME |            | 10/11/2023 | 0.00           | 1.00        |              |                 |
|      |      | Electrician assistance to help troubleshoot which has shut down and cannot re-start. ume Valve #2 Vent will not open. |                      |            |            |                |             |              |                 |

# Finished Work Order

Identification: FWO118968 UDN-2204150

Date/Time Printed: 11/27/23 12:03:08 PM  
 Pages/Printed By: 1 KOPPERSIOTREMBIAKJW

Description: \*TAR -

Address:

Priority: Special Attention

Requested: on 01/06/23 09:54 AM by

Date Created: 1/13/2023

Order Type: REQUEST

Supervisor: RALPH STORTO

Date Started: 1/13/2023

Maint. Type:

Technician:

Date Completed: 7/28/2023

Work Code: BR

OSP:

Elapsed Days: 197

Cap X: No

Job No.:

Actual Time: 2.00

Equipment ID: 50000000001 TAR PLANT TAR AREA

Location: 1760

Serial No.:

Enterprise:

Manufacturer:

Region:

Area:

Company ID:

Facility: STICKNEY

Line:

Reference:

Vend. Inv:

Cust. Inv:

| Step | Done | Description  | Assigned        | Start Date | End Date  | Estimated Time | Actual Time | Test Results | Unit of Measure |
|------|------|--|-----------------|------------|-----------|----------------|-------------|--------------|-----------------|
| 1    | True | TAR -<br>steam leak on the Tar TO quench main<br>rom the header - located just East of<br>pots | CONTRACTOR HELM | 1/13/2023  | 1/13/2023 | 2.00           | 2.00        |              |                 |

# Finished Work Order

Identification: FWO118394 UDN-2206313

Date/Time Printed: 11/27/23 12:09:43 PM

Description: TAR-

Pages/Printed By: 1 KOPPERSIOTREMBIAKJW

Address:

Priority: Urgent  
 Order Type: REQUEST  
 Maint. Type: ELECT  
 Work Code: INSPECT  
 Cap X: No

Requested: on 06/19/23 09:36 PM by  
 Supervisor: WAYNE OWENS  
 Technician:  
 OSP:  
 Job No.:

Date Created: 6/21/2023  
 Date Started: 6/21/2023  
 Date Completed: 6/21/2023  
 Elapsed Days: 1  
 Actual Time: 2.00

Equipment ID: 5000003174 TAR THERMAL OXIDIZER

Location: 1760

Serial No.:  
 Manufacturer:  
 Company ID:  
 Reference:

Enterprise:  
 Region: USA  
 Facility: STICKNEY  
 Vend. Inv:

Area:  
 Line:  
 Cust. Inv:

Comments: Power Blip from ComEd took out the whole Plant

| Step | Done | Description   | Assigned             | Start Date | End Date  | Estimated Time | Actual Time | Test Results | Unit of Measure |
|------|------|---|----------------------|------------|-----------|----------------|-------------|--------------|-----------------|
| 1    | True | TAR-<br>Troubleshoot Tar TO and Pitch TO get it<br>ne | ELECTRICIAN/INSTRUME | 6/21/2023  | 6/21/2023 | 2.00           | 2.00        |              |                 |



# Finished Work Order

Identification: FWO118848 UDN-2208452

Date/Time Printed: 11/27/23 12:08:26 PM

Description: Please troubleshoot the valve PV-

Pages/Printed By: 1 KOPPER8\OTREMBIAKJW

Address:

|                     |                                    |                           |
|---------------------|------------------------------------|---------------------------|
| Priority: Routine   | Requested: on 06/28/23 02:16 PM by | Date Created: 6/29/2023   |
| Order Type: REQUEST | Supervisor: WAYNE OWENS            | Date Started: 6/29/2023   |
| Maint. Type: ELECT  | Technician:                        | Date Completed: 7/11/2023 |
| Work Code: REPAIR   | OSP:                               | Elapsed Days: 13          |
| Cap X: No           | Job No.:                           | Actual Time: 12.00        |

Equipment ID: 50000000000

Location: 1760

Serial No.:

Enterprise:

Manufacturer:

Region:

Area:

Company ID:

Facility: STICKNEY

Line:

Reference:

Vend. Inv:

Cust. Inv:

| Step | Done | Description                                | Assigned        | Start Date | End Date  | Estimated Time | Actual Time | Test Results | Unit of Measure |
|------|------|--|-----------------|------------|-----------|----------------|-------------|--------------|-----------------|
| 1    | True | Please<br>4757 on the steam line to Tar TO | ANDRE MARTINEZ  | 6/29/2023  | 6/29/2023 | 3.00           | 3.00        |              |                 |
| 2    | True |  | ANAS KANTAKJI   | 6/29/2023  | 6/29/2023 | 3.00           | 3.00        |              |                 |
| 3    | True |  | EDUARDO DIAZ    | 6/29/2023  | 6/29/2023 | 3.00           | 3.00        |              |                 |
| 4    | True |  | STEPHEN SANCHEZ | 6/29/2023  | 6/29/2023 | 3.00           | 3.00        |              |                 |

# Finished Work Order

Identification: FWO116333 UDN-2203000

Date/Time Printed: 11/27/23 12:12:33 PM

Description: \*TAR- drain drop legs on Tar TO PWG line -

Pages/Printed By: 1 KOPPERSIOTREMBIAKJW

Address:

Priority: Urgent  
 Order Type: REQUEST  
 Maint. Type: MECH  
 Work Code: REPAIR  
 Cap X: No

Requested: on 10/17/22 11:25 AM by  
 Supervisor: RALPH STORTO  
 Technician:  
 OSP:  
 Job No.:

Date Created: 10/24/2022  
 Date Started: 10/24/2022  
 Date Completed: 3/1/2023  
 Elapsed Days: 129  
 Actual Time: 0.50

Equipment ID: 50000000001 TAR PLANT TAR AREA

Location: 1760

Serial No.:  
 Manufacturer:  
 Company ID:  
 Reference:

Enterprise:  
 Region:  
 Facility: STICKNEY  
 Vend. Inv:

Area:  
 Line:  
 Cust. Inv:

Comments According to the Supervisor this WO is Complete

| Step | Done | Description   | Assigned        | Start Date | End Date   | Estimated Time | Actual Time | Test Results | Unit of Measure |
|------|------|---|-----------------|------------|------------|----------------|-------------|--------------|-----------------|
| 1    | True | TAR- drain<br>needs to be done early AM on 10/24 -<br>fresh air job | MASTER MECHANIC | 10/24/2022 | 10/24/2022 | 0.50           | 0.50        |              |                 |

# Finished Work Order

Identification: FWO115655 UDN-2204149

Date/Time Printed: 11/27/23 12:21:44 PM

Description: \*TAR -

Pages/Printed By: 1 KOPPERSIOTREMBIAKJW

Address:

Priority: Urgent  
 Order Type: REQUEST  
 Maint. Type: LABOR  
 Work Code: IMPROVE  
 Cap X: No

Requested: on 01/06/23 09:36 AM by  
 Supervisor: MILTON MALLARD  
 Technician:  
 OSP:  
 Job No.:

Date Created: 1/13/2023  
 Date Started: 1/13/2023  
 Date Completed: 1/10/2023  
 Elapsed Days: -2  
 Actual Time: 5.00

Equipment ID: 5000000001 TAR PLANT TAR AREA

Location: 1760

Serial No.:  
 Manufacturer:  
 Company ID:  
 Reference:

Enterprise:  
 Region:  
 Facility: STICKNEY  
 Vend. Inv:

Area:  
 Line:  
 Cust. Inv:

Comments: Keystone did the work here

| Step | Done | Description                                       | Assigned                   | Start Date | End Date  | Estimated Time | Actual Time | Test Results | Unit of Measure |
|------|------|---|----------------------------|------------|-----------|----------------|-------------|--------------|-----------------|
| 1    | True | TAR -<br>Insulate Tar TO steam quench supply line | CONTRACTOR<br>1/13/23 ATTD | 1/13/2023  | 1/13/2023 | 5.00           | 5.00        |              |                 |

# Finished Work Order

Identification: FWO116264 UDN-2204589

Date/Time Printed: 11/27/23 12:14:52 PM

Description: \*TAR -

Pages/Printed By: 1 KOPPERSIOTREMBIAKJW

Address:

Priority: Critical  
 Order Type: REQUEST  
 Maint. Type: MECH  
 Work Code: REPAIR  
 Cap X: No

Requested: on 02/09/23 06:46 PM by  
 Supervisor: RALPH STORTO  
 Technician:  
 OSP:  
 Job No.:

Date Created: 2/14/2023  
 Date Started: 2/14/2023  
 Date Completed: 2/27/2023  
 Elapsed Days: 14  
 Actual Time: 7.00

Equipment ID: 50000000001 TAR PLANT TAR AREA

Location: 1760

Serial No.:  
 Manufacturer:  
 Company ID:  
 Reference:

Enterprise:  
 Region:  
 Facility: STICKNEY  
 Vend. Inv:

Area:  
 Line:  
 Cust. Inv:

Comments Work here was done by HELM

| Step | Done | Description                                   | Assigned                 | Start Date | End Date  | Estimated Time | Actual Time | Test Results | Unit of Measure |
|------|------|---|--------------------------|------------|-----------|----------------|-------------|--------------|-----------------|
| 1    | True | TAR -<br>repair leaks on Tar TO steam eductor | CONTRACTOR<br>INSITUATED | 2/14/2023  | 2/14/2023 | 7.00           | 7.00        |              |                 |

# Finished Work Order

Identification: FWO116314 UDN-2204242

Date/Time Printed: 11/27/23 12:13:37 PM

Description: TAR -

Pages/Printed By: 1 KOPPERSIOTREMBIAKJW

Address:

Priority: Special Attention

Requested: on 01/12/23 09:47 PM by

Date Created: 1/18/2023

Order Type: REQUEST

Supervisor: RALPH STORTO

Date Started: 1/18/2023

Maint. Type: MECH

Technician:

Date Completed: 2/28/2023

Work Code: REPAIR

OSP:

Elapsed Days: 42

Cap X: No

Job No.:

Actual Time: 1.00

Equipment ID: 50000000001 TAR PLANT TAR AREA

Location: 1760

Serial No.:

Enterprise:

Manufacturer:

Region:

Area:

Company ID:

Facility: STICKNEY

Line:

Reference:

Vend. Inv:

Cust. Inv:

Comments According to the Supervisor this WO is Complete

| Step | Done | Description  | Assigned        | Start Date | End Date  | Estimated Time | Actual Time | Test Results | Unit of Measure |
|------|------|--|-----------------|------------|-----------|----------------|-------------|--------------|-----------------|
| 1    | True | TAR -<br>move vacuum gauge from tubeheater<br>on Tar TO PWG line | JOHN DUPLANCICH | 1/18/2023  | 1/18/2023 | 1.00           | 1.00        |              |                 |

# Finished Work Order

Identification: FWO115165 UDN-2202995

Date/Time Printed: 11/27/23 12:32:09 PM

Description: TAR -

Pages/Printed By: 1 KOPPERSIOTREMBIAKJW

Address:

Priority: Routine  
 Order Type: PM  
 Maint. Type: MECH  
 Work Code: PM  
 Cap X: No

Requested: DMP100003  
 Supervisor: RALPH STORTO  
 Technician:  
 OSP:  
 Job No.:

Date Created: 10/1/2022  
 Date Started: 10/1/2022  
 Date Completed: 11/30/2022  
 Elapsed Days: 61  
 Actual Time: 1.00

Equipment ID: 50000003929 TAR THERMAL OXIDIZER (F-2301) F-2301

Location: 1760

Serial No.:  
 Manufacturer:  
 Company ID:  
 Reference:

Enterprise:  
 Region: USA  
 Facility: STICKNEY  
 Vend. Inv:

Area:  
 Line:  
 Cust. Inv:

| Step  | Done | Description | Assigned        | Start Date | End Date   | Estimated Time | Actual Time | Test Results | Unit of Measure |
|---|------|-------------|-----------------|------------|------------|----------------|-------------|--------------|-----------------|
| 1   | True | TAR T/O FAN | JOHN DUPLANCICH | 10/28/2022 | 10/28/2022 | 1.00           | 1.00        |              |                 |
| Lube Required: Mobil SHC-100 Grease / TAR T/O Fan is Located South East of the Safety Shop<br>Fan Side Brg Temp _____<br>FAN. Pumps Added _____<br>Coupl Side Brg Temp _____<br>COUPL. Pumps Added _____<br>Oiler Name: _____<br>Date: _____ Hrs: _____ |      |             |                 |            |            |                |             |              |                 |
| 2   | True | PM          |                 | 10/1/2022  | 11/30/2022 | 0.00           | 0.00        |              |                 |
| 3   | True | PM          |                 | 10/1/2022  | 11/30/2022 | 0.00           | 0.00        |              |                 |

# Finished Work Order

Identification: FWO115234 UDN-2202645  
 Description: TAR THERMAL OXIDIZER VENT ANNUAL  
 Address:

Date/Time Printed: 11/27/23 12:30:49 PM  
 Pages/Printed By: 1 KOPPERSIOTREMBIAKJW

|                             |                         |                           |
|-----------------------------|-------------------------|---------------------------|
| Priority: Special Attention | Requested: DMP100007    | Date Created: 9/25/2022   |
| Order Type: PM              | Supervisor: WAYNE OWENS | Date Started: 10/2/2022   |
| Maint. Type: ELECT          | Technician:             | Date Completed: 12/5/2022 |
| Work Code: PM               | OSP:                    | Elapsed Days: 65          |
| Cap X: No                   | Job No.:                | Actual Time: 0.00         |

Equipment ID: 50000003174 TAR THERMAL OXIDIZER

Location: 1760

|               |                    |            |
|---------------|--------------------|------------|
| Serial No.:   | Enterprise:        |            |
| Manufacturer: | Region: USA        | Area:      |
| Company ID:   | Facility: STICKNEY | Line:      |
| Reference:    | Vend. Inv:         | Cust. Inv: |

Comments: This PM was Done on the OUTAGE split labor time in multiple Request WOs. f the Outage

| Step | Done | Description                       | Assigned | Start Date | End Date  | Estimated Time | Actual Time | Test Results | Unit of Measure |
|------|------|-----------------------------------|----------|------------|-----------|----------------|-------------|--------------|-----------------|
| 1    | True | TAR THERMAL<br>AND #2 FUME SYSTEM |          | 10/2/2022  | 12/5/2022 | 0.00           | 0.00        |              |                 |

This procedure requires Electricians and Mechanics  
 Install blinds at the #1 and #2 vent systems  
 Inspect and repair automatic valves (PCV4748, V4749 & V4751) as necessary  
 Water blast vent piping from the vent systems to the TO Inlet  
 Inspect and repair velocity section as necessary  
 Inspect and repair heat trace and insulation  
 Inspect and replace the ERV as necessary  
 Inspect, clean, replace the flame sensor as necessary  
 PM the ID fan  
 Mechanic - Name \_\_\_\_\_  
 Date: \_\_\_\_\_ Hrs: \_\_\_\_\_  
 Electrician Name: \_\_\_\_\_  
 Date: \_\_\_\_\_ Hrs: \_\_\_\_\_

|   |      |                                   |  |           |           |      |      |  |  |
|---|------|-----------------------------------|--|-----------|-----------|------|------|--|--|
| 2 | True | TAR THERMAL<br>AND #2 FUME SYSTEM |  | 10/2/2022 | 12/5/2022 | 0.00 | 0.00 |  |  |
|---|------|-----------------------------------|--|-----------|-----------|------|------|--|--|

This procedure requires Electricians and Mechanics  
 Install blinds at the #1 and #2 vent systems  
 Inspect and repair automatic valves (PCV4748, V4749 & V4751) as necessary  
 Water blast vent piping from the vent systems to the TO Inlet  
 Inspect and repair velocity section as necessary  
 Inspect and repair heat trace and insulation  
 Inspect and replace the ERV as necessary  
 Inspect, clean, replace the flame sensor as necessary  
 PM the ID fan  
 Mechanic - Name \_\_\_\_\_  
 Date: \_\_\_\_\_ Hrs: \_\_\_\_\_  
 Electrician Name: \_\_\_\_\_  
 Date: \_\_\_\_\_ Hrs: \_\_\_\_\_

# Finished Work Order

Identification: FWO116238 UDN-2203590

Date/Time Printed: 11/27/23 12:29:24 PM

Description: TAR -

Pages/Printed By: 1 KOPPERSIOTREMBIAKJW

Address:

Priority: Routine

Requested: DMP100003

Date Created: 12/1/2022

Order Type: PM

Supervisor: RALPH STORTO

Date Started: 12/1/2022

Maint. Type: MECH

Technician:

Date Completed: 2/24/2023

Work Code: PM

OSP:

Elapsed Days: 86

Cap X: No

Job No.:

Actual Time: 3.00

Equipment ID: 50000003929 TAR THERMAL OXIDIZER (F-2301) F-2301

Location: 1760

Serial No.:

Enterprise:

Manufacturer:

Region: USA

Area: AREA001

Company ID:

Facility: STICKNEY

Line: LINE001

Reference:

Vend. Inv:

Cust. Inv:

| Step | Done | Description | Assigned        | Start Date | End Date  | Estimated Time | Actual Time | Test Results | Unit of Measure |
|------|------|-------------|-----------------|------------|-----------|----------------|-------------|--------------|-----------------|
| 1    | True | TAR T/O FAN | JOHN DUPLANCICH | 12/8/2022  | 2/24/2023 | 1.00           | 1.00        |              |                 |

Lube Required: Mobil SHC-100 Grease / TAR T/O Fan is Located South East of the Safety Shop

Fan Side Brg Temp \_\_\_\_\_

FAN. Pumps Added \_\_\_\_\_

Coupl Side Brg Temp \_\_\_\_\_

COUPL. Pumps Added \_\_\_\_\_

Oiler Name: \_\_\_\_\_

Date: \_\_\_\_\_ Hrs: \_\_\_\_\_

|   |      |             |                 |            |           |      |      |  |  |
|---|------|-------------|-----------------|------------|-----------|------|------|--|--|
| 2 | True | TAR T/O FAN | JOHN DUPLANCICH | 12/13/2022 | 2/24/2023 | 0.00 | 1.00 |  |  |
|---|------|-------------|-----------------|------------|-----------|------|------|--|--|

Lube Required: Mobil SHC-100 Grease / TAR T/O Fan is Located South East of the Safety Shop

Fan Side Brg Temp \_\_\_\_\_

FAN. Pumps Added \_\_\_\_\_

Coupl Side Brg Temp \_\_\_\_\_

COUPL. Pumps Added \_\_\_\_\_

Oiler Name: \_\_\_\_\_

Date: \_\_\_\_\_ Hrs: \_\_\_\_\_

|   |      |             |                 |            |           |      |      |  |  |
|---|------|-------------|-----------------|------------|-----------|------|------|--|--|
| 3 | True | TAR T/O FAN | JOHN DUPLANCICH | 12/20/2022 | 2/24/2023 | 0.00 | 1.00 |  |  |
|---|------|-------------|-----------------|------------|-----------|------|------|--|--|

Lube Required: Mobil SHC-100 Grease / TAR T/O Fan is Located South East of the Safety Shop

Fan Side Brg Temp \_\_\_\_\_

FAN. Pumps Added \_\_\_\_\_

Coupl Side Brg Temp \_\_\_\_\_

COUPL. Pumps Added \_\_\_\_\_

Oiler Name: \_\_\_\_\_

Date: \_\_\_\_\_ Hrs: \_\_\_\_\_



# Finished Work Order

Identification: FWO112937 UDN-2200713

Date/Time Printed: 11/27/23 12:28:13 PM

Description: Quarterly TAR TO Fan Motor Lub PM (B-2301)

Pages/Printed By: 1 KOPPERSIOTREMBIAKJW

Address:

Priority:

Requested: S-PM-100308

Date Created: 3/15/2022

Order Type:

Supervisor:

Date Started: 3/22/2022

Maint. Type:

Technician:

Date Completed: 6/6/2022

Work Code: PM

OSP:

Elapsed Days: 77

Cap X: No

Job No.:

Actual Time: 0.00

Equipment ID: 50000003934 TO Fan(B-2301) Motor 1800rpm 150 Hp B-2301

Location: 1760

Serial No.:

Enterprise:

Manufacturer:

Region: USA

Area:

Company ID:

Facility: STICKNEY

Line:

Reference:

Vend. Inv:

Cust. Inv:

| Step | Done | Description | Assigned | Start Date | End Date | Estimated Time | Actual Time | Test Results | Unit of Measure |
|------|------|-------------|----------|------------|----------|----------------|-------------|--------------|-----------------|
| 1    | True | Quarterly   |          | 3/22/2022  | 6/6/2022 | 0.00           | 0.00        |              |                 |

Quarterly Motor Lubrication - TAR TO Fan (2301)

MATERIAL REQUIRED: Precision Synthetic EMB Grease

This is the original grease Required

Equipment Location: TAR TO Fan - Located South East of Safety Shop

Lubricate Each Motor Bearing with 10 grease gun pumps using

Precision Synthetic EMB Grease

Document the time spent on the Work Order below.

After the week is completed return the Work Order to your Supervisor.

\_\_\_\_\_  
SIGNATURE OF INDIVIDUAL COMPLETING WORK / DATE COMPLETED

Print Name of Persons Completing Work: \_\_\_\_\_

Hours per day worked: \_\_\_\_\_

# Finished Work Order

Identification: FWO113012 UDN-2201287

Date/Time Printed: 11/27/23 12:39:59 PM

Description: MONTHLY -

Pages/Printed By: 1 KOPPERSIOTREMBIAKJW

Address:

Priority: Routine  
 Order Type: PM  
 Maint. Type: MECH  
 Work Code: PM  
 Cap X: No

Requested: DMP100003  
 Supervisor: RALPH STORTO  
 Technician:  
 OSP:  
 Job No.:

Date Created: 5/23/2022  
 Date Started: 5/23/2022  
 Date Completed: 6/13/2022  
 Elapsed Days: 22  
 Actual Time: 4.00

Equipment ID: 50000003929 TAR THERMAL OXIDIZER (F-2301) F-2301

Location: 1780

Serial No.:  
 Manufacturer:  
 Company ID:  
 Reference:

Enterprise:  
 Region: USA  
 Facility: STICKNEY  
 Vend. Inv:

Area:  
 Line:  
 Cust. Inv:

| Step  | Done | Description | Assigned     | Start Date | End Date  | Estimated Time | Actual Time | Test Results | Unit of Measure |
|---|------|-------------|--------------|------------|-----------|----------------|-------------|--------------|-----------------|
| 1   | True | TAR T/O FAN | MIKE GRIFFIN | 5/27/2022  | 5/27/2022 | 2.00           | 2.00        |              |                 |
| Lube Required: Mobil SHC-100 Grease / TAR T/O Fan is Located South East of the Safety Shop<br>Fan Side Brg Temp _____<br>FAN. Pumps Added _____<br>Coupl Side Brg Temp _____<br>COUPL. Pumps Added _____<br>Other Name: _____<br>Date: _____ Hrs: _____ |      |             |              |            |           |                |             |              |                 |
| 2   | True | PM          | MIKE GRIFFIN | 5/23/2022  | 5/23/2022 | 0.00           | 2.00        |              |                 |
| 3   | True | PM          |              | 5/23/2022  | 6/13/2022 | 0.00           | 0.00        |              |                 |
| 4   | True | PM          |              | 5/23/2022  | 6/13/2022 | 0.00           | 0.00        |              |                 |

# Finished Work Order

Identification: FWO113763 UDN-2201442

Date/Time Printed: 11/27/23 12:38:42 PM

Description: MONTHLY -

Pages/Printed By: 1 KOPPERSIOTREMBIAKJW

Address:

Priority: Routine

Requested: DMP100003

Date Created: 6/1/2022

Order Type: PM

Supervisor: RALPH STORTO

Date Started: 6/1/2022

Maint. Type: MECH

Technician:

Date Completed: 8/9/2022

Work Code: PM

OSP:

Elapsed Days: 70

Cap X: No

Job No.:

Actual Time: 11.00

Equipment ID: 50000003929 TAR THERMAL OXIDIZER (F-2301) F-2301

Location: 1760

Serial No.:

Enterprise:

Manufacturer:

Region: USA

Area:

Company ID:

Facility: STICKNEY

Line:

Reference:

Vend. Inv:

Cust. Inv:

| Step | Done | Description | Assigned     | Start Date | End Date | Estimated Time | Actual Time | Test Results | Unit of Measure |
|------|------|-------------|--------------|------------|----------|----------------|-------------|--------------|-----------------|
| 1    | True | TAR T/O FAN | MIKE GRIFFIN | 6/1/2022   | 6/1/2022 | 2.00           | 2.00        |              |                 |

Lube Required: Mobil SHC-100 Grease / TAR T/O Fan is Located South East of the Safety Shop

Fan Side Brg Temp \_\_\_\_\_

FAN. Pumps Added \_\_\_\_\_

Coupl Side Brg Temp \_\_\_\_\_

COUPL. Pumps Added \_\_\_\_\_

Other Name: \_\_\_\_\_

Date: \_\_\_\_\_ Hrs: \_\_\_\_\_

|   |      |    |              |           |           |      |      |  |  |
|---|------|----|--------------|-----------|-----------|------|------|--|--|
| 2 | True | PM | MIKE GRIFFIN | 7/1/2022  | 7/1/2022  | 1.00 | 1.00 |  |  |
| 3 | True | PM | MIKE GRIFFIN | 8/15/2022 | 8/24/2022 | 2.00 | 2.00 |  |  |
| 4 | True | PM | MIKE GRIFFIN | 7/20/2022 | 7/22/2022 | 2.00 | 5.00 |  |  |
| 5 | True | PM | MIKE GRIFFIN | 7/28/2022 | 7/28/2022 | 1.00 | 1.00 |  |  |

# Finished Work Order

Identification: FWO114624 UDN-2201989

Date/Time Printed: 11/27/23 12:37:43 PM

Description: MONTHLY -

Pages/Printed By: 1 KOPPERSIOTREMBIAKJW

Address:

Priority: Routine

Requested: DMP100003

Date Created: 8/1/2022

Order Type: PM

Supervisor: RALPH STORTO

Date Started: 8/1/2022

Maint. Type: MECH

Technician:

Date Completed: 10/16/2022

Work Code: PM

OSP:

Elapsed Days: 77

Cap X: No

Job No.:

Actual Time: 2.00

Equipment ID: 50000003929 TAR THERMAL OXIDIZER (F-2301) F-2301

Location: 1760

Serial No.:

Enterprise:

Manufacturer:

Region: USA

Area:

Company ID:

Facility: STICKNEY

Line:

Reference:

Vend. Inv:

Cust. Inv:

| Step  | Done | Description | Assigned        | Start Date | End Date  | Estimated Time | Actual Time | Test Results | Unit of Measure |
|---|------|-------------|-----------------|------------|-----------|----------------|-------------|--------------|-----------------|
| 1   | True | TAR T/O FAN | MIKE GRIFFIN    | 8/11/2022  | 8/11/2022 | 1.00           | 1.00        |              |                 |
| Lube Required: Mobil SHC-100 Grease / TAR T/O Fan is Located South East of the Safety Shop<br>Fan Side Brg Temp _____<br>FAN. Pumps Added _____<br>Coupl Side Brg Temp _____<br>COUPL. Pumps Added _____<br>Offer Name: _____<br>Date: _____ Hrs: _____ |      |             |                 |            |           |                |             |              |                 |
| 2   | True | PM          | JOHN DUPLANCICH | 9/2/2022   | 9/2/2022  | 0.50           | 0.50        |              |                 |
| 3   | True | PM          | BRIAN CYBULSKI  | 9/2/2022   | 9/2/2022  | 0.50           | 0.50        |              |                 |

**Attachment F**

**Monitoring of Closed Vent System Records  
Response to Violation Notice A-2023-00162**

**Koppers Inc.**

Records of monitoring of the closed vent system for the creosote blend tanks and associated thermal oxidizer (sample data)

| Date               | 0= Vent lined up to TO | Date               | 0= Vent lined up to TO | Date               | 0= Vent lined up to TO |
|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|
| 01-Jun-22 00:00:00 | 0                      | 01-Jul-22 00:00:00 | 0                      | 01-Aug-22 00:00:00 | 0                      |
| 01-Jun-22 00:15:00 | 0                      | 01-Jul-22 00:15:00 | 0                      | 01-Aug-22 00:15:00 | 0                      |
| 01-Jun-22 00:30:00 | 0                      | 01-Jul-22 00:30:00 | 0                      | 01-Aug-22 00:30:00 | 0                      |
| 01-Jun-22 00:45:00 | 0                      | 01-Jul-22 00:45:00 | 0                      | 01-Aug-22 00:45:00 | 0                      |
| 01-Jun-22 01:00:00 | 0                      | 01-Jul-22 01:00:00 | 0                      | 01-Aug-22 01:00:00 | 0                      |
| 01-Jun-22 01:15:00 | 0                      | 01-Jul-22 01:15:00 | 0                      | 01-Aug-22 01:15:00 | 0                      |
| 01-Jun-22 01:30:00 | 0                      | 01-Jul-22 01:30:00 | 0                      | 01-Aug-22 01:30:00 | 0                      |
| 01-Jun-22 01:45:00 | 0.0                    | 01-Jul-22 01:45:00 | 0                      | 01-Aug-22 01:45:00 | 0                      |
| 01-Jun-22 02:00:00 | 1                      | 01-Jul-22 02:00:00 | 0                      | 01-Aug-22 02:00:00 | 0                      |
| 01-Jun-22 02:15:00 | 1                      | 01-Jul-22 02:15:00 | 0                      | 01-Aug-22 02:15:00 | 0                      |
| 01-Jun-22 02:30:00 | 1                      | 01-Jul-22 02:30:00 | 0                      | 01-Aug-22 02:30:00 | 0                      |
| 01-Jun-22 02:45:00 | 1                      | 01-Jul-22 02:45:00 | 0                      | 01-Aug-22 02:45:00 | 0                      |
| 01-Jun-22 03:00:00 | 1                      | 01-Jul-22 03:00:00 | 0                      | 01-Aug-22 03:00:00 | 0                      |
| 01-Jun-22 03:15:00 | 1                      | 01-Jul-22 03:15:00 | 0                      | 01-Aug-22 03:15:00 | 0                      |
| 01-Jun-22 03:30:00 | 0.8                    | 01-Jul-22 03:30:00 | 0                      | 01-Aug-22 03:30:00 | 0                      |
| 01-Jun-22 03:45:00 | 0                      | 01-Jul-22 03:45:00 | 0                      | 01-Aug-22 03:45:00 | 0                      |
| 01-Jun-22 04:00:00 | 0                      | 01-Jul-22 04:00:00 | 0                      | 01-Aug-22 04:00:00 | 0                      |
| 01-Jun-22 04:15:00 | 0                      | 01-Jul-22 04:15:00 | 0.0                    | 01-Aug-22 04:15:00 | 0                      |
| 01-Jun-22 04:30:00 | 0                      | 01-Jul-22 04:30:00 | 0                      | 01-Aug-22 04:30:00 | 0                      |
| 01-Jun-22 04:45:00 | 0                      | 01-Jul-22 04:45:00 | 0                      | 01-Aug-22 04:45:00 | 0                      |
| 01-Jun-22 05:00:00 | 0                      | 01-Jul-22 05:00:00 | 0                      | 01-Aug-22 05:00:00 | 0                      |
| 01-Jun-22 05:15:00 | 0                      | 01-Jul-22 05:15:00 | 0                      | 01-Aug-22 05:15:00 | 0                      |
| 01-Jun-22 05:30:00 | 0                      | 01-Jul-22 05:30:00 | 0                      | 01-Aug-22 05:30:00 | 0                      |
| 01-Jun-22 05:45:00 | 0                      | 01-Jul-22 05:45:00 | 0                      | 01-Aug-22 05:45:00 | 0                      |
| 01-Jun-22 06:00:00 | 0                      | 01-Jul-22 06:00:00 | 0                      | 01-Aug-22 06:00:00 | 0                      |
| 01-Jun-22 06:15:00 | 0                      | 01-Jul-22 06:15:00 | 0                      | 01-Aug-22 06:15:00 | 0                      |
| 01-Jun-22 06:30:00 | 0                      | 01-Jul-22 06:30:00 | 0                      | 01-Aug-22 06:30:00 | 0                      |
| 01-Jun-22 06:45:00 | 0                      | 01-Jul-22 06:45:00 | 0                      | 01-Aug-22 06:45:00 | 0                      |
| 01-Jun-22 07:00:00 | 0                      | 01-Jul-22 07:00:00 | 0                      | 01-Aug-22 07:00:00 | 0                      |
| 01-Jun-22 07:15:00 | 0                      | 01-Jul-22 07:15:00 | 0                      | 01-Aug-22 07:15:00 | 0                      |
| 01-Jun-22 07:30:00 | 0                      | 01-Jul-22 07:30:00 | 0                      | 01-Aug-22 07:30:00 | 0                      |
| 01-Jun-22 07:45:00 | 0                      | 01-Jul-22 07:45:00 | 0                      | 01-Aug-22 07:45:00 | 0                      |
| 01-Jun-22 08:00:00 | 0                      | 01-Jul-22 08:00:00 | 0                      | 01-Aug-22 08:00:00 | 0                      |
| 01-Jun-22 08:15:00 | 0                      | 01-Jul-22 08:15:00 | 0                      | 01-Aug-22 08:15:00 | 0.0                    |
| 01-Jun-22 08:30:00 | 0                      | 01-Jul-22 08:30:00 | 0                      | 01-Aug-22 08:30:00 | 0                      |
| 01-Jun-22 08:45:00 | 0                      | 01-Jul-22 08:45:00 | 0                      | 01-Aug-22 08:45:00 | 0                      |
| 01-Jun-22 09:00:00 | 0                      | 01-Jul-22 09:00:00 | 0                      | 01-Aug-22 09:00:00 | 0                      |
| 01-Jun-22 09:15:00 | 0                      | 01-Jul-22 09:15:00 | 0                      | 01-Aug-22 09:15:00 | 0                      |
| 01-Jun-22 09:30:00 | 0                      | 01-Jul-22 09:30:00 | 0                      | 01-Aug-22 09:30:00 | 0                      |
| 01-Jun-22 09:45:00 | 0                      | 01-Jul-22 09:45:00 | 0                      | 01-Aug-22 09:45:00 | 0                      |
| 01-Jun-22 10:00:00 | 0                      | 01-Jul-22 10:00:00 | 0                      | 01-Aug-22 10:00:00 | 0                      |
| 01-Jun-22 10:15:00 | 0.0                    | 01-Jul-22 10:15:00 | 0                      | 01-Aug-22 10:15:00 | 0                      |
| 01-Jun-22 10:30:00 | 0                      | 01-Jul-22 10:30:00 | 0                      | 01-Aug-22 10:30:00 | 0                      |
| 01-Jun-22 10:45:00 | 0                      | 01-Jul-22 10:45:00 | 0                      | 01-Aug-22 10:45:00 | 0                      |
| 01-Jun-22 11:00:00 | 0                      | 01-Jul-22 11:00:00 | 0                      | 01-Aug-22 11:00:00 | 0                      |
| 01-Jun-22 11:15:00 | 0                      | 01-Jul-22 11:15:00 | 0                      | 01-Aug-22 11:15:00 | 0                      |
| 01-Jun-22 11:30:00 | 0                      | 01-Jul-22 11:30:00 | 0.38                   | 01-Aug-22 11:30:00 | 0                      |
| 01-Jun-22 11:45:00 | 0                      | 01-Jul-22 11:45:00 | 0                      | 01-Aug-22 11:45:00 | 0                      |
| 01-Jun-22 12:00:00 | 0                      | 01-Jul-22 12:00:00 | 0                      | 01-Aug-22 12:00:00 | 0                      |
| 01-Jun-22 12:15:00 | 0                      | 01-Jul-22 12:15:00 | 0                      | 01-Aug-22 12:15:00 | 0                      |
| 01-Jun-22 12:30:00 | 0                      | 01-Jul-22 12:30:00 | 0                      | 01-Aug-22 12:30:00 | 0                      |
| 01-Jun-22 12:45:00 | 0                      | 01-Jul-22 12:45:00 | 0.0                    | 01-Aug-22 12:45:00 | 0                      |
| 01-Jun-22 13:00:00 | 0                      | 01-Jul-22 13:00:00 | 0                      | 01-Aug-22 13:00:00 | 0                      |
| 01-Jun-22 13:15:00 | 0                      | 01-Jul-22 13:15:00 | 0                      | 01-Aug-22 13:15:00 | 0                      |
| 01-Jun-22 13:30:00 | 0                      | 01-Jul-22 13:30:00 | 0                      | 01-Aug-22 13:30:00 | 0                      |
| 01-Jun-22 13:45:00 | 0                      | 01-Jul-22 13:45:00 | 0                      | 01-Aug-22 13:45:00 | 0                      |
| 01-Jun-22 14:00:00 | 0                      | 01-Jul-22 14:00:00 | 0                      | 01-Aug-22 14:00:00 | 0                      |
| 01-Jun-22 14:15:00 | 0                      | 01-Jul-22 14:15:00 | 0                      | 01-Aug-22 14:15:00 | 0                      |
| 01-Jun-22 14:30:00 | 0                      | 01-Jul-22 14:30:00 | 0                      | 01-Aug-22 14:30:00 | 0                      |
| 01-Jun-22 14:45:00 | 0                      | 01-Jul-22 14:45:00 | 0                      | 01-Aug-22 14:45:00 | 0                      |
| 01-Jun-22 15:00:00 | 0                      | 01-Jul-22 15:00:00 | 0                      | 01-Aug-22 15:00:00 | 0                      |

**Attachment G**

**July 1 through December 31, 2022 Semi-Annual Monitoring Report**

**Response to Violation Notice A-2023-00162**

**Koppers Inc.**



UPS Overnight Mail

February 28, 2023

Mr. Bill Marr, Manager, Compliance Section  
Illinois Environmental Protection Agency  
Bureau of Air – Compliance Section (MC 40)  
1021 N. Grand Avenue East  
P.O. Box 19276  
Springfield, IL 62794-9276

Koppers Inc.  
Carbon Materials and Chemicals  
3900 South Laramie Avenue  
Cicero, IL 60804-4523  
Tel 708 222 3483  
Fax 708 656 6079  
www.koppers.com

RE: Semi-Annual Monitoring Report – July 1, 2022 – December 31, 2022  
Koppers Inc., Stickney Plant  
ID Number: 031300AAJ  
CAAPP Permit Number: 96030134

Dear Mr. Marr:

Per section 8.6.1 of the CAAPP Permit #96030134, the following correspondence is to serve as the semi-annual monitoring report for the period of July 1, 2022 through December 31, 2022 for the above referenced facility.

Should you have any questions or require further information, please contact Fola Fayanjuola, at 708-427-9057.

Sincerely,

L. Seth Herring  
Plant Manager CMC NA

Copy:

|   |  |
|---|--|
| Illinois EPA – Air Regional Field Office<br>Illinois Environmental Protection Agency<br>Division of Air Pollution Control<br>9511 W. Harrison Street<br>Des Plaines, IL 60016 | USEPA, Region 5<br>Air and Radiation Division<br>77 West Jackson Boulevard (A-18J)<br>Chicago, Illinois 60604-3507 |
|---|--|



**Koppers, Inc.**  
**Semi-Annual Monitoring Report (SAMR)**  
 July 1, 2022 - December 31, 2022

**Attachment 1 - List of Required Records in Accordance with Permit Condition 8.6.1**

**8.6.1 Monitoring Reports**

If monitoring is required by any applicable requirements or conditions of this permit, a report summarizing the required monitoring results, as specified in the conditions of this permit, shall be submitted to the Air Compliance Section of the Illinois EPA every six months as follows [Section 39.5(7)(f) of the Act]: All instances of deviations from permit requirements must be clearly identified in such reports. All such reports shall be certified in accordance with Condition 9.9.

| Permit Condition | Plant     | Unit                | Unit Description                       | Requirement  | Deviation | Summary of Monitoring Results   |
|------------------|-----------|---------------------|--|--|-----------|---|
| 7.4.8            | Tar Plant | TPDS1 & TPDS2       | Tar Plant distillation stills          | Perform quarterly visual inspections of the affected stills to detect any leaking components which may need repair | No        | Quarterly visual inspections were completed and no leaking components were detected.  |
| 7.6.8            | PAA Plant | PAA-NT & PP-OXT     | Naphthalene and o-xylene storage tanks | The Permittee shall fulfill all the applicable leak inspection provisions as specified by 40 CFR 63.148.           | No        | Koppers performs leak inspections of affected equipment in accordance with 40 CFR 63 Subpart H which are reported under separate cover.   |
| 7.7.8a           | PAA Plant | A, B, C, & D-Trains | Phthalic Anhydride Reactor Trains      | Continuous monitor and record TO temperature.  | No        | Temperature was continuously monitored and recorded during the reporting period and no daily average TO temperatures were below limit except when PAA process was offline<br><br>C & D Trains never built |
| 7.7.8b           | PAA Plant | A, B, C, & D-Trains | Phthalic Anhydride Reactor Trains      | The Permittee shall fulfill all the applicable leak inspection provisions as specified by 40 CFR 63.148.           | No        | Koppers performs leak inspections of affected equipment in accordance with 40 CFR 63 Subpart H which are reported under separate cover.<br><br>C & D Trains never built                                   |
| 7.7.8c           | PAA Plant | A, B, C, & D-Trains | Phthalic Anhydride Reactor Trains      | Continuous monitor and record TO temperature.  | No        | Temperature was continuously monitored and recorded during the reporting period and no daily average TO temperatures were below limit except when PAA process was offline<br><br>C & D Trains never built |

**Koppers, Inc.**  
**Semi-Annual Monitoring Report (SAMR)**  
**July 1, 2022 - December 31, 2022**

| Permit Condition | Plant     | Unit                | Unit Description  | Requirement  | Deviation | Summary of Monitoring Results  |
|------------------|-----------|---------------------|---|--|-----------|--|
| 7.7.8d           | PAA Plant | A, B, C, & D-Trains | Phthalic Anhydride Reactor Trains                               | Continuous monitor and record SO2 with CEMS  | 26        | <p>During the reporting period there was a 26-hour period on December 8<sup>th</sup> and 9<sup>th</sup> when the naphthalene feed rate was increased and the CEMS unit was down. The rate had to be increased due to the loss of steam supplied to entire plant. The daily sulfur percent in the naphthalene sample was less than 0.8 wt. % during these days which indicate SO2 emissions were not exceeded.</p> <p>There were 869 hours the CEMS unit failed to monitor the SO2 emissions and 26 of those hours the feed rate changed. CEMS unit downtime was not considered a deviation because the naphthalene was sampled for sulfur and was below 0.8 wt.%. This shows that SO2 emissions were not exceeded.</p> |
| 7.8.8            | PAA Plant | MF-106              | Vaporizer Bottoms Tank  | The Permittee shall fulfill all the applicable leak inspection provisions as specified by 40 CFR 63.148  | No        | <p>C &amp; D Trains never built</p> <p>Koppers performs leak inspections of affected equipment in accordance with 40 CFR 63 Subpart H which are reported under separate cover.</p>   |
| 7.9.8            | PAA Plant | PAA-SCT and PAA-RST | Intermediate Crude and Refined Phthalic Anhydride Storage Tanks | The Permittee shall fulfill all the applicable leak inspection provisions as specified by 40 CFR 63.148. | No        | <p>Koppers performs leak inspections of affected equipment in accordance with 40 CFR 63 Subpart H which are reported under separate cover.</p>   |
| 7.10.8           | PAA Plant | MF-311 & MS-303     | Refined Phthalic Anhydride Storage Tanks                        | The Permittee shall fulfill all the applicable leak inspection provisions as specified by 40 CFR 63.148  | No        | <p>Koppers performs leak inspections of affected equipment in accordance with 40 CFR 63 Subpart H which are reported under separate cover.</p>   |

**Koppers, Inc.**  
**Semi-Annual Monitoring Report (SAMR)**  
**July 1, 2022 - December 31, 2022**

| Permit Condition | Plant     | Unit   | Unit Description  | Requirement   | Deviation | Summary of Monitoring Results   |
|------------------|-----------|--------|---|---|-----------|---|
| 7.11.8a          | PAA Plant | PAA-R  | Phthalic Anhydride Refining                               | The Permittee shall fulfill all the applicable monitoring requirements as specified by 40 CFR 63.114.<br>40 CFR 63.114 - TO temperature monitoring device equipped with a continuous recorder is required | No        | Temperature was continuously monitored and recorded during the reporting period and no daily average TO temperatures were below limit except when PAA process was offline<br><br>C & D Trains never built |
| 7.11.8b          | PAA Plant | PAA-R  | Phthalic Anhydride Refining                               | The Permittee shall fulfill all the applicable leak inspection provisions as specified by 40 CFR 63.146   | No        | Koppers performs leak inspections of affected equipment in accordance with 40 CFR 63 Subpart H which are reported under separate cover.   |
| 7.11.8c          | PAA Plant | PAA-R  | Phthalic Anhydride Refining                               | Continuous monitor and record TO temperature  | No        | Temperature was continuously monitored and recorded during the reporting period and no daily average TO temperatures were below limit except when PAA process was offline                                 |
| 7.13.8           | PAA Plant | MS-414 | Flaked Phthalic Anhydride Storage Reheat Tank             | The Permittee shall fulfill all the applicable leak inspection provisions as specified by 40 CFR 63.146   | No        | C & D Trains never built<br>Koppers performs leak inspections of affected equipment in accordance with 40 CFR 63 Subpart H which are reported under separate cover.                                       |
| 7.14.8           | PAA Plant | PAA-L  | Refined Phthalic Anhydride Tank Wagon and Railcar Loading | The Permittee shall fulfill all the applicable leak inspection provisions as specified by 40 CFR 63.146   | No        | Koppers performs leak inspections of affected equipment in accordance with 40 CFR 63 Subpart H which are reported under separate cover.   |
| 7.20.8           | Terminal  | OL-23  | Stickney Terminal O-Xylene tank                           | The Permittee shall fulfill all the applicable leak inspection provisions as specified by 40 CFR 63.146   | No        | Demolished  |
| 7.21.8a          | PAA Plant | PAA-RE | Phthalic Anhydride Recovery Exhausters                    | The Permittee shall fulfill all the applicable monitoring requirements as specified by 40 CFR 63.114.<br>40 CFR 63.114 - TO temperature monitoring device equipped with a continuous recorder is required | No        | Temperature was continuously monitored and recorded during the reporting period and no daily average TO temperatures were below limit except when PAA process was offline                                 |
| 7.21.8b          | PAA Plant | PAA-RE | Phthalic Anhydride Recovery Exhausters                    | The Permittee shall fulfill all the applicable leak inspection provisions as specified by 40 CFR 63.146   | No        | C & D Trains never built<br>Koppers performs leak inspections of affected equipment in accordance with 40 CFR 63 Subpart H which are reported under separate cover.                                       |

**Koppers, Inc.**  
**Semi-Annual Monitoring Report (SAMR)**  
**July 1, 2022 - December 31, 2022**

| Permit Condition | Plant     | Unit   | Unit Description                       | Requirement                                  | Deviation | Summary of Monitoring Results   |
|------------------|-----------|--------|--|--|-----------|---|
| 7.21.8c          | PAA Plant | PAA-RE | Phthalic Anhydride Recovery Exhausters | Continuous monitor and record TO temperature | No        | Temperature was continuously monitored and recorded during the reporting period and no daily average TO temperatures were below limit except when PAA process was offline<br><br>C & D Trains never built |

**Attachment H**  
**Semi-Annual Monitoring Report First Half of 2023**  
**Response to Violation Notice A-2023-00162**  
**Koppers Inc.**



UPS Overnight Mail

August 30, 2023

Mr. Bill Marr, Manager, Compliance Section  
Illinois Environmental Protection Agency  
Bureau of Air – Compliance Section (MC 40)  
1021 N. Grand Avenue East  
P.O. Box 19276  
Springfield, IL 62794-9276

Koppers Inc.  
Carbon Materials and Chemicals  
3900 South Laramie Avenue  
Cicero, IL 60804-4523  
Tel 708 222 3483  
Fax 708 656 6079  
www.koppers.com

RE: Semi-Annual Monitoring Report – January 1, 2023 – June 30, 2023  
Koppers Inc., Stickney Plant  
ID Number; 031300AAJ  
CAAPP Permit Number: 96030134

Dear Mr. Marr:

Per section 8.6.1 of the CAAPP Permit #96030134, the following correspondence is to serve as the semi-annual monitoring report for the period of January 1, 2023 through June 30, 2023 for the above referenced facility.

Should you have any questions or require further information, please contact Sidney Lipp, at 708-222-3111.

Sincerely,

L. Seth Herring  
Plant Manager CMC NA

Copy:

Illinois EPA – Air Regional Field Office  
Illinois Environmental Protection Agency  
Division of Air Pollution Control  
9511 W. Harrison Street  
Des Plaines, IL 60016

USEPA, Region 5  
Air and Radiation Division  
77 West Jackson Boulevard (A-18J)  
Chicago, Illinois 60604-3507

**Certification by a Responsible Official:**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:

L. Seth Herring

Name:

L. Seth Herring

Official Title:

Plant Manager CMC NA

Telephone No.:

708-556-9984

Date Signed:

8/30/23

**Koppers, Inc.**  
**Semi-Annual Monitoring Report (SAMR)**  
**January 1, 2023 – June 30, 2023**

**Attachment 1 - List of Required Records in Accordance With Permit Condition 8.6.1**

8.6.1 Monitoring Reports  
 If monitoring is required by any applicable requirements or conditions of this permit, a report summarizing the required monitoring results, as specified in the conditions of this permit, shall be submitted to the Air Compliance Section of the Illinois EPA every six months as follows [Section 39.5(7)(f) of the Act]: All instances of deviations from permit requirements must be clearly identified in such reports. All such reports shall be certified in accordance with Condition 9.9.

| Permit Condition | Plant     | Unit                | Unit Description                       | Requirement  | Deviation | Summary of Monitoring Results   |
|------------------|-----------|---------------------|--|--|-----------|---|
| 7.4.8            | Tar Plant | TPDS1 & TPDS2       | Tar Plant distillation stills          | Perform quarterly visual inspections of the affected stills to detect any leaking components which may need repair | No        | Quarterly visual inspection were completed.   |
| 7.6.8            | PAA Plant | PAA-NT & PP-OXT     | Naphthalene and o-xylene storage tanks | The Permittee shall fulfill all the applicable leak inspection provisions as specified by 40 CFR 63.148.           | No        | Koppers performs leak inspections of affected equipment in accordance with 40 CFR 63 Subpart H which are reported under separate cover.   |
| 7.7.8a           | PAA Plant | A, B, C, & D-Trains | Phthalic Anhydride Reactor Trains      | Continuous monitor and record TO temperature.  | No        | Temperature was continuously monitored and recorded during the reporting period and no daily average TO temperatures were below limit except when PAA process was offline<br><br>C & D Trains never built |
| 7.7.8b           | PAA Plant | A, B, C, & D-Trains | Phthalic Anhydride Reactor Trains      | The Permittee shall fulfill all the applicable leak inspection provisions as specified by 40 CFR 63.148.           | No        | Koppers performs leak inspections of affected equipment in accordance with 40 CFR 63 Subpart H which are reported under separate cover.<br><br>C & D Trains never built                                   |
| 7.7.8c           | PAA Plant | A, B, C, & D-Trains | Phthalic Anhydride Reactor Trains      | Continuous monitor and record TO temperature.  | No        | Temperature was continuously monitored and recorded during the reporting period and no daily average TO temperatures were below limit except when PAA process was offline<br><br>C & D Trains never built |



**Koppers, Inc.**  
**Semi-Annual Monitoring Report (SAMR)**  
**January 1, 2023 – June 30, 2023**

| Permit Condition | Plant     | Unit                | Unit Description  | Requirement  | Deviation | Summary of Monitoring Results   |
|------------------|-----------|---------------------|---|--|-----------|---|
| 7.7.8d           | PAA Plant | A, B, C, & D-Trains | Phthalic Anhydride Reactor Trains                               | Continuous monitor and record SO2 with CEMS  | 42        | During the reporting period there were no hours when the naphthalene feed rate was increased and the CEMS unit was down.<br><br>The SO2 CEMS was unavailable for 0.48% of the operating hours during the period. The SO2 emission limits were not exceeded based on CEMS data before and after the downtime.<br><br>C & D Trains never built<br>Koppers performs leak inspections of affected equipment in accordance with 40 CFR 63 Subpart H which are reported under separate cover. |
| 7.8.8            | PAA Plant | MF-106              | Vaporizer Bottoms Tank  | The Permittee shall fulfill all the applicable leak inspection provisions as specified by 40 CFR 63.148  | No        | Koppers performs leak inspections of affected equipment in accordance with 40 CFR 63 Subpart H which are reported under separate cover.   |
| 7.9.8            | PAA Plant | PAA-SCT and PAA-RST | Intermediate Crude and Refined Phthalic Anhydride Storage Tanks | The Permittee shall fulfill all the applicable leak inspection provisions as specified by 40 CFR 63.148.   | No        | Koppers performs leak inspections of affected equipment in accordance with 40 CFR 63 Subpart H which are reported under separate cover.   |
| 7.10.8           | PAA Plant | MF-311 & MS-303     | Refined Phthalic Anhydride Storage Tanks                        | The Permittee shall fulfill all the applicable leak inspection provisions as specified by 40 CFR 63.148  | No        | Koppers performs leak inspections of affected equipment in accordance with 40 CFR 63 Subpart H which are reported under separate cover.   |
| 7.11.8a          | PAA Plant | PAA-R               | Phthalic Anhydride Refining                                     | The Permittee shall fulfill all the applicable monitoring requirements as specified by 40 CFR 63.114, 40 CFR 63.114 – TO temperature monitoring device equipped with a continuous recorder is required | No        | Temperature was continuously monitored and recorded during the reporting period and no daily average TO temperatures were below limit except when PAA process was offline<br><br>C & D Trains never built   |
| 7.11.8b          | PAA Plant | PAA-R               | Phthalic Anhydride Refining                                     | The Permittee shall fulfill all the applicable leak inspection provisions as specified by 40 CFR 63.148  | No        | Koppers performs leak inspections of affected equipment in accordance with 40 CFR 63 Subpart H which are reported under separate cover.   |
| 7.11.8c          | PAA Plant | PAA-R               | Phthalic Anhydride Refining                                     | Continuous monitor and record TO temperature   | No        | Temperature was continuously monitored and recorded during the reporting period and no daily average TO temperatures were below limit except when PAA process was offline<br><br>C & D Trains never built   |

**Koppers, Inc.**  
**Semi-Annual Monitoring Report (SAMR)**  
**January 1, 2023 – June 30, 2023**

| Permit Condition | Plant     | Unit   | Unit Description  | Requirement  | Deviation | Summary of Monitoring Results   |
|------------------|-----------|--------|---|--|-----------|---|
| 7.13.8           | PAA Plant | MS-414 | Flaked Phthalic Anhydride Storage Remelt Tank             | The Permittee shall fulfill all the applicable leak inspection provisions as specified by 40 CFR 63.148  | No        | Koppers performs leak inspections of affected equipment in accordance with 40 CFR 63 Subpart H which are reported under separate cover.   |
| 7.14.8           | PAA Plant | PAA-L  | Refined Phthalic Anhydride Tank Wagon and Railcar Loading | The Permittee shall fulfill all the applicable leak inspection provisions as specified by 40 CFR 63.148  | No        | Koppers performs leak inspections of affected equipment in accordance with 40 CFR 63 Subpart H which are reported under separate cover.   |
| 7.20.8           | Terminal  | OL-23  | Stickney Terminal O-Xylene tank                           | The Permittee shall fulfill all the applicable leak inspection provisions as specified by 40 CFR 63.148  | No        | OL-23 tank has been demolished.   |
| 7.21.8a          | PAA Plant | PAA-RE | Phthalic Anhydride Recovery Exhausters                    | The Permittee shall fulfill all the applicable monitoring requirements as specified by 40 CFR 63.114. 40 CFR 63.114 – TO temperature monitoring device equipped with a continuous recorder is required | No        | Temperature was continuously monitored and recorded during the reporting period and no daily average TO temperatures were below limit except when PAA process was offline<br><br>C & D Trains never built |
| 7.21.8b          | PAA Plant | PAA-RE | Phthalic Anhydride Recovery Exhausters                    | The Permittee shall fulfill all the applicable leak inspection provisions as specified by 40 CFR 63.148  | No        | Koppers performs leak inspections of affected equipment in accordance with 40 CFR 63 Subpart H which are reported under separate cover.   |
| 7.21.8c          | PAA Plant | PAA-RE | Phthalic Anhydride Recovery Exhausters                    | Continuous monitor and record TO temperature   | No        | Temperature was continuously monitored and recorded during the reporting period and no daily average TO temperatures were below limit except when PAA process was offline<br><br>C & D Trains never built |

**Attachment I**  
**Naphthalene Sampling Sulfur Analysis**  
**Response to Violation Notice A-2023-00162**  
**Koppers Inc.**

**Sulfur Sampling of Naphthalene Feed and Feed Rates During CEMS Down Time**

| <b>Date CEMS Down</b> | <b>Sulfur Content %</b> | <b>A-train Naph Feed Daily Average (klbs/day)</b> | <b>B-train Naph Feed Daily Average (klbs/day)</b> | <b>A-train Ortho Feed Daily Average (klbs/day)</b> | <b>B-train Ortho Feed Daily Average (klbs/day)</b> |
|-----------------------|-------------------------|---|---|--|--|
| 8/22/2022             | 0.44                    | 14.1  | 14.6  | 165.3  | 213.4  |
| 8/23/2022             | No Naph Flow            | 0.0   | 0.0   | 165.4  | 213.3  |
| 8/24/2022             | No Naph Flow            | 0.0   | 0.0   | 165.7  | 213.1  |
| 8/25/2022             | 0.42                    | 9.9   | 8.7   | 165.4  | 213.1  |
| 8/26/2022             | 0.44                    | 10.7  | 9.6   | 165.2  | 213.0  |
| 9/13/2022             | No Naph Flow            | 0.0   | 0.0   | 0.0  | 0.0  |
| 9/14/2022             | No Naph Flow            | 0.0   | 0.0   | 0.0  | 0.0  |
| 9/16/2022             | No Naph Flow            | 0.0   | 0.0   | 0.0  | 65.9   |
| 10/27/2022            | 0.41                    | 124.6   | 124.2   | 164.1  | 147.4  |
| 11/15/2022            | 0.41                    | 16.0  | 81.1  | 25.1   | 144.2  |
| 11/24/2022            | No Naph Flow            | 0.0   | 0.0   | 130.4  | 134.8  |
| 11/25/2022            | No Naph Flow            | 0.0   | 0.0   | 131.0  | 134.5  |
| 11/26/2022            | No Naph Flow            | 0.0   | 0.0   | 155.8  | 169.9  |
| 11/27/2022            | No Naph Flow            | 0.0   | 0.0   | 161.7  | 209.9  |
| 11/28/2022            | No Naph Flow            | 0.0   | 0.0   | 162.7  | 211.3  |
| 11/29/2022            | No Naph Flow            | 0.0   | 0.0   | 160.0  | 216.9  |
| 11/30/2022            | No Naph Flow            | 0.0   | 0.0   | 160.3  | 221.5  |
| 12/1/2022             | No Naph Flow            | 0.0   | 0.0   | 145.2  | 203.7  |
| 12/2/2022             | No Naph Flow            | 0.0   | 0.0   | 129.9  | 173.1  |
| 12/3/2022             | No Naph Flow            | 0.0   | 0.0   | 126.8  | 135.8  |
| 12/4/2022             | No Naph Flow            | 0.0   | 0.0   | 52.3   | 98.6   |
| 12/5/2022             | No Naph Flow            | 0.0   | 0.0   | 124.4  | 133.5  |
| 12/6/2022             | No Naph Flow            | 0.0   | 0.0   | 126.4  | 146.5  |
| 12/7/2022             | No Naph Flow            | 0.0   | 0.0   | 109.9  | 122.1  |
| 12/8/2022             | 0.41                    | 60.9  | 62.4  | 72.2   | 78.7   |
| 12/9/2022             | 0.42                    | 71.8  | 72.9  | 63.9   | 69.2   |
| 12/27/2022            | 0.41                    | 40.4  | 7.2   | 103.8  | 139.7  |
| 12/28/2022            | 0.4                     | 40.0  | 6.1   | 104.6  | 139.5  |
| 3/28/2023             | 0.47                    | 0.0   | 45.3  | 162.4  | 126.8  |
| 3/30/2023             | 0.42                    | 0.0   | 44.2  | 129.3  | 125.5  |
| 4/29/2023             | 0.46                    | 0.0   | 76.4  | 165.4  | 171.8  |
| 4/30/2023             | 0.42                    | 0.0   | 187.6   | 164.9  | 89.2   |
| 5/1/2023              | 0.44                    | 0.0   | 217.2   | 164.8  | 74.6   |
| 5/2/2023              | 0.42                    | 0.0   | 217.7   | 165.1  | 74.5   |

**Attachment J**

**MON MACT Semi-Annual Report Second Half of 2022**

**Response to Violation Notice A-2023-00162**

**Koppers Inc.**



Via UPS Overnight Mail

February 28, 2023

Mr. Bill Marr, Manager Compliance Section  
Illinois Environmental Protection Agency  
Bureau of Air- Compliance Section (MC 40)  
1021 N. Grand Avenue East  
P.O. Box 19276  
Springfield, IL 62794-9276

Koppers Inc.  
Carbon Materials and Chemicals  
3900 South Laramie Avenue  
Cicero, IL 60804-4523  
Tel 708 222-3483  
Fax 708 656 6079  
www.koppers.com

RE: Koppers Inc., Stickney Plant  
ID Number: 031300AAJ  
Permit Number: 96030134  
MON MACT Semi-Annual Compliance Report,  
July 1, 2022 – December 31, 2022 Reporting Period  
40 CFR Part 63, Subpart FFFF, Section §63.2520(e).

Dear Mr. Marr:

Attached is Koppers Inc., Stickney Plant MON MACT Semi-Annual Compliance Report for the July 1, 2022 – December 31, 2022 reporting period.

A portion of the Stickney Plant operations is subject to the National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing (MON MACT), 40 CFR Part 63, Subpart FFFF. Koppers Stickney Plant is submitting the Semi-Annual Compliance Report to fulfill the requirements of 40 CFR Part 63, Subpart FFFF, Section §63.2520(e) for the MON-affected Miscellaneous Chemical Processing Units (MCPUs).

The facility is an existing source with three miscellaneous organic chemical production units (MCPUs) subject to this standard: Crude Tar Distillation process, Modified Pavement Sealer Base (MPSB) process, and Type A Carbon Pitch process.

During this reporting period, the Crude Tar Distillation process exhaust points were routed to only the two tube heaters (F-101 and F-201) for fuel value. As stated in 40 CFR 63.2550(i), a gas stream transferred for fuel value is exempt from the MON definition of a continuous process vent by the exemption in 63.107(h)(6), as referenced in 63.2550(i). Accordingly, Koppers considers the vent from the Crude Tar Distillation process subject to Group 1 continuous process vent requirements only when it is being routed to the thermal oxidizer.

The Compliance Report consists of the following attached tables:

Table 1: Summary of Routine Maintenance on Storage Vessels Controlled By Flare or Control Device

Table 2: Flare Pilot Flame/Flare Flame Summary

Table 3: Summary of Deviations - Units Operated Without a Continuous Monitoring System (CMS)

Table 4: Summary of Deviations - MCPUs and Storage Vessels Operated With a Continuous Monitoring System (CMS)

Table 5: Summary of MCPU With Group 2 Process Vents With HAP Usage <10,000 lbs/year that Exceeded a HAP Threshold for the Reporting Period

Table 6: Summary of Process Additions or Revisions from NOCSR

Table 7: Summary of New Operating Scenarios Not Listed in the NOCSR

Table 8: Summary of Heat Exchange System Leaks with Delayed Repair

Table 9: Vent Stream Bypass Summary for Closed Vent Systems

Table 10: SSM Event Resulting in Excess Emissions

Table 11: Semi-Annual Fugitive Emission Report

The MCPUs at Koppers's Stickney Plant facility have no Group 1 Process Wastewater Streams, Group 1 Transfer Racks, or Group 1 storage tanks so reporting information is not required in those categories.

Should you have any questions or require further information, please contact Fola Fayanjuola at 708-656-5900.

Sincerely,



L. Seth Herring  
Plant Manager CMC NA

Attachments:


Tables 1-11

Copy:  
USEPA, Region 5  
Air and Radiation Division  
77 West Jackson Boulevard (A-18J)  
Chicago, Illinois 60604-3507

Illinois EPA – Air Regional Field Office  
Illinois Environmental Protection Agency  
Division of Air Pollution Control  
9511 W. Harrison St.  
Des Plaines, IL 60016

**Certification by a Responsible Official:**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:   
Name: L. Seth Herring  
Official Title: Plant Manager CMC NA  
Telephone No.: 708-556-9984  
Date Signed: 2/28/2023



## **ATTACHMENT 1 – COMPLIANCE REPORT INFORMATION**

---

This Attachment provides all information required under 40 CFR §63.2520 and referenced regulations. Information is organized by regulatory reference. Regulatory requirements for this compliance report are listed below in italics, followed by Koppers' comments addressing each element or providing the required information.

### **40 CFR §63.2520 – MON MACT COMPLIANCE REPORTING PROVISIONS**

*§63.2520(e). Compliance report. The compliance report must contain the information specified in paragraphs (e)(1) through (10) of this section.*

*§63.2520(e)(1). Company name and address.*

Koppers Comments: Koppers, Inc.  
3900 South Laramie Avenue  
Stickney, Illinois 60650

*§63.2520(e)(2). Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report.*

Koppers Comments: This information is provided on the signature page of this letter.

*§63.2520(e)(3). Date of report and beginning and ending dates of the reporting period.*

Koppers Comments: The date of the report is February 28, 2023. The reporting period begins on July 1, 2022 through December 31, 2022.

*§63.2520(e)(4). For each SSM during which excess emissions occur, the compliance report must include records that the procedures specified in your startup, shutdown, and malfunction plan (SSMP) were followed or documentation of actions taken that are not consistent with the SSMP, and include a brief description of each malfunction.*

Koppers Comments: As applicable for each SSM event, Attachment 2 Table 10 indicates whether actions taken were consistent with the procedures specified in the SSM Plan for affected units.

*§63.2520(e)(5). The compliance report must contain the information on deviations, as defined in §63.2550, according to paragraphs (e)(5)(i), (ii), (iii), and (iv) of this section.*

*§63.2520(e)(5)(i). If there are no deviations from any emission limit, operating limit or work practice standard specified in this subpart, include a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.*

Koppers Comments: Deviations during the reporting period are addressed in §63.2520(e)(5)(iii) below.

*§63.2520(e)(5)(ii). For each deviation from an emission limit, operating limit, and work practice standard that occurs at an affected source where you are not using a continuous monitoring system (CMS) to comply with the emission limit or work practice standard in this subpart, you must include the information in paragraphs (e)(5)(ii)(A) through (C) of this section. This includes periods of SSM.*

- (A) The total operating time of the affected source during the reporting period.*
- (B) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.*
- (C) Operating logs of processes with batch vents from batch operations for the day(s) during which the deviation occurred, except operating logs are not required for deviations of the work practice standards for equipment leaks.*

Koppers Comments: None during reporting period

*§63.2520(e)(5)(iii). For each deviation from an emission limit or operating limit occurring at an affected source where you are using a CMS to comply with an emission limit in this subpart, you must include the information in paragraphs (e)(5)(iii)(A) through (L) of this section. This includes periods of SSM.*

Koppers Comments: The required information is included in Attachment 2 Table 4.

*§63.2520(e)(5)(iv). If you documented in your notification of compliance status report that an MCPU has Group 2 batch process vents because the non-reactive HAP is the only HAP and usage is less than 10,000 lb/yr, the total uncontrolled organic HAP emissions from the batch process vents in an MCPU will be less than 1,000 lb/yr for the anticipated number of standard batches, or total uncontrolled hydrogen halide and halogen HAP emissions from all batch process vents and continuous process vents in a process are less than 1,000 lb/yr, include the records associated with each calculation required by §63.2525(e) that exceeds an applicable HAP usage or emissions threshold.*

Koppers Comments: Not applicable there are no Group 2 batch process vents established by the criteria above.

*§63.2520(e)(6). If you use a CEMS, and there were no periods during which it was out-of-control as specified in §63.8(c)(7), include a statement that there were no periods during which the CEMS was out-of-control during the reporting period.*

Koppers Comments: Not applicable - Koppers does not use CEMS at any MON affected units.

*§63.2520(e)(7). Include each new operating scenario which has been operated since the time period covered by the last compliance report and has not been submitted in the notification of compliance status report or a previous compliance report. For each new operating scenario, you must provide verification that the operating conditions for any associated control or treatment device have not been exceeded and that any required calculations and engineering analyses have been performed. For the purposes of this paragraph, a revised operating scenario for an existing process is considered to be a new operating scenario.*

Koppers Comments: Not applicable. No new operating scenarios were implemented during the reporting period.

*§63.2520(e)(8). Records of process units added to a PUG as specified in §63.2525(i)(4) and records of primary product redeterminations as specified in §63.2525(i)(5).*

Koppers Comments: Koppers does not use PUGs, therefore not applicable.

*. Applicable records and information for periodic reports as specified in referenced subparts F, G, H, SS, UU, WW, and GGG of this part and subpart F of 40 CFR part 65.*

**Koppers Comments:** Information required by Subpart UU is contained in the Equipment Leak section of this report. Subparts F, G, H, WW, and GGG are not applicable. The information required by Subpart SS is provided below.

*Per 40 CFR 63.999(c)(1) (Subpart SS), the compliance report is required to contain the information described in paragraphs 40 CFR 63.999(c)(1) through (7), as applicable.*

- (1) *Periodic reports shall include the reporting period dates, the total source operating time for the reporting period, and, as applicable, all information specified in this section and in the referencing subpart (40 CFR Part 63, Subpart FFFF), including reports of periods when monitored parameters are outside their established ranges.*

**Koppers Comments:** The reporting period as provided above is July 1, 2022 through December 31, 2022. The source operating times are provided in Attachments 2. Reports of the periods when monitored parameters are outside their established ranges are addressed in these tables as well.

- (2) *For closed vent systems subject to the requirements of 40 CFR 63.983, the owner or operator shall submit as part of the periodic report the information specified in paragraphs 40 CFR 63.999(c)(2)(i) through (iii) as applicable.*

- (i) *For information recorded in 40 CFR 63.998(d)(1)(iii)(B) through (E);*

- (B) *The date the leak was detected and the date of the first attempt to repair the leak.*

**Koppers Comments:** If applicable, this information will be included in Attachment 3

- (C) *The date of successful repair of the leak.*

Koppers Comments: If applicable, this information will be included in Attachment 3

- (D) *The maximum instrument reading measured by the procedures in 40 CFR 63.983(C) after the leak is successfully repaired or determined to be nonrepairable.*

Koppers Comments: If applicable, this information will be included in Attachment 3.

- (E) *“Repair delayed” and the reason for the delay if a leak is not repaired within 15 days after discovery of the leak. The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.*

Koppers Comments: If applicable, this information is included in Attachment 3.

- (ii) *Reports of the times of all periods recorded under 40 CFR 63.998(d)(1)(ii)(A) when the vent stream is diverted from the control device through a bypass line; and*
- (iii) *Reports of all times recorded under 40 CFR 63.998(d)(1)(ii)(B) when maintenance is performed in car-sealed valves, when the seal is broken, when the bypass line valve position is changed, or the key for a lock-and-key type configuration has been checked out.*

Koppers Comments: Bypass events are included in Attachment 2 Table 9.

- (3) *For flares subject to 40 CFR 63.999, report all periods when all pilot flames were absent or the flare flame was absent as recorded in 40 CFR 63.998(a)(1)(i)(C).*

Koppers Comments: Not applicable – there are no flares

(4) *For storage vessels, the owner or operator shall include in each periodic report the information specified in 40 CFR 63.999(c)(4)(i) through (iii).*

(i) *For the 6-month period covered by the periodic report, the information recorded in 40 CFR 63.998(d)(2)(ii)(A) through (C).*

(A) *The first time of day and date of the requirements of 40 CFR 63.983(a), 63.985(a), or 63.987(a), as applicable, were not met at the beginning of the planned routine maintenance, and*

(B) *The first time of day and date the requirements of 63.983(a), 63.985(a), or 63.987(a), as applicable, were met at the conclusion of the planned routine maintenance.*

Koppers Comments: Not applicable – there are no MON Group 1 storage vessels

(ii) *For the time period covered by the periodic report and the previous periodic report, the total number of hours that the control system did not meet the requirements of 40 CFR 63.983(a), 63.985(a), or 63.987(a) due to planned routine maintenance.*

Koppers Comments: Not applicable – there are no MON Group 1 storage vessels

(iii) *A description of the planned routine maintenance during the next 6-month periodic reporting period that is anticipated to be performed for the control system when it is not expected to meet the required control efficiency. This description shall include the type of maintenance necessary, planned frequency of maintenance, and expected lengths of maintenance periods.*

Koppers Comments: Not applicable – there are no MON Group 1 storage vessels

(5) *If a control device other than a flare is used to control emissions from storage vessels or low throughput transfer racks, the*

*periodic report shall describe each occurrence when the monitored parameters were outside of the parameter ranges documented in the Notification of Compliance Status in accordance with paragraph 40 CFR 63.999(b)(3). The description shall include the information specified in 40 CFR 63.999(c)(5)(i) and (ii).*

- (i) Identification of the control device for which the measured parameters were outside of the established ranges, and*
- (ii) The cause for the measured parameters to be outside of the established ranges.*

**Koppers Comments Not applicable – there are no MON Group 1 storage vessels or transfer racks**

- (6) For process vents and transfer racks (except low throughput transfer racks), periodic reports shall include the information specified in 40 CFR 63.999(c)(6)(i) through (iv).*

- (i) Periodic reports shall include the daily average values of monitored parameters, calculated as specified in 40 CFR 63.998(b)(3)(i) for any days when the daily average is outside the bounds as defined in 40 CFR 63.998(c)(2)(iii) or (c)(3)(iii), or the data availability requirements defined in paragraphs 40 CFR 63.999(c)(6)(i)(A) through (D) are not met, whether these excursions are excused or unexcused excursions. For excursions caused by lack of monitoring data, the duration of periods when monitoring data were not collected shall be specified. An excursion means any of the cases listed in 40 CFR 63.999(c)(6)(i)(A) through (C). If the owner or operator elects not to retain the daily average values pursuant to 40 CFR 63.998(b)(5)(ii)(A), the owner or operator shall report this in the Periodic Report.*

- (A) When the daily average value of one or more monitored parameters is outside the permitted range.*

- (B) When the period of control or recovery device operation is 4 hours or greater in an operating day and monitoring data are insufficient to constitute a*

*valid hour of data for at least 75 percent of the operating hours.*

- (C) *When the period of control or recovery device operation is less than 4 hours in an operating day and more than one of the hours during the period of operation does not constitute a valid hour of data due to insufficient monitoring data.*
- (D) *Monitoring data are insufficient to constitute a valid hour of data as used in 40 CFR 63.999(c)(6)(i)(B) and (C), if measured values are unavailable for any of the 15-minute periods within the hour.*

Koppers Comments: This information required above is provided in Attachment 2 Table 4.

- (ii) *Report all carbon-bed regeneration cycles during which the parameters recorded under 40 CFR 63.998(a)(2)(ii)(C) were outside the ranges established in the Notification of Compliance Status or in the operating permit.*

Koppers Comments: Not Applicable as Koppers does not operate a carbon bed at any MCPUs.

- (iii) *The provisions of 40 CFR 63.999(c)(6)(i) and (ii) do not apply to any low throughput transfer rack for which the owner or operator has elected to comply with 40 CFR 63.985 or to any storage vessel for which the owner or operator is not required, by the applicable monitoring plan established under 40 CFR 63.985(c)(1), to keep continuous records. If continuous records are required, the owner or operator shall specify in the monitoring plan whether the provisions of 40 CFR 63.999(c)(6)(i) and (ii) apply.*

Koppers Comments: Not Applicable as Koppers does not operate any units identified above at the MON MCPUs.

- (iv) *If the owner or operator has chosen to use the alternative recordkeeping requirements of 40 CFR 63.998(b)(5), and has not notified the Administrator in the Notification of*



*Compliance Status that the alternative recordkeeping provisions are being implemented as specified in 40 CFR 63.999(b)(5), the owner or operator shall notify the Administrator in the Periodic Report submitted immediately preceding implementation of the alternative. The notifications specified in 40 CFR 63.998(b)(5)(ii) shall be included in the next Periodic Report following the identified event.*

Koppers Comments: Koppers included notification of all alternative recordkeeping in the Notification of Compliance Status report.

- (7) *As specified in 40 CFR 63.997(c)(3), if an owner or operator at a facility not required to obtain a Title V permit elects at a later date to replace an existing control or recovery device with a different control or recovery device, then the Administrator shall be notified by the owner or operator before implementing the change. This notification may be included in the facility's periodic reporting.*

Koppers Comments: Koppers is required to obtain a Title V permit; therefore, this statement is not applicable.

**§63.2520(e)(10) Notification of process change.**

*§63.2520(e)(10)(i) Except as specified in paragraph (e)(10)(ii) of this section, whenever you make a process change, or change any of the information submitted in the notification of compliance status report or a previous compliance report, that is not within the scope of an existing operating scenario, you must document the change in your compliance report. A process change does not include moving within a range of conditions identified in the standard batch, and a nonstandard batch does not constitute a process change. The notification must include all of the information in paragraphs (e)(10)(i)(A) through (C) of this section.*

- (A) A description of the process change.*
- (B) Revisions to any of the information reported in the original notification of compliance status report under paragraph (d) of this section.*
- (C) Information required by the notification of compliance status report under paragraph (d) of this section for changes involving the addition of processes or equipment at the affected source.*

Koppers Comments: No process changes in this reporting period.

§63.2520(e)(10)(ii) *You must submit a report 60 days before the scheduled implementation date of any of the changes identified in paragraph (e)(10)(ii)(A), (B), or (C) of this section.*

- (A) Any change to the information contained in the precompliance report.*
- (B) A change in the status of a control device from small to large.*
- (C) A change from Group 2 to Group 1 for any emission point except for batch process vents that meet the conditions specified in §63.2460(b)(6)(i).*

Koppers Comments: No changes during this reporting period, therefore, not applicable.

#### **40 CFR §63.1039 – EQUIPMENT LEAK REPORTING**

§63.1039(b) *Periodic Reports. The owner or operator shall report the information specified in paragraphs (b)(1) through (b)(8) of this section, as applicable, in the Periodic Report specified in the referencing subpart.*

§63.1039(b)(1) *For the equipment specified in paragraphs (b)(1)(i) through (b)(1)(v) of this section, report in a summary format by equipment type, the number of components for which leaks were detected and for valves, pumps and connectors show the percent leakers, and the total number of components monitored. Also include the number of leaking components that were not repaired as required by §63.1024, and for valves and connectors, identify the number of components that are determined by §63.1025(c)(3) to be nonrepairable.*

- (i) Valves in gas and vapor service and in light liquid service pursuant to §63.1025(b) and (c).*
- (ii) Pumps in light liquid service pursuant to §63.1026(b) and (c).*
- (iii) Connectors in gas and vapor service and in light liquid service pursuant to §63.1027(b) and (c).*
- (iv) Agitators in gas and vapor service and in light liquid service pursuant to §63.1028(c).*
- (v) Compressors pursuant to §63.1031(d).*

Koppers Comments: This information is included in Attachment 3.

§63.1039(b)(2) *Where any delay of repair is utilized pursuant to §63.1024(d), report that delay of repair has occurred and report the number of instances of delay of repair.*

Koppers Comments: This information is provided in Attachment 3.

§63.1039(b)(3) *If applicable, report the valve subgrouping information specified in §63.1025(b)(4)(iv).*

Koppers Comments: No valves were reassigned between subgroups during the reporting period.

§63.1039(b)(4) *For pressure relief devices in gas and vapor service pursuant to §63.1030(b) and for compressors pursuant to §63.1031(f) that are to be operated at a leak detection instrument reading of less than 500 parts per million, report the results of all monitoring to show compliance conducted within the semiannual reporting period.*

Koppers Comments: This information is included in Attachment 3

§63.1039(b)(5) *Report, if applicable, the initiation of a monthly monitoring program for valves pursuant to §63.1025(b)(3)(i).*

Koppers Comments: This information is included in Attachment 3

§63.1039(b)(6). *Report, if applicable, the initiation of a quality improvement program for pumps pursuant to §63.1035.*

Koppers Comments: Not applicable.

§63.1036(b)(7) *Where the alternative means of emissions limitation for batch processes is utilized, report the information listed in §63.1036(f).*

Koppers Comments: Koppers has not chosen to use the alternative emission limitations in §63.1036(b)(7), therefore the information in §63.1036(f) is not required.

§63.1039(b)(8) *Report the information listed in paragraph (a) of this section for the Initial Compliance Status Report for process units or affected facilities with later compliance dates. Report any revisions to items reported in an earlier Initial Compliance Status Report if the method of compliance has changed since the last report.*

Koppers Comments: No changes in compliance methods have been made since the previous report.

## **40 CFR §63.104 – HEAT EXCHANGE SYSTEM REPORTING**

*§63.104(f)(2). Reports. If an owner or operator invokes the delay of repair provisions for a heat exchange system, the following information shall be submitted in the next semi-annual periodic report required by §63.152(c) of subpart G of this part. If the leak remains unrepaired, the information shall also be submitted in each subsequent periodic report, until repair of the leak is reported.*

- (i) The owner or operator shall report the presence of the leak and the date that the leak was detected.*
- (ii) The owner or operator shall report whether or not the leak has been repaired.*
- (iii) The owner or operator shall report the reason(s) for delay of repair. If delay of repair is invoked due to the reasons described in paragraph (e)(2) of this section, documentation of emissions estimates must also be submitted.*
- (iv) If the leak remains unrepaired, the owner or operator shall report the expected date of repair.*
- (v) If the leak is repaired, the owner or operator shall report the date the leak was successfully repaired.*

Koppers Comments: The heat exchange systems are operated with the minimum pressure on the cooling water side at least 35 kilopascals greater than the maximum pressure on the process side. As provided in 40 CFR §63.104(a)(1), these heat exchangers are not subject to the monitoring requirements of 40 CFR §63.104.

## **40 CFR §63.10 – GENERAL PROVISIONS PERIODIC REPORTING**

*§63.10(e)(1) General. When more than one CEMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CEMS.*

Koppers Comments: Not applicable - Koppers does not use a CEMS at any MCPU.

**§63.10(e)(2) Reporting results of continuous monitoring system performance evaluations.**

*The owner or operator of an affected source required to install a CMS by a relevant standard shall furnish the Administrator a copy of a written report of the results of the CMS performance evaluation, as required under §63.8(e), simultaneously with the results of the performance test required under §63.7, unless otherwise specified in the relevant standard.*

Koppers Comments: Reports of CMS performance evaluation results are only required for CEMS of the MON. Koppers does not use a CEMS in any MON affected MCPU. Therefore, this provision is not applicable.

**ATTACHMENT 2 – COMPLIANCE REPORT TABLES**

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Descriptions of MCPUs and Associated CMS  
 Reporting Period: July 01, 2022 through December 31, 2022  
 [40 CFR 63.2520(e)(5)(ii)(G), (H), (I) & (J)]

| MCPU                                 | MCPU Description (H)  | HAP (G)  | Associated CMS (I)     | Monitored Parameter (I)      | Date of Last Certification or Audit (J) |
|--------------------------------------|---|--|------------------------|------------------------------|---|
| Crude Tar Distillation               | The Crude Tar Distillation process consists of raw crude tar being distilled to achieve various refined products for sale or use in other processes at the facility. The combined exhaust point is routed to two tube heaters (F-101 and F-201) for fuel value.   | benzene, xylenes, toluene, naphthalene, phenol, styrene, ethylbenzene, cresols, quinoline, biphenyl, dibenzofuran and polyaromatic hydrocarbons (PAHs) | None                   | None                         | N/A                                     |
| Modified Pavement Sealer Base (MPSB) | The Modified Pavement Sealer Base (MPSB) process is a batch operation consisting of four blending tanks. Petroleum tar and pavement sealer base are blended together to produce MPSB. The vents do not require control under the MON. Koppers currently controls three of the four tanks with the existing thermal oxidizer and tube heaters (F-101 and F-201). | naphthalene, quinoline, biphenyl, dibenzofuran and polyaromatic hydrocarbons (PAHs)  | None                   | None                         | N/A                                     |
| Type A Carbon Pitch Production       | The Type A Carbon Pitch process is a batch operation consisting of five blending tanks. Petroleum pitch and coal tar pitch are blended together to produce Type A Carbon Pitch. The vents are routed to the pitch thermal oxidizer for control.   | naphthalene and polyaromatic hydrocarbons (PAHs)   | Pitch thermal oxidizer | Thermal oxidizer temperature | 12/6/2022                               |





**TABLE 2: Flare Pilot Flame / Flare Flame Summary**  
**[40 CFR 63.999(c)(3)]**

**Reporting Period: July 01, 2022 through December 31, 2022**

| MCPU   | Flare Unit Identification | Duration of Deviation <sup>1</sup> |            |          |                  |
|--|---------------------------|------------------------------------|------------|----------|------------------|
|  |                           | Date                               | Start Time | End Time | Duration (hours) |
| Not applicable - The flare has been removed from service |                           |                                    |            |          |                  |
|  |                           |                                    |            |          |                  |
|  |                           |                                    |            |          |                  |
|  |                           |                                    |            |          |                  |
|  |                           |                                    |            |          |                  |
|  |                           |                                    |            |          |                  |
|  |                           |                                    |            |          |                  |

**NOTES:**

1) List all periods during the reporting period when pilot flame(s) are absent or, if only the flare flame is monitored, all periods when the flare flame is absent



**TABLE 4: Summary of Deviations - MCPUs Operated with Continuous Monitoring System<sup>1</sup>**  
**Reporting Period: July 01, 2022 through December 31, 2022**

**For each deviation from an emission limit or operating limit in an MCU with a CMS, complete the following information [40CFR 63.2520(e)(5)(iii)]:**

| List MCU or Storage Vessel Where Deviation Occurred <sup>2</sup>  | Identification of Control Device (if applicable) | Date of Deviation | Duration of Deviation <sup>3,4</sup> |                            | Summary of Deviation           |   | Deviation Occurred During SSM Event? (yes/no) | If not SSM Event, List One of these Categories for the Deviation Control Equipment problem (CEP); Process Problem (PP); Other Known Cause (OKC); or Unknown Cause (UC) |
|---|--|-------------------|--------------------------------------|----------------------------|--------------------------------|---|---|--|
|   |  |                   | Start (mm/dd/yy hh:mm:ss)            | Finish (mm/dd/yy hh:mm:ss) | Total Deviation Period (hours) | Total Deviation as % of Total MCU Operating Time in this Reporting Period (%) |   |  |
| Pitch   | TO   | July 17, 2022     | 17-Jul-22 08:00:00                   | 17-Jul-22 11:30:00         | 3.50                           | 0.08%   | Yes   |  |
| Pitch   | TO   | August 4, 2022    | 04-Aug-22 00:00:00                   | 04-Aug-22 13:45:00         | 4.50                           | 0.10%   | Yes   |  |
| Pitch   | TO   | August 11, 2022   | 11-Aug-22 00:15:00                   | 11-Aug-22 08:45:00         | 8.50                           | 0.19%   | Yes   |  |
| Pitch   | TO   | August 13, 2022   | 13-Aug-22 00:00:00                   | 13-Aug-22 09:45:00         | 9.75                           | 0.22%   | Yes   |  |
| Pitch   | TO   | August 29, 2022   | 29-Aug-22 08:15:00                   | 29-Aug-22 19:15:00         | 3.00                           | 0.07%   | Yes   |  |
| Pitch   | TO   | October 7, 2022   | 07-Oct-22 09:30:00                   | 07-Oct-22 16:30:00         | 3.75                           | 0.09%   | Yes   |  |
| Pitch   | TO   | October 27, 2022  | 27-Oct-22 08:45:00                   | 27-Oct-22 11:00:00         | 2.25                           | 0.05%   | Yes   |  |
| Total duration of Deviations due to SSM events and the total duration as a percent of the total operating time:                   |  |                   |                                      |                            | 35.25                          | 0.80%   |   |  |
| Total duration of Deviations due to Control Equipment Problems (CEP) and total duration as a percent of the total operating time: |  |                   |                                      |                            | 35.25                          | 0.80%   |   |  |
| Total duration of Deviation due to Process Problems (PP) and total duration as a percent of the total operating time:             |  |                   |                                      |                            |                                |   |   |  |
| Total duration of Deviations due to Other Known Causes (OKC) and total duration as a percent of the total operating time:         |  |                   |                                      |                            |                                |   |   |  |
| Total duration of Deviations due to Unknown Causes (UC) and total duration as a percent of the total operating time:              |  |                   |                                      |                            |                                |   |   |  |
| Total duration of CMS downtime and total duration of CMS downtime as a percent of the total operating time:                       |  |                   |                                      |                            |                                |   |   |  |

**NOTES:**

- 1) Reporting requirements of 63.10(c)(8) for continuous emission monitoring systems (CEMS) are not required for CMS under the MON (40CFR 63.2520(e)(5)(iii)(B)).
  - 2) See Table 5 for description of each MCU and associated CMS.
  - 3) For CMS deviation, duration does not include times for zero (low-level) and high-level checks (40 CFR 63.2520(e)(5)(iii)(A)).
  - 4) The duration of deviation may include times when the temperature is above 1350 °F, however, the period ends when a stable temperature is achieved. The total deviation period includes only those times when the measured value is below 1350 °F.
- N/A = Not Applicable

**TABLE 5: Summary of MCPUs With Group 2 Process Vents With HAP Usage <10,000 lbs/year that Exceeded a HAP Threshold for the Reporting Period**  
**Reporting Period: July 01, 2022 through December 31, 2022**

| MCPU Where Exceedance of Usage Threshold Occurred                              | Was each Batch a Standard Batch? (yes/no) | Estimated Emissions For Non-Standard Batch (lbs HAP/Batch) |            | Records of Daily 365-Day Rolling Summation Attached?¹ (Yes/No) |
|--|---|--|------------|--|
|  |   | Uncontrolled   | Controlled |  |
| Not applicable - HAP usage <10,000 lb/yr is not used to determine group status |   |  |            |  |
|  |   |  |            |  |
|  |   |  |            |  |
|  |   |  |            |  |

**NOTES:**

1) Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly [40 CFR 63.2520(e)(5)(iv)].

**TABLE 6: Summary of Process Additions or Revisions from NOCSR  
[40 CFR 63.2520(e)(10)]**

**Reporting Period: July 01, 2022 through December 31, 2022**

| Description of New or Revised Process | Required NOCSR Information Attached? (yes/no) <sup>1</sup> |
|---------------------------------------|--|
| None during reporting period          | N/A  |

**NOTES:**

1) Attach information required by the notification of compliance status report (NOCSR) for changes involving the addition or revision of processes or equipment at the affected source.

TABLE 7: Summary of New Operating Scenarios not Listed in the NOCSR [40 CFR 63.2520(e)(7)]<sup>1</sup>  
 Reporting Period: July 01, 2022 through December 31, 2022

| MCPU | Operating Scenario               | Were Operating Conditions of Control/Treatment Exceeded During Reporting Period? (yes/no) | Required Calculations and Engineering Analyses Performed? (yes/no) |
|------|----------------------------------|---|--|
|      |                                  |   |  |
|      |                                  |   |  |
|      | NONE DURING THE REPORTING PERIOD |   |  |
|      |                                  |   |  |

NOTES:

1) For purposes of listing a new operating scenario, a revised operating scenario for an existing process is considered to be a new operating scenario.

TABLE 8: Summary of Heat Exchange System Leaks with Delayed Repair [40 CFR 63.104]  
Reporting Period: July 01, 2022 through December 31, 2022

| Leaking Heat Exchanger ID | Date Leak Detected | Reasons for Delay of Repair (attach documentation) | Estimated Emissions due to Delay <sup>1</sup> | Expected Date of Repair (attach a schedule) | Date of First Repair Attempt | Date of Repair Completion | Date of Repair Confirmation |
|---------------------------|--------------------|--|---|---|------------------------------|---------------------------|-----------------------------|
| MCPU                      |                    |  |   |   |                              |                           |                             |
|                           |                    | Not Applicable                                     |   |   |                              |                           |                             |
|                           |                    |  |   |   |                              |                           |                             |
|                           |                    |  |   |   |                              |                           |                             |

NOTES:

1) An emission estimate is required when a delay of repair is invoked for reasons specified in 40 CFR 63.104(e)(2) which states:

(e)(2) If a shutdown is not expected within the next 2 months, the owner or operator may delay repair as provided in paragraph (e)(2)(i) or (e)(2)(ii) of this section. Documentation of a decision to delay repair shall state the reasons repair was delayed and shall specify a schedule for completing the repair as soon as practical.

(e)(2)(i) If a shutdown for repair would cause greater emissions than the potential emissions from delaying repair, the owner or operator may delay repair until the next shutdown of the process equipment associated with the leaking heat exchanger. The owner or operator shall document the basis for the determination that a shutdown for repair would cause greater emissions than the emissions likely to result from delaying repair as specified in paragraphs (e)(2)(i)(A) and (e)(2)(i)(B) of this section.

(e)(2)(i)(A) The owner or operator shall calculate the potential emissions from the leaking heat exchanger by multiplying the concentration of total hazardous air pollutants listed in table 4 of this subpart in the cooling water from the leaking heat exchanger by the flowrate of the cooling water from the leaking heat exchanger by the expected duration of the delay. The owner or operator may calculate potential emissions using total organic carbon concentration instead of total hazardous air pollutants listed in table 4 of this subpart.

(e)(2)(i)(B) The owner or operator shall determine emissions from purging and depressurizing the equipment that will result from the unscheduled shutdown for the repair.

(e)(2)(ii) If repair is delayed for reasons other than those specified in paragraph (e)(2)(i) of this section, the owner or operator may delay repair up to a maximum of 120 calendar days. The owner shall demonstrate that the necessary parts or personnel were not available.

**TABLE 9: Vent Stream Bypass Summary For Closed Vent Systems**  
**[40 CFR 63.999(c)(2)(ii) and (iii)]**  
**Reporting Period: July 01, 2022 through December 31, 2022**

| MCPU                  | Start Time         | End Time           | Duration (hours) | Duration of Maintenance or Other Action <sup>2</sup> |            |          |                  |
|-----------------------|--------------------|--------------------|------------------|--|------------|----------|------------------|
|                       |                    |                    |                  | Date   | Start Time | End Time | Duration (hours) |
| Type A Carbon Pitch   | 17-Jul-22 10:30:00 | 17-Jul-22 11:30:00 | 1.00             |  |            |          |                  |
| Type A Carbon Pitch   | 04-Aug-22 09:30:00 | 04-Aug-22 11:00:00 | 1.50             |  |            |          |                  |
| Type A Carbon Pitch   | 11-Aug-22 01:30:00 | 11-Aug-22 09:00:00 | 7.50             |  |            |          |                  |
| Type A Carbon Pitch   | 13-Aug-22 10:45:00 | 13-Aug-22 00:45:00 | 2.00             |  |            |          |                  |
| Type A Carbon Pitch   | 19-Aug-22 07:15:00 | 19-Aug-22 08:45:00 | 1.50             |  |            |          |                  |
| Type A Carbon Pitch   | 07-Oct-22 09:45:00 | 07-Oct-22 12:45:00 | 3.00             |  |            |          |                  |
| Type A Carbon Pitch   | 27-Oct-22 09:00:00 | 27-Oct-22 10:45:00 | 1.75             |  |            |          |                  |
| Coal Tar Distillation | 01-Jul-22 11:21:00 | 01-Jul-22 11:26:00 | 0.08             |  |            |          |                  |
| Coal Tar Distillation | 01-Jul-22 17:15:00 | 01-Jul-22 17:36:00 | 0.35             |  |            |          |                  |
| Coal Tar Distillation | 01-Jul-22 18:15:00 | 01-Jul-22 18:31:00 | 0.27             |  |            |          |                  |
| Coal Tar Distillation | 02-Jul-22 05:06:00 | 02-Jul-22 05:11:00 | 0.08             |  |            |          |                  |
| Coal Tar Distillation | 05-Jul-22 11:17:00 | 05-Jul-22 11:20:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 05-Jul-22 11:20:00 | 05-Jul-22 11:28:00 | 0.13             |  |            |          |                  |
| Coal Tar Distillation | 05-Jul-22 11:29:00 | 05-Jul-22 11:32:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 06-Jul-22 17:15:00 | 06-Jul-22 17:23:00 | 0.13             |  |            |          |                  |
| Coal Tar Distillation | 07-Jul-22 02:58:00 | 07-Jul-22 03:04:00 | 0.10             |  |            |          |                  |
| Coal Tar Distillation | 07-Jul-22 04:18:00 | 07-Jul-22 04:22:00 | 0.07             |  |            |          |                  |
| Coal Tar Distillation | 07-Jul-22 11:19:00 | 07-Jul-22 11:26:00 | 0.12             |  |            |          |                  |
| Coal Tar Distillation | 09-Jul-22 11:47:00 | 09-Jul-22 11:56:00 | 0.15             |  |            |          |                  |
| Coal Tar Distillation | 09-Jul-22 11:57:00 | 09-Jul-22 12:00:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 10-Jul-22 13:15:00 | 10-Jul-22 13:21:00 | 0.10             |  |            |          |                  |
| Coal Tar Distillation | 12-Jul-22 00:28:00 | 12-Jul-22 00:31:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 12-Jul-22 02:52:00 | 12-Jul-22 02:55:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 12-Jul-22 09:19:00 | 12-Jul-22 09:53:00 | 0.57             |  |            |          |                  |
| Coal Tar Distillation | 15-Jul-22 05:04:00 | 15-Jul-22 05:50:00 | 0.77             |  |            |          |                  |
| Coal Tar Distillation | 17-Jul-22 10:09:00 | 17-Jul-22 10:12:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 19-Jul-22 09:14:00 | 19-Jul-22 09:37:00 | 0.38             |  |            |          |                  |
| Coal Tar Distillation | 19-Jul-22 11:56:00 | 19-Jul-22 12:07:00 | 0.18             |  |            |          |                  |
| Coal Tar Distillation | 21-Jul-22 09:27:00 | 21-Jul-22 09:51:00 | 0.40             |  |            |          |                  |
| Coal Tar Distillation | 21-Jul-22 14:39:00 | 21-Jul-22 14:48:00 | 0.15             |  |            |          |                  |
| Coal Tar Distillation | 24-Jul-22 13:57:00 | 24-Jul-22 14:02:00 | 0.08             |  |            |          |                  |
| Coal Tar Distillation | 24-Jul-22 15:39:00 | 24-Jul-22 16:33:00 | 0.90             |  |            |          |                  |
| Coal Tar Distillation | 26-Jul-22 16:52:00 | 26-Jul-22 16:57:00 | 0.08             |  |            |          |                  |
| Coal Tar Distillation | 26-Jul-22 22:15:00 | 26-Jul-22 22:58:00 | 0.72             |  |            |          |                  |
| Coal Tar Distillation | 27-Jul-22 08:53:00 | 27-Jul-22 10:20:00 | 1.45             |  |            |          |                  |
| Coal Tar Distillation | 27-Jul-22 11:02:00 | 27-Jul-22 12:31:00 | 1.48             |  |            |          |                  |
| Coal Tar Distillation | 27-Jul-22 12:49:00 | 27-Jul-22 13:12:00 | 0.38             |  |            |          |                  |
| Coal Tar Distillation | 27-Jul-22 13:28:00 | 27-Jul-22 13:35:00 | 0.12             |  |            |          |                  |
| Coal Tar Distillation | 27-Jul-22 15:15:00 | 27-Jul-22 15:28:00 | 0.22             |  |            |          |                  |
| Coal Tar Distillation | 29-Jul-22 05:14:00 | 29-Jul-22 05:21:00 | 0.12             |  |            |          |                  |
| Coal Tar Distillation | 29-Jul-22 05:26:00 | 29-Jul-22 06:48:00 | 1.37             |  |            |          |                  |
| Coal Tar Distillation | 30-Jul-22 00:38:00 | 30-Jul-22 00:46:00 | 0.13             |  |            |          |                  |
| Coal Tar Distillation | 30-Jul-22 06:11:00 | 30-Jul-22 07:06:00 | 0.92             |  |            |          |                  |
| Coal Tar Distillation | 03-Aug-22 07:07:00 | 03-Aug-22 07:28:00 | 0.35             |  |            |          |                  |
| Coal Tar Distillation | 03-Aug-22 01:23:00 | 03-Aug-22 02:46:00 | 1.38             |  |            |          |                  |
| Coal Tar Distillation | 04-Aug-22 01:42:00 | 04-Aug-22 01:51:00 | 0.15             |  |            |          |                  |
| Coal Tar Distillation | 04-Aug-22 01:51:00 | 04-Aug-22 02:01:00 | 0.17             |  |            |          |                  |
| Coal Tar Distillation | 04-Aug-22 14:53:00 | 04-Aug-22 15:13:00 | 0.33             |  |            |          |                  |
| Coal Tar Distillation | 05-Aug-22 22:55:00 | 05-Aug-22 23:21:00 | 0.43             |  |            |          |                  |
| Coal Tar Distillation | 09-Aug-22 14:04:00 | 09-Aug-22 14:19:00 | 0.25             |  |            |          |                  |
| Coal Tar Distillation | 10-Aug-22 03:19:00 | 10-Aug-22 03:32:00 | 0.22             |  |            |          |                  |
| Coal Tar Distillation | 11-Aug-22 13:39:00 | 11-Aug-22 14:51:00 | 1.20             |  |            |          |                  |
| Coal Tar Distillation | 11-Aug-22 18:35:00 | 11-Aug-22 18:41:00 | 0.10             |  |            |          |                  |
| Coal Tar Distillation | 11-Aug-22 18:48:00 | 11-Aug-22 18:58:00 | 0.17             |  |            |          |                  |
| Coal Tar Distillation | 11-Aug-22 19:48:00 | 11-Aug-22 22:27:00 | 2.65             |  |            |          |                  |
| Coal Tar Distillation | 12-Aug-22 16:48:00 | 12-Aug-22 16:51:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 12-Aug-22 16:54:00 | 12-Aug-22 16:57:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 14-Aug-22 16:46:00 | 14-Aug-22 20:47:00 | 0.30             |  |            |          |                  |
| Coal Tar Distillation | 21-Aug-22 07:55:00 | 21-Aug-22 08:18:00 | 0.38             |  |            |          |                  |
| Coal Tar Distillation | 25-Aug-22 03:21:00 | 25-Aug-22 03:24:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 25-Aug-22 16:32:00 | 25-Aug-22 16:47:00 | 0.25             |  |            |          |                  |
| Coal Tar Distillation | 25-Aug-22 18:56:00 | 25-Aug-22 19:10:00 | 0.23             |  |            |          |                  |
| Coal Tar Distillation | 26-Aug-22 14:13:00 | 26-Aug-22 14:29:00 | 0.27             |  |            |          |                  |
| Coal Tar Distillation | 29-Aug-22 07:32:00 | 29-Aug-22 07:39:00 | 0.12             |  |            |          |                  |
| Coal Tar Distillation | 01-Sep-22 09:18:00 | 01-Sep-22 09:21:00 | 0.08             |  |            |          |                  |
| Coal Tar Distillation | 01-Sep-22 13:31:00 | 01-Sep-22 13:45:00 | 0.23             |  |            |          |                  |
| Coal Tar Distillation | 02-Sep-22 08:41:00 | 02-Sep-22 08:44:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 03-Sep-22 11:13:00 | 03-Sep-22 11:26:00 | 0.22             |  |            |          |                  |



| MCPU                  | Start Time         | End Time           | Duration (hours) | Duration of Maintenance or Other Action <sup>2</sup> |            |          |                  |
|-----------------------|--------------------|--------------------|------------------|--|------------|----------|------------------|
|                       |                    |                    |                  | Date   | Start Time | End Time | Duration (hours) |
| Coal Tar Distillation | 06-Sep-22 03:43:00 | 06-Sep-22 05:02:00 | 1.32             |  |            |          |                  |
| Coal Tar Distillation | 06-Sep-22 09:07:00 | 06-Sep-22 09:21:00 | 0.23             |  |            |          |                  |
| Coal Tar Distillation | 11-Sep-22 23:48:00 | 11-Sep-22 23:51:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 22-Sep-22 01:14:00 | 22-Sep-22 01:32:00 | 0.30             |  |            |          |                  |
| Coal Tar Distillation | 22-Sep-22 08:39:00 | 22-Sep-22 08:59:00 | 0.33             |  |            |          |                  |
| Coal Tar Distillation | 23-Sep-22 19:06:00 | 23-Sep-22 19:23:00 | 0.28             |  |            |          |                  |
| Coal Tar Distillation | 24-Sep-22 02:50:00 | 24-Sep-22 03:18:00 | 0.47             |  |            |          |                  |
| Coal Tar Distillation | 24-Sep-22 18:27:00 | 24-Sep-22 19:27:00 | 1.00             |  |            |          |                  |
| Coal Tar Distillation | 26-Sep-22 12:52:00 | 26-Sep-22 13:10:00 | 0.30             |  |            |          |                  |
| Coal Tar Distillation | 26-Sep-22 13:12:00 | 26-Sep-22 13:44:00 | 0.53             |  |            |          |                  |
| Coal Tar Distillation | 26-Sep-22 15:25:00 | 26-Sep-22 15:49:00 | 0.40             |  |            |          |                  |
| Coal Tar Distillation | 27-Sep-22 15:17:00 | 27-Sep-22 15:26:00 | 0.15             |  |            |          |                  |
| Coal Tar Distillation | 27-Sep-22 15:36:00 | 27-Sep-22 15:43:00 | 0.12             |  |            |          |                  |
| Coal Tar Distillation | 01-Oct-22 08:41:00 | 01-Oct-22 08:56:00 | 0.25             |  |            |          |                  |
| Coal Tar Distillation | 04-Oct-22 16:09:00 | 04-Oct-22 16:29:00 | 0.33             |  |            |          |                  |
| Coal Tar Distillation | 05-Oct-22 15:34:00 | 05-Oct-22 15:38:00 | 0.07             |  |            |          |                  |
| Coal Tar Distillation | 05-Oct-22 18:16:00 | 05-Oct-22 18:19:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 05-Oct-22 20:09:00 | 05-Oct-22 20:12:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 05-Oct-22 20:49:00 | 05-Oct-22 20:54:00 | 0.08             |  |            |          |                  |
| Coal Tar Distillation | 05-Oct-22 21:08:00 | 05-Oct-22 21:14:00 | 0.08             |  |            |          |                  |
| Coal Tar Distillation | 05-Oct-22 21:39:00 | 05-Oct-22 21:44:00 | 0.08             |  |            |          |                  |
| Coal Tar Distillation | 06-Oct-22 02:25:00 | 06-Oct-22 02:28:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 06-Oct-22 03:36:00 | 06-Oct-22 03:39:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 06-Oct-22 06:17:00 | 06-Oct-22 06:20:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 06-Oct-22 06:52:00 | 06-Oct-22 06:58:00 | 0.10             |  |            |          |                  |
| Coal Tar Distillation | 06-Oct-22 07:07:00 | 06-Oct-22 07:10:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 06-Oct-22 10:42:00 | 06-Oct-22 10:48:00 | 0.07             |  |            |          |                  |
| Coal Tar Distillation | 06-Oct-22 12:53:00 | 06-Oct-22 12:57:00 | 0.07             |  |            |          |                  |
| Coal Tar Distillation | 06-Oct-22 13:11:00 | 06-Oct-22 13:17:00 | 0.10             |  |            |          |                  |
| Coal Tar Distillation | 06-Oct-22 14:48:00 | 06-Oct-22 14:51:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 06-Oct-22 15:03:00 | 06-Oct-22 15:08:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 06-Oct-22 15:26:00 | 06-Oct-22 15:30:00 | 0.07             |  |            |          |                  |
| Coal Tar Distillation | 06-Oct-22 16:35:00 | 06-Oct-22 16:38:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 06-Oct-22 16:41:00 | 06-Oct-22 16:45:00 | 0.07             |  |            |          |                  |
| Coal Tar Distillation | 06-Oct-22 17:11:00 | 06-Oct-22 17:15:00 | 0.07             |  |            |          |                  |
| Coal Tar Distillation | 06-Oct-22 17:28:00 | 06-Oct-22 17:31:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 06-Oct-22 18:19:00 | 06-Oct-22 18:22:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 06-Oct-22 18:38:00 | 06-Oct-22 18:41:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 06-Oct-22 20:40:00 | 06-Oct-22 20:43:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 06-Oct-22 22:14:00 | 06-Oct-22 22:18:00 | 0.07             |  |            |          |                  |
| Coal Tar Distillation | 06-Oct-22 23:12:00 | 06-Oct-22 23:15:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 07-Oct-22 00:37:00 | 07-Oct-22 00:41:00 | 0.07             |  |            |          |                  |
| Coal Tar Distillation | 07-Oct-22 01:08:00 | 07-Oct-22 01:11:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 07-Oct-22 01:45:00 | 07-Oct-22 01:49:00 | 0.07             |  |            |          |                  |
| Coal Tar Distillation | 07-Oct-22 02:35:00 | 07-Oct-22 02:39:00 | 0.07             |  |            |          |                  |
| Coal Tar Distillation | 07-Oct-22 03:30:00 | 07-Oct-22 03:34:00 | 0.07             |  |            |          |                  |
| Coal Tar Distillation | 07-Oct-22 04:12:00 | 07-Oct-22 04:16:00 | 0.07             |  |            |          |                  |
| Coal Tar Distillation | 07-Oct-22 04:29:00 | 07-Oct-22 04:32:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 07-Oct-22 05:43:00 | 07-Oct-22 05:46:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 07-Oct-22 06:41:00 | 07-Oct-22 06:45:00 | 0.07             |  |            |          |                  |
| Coal Tar Distillation | 07-Oct-22 08:11:00 | 07-Oct-22 08:14:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 07-Oct-22 08:27:00 | 07-Oct-22 08:30:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 07-Oct-22 08:46:00 | 07-Oct-22 08:50:00 | 0.07             |  |            |          |                  |
| Coal Tar Distillation | 07-Oct-22 08:53:00 | 07-Oct-22 08:57:00 | 0.07             |  |            |          |                  |
| Coal Tar Distillation | 07-Oct-22 09:59:00 | 07-Oct-22 10:02:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 07-Oct-22 10:14:00 | 07-Oct-22 10:18:00 | 0.07             |  |            |          |                  |
| Coal Tar Distillation | 07-Oct-22 10:56:00 | 07-Oct-22 11:00:00 | 0.07             |  |            |          |                  |
| Coal Tar Distillation | 07-Oct-22 11:32:00 | 07-Oct-22 11:36:00 | 0.07             |  |            |          |                  |
| Coal Tar Distillation | 07-Oct-22 15:02:00 | 07-Oct-22 15:05:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 07-Oct-22 15:45:00 | 07-Oct-22 15:49:00 | 0.07             |  |            |          |                  |
| Coal Tar Distillation | 07-Oct-22 15:59:00 | 07-Oct-22 16:03:00 | 0.07             |  |            |          |                  |
| Coal Tar Distillation | 07-Oct-22 17:39:00 | 07-Oct-22 17:42:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 11-Oct-22 02:00:00 | 11-Oct-22 02:06:00 | 0.10             |  |            |          |                  |
| Coal Tar Distillation | 11-Oct-22 03:42:00 | 11-Oct-22 03:50:00 | 0.13             |  |            |          |                  |
| Coal Tar Distillation | 11-Oct-22 03:57:00 | 11-Oct-22 04:04:00 | 0.12             |  |            |          |                  |
| Coal Tar Distillation | 12-Oct-22 14:10:00 | 12-Oct-22 14:17:00 | 0.12             |  |            |          |                  |
| Coal Tar Distillation | 12-Oct-22 16:16:00 | 12-Oct-22 16:21:00 | 0.08             |  |            |          |                  |
| Coal Tar Distillation | 17-Oct-22 15:00:00 | 17-Oct-22 15:30:00 | 0.50             |  |            |          |                  |
| Coal Tar Distillation | 18-Oct-22 07:14:00 | 18-Oct-22 08:03:00 | 0.82             |  |            |          |                  |
| Coal Tar Distillation | 18-Oct-22 08:37:00 | 18-Oct-22 09:29:00 | 0.87             |  |            |          |                  |
| Coal Tar Distillation | 18-Oct-22 10:24:00 | 18-Oct-22 10:59:00 | 0.58             |  |            |          |                  |
| Coal Tar Distillation | 18-Oct-22 13:39:00 | 18-Oct-22 14:57:00 | 1.30             |  |            |          |                  |
| Coal Tar Distillation | 19-Oct-22 12:02:00 | 19-Oct-22 12:52:00 | 0.83             |  |            |          |                  |

Not Applicable

| MCPU                  | Start Time         | End Time           | Duration (hours) | Duration of Maintenance or Other Action <sup>2</sup> |            |          |                  |
|-----------------------|--------------------|--------------------|------------------|--|------------|----------|------------------|
|                       |                    |                    |                  | Date   | Start Time | End Time | Duration (hours) |
| Coal Tar Distillation | 19-Oct-22 13:18:00 | 19-Oct-22 14:09:00 | 0.85             |  |            |          |                  |
| Coal Tar Distillation | 19-Oct-22 19:57:00 | 19-Oct-22 20:05:00 | 0.13             |  |            |          |                  |
| Coal Tar Distillation | 19-Oct-22 21:40:00 | 19-Oct-22 21:45:00 | 0.08             |  |            |          |                  |
| Coal Tar Distillation | 20-Oct-22 03:08:00 | 20-Oct-22 03:17:00 | 0.15             |  |            |          |                  |
| Coal Tar Distillation | 21-Oct-22 13:07:00 | 21-Oct-22 13:24:00 | 0.28             |  |            |          |                  |
| Coal Tar Distillation | 21-Oct-22 13:40:00 | 21-Oct-22 13:58:00 | 0.30             |  |            |          |                  |
| Coal Tar Distillation | 21-Oct-22 17:43:00 | 21-Oct-22 17:49:00 | 0.10             |  |            |          |                  |
| Coal Tar Distillation | 21-Oct-22 18:02:00 | 21-Oct-22 18:07:00 | 0.08             |  |            |          |                  |
| Coal Tar Distillation | 21-Oct-22 18:39:00 | 21-Oct-22 18:44:00 | 0.08             |  |            |          |                  |
| Coal Tar Distillation | 21-Oct-22 19:36:00 | 21-Oct-22 19:41:00 | 0.08             |  |            |          |                  |
| Coal Tar Distillation | 22-Oct-22 13:00:00 | 22-Oct-22 13:05:00 | 0.08             |  |            |          |                  |
| Coal Tar Distillation | 26-Oct-22 19:10:00 | 26-Oct-22 19:17:00 | 0.12             |  |            |          |                  |
| Coal Tar Distillation | 28-Oct-22 22:48:00 | 28-Oct-22 23:47:00 | 0.98             |  |            |          |                  |
| Coal Tar Distillation | 28-Oct-22 23:55:00 | 29-Oct-22 00:01:00 | 0.10             |  |            |          |                  |
| Coal Tar Distillation | 29-Oct-22 06:47:00 | 29-Oct-22 06:56:00 | 0.15             |  |            |          |                  |
| Coal Tar Distillation | 29-Oct-22 07:48:00 | 29-Oct-22 07:58:00 | 0.17             |  |            |          |                  |
| Coal Tar Distillation | 29-Oct-22 20:58:00 | 29-Oct-22 21:05:00 | 0.12             |  |            |          |                  |
| Coal Tar Distillation | 29-Oct-22 21:28:00 | 29-Oct-22 21:35:00 | 0.12             |  |            |          |                  |
| Coal Tar Distillation | 30-Oct-22 07:25:00 | 30-Oct-22 07:31:00 | 0.10             |  |            |          |                  |
| Coal Tar Distillation | 30-Oct-22 12:58:00 | 30-Oct-22 13:05:00 | 0.12             |  |            |          |                  |
| Coal Tar Distillation | 30-Oct-22 13:14:00 | 30-Oct-22 13:22:00 | 0.13             |  |            |          |                  |
| Coal Tar Distillation | 30-Oct-22 18:45:00 | 30-Oct-22 18:54:00 | 0.15             |  |            |          |                  |
| Coal Tar Distillation | 30-Oct-22 20:12:00 | 30-Oct-22 21:04:00 | 0.87             |  |            |          |                  |
| Coal Tar Distillation | 03-Nov-22 01:00:00 | 03-Nov-22 01:12:00 | 0.20             |  |            |          |                  |
| Coal Tar Distillation | 03-Nov-22 19:32:00 | 03-Nov-22 19:37:00 | 0.08             |  |            |          |                  |
| Coal Tar Distillation | 03-Nov-22 20:22:00 | 03-Nov-22 20:28:00 | 0.10             |  |            |          |                  |
| Coal Tar Distillation | 04-Nov-22 11:58:00 | 04-Nov-22 12:05:00 | 0.12             |  |            |          |                  |
| Coal Tar Distillation | 04-Nov-22 12:24:00 | 04-Nov-22 12:29:00 | 0.08             |  |            |          |                  |
| Coal Tar Distillation | 04-Nov-22 13:40:00 | 04-Nov-22 13:45:00 | 0.08             |  |            |          |                  |
| Coal Tar Distillation | 04-Nov-22 14:13:00 | 04-Nov-22 14:19:00 | 0.10             |  |            |          |                  |
| Coal Tar Distillation | 04-Nov-22 14:40:00 | 04-Nov-22 14:49:00 | 0.15             |  |            |          |                  |
| Coal Tar Distillation | 04-Nov-22 15:04:00 | 04-Nov-22 15:15:00 | 0.18             |  |            |          |                  |
| Coal Tar Distillation | 04-Nov-22 15:37:00 | 04-Nov-22 15:43:00 | 0.10             |  |            |          |                  |
| Coal Tar Distillation | 04-Nov-22 16:18:00 | 04-Nov-22 16:25:00 | 0.12             |  |            |          |                  |
| Coal Tar Distillation | 04-Nov-22 17:56:00 | 04-Nov-22 17:59:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 05-Nov-22 04:45:00 | 05-Nov-22 05:38:00 | 0.88             |  |            |          |                  |
| Coal Tar Distillation | 08-Nov-22 13:33:00 | 08-Nov-22 13:53:00 | 0.33             |  |            |          |                  |
| Coal Tar Distillation | 08-Nov-22 17:42:00 | 08-Nov-22 18:33:00 | 0.85             |  |            |          |                  |
| Coal Tar Distillation | 09-Nov-22 08:38:00 | 09-Nov-22 08:42:00 | 0.07             |  |            |          |                  |
| Coal Tar Distillation | 25-Nov-22 19:50:00 | 25-Nov-22 21:05:00 | 1.25             |  |            |          |                  |
| Coal Tar Distillation | 26-Nov-22 03:45:00 | 26-Nov-22 04:25:00 | 0.67             |  |            |          |                  |
| Coal Tar Distillation | 26-Nov-22 14:46:00 | 26-Nov-22 14:50:00 | 0.07             |  |            |          |                  |
| Coal Tar Distillation | 26-Nov-22 15:40:00 | 26-Nov-22 15:53:00 | 0.22             |  |            |          |                  |
| Coal Tar Distillation | 26-Nov-22 16:02:00 | 26-Nov-22 17:23:00 | 1.35             |  |            |          |                  |
| Coal Tar Distillation | 26-Nov-22 18:18:00 | 26-Nov-22 18:42:00 | 0.40             |  |            |          |                  |
| Coal Tar Distillation | 26-Nov-22 21:33:00 | 26-Nov-22 21:56:00 | 0.38             |  |            |          |                  |
| Coal Tar Distillation | 28-Nov-22 05:04:00 | 28-Nov-22 05:09:00 | 0.08             |  |            |          |                  |
| Coal Tar Distillation | 06-Dec-22 09:54:00 | 06-Dec-22 10:26:00 | 0.53             |  |            |          |                  |
| Coal Tar Distillation | 07-Dec-22 08:14:00 | 07-Dec-22 08:35:00 | 0.35             |  |            |          |                  |
| Coal Tar Distillation | 07-Dec-22 20:14:00 | 07-Dec-22 21:28:00 | 1.23             |  |            |          |                  |
| Coal Tar Distillation | 07-Dec-22 21:38:00 | 07-Dec-22 21:40:00 | 0.03             |  |            |          |                  |
| Coal Tar Distillation | 07-Dec-22 22:26:00 | 07-Dec-22 22:29:00 | 0.05             |  |            |          |                  |
| Coal Tar Distillation | 07-Dec-22 23:22:00 | 07-Dec-22 23:56:00 | 0.57             |  |            |          |                  |
| Coal Tar Distillation | 09-Dec-22 00:53:00 | 09-Dec-22 01:31:00 | 0.63             |  |            |          |                  |
| Coal Tar Distillation | 09-Dec-22 02:49:00 | 09-Dec-22 03:00:00 | 0.18             |  |            |          |                  |
| Coal Tar Distillation | 10-Dec-22 23:34:00 | 11-Dec-22 00:02:00 | 0.47             |  |            |          |                  |
| Coal Tar Distillation | 15-Dec-22 05:26:00 | 15-Dec-22 05:36:00 | 0.17             |  |            |          |                  |
| Coal Tar Distillation | 15-Dec-22 07:26:00 | 15-Dec-22 08:15:00 | 0.82             |  |            |          |                  |
| Coal Tar Distillation | 15-Dec-22 11:29:00 | 15-Dec-22 11:44:00 | 0.25             |  |            |          |                  |
| Coal Tar Distillation | 15-Dec-22 14:45:00 | 15-Dec-22 15:15:00 | 0.50             |  |            |          |                  |
| Coal Tar Distillation | 15-Dec-22 14:45:00 | 15-Dec-22 15:40:00 | 0.92             |  |            |          |                  |
| Coal Tar Distillation | 15-Dec-22 18:44:00 | 15-Dec-22 18:51:00 | 0.12             |  |            |          |                  |
| Coal Tar Distillation | 15-Dec-22 22:46:00 | 15-Dec-22 22:52:00 | 0.10             |  |            |          |                  |
| Coal Tar Distillation | 16-Dec-22 11:21:00 | 16-Dec-22 11:31:00 | 0.17             |  |            |          |                  |
| Coal Tar Distillation | 16-Dec-22 12:26:00 | 16-Dec-22 12:32:00 | 0.10             |  |            |          |                  |
| Coal Tar Distillation | 17-Dec-22 12:58:00 | 17-Dec-22 13:17:00 | 0.32             |  |            |          |                  |
| Coal Tar Distillation | 17-Dec-22 17:05:00 | 17-Dec-22 17:42:00 | 0.62             |  |            |          |                  |
| Coal Tar Distillation | 18-Dec-22 01:54:00 | 18-Dec-22 02:37:00 | 0.72             |  |            |          |                  |
| Coal Tar Distillation | 21-Dec-22 08:36:00 | 21-Dec-22 09:07:00 | 0.52             |  |            |          |                  |
| Coal Tar Distillation | 22-Dec-22 18:43:00 | 22-Dec-22 20:31:00 | 1.80             |  |            |          |                  |
| Coal Tar Distillation | 22-Dec-22 18:43:00 | 22-Dec-22 20:31:00 | 1.80             |  |            |          |                  |
| Coal Tar Distillation | 22-Dec-22 21:35:00 | 22-Dec-22 21:49:00 | 0.23             |  |            |          |                  |
| Coal Tar Distillation | 23-Dec-22 15:01:00 | 23-Dec-22 15:06:00 | 0.08             |  |            |          |                  |

| MCPU                  | Start Time         | End Time           | Duration (hours) | Duration of Maintenance or Other Action <sup>2</sup> |            |          |                  |
|-----------------------|--------------------|--------------------|------------------|--|------------|----------|------------------|
|                       |                    |                    |                  | Date   | Start Time | End Time | Duration (hours) |
| Coal Tar Distillation | 23-Dec-22 19:19:00 | 23-Dec-22 19:24:00 | 0.08             |  |            |          |                  |
| Coal Tar Distillation | 23-Dec-22 19:25:00 | 23-Dec-22 19:32:00 | 0.12             |  |            |          |                  |
| Coal Tar Distillation | 24-Dec-22 04:55:00 | 24-Dec-22 05:10:00 | 0.25             |  |            |          |                  |
| Coal Tar Distillation | 24-Dec-22 05:19:00 | 24-Dec-22 05:27:00 | 0.13             |  |            |          |                  |
| Coal Tar Distillation | 27-Dec-22 09:08:00 | 27-Dec-22 11:35:00 | 2.45             |  |            |          |                  |
| Coal Tar Distillation | 31-Dec-22 15:31:00 | 31-Dec-22 16:31:00 | 1.00             |  |            |          |                  |

NOTES:

1) For closed vent systems (CVS) under positive pressure subject to 40 CFR 63.983

2) Report times of a CVS under positive pressure subject to 40 CFR 63.983 when maintenance is performed on a car-sealed valve, when the seal is broken, when the bypass line valve position is changed, or when the key for a lock-and-key type configuration has been checked out

Table 10: SSM Event Resulting in Excess Emissions  
Reporting Period: July 01, 2022 through December 31, 2022

| MCPU                  | Event Date       | Description of Malfunction  | Plan Followed?     | Plan Not Followed?   |
|-----------------------|------------------|---|--------------------|--|
|                       |                  |   | (Y/N) <sup>1</sup> | Description of Actions Taken   |
| Type A Pitch          | July 17, 2022    | Flame failure caused by broken shifter in air damper  | Y                  |  |
| Type A Pitch          | August 4, 2022   | Flame failure   | Y                  |  |
| Type A Pitch          | August 11, 2022  | Fume System #5 Vent Tank High Level   | N                  | Operator was not aware Type A Pitch should not be produced when Pitch TO is down |
| Type A Pitch          | August 13, 2022  | Fume System #5 Vent Tank High Level   | Y                  |  |
| Type A Pitch          | August 19, 2022  | Flame failure due to purging tanks  | Y                  |  |
| Type A Pitch          | August 29, 2022  | Dirty flame eye   | Y                  |  |
| Type A Pitch          | October 7, 2022  | Flame failure   | Y                  |  |
| Type A Pitch          | October 27, 2022 | Fume inlet low  | Y                  |  |
| Coal Tar Distillation | July 1, 2022     | Troubleshooting tar vacuum pressure - both pumps failure  | Y                  |  |
| Coal Tar Distillation | July 1, 2022     | Shutting unit 1 down to circulate due to failure of both tar vacuum pumps   | Y                  |  |
| Coal Tar Distillation | July 2, 2022     | Flame Failure - Disruptions to system caused by loss of feed - dry tar flow rate adjusted up and then down over an hour leading up to disruption  | Y                  |  |
| Coal Tar Distillation | July 5, 2022     | Troubleshooting vacuum in #2 tar column - steam outs  | Y                  |  |
| Coal Tar Distillation | July 5, 2022     | Troubleshooting vacuum in #2 tar column - steam outs  | Y                  |  |
| Coal Tar Distillation | July 6, 2022     | Troubleshooting vacuum in #2 tar column - steam outs  | Y                  |  |
| Coal Tar Distillation | July 7, 2022     | Troubleshooting vacuum in #2 tar column - steam outs  | Y                  |  |
| Coal Tar Distillation | July 7, 2022     | Troubleshooting vacuum in #2 tar column - steam outs  | Y                  |  |
| Coal Tar Distillation | July 7, 2022     | Troubleshooting vacuum in #2 tar column - steam outs  | Y                  |  |
| Coal Tar Distillation | July 9, 2022     | Unit 1 waste gas to #2 fume system; unit was brought online very briefly and then shut back down  | Y                  |  |
| Coal Tar Distillation | July 9, 2022     | Unit 1 waste gas to #2 fume system; unit was brought online very briefly and then shut back down  | Y                  |  |
| Coal Tar Distillation | July 10, 2022    | Unit #2 Waste gas to #2 fume system   | Y                  |  |
| Coal Tar Distillation | July 12, 2022    | Flame failure control room q switch issues  | Y                  |  |
| Coal Tar Distillation | July 12, 2022    | Unit #2 waste gas to #2 fume system   | Y                  |  |
| Coal Tar Distillation | July 15, 2022    | Unit #2 waste gas to #2 fume system   | Y                  |  |
| Coal Tar Distillation | July 17, 2022    | Steamed out vacuum pumps; had to shut down due to pitch TO outage time limit  | Y                  |  |
| Coal Tar Distillation | July 19, 2022    | Switched reboiler pumps - duraseal was leaking from the line  | Y                  |  |
| Coal Tar Distillation | July 19, 2022    | Unit #2 Waste gas to #2 fume system; changing reboiler pumps  | Y                  |  |
| Coal Tar Distillation | July 21, 2022    | Unit #2 Waste gas to #2 fume system; leak on tar South vacuum pump  | Y                  |  |
| Coal Tar Distillation | July 21, 2022    | Unit #2 Waste gas to #2 fume system; leak on tar South vacuum pump  | Y                  |  |
| Coal Tar Distillation | July 24, 2022    | Unit #2 waste gas to #2 fume system; leak on tar South vacuum pump  | Y                  |  |
| Coal Tar Distillation | July 24, 2022    | Unit #2 waste gas to #2 fume system; leak on tar South vacuum pump  | Y                  |  |
| Coal Tar Distillation | July 26, 2022    | Reboiler 1 tripped out  | Y                  |  |
| Coal Tar Distillation | July 27, 2022    | Unloading an RCO Railcar into T650 overwhelmed the TO; both units were feeding PWG to the tubeheaters   | Y                  |  |
| Coal Tar Distillation | July 27, 2022    | Unloading an RCO Railcar into T650 overwhelmed the TO; both units were feeding PWG to the tubeheaters   | Y                  |  |
| Coal Tar Distillation | July 27, 2022    | Reboiler 1 tripped out  | Y                  |  |
| Coal Tar Distillation | July 27, 2022    | Reboiler 1 tripped out  | Y                  |  |
| Coal Tar Distillation | July 29, 2022    | Unit #2 PWG to Fume #2  | Y                  |  |
| Coal Tar Distillation | July 29, 2022    | Unit #2 PWG to Fume #2  | Y                  |  |
| Coal Tar Distillation | July 30, 2022    | The K/O Pot level was high @ 71% on V-110 and V-210. This causes us to waste gas on both tubeheaters. The Tar T.O. also kicked out because of this. We were able to get the K/O Pots drained, the waste gas back on, and the Tar T.O. restored without having to circulate the units. | Y                  |  |
| Coal Tar Distillation | July 30, 2022    | PWG Valve showing closed. Issue corrected and tubeheater restarted.   | Y                  |  |
| Coal Tar Distillation | August 3, 2022   | Unit 2 was down; unit 1 was feeding to the tubeheater; Lost the Tar TO early in the shift due to low amps on #2 vent pump. Suspected cause over heated pump, reset itself. Unit 2 PWG to Fume #2  | Y                  |  |
| Coal Tar Distillation | August 4, 2022   | Lost feed to unit 1   | Y                  |  |
| Coal Tar Distillation | August 4, 2022   | Had trouble switching from T1 to T200 from the corner feed pump. They were able to get feed after purging toward T200 on the pump suction side for 5-10 minutes.  | Y                  |  |
| Coal Tar Distillation | August 4, 2022   | Unit disruptions after switching and then losing feed.  | Y                  |  |
| Coal Tar Distillation | August 5, 2022   | Loss of feed caused disruption in unit  | Y                  |  |
| Coal Tar Distillation | August 9, 2022   | Loss of feed caused disruption in unit  | Y                  |  |
| Coal Tar Distillation | August 10, 2022  | Unit 2 PWG to Fume #2 - process leak on reboiler pump suction side - brought unit down for repairs  | Y                  |  |
| Coal Tar Distillation | August 11, 2022  | Vent 2 bypassed   | Y                  |  |
| Coal Tar Distillation | August 11, 2022  | Vent 1 & 2 flow bypassed  | Y                  |  |
| Coal Tar Distillation | August 12, 2022  | Vent 2 bypassed   | Y                  |  |
| Coal Tar Distillation | August 12, 2022  | Vent 2 bypassed   | Y                  |  |
| Coal Tar Distillation | August 14, 2022  | power blip caused computer screens to blink off in TAR control room everything continued running except for TAR TO  | Y                  |  |

| MCCPU                 | Event Date         | Description of Malfunction  | Plan Followed?     | Plan Not Followed? <sup>2</sup> |
|-----------------------|--------------------|---|--------------------|---------------------------------|
|                       |                    |   | (Y/N) <sup>1</sup> | Description of Actions Taken    |
| Coal Tar Distillation | August 21, 2022    | Vent 2 bypassed   | Y                  |                                 |
| Coal Tar Distillation | August 25, 2022    |   | Y                  |                                 |
| Coal Tar Distillation | September 1, 2022  | Feed issues   | Y                  |                                 |
| Coal Tar Distillation | September 2, 2022  |   | Y                  |                                 |
| Coal Tar Distillation | September 3, 2022  | No tubeheater shutdown log comment  | Y                  |                                 |
| Coal Tar Distillation | September 6, 2022  | Feed issues   | Y                  |                                 |
| Coal Tar Distillation | September 11, 2022 | Shut off reboiler without bringing vacuum above 700 mmHg  | Y                  |                                 |
| Coal Tar Distillation | September 13, 2022 | during shut down of unit 1  | Y                  |                                 |
| Coal Tar Distillation | September 14, 2022 | Bringing units online after utility outage; While starting up Unit 1, ran into feed issues, operator had shut off tubeheater to maintain levels in the column, vacuum pumps were shut off, while feed issues were being resolved, SSM followed. | Y                  |                                 |
| Coal Tar Distillation | September 22, 2022 | Electrician permitted to close sidestream on Unit #2 during switch over to PSB run. Lost tubeheater and then Tar TO.  | Y                  |                                 |
| Coal Tar Distillation | September 22, 2022 |   | Y                  |                                 |
| Coal Tar Distillation | September 23, 2022 | Unit 2 brought down to circulation - tubeheater shut off before bringing vacuum above 700 mmHg  | Y                  |                                 |
| Coal Tar Distillation | September 24, 2022 | Unit 2 being brought back up - feed not started yet, full vacuum not achieved yet   | Y                  |                                 |
| Coal Tar Distillation | September 24, 2022 | TO was restarted to repair a controls issue; No bypass of tubeheaters at this time  | Y                  |                                 |
| Coal Tar Distillation | September 26, 2022 |   | Y                  |                                 |
| Coal Tar Distillation | September 26, 2022 | #2 tar column went empty due to PTF valve leaking through - lead to low flow in reboiler line   | Y                  |                                 |
| Coal Tar Distillation | September 26, 2022 | Unit 1 - welded cap leaking on South reboiler pump suction, switched pumps  | Y                  |                                 |
| Coal Tar Distillation | October 1, 2022    | Unit 1 - 1N reboiler pump was smoking. Reboiler tripped out during the changeover process. Vacuum was not taken off the unit.   | Y                  |                                 |
| Coal Tar Distillation | October 18, 2022   | Low level in the tar column due to leakage from pitch to flash due to leaking through   | Y                  |                                 |
| Coal Tar Distillation | October 18, 2022   | Low level in the tar column due to leakage from pitch to flash due to leaking through   | Y                  |                                 |
| Coal Tar Distillation | October 18, 2022   | Low level in the tar column due to leakage from pitch to flash due to leaking through   | Y                  |                                 |
| Coal Tar Distillation | October 18, 2022   | Water in instrument air causing process control issues.   | Y                  |                                 |
| Coal Tar Distillation | October 18, 2022   | Unit 1 was brought down to circulate  | Y                  |                                 |
| Coal Tar Distillation | October 19, 2022   | Feed issues   | Y                  |                                 |
| Coal Tar Distillation | October 19, 2022   | Water in instrument air causing process control issues.   | Y                  |                                 |
| Coal Tar Distillation | October 19, 2022   | Unit 1 was brought down to circulate  | Y                  |                                 |
| Coal Tar Distillation | October 19, 2022   | Feed issues   | Y                  |                                 |
| Coal Tar Distillation | October 19, 2022   |   | Y                  |                                 |
| Coal Tar Distillation | October 20, 2022   | Low level in the tar column due to leakage from pitch to flash due to leaking through   | Y                  |                                 |
| Coal Tar Distillation | October 21, 2022   | Low level in the tar column due to leakage from pitch to flash due to leaking through   | Y                  |                                 |
| Coal Tar Distillation | October 21, 2022   | Low level in the tar column due to leakage from pitch to flash due to leaking through   | Y                  |                                 |
| Coal Tar Distillation | October 21, 2022   | Low level in the tar column due to leakage from pitch to flash due to leaking through   | Y                  |                                 |
| Coal Tar Distillation | October 21, 2022   | Low level in the tar column due to leakage from pitch to flash due to leaking through   | Y                  |                                 |
| Coal Tar Distillation | October 21, 2022   | Low level in the tar column due to leakage from pitch to flash due to leaking through   | Y                  |                                 |
| Coal Tar Distillation | October 21, 2022   | Shut off reboiler without bringing vacuum above 700 mmHg  | Y                  |                                 |
| Coal Tar Distillation | October 22, 2022   | during shut down of unit 1  | Y                  |                                 |
| Coal Tar Distillation | October 26, 2022   | Low level in the tar column due to leakage from pitch to flash due to leaking through   | Y                  |                                 |
| Coal Tar Distillation | October 28, 2022   | Low level in the tar column due to leakage from pitch to flash due to leaking through   | Y                  |                                 |
| Coal Tar Distillation | October 28, 2022   | Low level in the tar column due to leakage from pitch to flash due to leaking through   | Y                  |                                 |
| Coal Tar Distillation | October 29, 2022   | Low level in the tar column due to leakage from pitch to flash due to leaking through   | Y                  |                                 |
| Coal Tar Distillation | October 29, 2022   | Low level in the tar column due to leakage from pitch to flash due to leaking through   | Y                  |                                 |
| Coal Tar Distillation | October 29, 2022   | Low level in the tar column due to leakage from pitch to flash due to leaking through   | Y                  |                                 |
| Coal Tar Distillation | October 29, 2022   | Low level in the tar column due to leakage from pitch to flash due to leaking through   | Y                  |                                 |
| Coal Tar Distillation | October 30, 2022   | Low level in the tar column due to leakage from pitch to flash due to leaking through   | Y                  |                                 |
| Coal Tar Distillation | October 30, 2022   | Low level in the tar column due to leakage from pitch to flash due to leaking through   | Y                  |                                 |
| Coal Tar Distillation | October 30, 2022   | Low level in the tar column due to leakage from pitch to flash due to leaking through   | Y                  |                                 |
| Coal Tar Distillation | October 30, 2022   | Low level in the tar column due to leakage from pitch to flash due to leaking through   | Y                  |                                 |
| Coal Tar Distillation | November 3, 2022   | Low level in the tar column due to leakage from pitch to flash due to leaking through   | Y                  |                                 |
| Coal Tar Distillation | November 3, 2022   | Low level in the tar column due to leakage from pitch to flash due to leaking through   | Y                  |                                 |
| Coal Tar Distillation | November 3, 2022   | Low level in the tar column due to leakage from pitch to flash due to leaking through   | Y                  |                                 |
| Coal Tar Distillation | November 4, 2022   | Water in the feed, pressure build up due to obstruction in waste line   | Y                  |                                 |
| Coal Tar Distillation | November 4, 2022   | Water in the feed, pressure build up due to obstruction in waste line   | Y                  |                                 |
| Coal Tar Distillation | November 4, 2022   | Water in the feed, pressure build up due to obstruction in waste line   | Y                  |                                 |
| Coal Tar Distillation | November 4, 2022   | Water in the feed, pressure build up due to obstruction in waste line   | Y                  |                                 |

| MCPU                  | Event Date        | Description of Malfunction   | Plan Followed?     | Plan Not Followed?           |
|-----------------------|-------------------|--|--------------------|------------------------------|
|                       |                   |  | (Y/N) <sup>1</sup> | Description of Actions Taken |
| Coal Tar Distillation | November 4, 2022  | Water in the feed, pressure build up due to obstruction in waste line  | Y                  |                              |
| Coal Tar Distillation | November 4, 2022  | Water in the feed, pressure build up due to obstruction in waste line  | Y                  |                              |
| Coal Tar Distillation | November 4, 2022  | Water in the feed, pressure build up due to obstruction in waste line  | Y                  |                              |
| Coal Tar Distillation | November 4, 2022  | Water in the feed, pressure build up due to obstruction in waste line  | Y                  |                              |
| Coal Tar Distillation | November 8, 2022  | feed issue   | Y                  |                              |
| Coal Tar Distillation | November 8, 2022  | feed issue   | Y                  |                              |
| Coal Tar Distillation | November 25, 2022 | flame eye not reading, causing it to go out multiple times   | Y                  |                              |
| Coal Tar Distillation | November 25, 2022 | flame eye not reading, causing it to go out multiple times   | Y                  |                              |
| Coal Tar Distillation | November 26, 2022 | flame eye not reading, causing it to go out multiple times   | Y                  |                              |
| Coal Tar Distillation | November 26, 2022 | flame eye not reading, causing it to go out multiple times   | Y                  |                              |
| Coal Tar Distillation | November 26, 2022 | flame eye not reading, causing it to go out multiple times   | Y                  |                              |
| Coal Tar Distillation | November 26, 2022 | flame eye not reading, causing it to go out multiple times   | Y                  |                              |
| Coal Tar Distillation | November 26, 2022 | flame eye not reading, causing it to go out multiple times   | Y                  |                              |
| Coal Tar Distillation | November 26, 2022 | flame eye not reading, causing it to go out multiple times   | Y                  |                              |
| Coal Tar Distillation | November 28, 2022 | Pitch to flash leak and incoming feed issue led to low flow in the column and eventually tripped the tube heater | Y                  |                              |
| Coal Tar Distillation | November 30, 2022 | Both oil circulation pumps on scrubber were bad  | Y                  |                              |
| Coal Tar Distillation | December 6, 2022  | Excessive scale buildup on both units causing the pump to have low amps  | Y                  |                              |
| Coal Tar Distillation | December 7, 2022  | TO readings were erratic, the valves were closed for troubleshooting the issue                                   | Y                  |                              |
| Coal Tar Distillation | December 9, 2022  | PID on the TO was not tuned in correctly, it reacted too sensitively to any fluctuation                          | Y                  |                              |
| Coal Tar Distillation | December 9, 2022  | PID on the TO was not tuned in correctly, it reacted too sensitively to any fluctuation                          | Y                  |                              |
| Coal Tar Distillation | December 10, 2022 | Shut off reboiler without bringing vacuum above 700 mmHg during shut down of unit 1                              | Y                  |                              |
| Coal Tar Distillation | December 15, 2022 | issues with the actuator valve not working properly after switching out the vacuum pump                          | Y                  |                              |
| Coal Tar Distillation | December 15, 2022 | issues with the actuator valve not working properly after switching out the vacuum pump                          | Y                  |                              |
| Coal Tar Distillation | December 15, 2022 | Unit 1 brought down to circulation - tubeheater shut off before bringing vacuum above 700 mmHg                   | Y                  |                              |
| Coal Tar Distillation | December 15, 2022 | Reboiler 1 tripped out   | Y                  |                              |
| Coal Tar Distillation | December 15, 2022 | Reboiler 1 tripped out   | Y                  |                              |
| Coal Tar Distillation | December 16, 2022 | vacuum pump leaks and incoming feed issue led to low flow in the column and eventually tripped the tube heater   | Y                  |                              |
| Coal Tar Distillation | December 16, 2022 | vacuum pump leaks and incoming feed issue led to low flow in the column and eventually tripped the tube heater   | Y                  |                              |
| Coal Tar Distillation | December 17, 2022 | vacuum pump leaks and incoming feed issue led to low flow in the column and eventually tripped the tube heater   | Y                  |                              |
| Coal Tar Distillation | December 17, 2022 | vacuum pump leaks and incoming feed issue led to low flow in the column and eventually tripped the tube heater   | Y                  |                              |
| Coal Tar Distillation | December 18, 2022 | Waste gas valve was having issues with flow  | Y                  |                              |
| Coal Tar Distillation | December 21, 2022 | Loss of feed caused disruption in unit   | Y                  |                              |
| Coal Tar Distillation | December 22, 2022 | Fire was lost due to extreme cold weather.   | Y                  |                              |
| Coal Tar Distillation | December 22, 2022 | Fire was lost due to extreme cold weather.   | Y                  |                              |
| Coal Tar Distillation | December 22, 2022 | Fire was lost due to extreme cold weather.   | Y                  |                              |
| Coal Tar Distillation | December 23, 2022 | vacuum issues in both units and incoming feed issues   | Y                  |                              |
| Coal Tar Distillation | December 23, 2022 | vacuum issues in both units and incoming feed issues   | Y                  |                              |
| Coal Tar Distillation | December 23, 2022 | vacuum issues in both units and incoming feed issues   | Y                  |                              |
| Coal Tar Distillation | December 24, 2022 | unit 2 vacuum issue and incoming feed issue led to low flow in the column and eventually tripped the tube heater | Y                  |                              |

NOTES:

- 1) For each SSM event with EXCESS EMISSIONS, include records that the procedures specified in your startup, shutdown, and malfunction plan were followed [40 CFR 63.2520(e)(4)].
- 2) For each SSM event with EXCESS EMISSIONS, and the SSM Plan was not followed, describe actions taken that were not consistent with the plan [40 CFR 63.2520(e)(4)].

**ATTACHMENT 3 – LDAR INFORMATION**

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TABLE 11: Semiannual Fugitive Emission Report For MON [40 CFR 63.1039(b)]  
 Reporting Period: July 01, 2022 through December 31, 2022

| Equipment Type                             | No. of Components Subject to Requirements <sup>1</sup> | No. of Leaking Components Detected | No. of Components Monitored <sup>2</sup> | Percent of Leaking Components | No. of Leaking Components Not Repaired | No. of Leaking Components Determined to be Nonrepairable | No. of Instances Utilizing Delay of Repair | Monthly Monitoring of Valves Initiated? (yes/no) | Quality Improvement Program Initiated for Pumps? (yes/no) |
|--|--|------------------------------------|--|-------------------------------|--|--|--|--|---|
| Valves in Gas/Vapor & LL Service           | 116  | 0                                  | 98                                       | 0.0%                          | 0                                      | 0  | 0  | N/A, No LL Valves                                | N/A   |
| Pumps in LL Service                        | 0  | N/A                                | 0  | N/A                           | N/A                                    | N/A  | N/A  | N/A  | N/A   |
| Connectors in Gas/Vapor & LL Service       | 307*   | 0                                  | 282                                      | 0.0%                          | 0                                      | 0  | 0  | N/A  | N/A   |
| Agitators in Gas/Vapor & LL Service        | 13*  | 0                                  | 12                                       | 0.0%                          | 0                                      | 0  | 0  | N/A  | N/A   |
| Compressors                                | 4  | 0                                  | 4  | 0.0%                          | 0                                      | 0  | 0  | N/A  | N/A   |
| Pressure Release Devices Gas/Vapor Service | 6  | 0                                  | 4  | 0.0%                          | 0                                      | 0  | 0  | N/A  | N/A   |

NOTES:

- 1) Represents counts as of the end of the report period. Excludes heavy liquid service components and components designated for no detectable emissions. Identify with an asterisk (\*) if there are any revisions \* components added due to startup of Tank-101
- 2) Several MON Components were not monitored during this reporting period due to being out of service.



**Attachment K**

**MON MACT Semi-Annual Report First Half of 2023**

**Response to Violation Notice A-2023-00162**

**Koppers Inc.**



Via UPS Overnight Mail

August 30, 2023

Mr. Bill Marr, Manager Compliance Section  
Illinois Environmental Protection Agency  
Bureau of Air- Compliance Section (MC 40)  
1021 N. Grand Avenue East  
P.O. Box 19276  
Springfield, IL 62794-9276

Koppers Inc.  
Carbon Materials and Chemicals  
3900 South Laramie Avenue  
Cicero, IL 60804-4523  
Tel 708 222-3483  
Fax 708 656 6079  
www.koppers.com

RE: Koppers Inc., Stickney Plant  
ID Number: 031300AAJ  
Permit Number: 96030134  
MON MACT Semi-Annual Compliance Report,  
January 1, 2023 – June 30, 2023 Reporting Period  
40 CFR Part 63, Subpart FFFF, Section §63.2520(e).

Dear Mr. Marr:

Attached is Koppers Inc., Stickney Plant MON MACT Semi-Annual Compliance Report for the January 1, 2023 – June 30, 2023 reporting period.

A portion of the Stickney Plant operations is subject to the National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing (MON MACT), 40 CFR Part 63, Subpart FFFF. Koppers Stickney Plant is submitting the Semi-Annual Compliance Report to fulfill the requirements of 40 CFR Part 63, Subpart FFFF, Section §63.2520(e) for the MON-affected Miscellaneous Chemical Processing Units (MCPUs).

The facility is an existing source with three miscellaneous organic chemical production units (MCPUs) subject to this standard: Crude Tar Distillation process, Modified Pavement Sealer Base (MPSB) process, and Type A Carbon Pitch process.

During this reporting period, the Crude Tar Distillation process exhaust points were routed to only the two tube heaters (F-101 and F-201) for fuel value. As stated in 40 CFR 63.2550(i), a gas stream transferred for fuel value is exempt from the MON definition of a continuous process vent by the exemption in 63.107(h)(6), as referenced in 63.2550(i). Accordingly, Koppers considers the vent from the Crude Tar Distillation process subject to Group 1 continuous process vent requirements only when it is being routed to the thermal oxidizer.

The Compliance Report consists of the following attached tables:

Table 1: Summary of Routine Maintenance on Storage Vessels Controlled By Flare or Control Device

Table 2: Flare Pilot Flame/Flare Flame Summary

Table 3: Summary of Deviations - Units Operated Without a Continuous Monitoring System (CMS)

**Table 4: Summary of Deviations - MCPUs and Storage Vessels Operated With a Continuous Monitoring System (CMS)**

**Table 5: Summary of MCPU With Group 2 Process Vents With HAP Usage <10,000 lbs/year that Exceeded a HAP Threshold for the Reporting Period**

**Table 6: Summary of Process Additions or Revisions from NOCSR**

**Table 7: Summary of New Operating Scenarios Not Listed in the NOCSR**

**Table 8: Summary of Heat Exchange System Leaks with Delayed Repair**

**Table 9: Vent Stream Bypass Summary for Closed Vent Systems**

**Table 10: SSM Event Resulting in Excess Emissions**

**Table 11: Semi-Annual Fugitive Emission Report**

The MCPUs at Koppers's Stickney Plant facility have no Group 1 Process Wastewater Streams, Group 1 Transfer Racks, or Group 1 storage tanks so reporting information is not required in those categories.

Should you have any questions or require further information, please contact Sidney Lipp at 708-222-3111.

Sincerely,



L. Seth Herring  
Plant Manager CMC NA

Attachments:

Tables 1-11

Copy:  
USEPA, Region 5  
Air and Radiation Division  
77 West Jackson Boulevard (A-18J)  
Chicago, Illinois 60604-3507

Illinois EPA – Air Regional Field Office  
Illinois Environmental Protection Agency  
Division of Air Pollution Control  
9511 W. Harrison St.  
Des Plaines, IL 60016

**Certification by a Responsible Official:**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: L. Seth Herring  
Name: L. Seth Herring  
Official Title: Plant Manager CMC NA  
Telephone No.: 708-556-9984  
Date Signed: 8/30/23

## **ATTACHMENT 1 – COMPLIANCE REPORT INFORMATION**

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This Attachment provides all information required under 40 CFR §63.2520 and referenced regulations. Information is organized by regulatory reference. Regulatory requirements for this compliance report are listed below in italics, followed by Koppers' comments addressing each element or providing the required information.

### **40 CFR §63.2520 – MON MACT COMPLIANCE REPORTING PROVISIONS**

*§63.2520(e). Compliance report. The compliance report must contain the information specified in paragraphs (e)(1) through (17) of this section.*

*§63.2520(e)(1). Company name and address.*

Koppers Comments: Koppers, Inc.  
3900 South Laramie Avenue  
Stickney, Illinois 60650

*§63.2520(e)(2). Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report.*

Koppers Comments: This information is provided on the signature page of this letter.

*§63.2520(e)(3). Date of report and beginning and ending dates of the reporting period.*

Koppers Comments: The date of the report is August 30, 2023. The reporting period begins on January 1, 2023 through June 30, 2023.

*§63.2520(e)(4). For each SSM during which excess emissions occur, the compliance report must include records that the procedures specified in your startup, shutdown, and malfunction plan (SSMP) were followed or documentation of actions taken that are not consistent with the SSMP, and include a brief description of each malfunction.*

**Koppers Comments:** As applicable for each SSM event, Attachment 2 Table 10 indicates whether actions taken were consistent with the procedures specified in the SSM Plan for affected units.

**§63.2520(e)(5).** *The compliance report must contain the information on deviations, as defined in §63.2550, according to paragraphs (e)(5)(i), (ii), (iii), and (iv) of this section.*

**§63.2520(e)(5)(i).** *If there are no deviations from any emission limit, operating limit or work practice standard specified in this subpart, include a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.*

**Koppers Comments:** Deviations during the reporting period are addressed in §63.2520(e)(5)(iii) below.

**§63.2520(e)(5)(ii).** *For each deviation from an emission limit, operating limit, and work practice standard that occurs at an affected source where you are not using a continuous monitoring system (CMS) to comply with the emission limit or work practice standard in this subpart, you must include the information in paragraphs (e)(5)(ii)(A) through (C) of this section. This includes periods of SSM.*

- (A)** *The total operating time of the affected source during the reporting period.*
- (B)** *Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.*
- (C)** *Operating logs of processes with batch vents from batch operations for the day(s) during which the deviation occurred, except operating logs are not required for deviations of the work practice standards for equipment leaks.*

**Koppers Comments:** None during reporting period

**§63.2520(e)(5)(iii).** *For each deviation from an emission limit or operating limit occurring at an affected source where you are using a CMS to comply with an emission limit in this subpart, you must include the information in paragraphs (e)(5)(iii)(A) through (L) of this section. This includes periods of SSM.*

**Koppers Comments:** The required information is included in Attachment 2 Table 4.

**§63.2520(e)(5)(iv).** *If you documented in your notification of compliance status report that an MCPU has Group 2 batch process vents because the non-reactive HAP is the only HAP and usage is less than 10,000 lb/yr, the total uncontrolled organic HAP emissions from the batch process vents in an MCPU will be less than 1,000 lb/yr for the anticipated number of standard batches, or total uncontrolled hydrogen halide and halogen HAP emissions from all batch process vents and continuous process vents in a process are less than 1,000 lb/yr, include the records associated with each calculation required by §63.2525(e) that exceeds an applicable HAP usage or emissions threshold.*

Koppers Comments: Not applicable there are no Group 2 batch process vents established by the criteria above.

**§63.2520(e)(6)** *If you use a CEMS, and there were no periods during which it was out-of-control as specified in §63.8(c)(7), include a statement that there were no periods during which the CEMS was out-of-control during the reporting period.*

Koppers Comments: Not applicable - Koppers does not use CEMS at any MON affected units.

**§63.2520(e)(7)** *Include each new operating scenario which has been operated since the time period covered by the last compliance report and has not been submitted in the notification of compliance status report or a previous compliance report. For each new operating scenario, you must provide verification that the operating conditions for any associated control or treatment device have not been exceeded and that any required calculations and engineering analyses have been performed. For the purposes of this paragraph, a revised operating scenario for an existing process is considered to be a new operating scenario.*

Koppers Comments: Not applicable. No new operating scenarios were implemented during the reporting period.

**§63.2520(e)(8).** *Records of process units added to a PUG as specified in §63.2525(i)(4) and records of primary product redeterminations as specified in §63.2525(i)(5).*

Koppers Comments: Koppers does not use PUGs, therefore not applicable.

*. Applicable records and information for periodic reports as specified in referenced subparts F, G, H, SS, UU, WW, and GGG of this part and subpart F of 40 CFR part 65.*

**Koppers Comments:** Information required by Subpart UU is contained in the Equipment Leak section of this report. Subparts F, G, H, WW, and GGG are not applicable. The information required by Subpart SS is provided below.

*Per 40 CFR 63.999(c)(1) (Subpart SS), the compliance report is required to contain the information described in paragraphs 40 CFR 63.999(c)(1) through (7), as applicable.*

- (1) Periodic reports shall include the reporting period dates, the total source operating time for the reporting period, and, as applicable, all information specified in this section and in the referencing subpart (40 CFR Part 63, Subpart FFFF), including reports of periods when monitored parameters are outside their established ranges.*

**Koppers Comments:** The reporting period as provided above is January 1, 2023 through June 30, 2023. The source operating times are provided in Attachments 2. Reports of the periods when monitored parameters are outside their established ranges are addressed in these tables as well.

- (2) For closed vent systems subject to the requirements of 40 CFR 63.983, the owner or operator shall submit as part of the periodic report the information specified in paragraphs 40 CFR 63.999(c)(2)(i) through (iii) as applicable.*

*(i) For information recorded in 40 CFR 63.998(d)(1)(iii)(B) through (E);*

- (B) The date the leak was detected and the date of the first attempt to repair the leak.*

**Koppers Comments:** If applicable, this information will be included in Attachment 3

- (C) The date of successful repair of the leak.*



Koppers Comments: If applicable, this information will be included in Attachment 3

- (D) *The maximum instrument reading measured by the procedures in 40 CFR 63.983(C) after the leak is successfully repaired or determined to be nonrepairable.*

Koppers Comments: If applicable, this information will be included in Attachment 3.

- (E) *"Repair delayed" and the reason for the delay if a leak is not repaired within 15 days after discovery of the leak. The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.*

Koppers Comments: If applicable, this information is included in Attachment 3.

- (ii) *Reports of the times of all periods recorded under 40 CFR 63.998(d)(1)(II)(A) when the vent stream is diverted from the control device through a bypass line; and*
- (iii) *Reports of all times recorded under 40 CFR 63.998(d)(1)(ii)(B) when maintenance is performed in car-sealed valves, when the seal is broken, when the bypass line valve position is changed, or the key for a lock-and-key type configuration has been checked out.*

Koppers Comments: Bypass events are included in Attachment 2 Table 9.

- (3) *For flares subject to 40 CFR 63.999, report all periods when all pilot flames were absent or the flare flame was absent as recorded in 40 CFR 63.998(a)(1)(i)(C).*

Koppers Comments: Not applicable – there are no flares

**(4) For storage vessels, the owner or operator shall include in each periodic report the information specified in 40 CFR 63.999(c)(4)(i) through (iii).**

**(i) For the 6-month period covered by the periodic report, the information recorded in 40 CFR 63.998(d)(2)(ii)(A) through (C).**

**(A) The first time of day and date of the requirements of 40 CFR 63.983(a), 63.985(a), or 63.987(a), as applicable, were not met at the beginning of the planned routine maintenance, and**

**(B) The first time of day and date the requirements of 63.983(a), 63.985(a), or 63.987(a), as applicable, were met at the conclusion of the planned routine maintenance.**

**Koppers Comments: Not applicable – there are no MON Group 1 storage vessels**

**(ii) For the time period covered by the periodic report and the previous periodic report, the total number of hours that the control system did not meet the requirements of 40 CFR 63.983(a), 63.985(a), or 63.987(a) due to planned routine maintenance.**

**Koppers Comments: Not applicable – there are no MON Group 1 storage vessels**

**(iii) A description of the planned routine maintenance during the next 6-month periodic reporting period that is anticipated to be performed for the control system when it is not expected to meet the required control efficiency. This description shall include the type of maintenance necessary, planned frequency of maintenance, and expected lengths of maintenance periods.**

**Koppers Comments: Not applicable – there are no MON Group 1 storage vessels**

**(5) If a control device other than a flare is used to control emissions from storage vessels or low throughput transfer racks, the**

*periodic report shall describe each occurrence when the monitored parameters were outside of the parameter ranges documented in the Notification of Compliance Status in accordance with paragraph 40 CFR 63.999(b)(3). The description shall include the information specified in 40 CFR 63.999(c)(5)(i) and (ii).*

- (i) Identification of the control device for which the measured parameters were outside of the established ranges, and*
- (ii) The cause for the measured parameters to be outside of the established ranges.*

**Koppers Comments Not applicable – there are no MON Group 1 storage vessels or transfer racks**

- (6) For process vents and transfer racks (except low throughput transfer racks), periodic reports shall include the information specified in 40 CFR 63.999(c)(6)(i) through (iv).*
  - (i) Periodic reports shall include the daily average values of monitored parameters, calculated as specified in 40 CFR 63.998(b)(3)(i) for any days when the daily average is outside the bounds as defined in 40 CFR 63.998(c)(2)(iii) or (c)(3)(iii), or the data availability requirements defined in paragraphs 40 CFR 63.999(c)(6)(i)(A) through (D) are not met, whether these excursions are excused or unexcused excursions. For excursions caused by lack of monitoring data, the duration of periods when monitoring data were not collected shall be specified. An excursion means any of the cases listed in 40 CFR 63.999(c)(6)(i)(A) through (C). If the owner or operator elects not to retain the daily average values pursuant to 40 CFR 63.998(b)(5)(ii)(A), the owner or operator shall report this in the Periodic Report.*
    - (A) When the daily average value of one or more monitored parameters is outside the permitted range.*
    - (B) When the period of control or recovery device operation is 4 hours or greater in an operating day and monitoring data are insufficient to constitute a*

*valid hour of data for at least 75 percent of the operating hours.*

- (C) When the period of control or recovery device operation is less than 4 hours in an operating day and more than one of the hours during the period of operation does not constitute a valid hour of data due to insufficient monitoring data.*
- (D) Monitoring data are insufficient to constitute a valid hour of data as used in 40 CFR 63.999(c)(6)(i)(B) and (C), if measured values are unavailable for any of the 15-minute periods within the hour.*

**Koppers Comments:** This information required above is provided in Attachment 2 Table 4.

- (ii) Report all carbon-bed regeneration cycles during which the parameters recorded under 40 CFR 63.998(a)(2)(ii)(C) were outside the ranges established in the Notification of Compliance Status or in the operating permit.*

**Koppers Comments:** Not Applicable as Koppers does not operate a carbon bed at any MCPUs.

- (iii) The provisions of 40 CFR 63.999(c)(6)(i) and (ii) do not apply to any low throughput transfer rack for which the owner or operator has elected to comply with 40 CFR 63.985 or to any storage vessel for which the owner or operator is not required, by the applicable monitoring plan established under 40 CFR 63.985(c)(1), to keep continuous records. If continuous records are required, the owner or operator shall specify in the monitoring plan whether the provisions of 40 CFR 63.999(c)(6)(i) and (ii) apply.*

**Koppers Comments:** Not Applicable as Koppers does not operate any units identified above at the MON MCPUs.

- (iv) If the owner or operator has chosen to use the alternative recordkeeping requirements of 40 CFR 63.998(b)(5), and has not notified the Administrator in the Notification of*

*Compliance Status that the alternative recordkeeping provisions are being implemented as specified in 40 CFR 63.999(b)(5), the owner or operator shall notify the Administrator in the Periodic Report submitted immediately preceding implementation of the alternative. The notifications specified in 40 CFR 63.998(b)(5)(ii) shall be included in the next Periodic Report following the identified event.*

**Koppers Comments:** Koppers included notification of all alternative recordkeeping in the Notification of Compliance Status report.

- (7) *As specified in 40 CFR 63.997(c)(3), if an owner or operator at a facility not required to obtain a Title V permit elects at a later date to replace an existing control or recovery device with a different control or recovery device, then the Administrator shall be notified by the owner or operator before implementing the change. This notification may be included in the facility's periodic reporting.*

**Koppers Comments:** Koppers is required to obtain a Title V permit; therefore, this statement is not applicable.

**§63.2520(e)(10) Notification of process change.**

*§63.2520(e)(10)(i) Except as specified in paragraph (e)(10)(ii) of this section, whenever you make a process change, or change any of the information submitted in the notification of compliance status report or a previous compliance report, that is not within the scope of an existing operating scenario, you must document the change in your compliance report. A process change does not include moving within a range of conditions identified in the standard batch, and a nonstandard batch does not constitute a process change. The notification must include all of the information in paragraphs (e)(10)(i)(A) through (C) of this section.*

- (A) A description of the process change.*
- (B) Revisions to any of the information reported in the original notification of compliance status report under paragraph (d) of this section.*
- (C) Information required by the notification of compliance status report under paragraph (d) of this section for changes involving the addition of processes or equipment at the affected source.*

**Koppers Comments:** No process changes in this reporting period.

**§63.2520(e)(10)(ii)** You must submit a report 60 days before the scheduled implementation date of any of the changes identified in paragraph (e)(10)(ii)(A), (B), or (C) of this section.

- (A) Any change to the information contained in the precompliance report.*
- (B) A change in the status of a control device from small to large.*
- (C) A change from Group 2 to Group 1 for any emission point except for batch process vents that meet the conditions specified in §63.2460(b)(6)(i).*

Koppers Comments: No changes during this reporting period, therefore, not applicable.

(11) For each flare subject to the requirements in § 63.2450(e)(5), the compliance report must include the items specified in paragraphs (e)(11)(i) through (vi) of this section in lieu of the information required in § 63.999(c)(3) of subpart SS.

Koppers Comments: Not Applicable as Koppers does not operate a flare at the MON MCPUs.

(12) For bypass lines subject to the requirements § 63.2450(e)(6), the compliance report must include the start date, start time, duration in hours, estimate of the volume of gas in standard cubic feet, the concentration of organic HAP in the gas in parts per million by volume and the resulting mass emissions of organic HAP in pounds that bypass a control device. For periods when the flow indicator is not operating, report the start date, start time, and duration in hours.

Koppers Comments: This bypass lines requirements in § 63.2450(e)(6) are not applicable until after the compliance date (August 12, 2023).  
Koppers will report this information if applicable in the next periodic report.

(13) For each nonregenerative adsorber and regenerative adsorber that is regenerated offsite subject to the requirements in § 63.2450(e)(7), you must report the date of each instance when breakthrough, as defined in § 63.2550(i), is detected between the first and second adsorber and the adsorber is not replaced according to § 63.2450(e)(7)(iii)(A).

Koppers Comments: Not Applicable as Koppers does not operate an adsorber at the MON MCPUs.

(14) For any maintenance vent release exceeding the applicable limits in § 63.2450(v)(1), the compliance report must include the information specified in paragraphs (e)(14)(i) through (iv) of this section. For the purposes of this reporting requirement, if you comply with § 63.2450(v)(1)(iv) then you must report each venting event conducted under those provisions and include an explanation for each event as to why utilization of this alternative was required.

**Koppers Comments:** This maintenance vents designations are not applicable until after the compliance date (August 12, 2023). Koppers will report this information if applicable in the next periodic report.

(15) Compliance reports for pressure relief devices subject to the requirements § 63.2480(e) must include the information specified in paragraphs (e)(15)(i) through (iii) of this section.

**Koppers Comments:** This information is not required until after the compliance date (August 12, 2023). Koppers will report this information in the next periodic report.

(16) For each heat exchange system subject to § 63.2490(d), beginning no later than the compliance dates specified in § 63.2445(g), the reporting requirements of § 63.104(f)(2) no longer apply; instead, the compliance report must include the information specified in paragraphs (e)(16)(i) through (v) of this section.

**Koppers Comments:** Not Applicable all MON affected heat exchange systems are operated with the minimum pressure on the cooling water side at least 35 kilopascals greater than the maximum pressure on the process side.

(17) For process vents and storage tanks in ethylene oxide service subject to the requirements of § 63.2493, the compliance report must include information specified in paragraphs (e)(17)(i) through (iii) of this section.

**Koppers Comments:** Not Applicable as Koppers does not have equipment in ethylene oxide service at the MON MCPUs.

## **40 CFR §63.1039 – EQUIPMENT LEAK REPORTING**

**§63.1039(b) Periodic Reports.** *The owner or operator shall report the information specified in paragraphs (b)(1) through (b)(8) of this section, as applicable, in the Periodic Report specified in the referencing subpart.*

**§63.1039(b)(1)** *For the equipment specified in paragraphs (b)(1)(i) through (b)(1)(v) of this section, report in a summary format by equipment type, the number of components for which leaks were detected and for valves, pumps and connectors show the percent leakers, and the total number of components monitored. Also include the number of leaking components that were not repaired as required by §63.1024, and for valves and connectors, identify the number of components that are determined by §63.1025(c)(3) to be nonrepairable.*

- (i) Valves in gas and vapor service and in light liquid service pursuant to §63.1025(b) and (c).*
- (ii) Pumps in light liquid service pursuant to §63.1026(b) and (c).*
- (iii) Connectors in gas and vapor service and in light liquid service pursuant to §63.1027(b) and (c).*
- (iv) Agitators in gas and vapor service and in light liquid service pursuant to §63.1028(c).*
- (v) Compressors pursuant to §63.1031(d).*

**Koppers Comments:** This information is included in Attachment 3.

**§63.1039(b)(2)** *Where any delay of repair is utilized pursuant to §63.1024(d), report that delay of repair has occurred and report the number of instances of delay of repair.*

**Koppers Comments:** This information is provided in Attachment 3.

**§63.1039(b)(3)** *If applicable, report the valve subgrouping information specified in §63.1025(b)(4)(iv).*

**Koppers Comments:** No valves were reassigned between subgroups during the reporting period.

**§63.1039(b)(4)** *For pressure relief devices in gas and vapor service pursuant to §63.1030(b) and for compressors pursuant to §63.1031(f) that are to be operated at a leak detection instrument reading of less than 500 parts per million, report the results of all monitoring to show compliance conducted within the semiannual reporting period.*



**Koppers Comments:** This information is included in Attachment 3

**§63.1039(b)(5)** *Report, if applicable, the initiation of a monthly monitoring program for valves pursuant to §63.1025(b)(3)(i).*

**Koppers Comments:** This information is included in Attachment 3

**§63.1039(b)(6)** *Report, if applicable, the initiation of a quality improvement program for pumps pursuant to §63.1035.*

**Koppers Comments:** Not applicable.

**§63.1036(b)(7)** *Where the alternative means of emissions limitation for batch processes is utilized, report the information listed in §63.1036(f).*

**Koppers Comments:** Koppers has not chosen to use the alternative emission limitations in §63.1036(b)(7), therefore the information in §63.1036(f) is not required.

**§63.1039(b)(8)** *Report the information listed in paragraph (a) of this section for the Initial Compliance Status Report for process units or affected facilities with later compliance dates. Report any revisions to items reported in an earlier Initial Compliance Status Report if the method of compliance has changed since the last report.*

**Koppers Comments:** No changes in compliance methods have been made since the previous report.

#### **40 CFR §63.104 – HEAT EXCHANGE SYSTEM REPORTING**

**§63.104(f)(2)** *Reports. If an owner or operator invokes the delay of repair provisions for a heat exchange system, the following information shall be submitted in the next semi-annual periodic report required by §63.152(c) of subpart G of this part. If the leak remains unrepaired, the information shall also be submitted in each subsequent periodic report, until repair of the leak is reported.*

- (i) The owner or operator shall report the presence of the leak and the date that the leak was detected.*
- (ii) The owner or operator shall report whether or not the leak has been repaired.*

- (iii) The owner or operator shall report the reason(s) for delay of repair. If delay of repair is invoked due to the reasons described in paragraph (e)(2) of this section, documentation of emissions estimates must also be submitted.*
- (iv) If the leak remains unrepaired, the owner or operator shall report the expected date of repair.*
- (v) If the leak is repaired, the owner or operator shall report the date the leak was successfully repaired.*

Koppers Comments: The heat exchange systems are operated with the minimum pressure on the cooling water side at least 35 kilopascals greater than the maximum pressure on the process side. As provided in 40 CFR §63.104(a)(1), these heat exchangers are not subject to the monitoring requirements of 40 CFR §63.104.

#### **40 CFR §63.10 – GENERAL PROVISIONS PERIODIC REPORTING**

*§63.10(e)(1) General. When more than one CEMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CEMS.*

Koppers Comments: Not applicable - Koppers does not use a CEMS at any MCPU.

*§63.10(e)(2) Reporting results of continuous monitoring system performance evaluations.*

*The owner or operator of an affected source required to install a CMS by a relevant standard shall furnish the Administrator a copy of a written report of the results of the CMS performance evaluation, as required under §63.8(e), simultaneously with the results of the performance test required under §63.7, unless otherwise specified in the relevant standard.*

Koppers Comments: Reports of CMS performance evaluation results are only required for CEMS of the MON. Koppers does not use a CEMS in any MON affected MCPU. Therefore, this provision is not applicable.

**ATTACHMENT 2 – COMPLIANCE REPORT TABLES**

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Descriptions of MCPUs and Associated CMS  
 Reporting Period: January 01, 2023 through June 30, 2023  
 [40 CFR 63.2520(e)(5)(iii)(G), (H), (I) & (J)]

| MCPU                                 | MCPU Description (H)  | HAP (G)   | Associated CMS (I)     | Monitored Parameter (J)      | Date of Last Certification or Audit (J) |
|--------------------------------------|---|---|------------------------|------------------------------|---|
| Crude Tar Distillation               | The Crude Tar Distillation process consists of raw crude tar being distilled to achieve various refined products for sale or use in other processes at the facility. The combined exhaust point is routed to two tube heaters (F-101 and F-201) for fuel value.   | benzene, xylenes, toluene, naphthalene, phenol, styrene, ethylbenzene, cresols, quinoline, biphenyl, dibenzofuran and polycyclic aromatic hydrocarbons (PAHs) | None                   | None                         | N/A                                     |
| Modified Pavement Sealer Base (MPSB) | The Modified Pavement Sealer Base (MPSB) process is a batch operation consisting of four blending tanks. Petroleum tar and pavement sealer base are blended together to produce MPSB. The vents do not require control under the MGN. Koppers currently controls three of the four tanks with the existing Tar thermal oxidizer and tube heaters (F-101 and F-201). | naphthalene, quinoline, biphenyl, dibenzofuran and polycyclic aromatic hydrocarbons (PAHs)  | None                   | None                         | N/A                                     |
| Type A Carbon Pitch Production       | The Type A Carbon Pitch process is a batch operation consisting of five blending tanks. Petroleum pitch and coal tar pitch are blended together to produce Type A Carbon Pitch. The vents are routed to the pitch thermal oxidizer for control.   | naphthalene and polycyclic aromatic hydrocarbons (PAHs)   | Pitch thermal oxidizer | Thermal oxidizer temperature | 12/6/2022                               |

TABLE 1: Summary of Routine Maintenance on Storage Vessels Controlled By Flare or Control Device  
 [40 CFR 63.999(c)(4)]

Reporting Period: January 01, 2023 through June 30, 2023

| MCPU   | Tank Identification | Description of Maintenance Event | Duration of Maintenance Event <sup>1</sup> |            |                      |                                 | Planned Maintenance For Next 6-Month Period <sup>2</sup> |                                  |                   |
|--|---------------------|----------------------------------|--|------------|----------------------|---------------------------------|--|----------------------------------|-------------------|
|  |                     |                                  | Date                                       | Start Time | Date Event Concluded | Time Of Day Event was Concluded | Duration (hours)   | Description of Maintenance Event | Planned Frequency |
| Not applicable - There are no Group 1 MON storage tanks and therefore no controls are required |                     |                                  |  |            |                      |                                 |  |                                  |                   |
|  |                     |                                  |  |            |                      |                                 |  |                                  |                   |
|  |                     |                                  |  |            |                      |                                 |  |                                  |                   |
|  |                     |                                  |  |            |                      |                                 |  |                                  |                   |
|  |                     |                                  |  |            |                      |                                 |  |                                  |                   |
|  |                     |                                  |  |            |                      |                                 |  |                                  |                   |
|  |                     |                                  |  |            |                      |                                 |  |                                  |                   |
|  |                     |                                  |  |            |                      |                                 |  |                                  |                   |
|  |                     |                                  |  |            |                      |                                 |  |                                  |                   |

NOTES:

- 1) Provide this information as required at §63.998(d)(2)(ii).
- 2) Provide this information when planned maintenance may cause the control device to not meet the required control efficiency [§63.999(c)(4)(iii)].

**TABLE 2: Flare Pilot Flame / Flare Flame Summary**

**[40 CFR 63.999(c)(3)]**

**Reporting Period: January 01, 2023 through June 30, 2023**

| MCPU   | Flare Unit Identification | Duration of Deviation <sup>1</sup> |            |          |                  |
|--|---------------------------|------------------------------------|------------|----------|------------------|
|  |                           | Date                               | Start Time | End Time | Duration (hours) |
| Not applicable - The flare has been removed from service |                           |                                    |            |          |                  |
|  |                           |                                    |            |          |                  |
|  |                           |                                    |            |          |                  |
|  |                           |                                    |            |          |                  |
|  |                           |                                    |            |          |                  |
|  |                           |                                    |            |          |                  |
|  |                           |                                    |            |          |                  |

**NOTES:**

1) List all periods during the reporting period when pilot flame(s) are absent or, if only the flare flame is monitored, all periods when the flare flame is absent



TABLE 4: Summary of Deviations - MCPUs Operated with Continuous Monitoring System<sup>1</sup>  
Reporting Period: January 01, 2023 through June 30, 2023

For each deviation from an emission limit or operating limit in an MCPU with a CMS, complete the following information [40CFR 63.2520(e)(5)(iii)]:

| List MCPU or Storage Vessel Where Deviation Occurred <sup>2</sup>   | Identification of Control Device (if applicable) | Date of Deviation | Duration of Deviation <sup>3,4</sup> |                            | Summary of Deviation           |  | If not SSM Event, List One of these Categories for the Deviation: Control Equipment problem (CEP); Process Problem (PP); Other Known Cause (OKC); or Unknown Cause (UC) |
|---|--|-------------------|--------------------------------------|----------------------------|--------------------------------|--|---|
|   |  |                   | Start (mm/dd/yy hh:mm:ss)            | Finish (mm/dd/yy hh:mm:ss) | Total Deviation Period (hours) | Total Deviation as % of Total MCPU Operating Time in this Reporting Period (%) |   |
| No Deviation during reporting period  |  |                   |                                      |                            |                                |  |   |
| Total duration of Deviations due to SSM events and the total duration as a percent of the total operating time:                   |  |                   |                                      |                            |                                |  |   |
| Total duration of Deviations due to Control Equipment Problems (CEP) and total duration as a percent of the total operating time: |  |                   |                                      |                            |                                |  |   |
| Total duration of Deviation due to Process Problems (PP) and total duration as a percent of the total operating time:             |  |                   |                                      |                            |                                |  |   |
| Total duration of Deviations due to Other Known Causes (OKC) and total duration as a percent of the total operating time:         |  |                   |                                      |                            |                                |  |   |
| Total duration of Deviations due to Unknown Causes (UC) and total duration as a percent of the total operating time:              |  |                   |                                      |                            |                                |  |   |
| Total duration of CMS downtime and total duration of CMS downtime as a percent of the total operating time:                       |  |                   |                                      |                            |                                |  |   |

NOTES:

- 1) Reporting requirements of 63.10(c)(8) for continuous emission monitoring systems (CEMS) are not required for CMS under the MON (40CFR 63.2520(e)(5)(iii)(B)).
- 2) See Table 5 for description of each MCPU and associated CMS.
- 3) For CMS deviation, duration does not include times for zero (low-level) and high-level checks(40 CFR 63.2520(e)(5)(iii)(A)).
- 4) The duration of deviation may include times when the temperature is above 1350 °F, however, the period ends when a stable temperature is achieved. The total deviation period includes only those times when the measured value is below 1350 °F.

N/A = Not Applicable



**TABLE 5: Summary of MCPUs With Group 2 Process Vents With HAP Usage <10,000 lbs/year that Exceeded a HAP Threshold for the Reporting Period**

**Reporting Period: January 01, 2023 through June 30, 2023**

| MCPU Where Exceedance of Usage Threshold Occurred                              | Was each Batch a Standard Batch? (yes/no) | Estimated Emissions For Non-Standard Batch (lbs HAP/Batch) |            | Records of Daily 365-Day Rolling Summation Attached? <sup>1</sup> (Yes/No) |
|--|---|--|------------|--|
|  |   | Uncontrolled   | Controlled |  |
| Not applicable - HAP usage <10,000 lb/yr is not used to determine group status |   |  |            |  |
|  |   |  |            |  |
|  |   |  |            |  |
|  |   |  |            |  |

**NOTES:**

1) Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly [40 CFR 63.2520(e)(5)(iv)].

**TABLE 6: Summary of Process Additions or Revisions from NOCSR  
[40 CFR 63.2520(e)(10)]**

**Reporting Period: January 01, 2023 through June 30, 2023**

| Description of New or Revised Process | Required NOCSR Information Attached?<br>(yes/no) <sup>1</sup> |
|---------------------------------------|---|
| None during reporting period          | N/A   |
|                                       |   |

**NOTES:**

1) Attach information required by the notification of compliance status report (NOCSR) for changes involving the addition or revision of processes or equipment at the affected source.

**TABLE 7: Summary of New Operating Scenarios not Listed in the NOCSR [40 CFR 63.2520(e)(7)]<sup>1</sup>  
Reporting Period: January 01, 2023 through June 30, 2023**

| MCPU | Operating Scenario               | Were Operating Conditions of Control/Treatment Exceeded During Reporting Period? (yes/no) | Required Calculations and Engineering Analyses Performed? (yes/no) |
|------|----------------------------------|---|--|
|      |                                  |   |  |
|      | NONE DURING THE REPORTING PERIOD |   |  |
|      |                                  |   |  |
|      |                                  |   |  |

**NOTES:**

i) For purposes of listing a new operating scenario, a revised operating scenario for an existing process is considered to be a new operating scenario.

TABLE 8: Summary of Heat Exchange System Leaks with Delayed Repair [40 CFR 63.104]  
 Reporting Period: January 01, 2023 through June 30, 2023

| MCPU | Leaking Heat Exchanger ID | Date Leak Detected | Reasons for Delay of Repair (attach documentation) | Estimated Emissions due to Delay <sup>1</sup> | Expected Date of Repair (attach a schedule) | Date of First Repair Attempt | Date of Repair Completion | Date of Repair Confirmation |
|------|---------------------------|--------------------|--|---|---|------------------------------|---------------------------|-----------------------------|
|      |                           |                    | Not Applicable                                     |   |   |                              |                           |                             |
|      |                           |                    |  |   |   |                              |                           |                             |
|      |                           |                    |  |   |   |                              |                           |                             |
|      |                           |                    |  |   |   |                              |                           |                             |

NOTES:

1) An emission estimate is required when a delay of repair is invoked for reasons specified in 40 CFR 63.104(e)(2) which states:

(e)(2) If a shutdown is not expected within the next 2 months, the owner or operator may delay repair as provided in paragraph (e)(2)(i) or (e)(2)(ii) of this section. Documentation of a decision to delay repair shall state the reasons repair was delayed and shall specify a schedule for completing the repair as soon as practical.

(e)(2)(i) If a shutdown for repair would cause greater emissions than the potential emissions from delaying repair, the owner or operator may delay repair until the next shutdown of the process equipment associated with the leaking heat exchanger. The owner or operator shall document the basis for the determination that a shutdown for repair would cause greater emissions than the emissions likely to result from delaying repair as specified in paragraphs (e)(2)(i)(A) and (e)(2)(i)(B) of this section.

(e)(2)(i)(A) The owner or operator shall calculate the potential emissions from the leaking heat exchanger by multiplying the concentration of total hazardous air pollutants listed in table 4 of this subpart in the cooling water from the leaking heat exchanger by the flowrate of the cooling water from the leaking heat exchanger by the expected duration of the delay. The owner or operator may calculate potential emissions using total organic carbon concentration instead of total hazardous air pollutants listed in table 4 of this subpart.

(e)(2)(i)(B) The owner or operator shall determine emissions from purging and depressurizing the equipment that will result from the unscheduled shutdown for the repair.

(e)(2)(ii) If repair is delayed for reasons other than those specified in paragraph (e)(2)(i) of this section, the owner or operator may delay repair up to a maximum of 120 calendar days. The owner shall demonstrate that the necessary parts or personnel were not available.





| M/CPU                 | Start Time         | End Time           | Duration (Hours) | Duration of M/Activity or Other Activity |       |          |                  |
|-----------------------|--------------------|--------------------|------------------|--|-------|----------|------------------|
|                       |                    |                    |                  | Used                                     | Start | End Time | Duration (Hours) |
| Coal The Distribution | 18-Jun-23 12:25:00 | 18-Jun-23 12:26:00 | 0.1              |  |       |          |                  |
| Coal The Distribution | 18-Jun-23 12:27:00 | 18-Jun-23 12:28:00 | 0.1              |  |       |          |                  |
| Coal The Distribution | 18-Jun-23 13:07:00 | 18-Jun-23 14:05:00 | 1.0              |  |       |          |                  |
| Coal The Distribution | 18-Jun-23 17:28:00 | 18-Jun-23 18:07:00 | 1.1              |  |       |          |                  |
| Coal The Distribution | 18-Jun-23 18:22:00 | 18-Jun-23 18:23:00 | 0.1              |  |       |          |                  |
| Coal The Distribution | 18-Jun-23 20:17:00 | 18-Jun-23 20:20:00 | 0.3              |  |       |          |                  |
| Coal The Distribution | 18-Jun-23 20:28:00 | 18-Jun-23 21:28:00 | 1.0              |  |       |          |                  |
| Coal The Distribution | 21-Jun-23 01:58:00 | 21-Jun-23 02:10:00 | 0.2              |  |       |          |                  |
| Coal The Distribution | 21-Jun-23 02:11:00 | 21-Jun-23 02:22:00 | 0.2              |  |       |          |                  |
| Coal The Distribution | 21-Jun-23 02:40:00 | 21-Jun-23 02:45:00 | 0.1              |  |       |          |                  |
| Coal The Distribution | 21-Jun-23 19:19:00 | 21-Jun-23 19:20:00 | 0.1              |  |       |          |                  |
| Coal The Distribution | N/A                | N/A                | N/A              |  |       |          |                  |
| Coal The Distribution | 22-Jun-23 11:20:00 | 22-Jun-23 12:01:00 | 1.2              |  |       |          |                  |
| Coal The Distribution | N/A                | N/A                | N/A              |  |       |          |                  |
| Coal The Distribution | N/A                | N/A                | N/A              |  |       |          |                  |
| Coal The Distribution | 28-Jun-23 11:59:00 | 28-Jun-23 11:59:00 | 0.0              |  |       |          |                  |
| Coal The Distribution | 28-Jun-23 11:23:00 | 28-Jun-23 11:23:00 | 0.1              |  |       |          |                  |
| Coal The Distribution | 28-Jun-23 11:23:00 | 28-Jun-23 11:24:00 | 0.1              |  |       |          |                  |
| Coal The Distribution | 28-Jun-23 12:27:00 | 28-Jun-23 12:17:00 | 0.3              |  |       |          |                  |
| Coal The Distribution | 30-Jun-23 08:14:00 | 30-Jun-23 08:20:00 | 0.3              |  |       |          |                  |
| Coal The Distribution | 30-Jun-23 08:32:00 | 30-Jun-23 10:42:00 | 1.2              |  |       |          |                  |
| Coal The Distribution | 30-Jun-23 08:32:00 | 30-Jun-23 10:42:00 | 1.2              |  |       |          |                  |
| Coal The Distribution | 30-Jun-23 10:48:00 | 30-Jun-23 10:53:00 | 0.1              |  |       |          |                  |
| Coal The Distribution | 30-Jun-23 10:59:00 | 30-Jun-23 11:00:00 | 0.1              |  |       |          |                  |
| Coal The Distribution | 30-Jun-23 11:07:00 | 30-Jun-23 11:13:00 | 0.3              |  |       |          |                  |
| Coal The Distribution | 30-Jun-23 11:21:00 | 30-Jun-23 11:28:00 | 0.1              |  |       |          |                  |
| Coal The Distribution | 30-Jun-23 11:28:00 | 30-Jun-23 11:28:00 | 0.2              |  |       |          |                  |
| Coal The Distribution | 30-Jun-23 11:27:00 | 30-Jun-23 12:00:00 | 0.1              |  |       |          |                  |
| Coal The Distribution | 30-Jun-23 20:22:00 | 30-Jun-23 20:26:00 | 0.1              |  |       |          |                  |

**NOTES:**

1) For closed vent systems (CVS) under positive pressure subject to 40 CFR 63.903

2) Report times of a CVS under positive pressure subject to 40 CFR 63.903 when maintenance is performed on a cross-vented valve, when the seal is broken, when the bypass line valve position is changed, or when the tray for a leak-and-lose type configuration has been checked out

Table 10: SSM Event Resulting in Excess Emissions  
 Reporting Period: January 01, 2023 through June 30, 2023

| MCPUI                 | Event Date | Description of Malfunction                                   | Plan Followed?     | Plan Not Followed?  |
|-----------------------|------------|--|--------------------|---|
|                       |            |  | (Y/N) <sup>1</sup> | Description of Action Taken   |
| Type A Pitch          | 1/10/2023  | tuning the T.O.  | Yes                |   |
| Type A Pitch          | 1/20/2023  | Outdoor Zero Air Flow Shutdown                               | Yes                |   |
| Type A Pitch          | 1/20/2023  | Flame Failure  | Yes                |   |
| Type A Pitch          | 1/20/2023  | Flame Failure  | Yes                |   |
| Type A Pitch          | 1/20/2023  | Flame Failure  | Yes                |   |
| Type A Pitch          | 1/20/2023  | Flame Failure  | Yes                |   |
| Type A Pitch          | 2/1/2023   | Flow Inlet Low Flow Shutdown PI-4847 SP: -0.4 "WC            | Yes                |   |
| Type A Pitch          | 3/1/2023   | Electricians worked on the 661 pump power and the Pitch T.O. | Yes                |   |
| Type A Pitch          | 3/1/2023   | Flame Failure  | Yes                |   |
| Type A Pitch          | 3/2/2023   | Fume System #5 Vent Tank High Level                          | Yes                |   |
| Type A Pitch          | 3/13/2023  | Flame Failure  | Yes                |   |
| Type A Pitch          | 3/25/2023  | Flow Inlet Low Flow Shutdown PI-4847 SP: -0.4 "WC            | Yes                |   |
| Type A Pitch          | 3/27/2023  | Undetermined Failure   | Yes                |   |
| Type A Pitch          | 5/3/2023   | Outdoor H-H Temp Shutdown                                    | Yes                |   |
| Type A Pitch          | 5/3/2023   | Undetermined Failure   | Yes                |   |
| Type A Pitch          | 5/3/2023   | Flame Failure  | Yes                |   |
| Type A Pitch          | 5/3/2023   | Flame Failure  | Yes                |   |
| Type A Pitch          | 5/8/2023   | Fume Inlet Low Flow Shutdown PI-4847 SP: -0.4"WC             | Yes                |   |
| Type A Pitch          | 6/6/2023   | Fume Inlet Low Flow Shutdown PI-4847 SP: -0.4"WC             | Yes                |   |
| Type A Pitch          | 6/19/2023  | Flame Failure  | Yes                |   |
| Coal Tar Distillation | 1/2/2023   | Control Room Kill Switch (MMI)                               | Yes                |   |
| Coal Tar Distillation | 1/3/2023   | Flame Failure  | Yes                |   |
| Coal Tar Distillation | 1/4/2023   | Control Room Kill Switch (MMI)                               | Yes                |   |
| Coal Tar Distillation | 1/4/2023   | Control Room Kill Switch (MMI)                               | Yes                |   |
| Coal Tar Distillation | 1/10/2023  | Reboiler Pump Low Amps                                       | Yes                |   |
| Coal Tar Distillation | 1/10/2023  | Reboiler Pump Low Amps                                       | Yes                |   |
| Coal Tar Distillation | 1/10/2023  | Reboiler Pump Low Amps                                       | Yes                |   |
| Coal Tar Distillation | 1/10/2023  | Reboiler Pump Low Amps                                       | Yes                |   |
| Coal Tar Distillation | 1/13/2023  | Reboiler Loop Low Flow                                       | Yes                |   |
| Coal Tar Distillation | 1/17/2023  | Flame Failure  | Yes                |   |
| Coal Tar Distillation | 1/17/2023  | High Gas Pressure Switch                                     | Yes                |   |
| Coal Tar Distillation | 1/17/2023  | High Gas Pressure Switch                                     | Yes                |   |
| Coal Tar Distillation | 1/17/2023  | High Gas Pressure Switch                                     | Yes                |   |
| Coal Tar Distillation | 1/18/2023  | Control Room Kill Switch (MMI)                               | Yes                |   |
| Coal Tar Distillation | 1/18/2023  | High Gas Pressure Switch                                     | Yes                |   |
| Coal Tar Distillation | 1/18/2023  | High Gas Pressure Switch                                     | Yes                |   |
| Coal Tar Distillation | 1/18/2023  | High Gas Pressure Switch                                     | Yes                |   |
| Coal Tar Distillation | 1/19/2023  | Reboiler Pump Low Amps                                       | Yes                |   |
| Coal Tar Distillation | 1/20/2023  | High Gas Pressure Switch                                     | Yes                |   |
| Coal Tar Distillation | 1/20/2023  | No Alarm   | Yes                |   |
| Coal Tar Distillation | 1/21/2023  | Low Loop Flow Bypass Relay Stuck                             | Yes                |   |
| Coal Tar Distillation | 1/23/2023  | No Alarm   | Yes                |   |
| Coal Tar Distillation | 1/23/2023  | No Alarm   | Yes                |   |
| Coal Tar Distillation | 1/23/2023  | No Alarm   | Yes                |   |
| Coal Tar Distillation | 1/23/2023  | Reboiler Pump Low Amps                                       | Yes                |   |
| Coal Tar Distillation | 1/23/2023  | Reboiler Pump Low Amps                                       | Yes                |   |
| Coal Tar Distillation | 1/23/2023  | Low Loop Flow Bypass Relay Stuck                             | Yes                |   |
| Coal Tar Distillation | 1/24/2023  | Reboiler Pump Low Amps                                       | Yes                |   |
| Coal Tar Distillation | 1/24/2023  | Reboiler Pump Low Amps                                       | Yes                |   |
| Coal Tar Distillation | 1/24/2023  | Control Room Kill Switch (MMI)                               | Yes                |   |
| Coal Tar Distillation | 1/24/2023  | Reboiler Pump Low Amps                                       | No                 | User error - the tube heater was turned off prior to turning off the vacuum |
| Coal Tar Distillation | 1/25/2023  | Control Room Kill Switch (MMI)                               | Yes                |   |
| Coal Tar Distillation | 1/25/2023  | Low Loop Flow Bypass Relay Stuck                             | Yes                |   |
| Coal Tar Distillation | 1/25/2023  | Low Loop Flow Bypass Relay Stuck                             | Yes                |   |
| Coal Tar Distillation | 1/25/2023  | Low Loop Flow Bypass Relay Stuck                             | Yes                |   |
| Coal Tar Distillation | 1/27/2023  | Control Room Kill Switch (MMI)                               | Yes                |   |
| Coal Tar Distillation | 1/27/2023  | Low Loop Flow Bypass Relay Stuck                             | Yes                |   |
| Coal Tar Distillation | 1/27/2023  | Low Loop Flow Bypass Relay Stuck                             | Yes                |   |
| Coal Tar Distillation | 1/31/2023  | Flame Failure  | Yes                |   |
| Coal Tar Distillation | 1/31/2023  | Low Loop Flow Bypass Relay Stuck                             | Yes                |   |
| Coal Tar Distillation | 1/31/2023  | Flame Failure  | Yes                |   |
| Coal Tar Distillation | 1/31/2023  | Flame Failure  | Yes                |   |
| Coal Tar Distillation | 2/1/2023   | Flame Failure  | Yes                |   |
| Coal Tar Distillation | 2/1/2023   | Control Room Kill Switch (MMI)                               | Yes                |   |
| Coal Tar Distillation | 2/1/2023   | Flame Failure  | Yes                |   |
| Coal Tar Distillation | 2/2/2023   | Reboiler Loop Low Flow                                       | Yes                |   |
| Coal Tar Distillation | 2/2/2023   | Reboiler Loop Low Flow                                       | Yes                |   |
| Coal Tar Distillation | 2/2/2023   | Fume High Temp Limit TISH-4745                               | Yes                |   |
| Coal Tar Distillation | 2/2/2023   | Unrecognized   | Yes                |   |
| Coal Tar Distillation | 2/3/2023   | High Gas Pressure Switch                                     | Yes                |   |
| Coal Tar Distillation | 2/7/2023   | Seal Oil Change  | Yes                |   |
| Coal Tar Distillation | 2/7/2023   | Seal Oil Change  | Yes                |   |
| Coal Tar Distillation | 2/8/2023   | Unit Shut Down   | Yes                |   |
| Coal Tar Distillation | 2/8/2023   | Unit Shut Down   | Yes                |   |
| Coal Tar Distillation | 2/8/2023   | Unit Shut Down   | Yes                |   |
| Coal Tar Distillation | 2/8/2023   | Unit Shut Down   | Yes                |   |
| Coal Tar Distillation | 2/8/2023   | High Gas Pressure Switch                                     | Yes                |   |
| Coal Tar Distillation | 2/9/2023   | No Alarm   | Yes                |   |



| MCFU                  | Event Date | Description of Malfunction       | Plan Followed?     | Plan Not Followed?          |
|-----------------------|------------|----------------------------------|--------------------|-----------------------------|
|                       |            |                                  | (Y/N) <sup>1</sup> | Description of Action Taken |
| Coal Tar Distillation | 2/9/2023   | Control Room Kill Switch (MMI)   | Yes                |                             |
| Coal Tar Distillation | 2/9/2023   | No Alarm                         | Yes                |                             |
| Coal Tar Distillation | 2/9/2023   | No Alarm                         | Yes                |                             |
| Coal Tar Distillation | 2/9/2023   | No Alarm                         | Yes                |                             |
| Coal Tar Distillation | 2/9/2023   | No Alarm                         | Yes                |                             |
| Coal Tar Distillation | 2/9/2023   | No Alarm                         | Yes                |                             |
| Coal Tar Distillation | 2/9/2023   | Control Room Kill Switch (MMI)   | Yes                |                             |
| Coal Tar Distillation | 2/10/2023  | Reboiler Pump Low Amps           | Yes                |                             |
| Coal Tar Distillation | 2/12/2023  | Reboiler Loop Low Flow           | Yes                |                             |
| Coal Tar Distillation | 2/13/2023  | Reboiler Pump Low Amps           | Yes                |                             |
| Coal Tar Distillation | 2/14/2023  | Reboiler Pump Low Amps           | Yes                |                             |
| Coal Tar Distillation | 2/14/2023  | Reboiler Pump Low Amps           | Yes                |                             |
| Coal Tar Distillation | 2/16/2023  | Flame Failure                    | Yes                |                             |
| Coal Tar Distillation | 2/16/2023  | Reboiler Loop Low Flow           | Yes                |                             |
| Coal Tar Distillation | 2/16/2023  | Reboiler Loop Low Flow           | Yes                |                             |
| Coal Tar Distillation | 2/17/2023  | Reboiler Loop Low Flow           | Yes                |                             |
| Coal Tar Distillation | 2/17/2023  | Reboiler Loop Low Flow           | Yes                |                             |
| Coal Tar Distillation | 2/17/2023  | Reboiler Loop Low Flow           | Yes                |                             |
| Coal Tar Distillation | 2/22/2023  | Control Room Kill Switch (MMI)   | Yes                |                             |
| Coal Tar Distillation | 2/23/2023  | Burner Off/On Selector Sw        | Yes                |                             |
| Coal Tar Distillation | 2/23/2023  | Control Room Kill Switch (MMI)   | Yes                |                             |
| Coal Tar Distillation | 2/23/2023  | Burner Off/On Selector Sw        | Yes                |                             |
| Coal Tar Distillation | 3/2/2023   | Control Room Kill Switch (MMI)   | Yes                |                             |
| Coal Tar Distillation | 3/5/2023   | Reboiler Loop Low Flow           | Yes                |                             |
| Coal Tar Distillation | 3/7/2023   | Reboiler Loop Low Flow           | Yes                |                             |
| Coal Tar Distillation | 3/7/2023   | Reboiler Loop Low Flow           | Yes                |                             |
| Coal Tar Distillation | 3/8/2023   | Reboiler Loop Low Flow           | Yes                |                             |
| Coal Tar Distillation | 3/8/2023   | Reboiler Pump Low Amps           | Yes                |                             |
| Coal Tar Distillation | 3/9/2023   | Reboiler Pump Low Amps           | Yes                |                             |
| Coal Tar Distillation | 3/10/2023  | Reboiler Pump Low Amps           | Yes                |                             |
| Coal Tar Distillation | 3/10/2023  | High Gas Pressure Switch         | Yes                |                             |
| Coal Tar Distillation | 3/11/2023  | High Gas Pressure Switch         | Yes                |                             |
| Coal Tar Distillation | 3/12/2023  | Low Steam Pressure Alarm         | Yes                |                             |
| Coal Tar Distillation | 3/13/2023  | Reboiler Loop Low Flow           | Yes                |                             |
| Coal Tar Distillation | 3/13/2023  | Reboiler Pump Low Amps           | Yes                |                             |
| Coal Tar Distillation | 3/13/2023  | High Gas Pressure Switch         | Yes                |                             |
| Coal Tar Distillation | 3/13/2023  | High Gas Pressure Switch         | Yes                |                             |
| Coal Tar Distillation | 3/18/2023  | Maxon Smartlink Alarm            | Yes                |                             |
| Coal Tar Distillation | 3/20/2023  | High Gas Pressure Switch         | Yes                |                             |
| Coal Tar Distillation | 3/20/2023  | Reboiler Loop Low Flow           | Yes                |                             |
| Coal Tar Distillation | 3/21/2023  | High Gas Pressure Switch         | Yes                |                             |
| Coal Tar Distillation | 3/22/2023  | Reboiler Loop Low Flow           | Yes                |                             |
| Coal Tar Distillation | 3/23/2023  | No Alarm                         | Yes                |                             |
| Coal Tar Distillation | 3/27/2023  | Low Gas Pressure Switch PSL-4725 | Yes                |                             |
| Coal Tar Distillation | 3/27/2023  | Flame Failure                    | Yes                |                             |
| Coal Tar Distillation | 3/27/2023  | Low Gas Pressure Switch PSL-4725 | Yes                |                             |
| Coal Tar Distillation | 3/28/2023  | Low Gas Pressure Switch PSL-4725 | Yes                |                             |
| Coal Tar Distillation | 3/28/2023  | Low Gas Pressure Switch PSL-4725 | Yes                |                             |
| Coal Tar Distillation | 3/28/2023  | No Alarm Recorded                | Yes                |                             |
| Coal Tar Distillation | 3/28/2023  | No Alarm Recorded                | Yes                |                             |
| Coal Tar Distillation | 3/28/2023  | Reboiler Loop Low Flow           | Yes                |                             |
| Coal Tar Distillation | 3/31/2023  | Control Room Kill Switch (MMI)   | Yes                |                             |
| Coal Tar Distillation | 4/3/2023   | Reboiler Pump Low Amps           | Yes                |                             |
| Coal Tar Distillation | 4/3/2023   | Reboiler Pump Low Amps           | Yes                |                             |
| Coal Tar Distillation | 4/4/2023   | Reboiler Loop Low Flow           | Yes                |                             |
| Coal Tar Distillation | 4/4/2023   | High Gas Pressure Switch         | Yes                |                             |
| Coal Tar Distillation | 4/6/2023   | High Gas Pressure Switch         | Yes                |                             |
| Coal Tar Distillation | 4/7/2023   | No Alarm Recorded                | Yes                |                             |
| Coal Tar Distillation | 4/7/2023   | No Alarm Recorded                | Yes                |                             |
| Coal Tar Distillation | 4/9/2023   | Reboiler Loop Low Flow           | Yes                |                             |
| Coal Tar Distillation | 4/10/2023  | No Alarm Recorded                | Yes                |                             |
| Coal Tar Distillation | 4/13/2023  | No Alarm Recorded                | Yes                |                             |
| Coal Tar Distillation | 4/16/2023  | No Alarm Recorded                | Yes                |                             |
| Coal Tar Distillation | 4/16/2023  | No Alarm Recorded                | Yes                |                             |
| Coal Tar Distillation | 4/16/2023  | No Alarm Recorded                | Yes                |                             |
| Coal Tar Distillation | 4/16/2023  | No Alarm Recorded                | Yes                |                             |
| Coal Tar Distillation | 4/16/2023  | No Alarm Recorded                | Yes                |                             |
| Coal Tar Distillation | 4/17/2023  | No Alarm Recorded                | Yes                |                             |
| Coal Tar Distillation | 4/17/2023  | No Alarm Recorded                | Yes                |                             |
| Coal Tar Distillation | 4/17/2023  | No Alarm Recorded                | Yes                |                             |
| Coal Tar Distillation | 4/19/2023  | No Alarm Recorded                | Yes                |                             |

**ATTACHMENT 3 – LDAR INFORMATION**

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TABLE 11: Semiannual Fugitive Emission Report For MON [40 CFR 63.1039(b)]  
Reporting Period: January 01, 2023 through June 30, 2023

| Equipment Type                             | No. of Components Subject to Requirements <sup>1</sup> | No. of Leaking Components Detected | No. of Components Monitored <sup>2</sup> | Percent of Leaking Components | No. of Leaking Components Not Repaired | No. of Leaking Components Determined to be Nonrepairable | No. of Instances Utilizing Delay of Repair | Monthly Monitoring of Valves Initiated? (yes/no) | Quality Improvement Program Initiated for Pumps? (yes/no) |
|--|--|------------------------------------|--|-------------------------------|--|--|--|--|---|
| Valves in Gas/Vapor & LL Service           | 118  | 0                                  | 98                                       | 0.0%                          | 0                                      | 0  | 0  | N/A, No LL Valves                                | N/A   |
| Pumps in LL Service                        | 0  | N/A                                | 0  | N/A                           | N/A                                    | N/A  | N/A  | N/A  | N/A   |
| Connectors in Gas/Vapor & LL Service       | 307*   | 0                                  | 282                                      | 0.0%                          | 0                                      | 0  | 0  | N/A  | N/A   |
| Agitators in Gas/Vapor & LL Service        | 13*  | 0                                  | 12                                       | 0.0%                          | 0                                      | 0  | 0  | N/A  | N/A   |
| Compressors                                | 4  | 0                                  | 4  | 0.0%                          | 0                                      | 0  | 0  | N/A  | N/A   |
| Pressure Release Devices Gas/Vapor Service | 6  | 0                                  | 4  | 0.0%                          | 0                                      | 0  | 0  | N/A  | N/A   |

NOTES:

- 1) Represents counts as of the end of the report period. Excludes heavy liquid service components and components designated for no detectable emissions. Identify with an asterisk (\*) if there are any components added due to startup of Tank-101
- 2) Several MON Components were not monitored during this reporting period due to being out of service.

**Attachment L**

**Carbon Pitch Tank Vent Thermal Oxidizer Compliance Stack Test**

**Response to Violation Notice A-2023-00162**

**Koppers Inc.**

## MON (SUBPART FFFF) PERFORMANCE TEST

*Performed At*  
**Koppers Inc.**  
**Carbon Pitch Tank Vent Thermal Oxidizer**  
**Stickney, Illinois**

*Test Date*  
**April 29, 2009**

*Report No.*  
**GE International, Inc. Report M22E1859A**

*Report Submittal Date*  
**June 25, 2009**

GE International, Inc.  
1950 Griffith Boulevard, Suite A  
Griffith, Indiana 46319  
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## CERTIFICATION SHEET

Having reviewed the test program described in this report, I hereby certify the data, information, and results in this report to be accurate and true according to the methods and procedures used.

Data collected under the supervision of others is included in this report and is presumed to have been gathered in accordance with recognized standards.

GE INTERNATIONAL, INC.



---

Frank H. Jarke  
Quality Operations Manager

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## 2.0 SUMMARY OF RESULTS

During this test program, three (3) one-hour VOC tests were performed at the TO inlet and outlet test locations. The results for the tests conducted are summarized in the following table:

| Parameter                | TO Inlet | TO Outlet |
|--------------------------|----------|-----------|
| VOC lb/hr as Propane     | 3.80     | 0.023     |
| Destruction Efficiency % | 99.38    |           |

Complete test results are summarized in Section 6.0.

## 3.0 DISCUSSION OF RESULTS

No problems were encountered with the testing equipment during the test program. Source operation remained normal during the entire test program. The performance testing was conducted at worst-case operating conditions defined in §63.1257(b)(8)(i). Specifically, the testing was performed during absolute worst-case conditions in the 1-hr period of time in which the inlet contained the highest mass loading rate, in lb/hr, capable of being vented to the TO System. This condition occurs when the process is charging coal tar pitch to the tanks while venting the transfer rack as described in the test protocol "Emissions Test Plan for MON (Subpart FFFF) Performance Testing" submitted to the agency on February 17, 2009. During the performance test on April 29, 2009, Unit 2 was charging coal tar pitch (Type A) to Tank 47 while venting the transfer rack from Tank 41 to pitch trucks. Type A was being transferred from 46 Tank to 44 Tank. Fume System #5 Scrubber was in operation during the performance testing. Unit operating data was recorded by plant personnel and are appended to the report.

The diameter of both test locations was greater than 12 inches. Therefore, an s-type pitot and standard inclined manometer were used per EPA Method 1.

Moisture was determined according to EPA Method 4 at a single point in the approximate center of each duct. EPA Method 4 requires that samples are collected at a minimum of eight traverse points located per EPA Method 1 for circular ducts less than 24 inches in diameter. The test requested approval of the option to collect the samples for moisture content determinations at a single point located at the approximate center of each location. This was considered to be a request for a "minor change to test method" as defined in 40 CFR §63.90 and therefore, pursuant to 40 CFR §63.2545, did not require U.S. EPA approval.



**Attachment M**  
**September 8, 2023, Deviation Report**  
**Response to Violation Notice A-2023-00162**  
**Koppers Inc.**



Koppers Inc.  
Carbon Materials and Chemicals  
3900 South Laramie Avenue  
Cicero, IL 60804-4523  
Tel 708 222 3483  
Fax 708 656 6079  
www.koppers.com

9/8/2023

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

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, 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. Koppers is providing this notification of a recent series of limited-duration events involving the temporary inoperability of components of air pollution control systems at the Stickney plant. With respect to each event, Attached Table 1 describes the event and the cause, and identifies corrective actions.

As shown in Table 1, with limited exceptions that are otherwise being addressed, the majority of the recent events were associated with the commissioning of back-up pollution control systems. Koppers is working diligently to complete the commissioning process and thereby eliminate the cause of the events.

If there are any questions concerning this report, please contact Sidney Lipp of Koppers at (708) 427-6980.

Sincerely,

  
Seth Herring  
Plant Manager

**TABLE 1: Summary of Deviations**  
Reporting Period: August 12, 2023 through September 7, 2023

| Identification of Control Device | Date of Deviation | Duration of Deviation |                |                                  | Cause of the Event   | Corrective/Preventive Action Taken   |
|----------------------------------|-------------------|-----------------------|----------------|----------------------------------|--|--|
|                                  |                   | Start (hh:mm)         | Finish (hh:mm) | Total deviation Period (Minutes) |  |  |
| Tube Heater/Tar TO               | August 12, 2023   | 5:25 PM               | 6:22 PM        | 57                               | Low steam pressure on waste gas  | Investigate and Troubleshoot steam pressure  |
| Tube Heater/Tar TO               | August 13, 2023   | 7:44 PM               | 8:16 PM        | 32                               | Low steam pressure on waste gas  | Investigate and Troubleshoot steam pressure  |
| Pitch TO                         | August 14, 2023   | 11:23 AM              | 12:00 PM       | 37                               | Excess fume loading, Rapid evaporation of condensate in the system due to operator error   | Training & corrective action with employee.  |
| Tube Heater/Tar TO               | August 14, 2023   | 3:53 PM               | 3:57 PM        | 4                                | Interruption of environmental controls due to commissioning of back-up control system  | Complete Commissioning of back-up control system   |
| Tube Heater/Tar TO               | August 16, 2023   | 2:29 AM               | 2:32 AM        | 3                                | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system   |
|                                  |                   | 6:09 AM               | 6:36 AM        | 27                               | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system   |
|                                  |                   | 8:25 AM               | 8:53 AM        | 28                               | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system   |
|                                  |                   | 11:58 AM              | 12:18 PM       | 22                               | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system   |
|                                  |                   | 1:59 PM               | 2:09 PM        | 10                               | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system   |
|                                  |                   | 6:58 PM               | 7:05 PM        | 7                                | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system   |
| Tube Heater/Tar TO               | August 17, 2023   | 1:18 AM               | 1:22 AM        | 4                                | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system   |
| Tube Heater/Tar TO               | August 17, 2023   | 10:10 AM              | 10:13 AM       | 3                                | Interruption of environmental controls due to commissioning of back-up control system  | Complete Commissioning of back-up control system   |
| Tube Heater/Tar TO               | August 17, 2023   | 10:19 AM              | 10:22 AM       | 3                                | Interruption of environmental controls due to commissioning of back-up control system  | Complete Commissioning of back-up control system   |
| Tube Heater/Tar TO               | August 17, 2023   | 10:27 AM              | 10:30 AM       | 3                                | Interruption of environmental controls due to commissioning of back-up control system  | Complete Commissioning of back-up control system   |
| Tube Heater/Tar TO               | August 17, 2023   | 11:24 AM              | 11:27 AM       | 3                                | Interruption of environmental controls due to commissioning of back-up control system  | Complete Commissioning of back-up control system   |
| Tube Heater/Tar TO               | August 17, 2023   | 1:39 PM               | 1:42 PM        | 3                                | Interruption of environmental controls due to commissioning of back-up control system  | Complete Commissioning of back-up control system   |
| Tube Heater/Tar TO               | August 17, 2023   | 2:37 PM               | 2:40 PM        | 3                                | Interruption of environmental controls due to commissioning of back-up control system  | Complete Commissioning of back-up control system   |
| Tube Heater/Tar TO               | August 17, 2023   | 2:41 PM               | 2:44 PM        | 3                                | Interruption of environmental controls due to commissioning of back-up control system  | Complete Commissioning of back-up control system   |
| Tube Heater/Tar TO               | August 17, 2023   | 2:46 PM               | 2:49 PM        | 3                                | Interruption of environmental controls due to commissioning of back-up control system  | Complete Commissioning of back-up control system   |
| Tube Heater/Tar TO               | August 17, 2023   | 3:04 PM               | 4:36 PM        | 92                               | PLC code issue, Center flash vacuum pump on Unit #2 was used due to west pump needing a coupler sleeve replacement. When center flash vacuum pump is used and unit #1 was down the fumes were allowed to emit. | Software system needs to be updated. Until update is in place, an impairment form is needed. |
| Tube Heater/Tar TO               | August 18, 2023   | 12:17 AM              | 12:22 AM       | 5                                | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system   |

| Identification of Control Device | Date of Deviation | Duration of Deviation |                |                                  | Cause of the Event   | Corrective/Preventive Action Taken               |
|----------------------------------|-------------------|-----------------------|----------------|----------------------------------|--|--|
|                                  |                   | Start (hh:mm)         | Finish (hh:mm) | Total deviation Period (Minutes) |  |  |
| Tube Heater/Tar TO               | August 18, 2023   | 3:20 PM               | 3:23 PM        | 3                                | Interruption of environmental controls due to commissioning of back-up control system                                  | Complete Commissioning of back-up control system |
|                                  |                   | 3:41 PM               | 3:44 PM        | 3                                | Interruption of environmental controls due to commissioning of back-up control system or other operational malfunction | Complete Commissioning of back-up control system |
| Pitch TO                         | August 18, 2023   | 5:02 PM               | 5:34 PM        | 32                               | Electrical failure cause TO shutdown, Underground cable failure  | Replaced cable                                   |
| Tube Heater/Tar TO               | August 20, 2023   | 10:04 AM              | 10:19 AM       | 15                               | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system |
| Tube Heater/Tar TO               | August 21, 2023   | 10:52 AM              | 10:57 AM       | 5                                | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system |
|                                  |                   | 6:15 PM               | 6:43 PM        | 28                               | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system |
| Tube Heater/Tar TO               | August 22, 2023   | 7:20 AM               | 7:25 AM        | 5                                | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system |
| Tube Heater/Tar TO               | August 23, 2023   | 4:00 AM               | 4:08 AM        | 8                                | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system |
|                                  |                   | 6:06 AM               | 6:13 AM        | 7                                | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system |
| Tube Heater/Tar TO               | August 24, 2023   | 2:41 PM               | 2:44 PM        | 3                                | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system |
| Tube Heater/Tar TO               | August 25, 2023   | 8:32 AM               | 8:36 AM        | 4                                | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system |
| Tube Heater/Tar TO               | August 28, 2023   | 3:05 PM               | 3:11 PM        | 6                                | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system |
|                                  |                   | 3:39 PM               | 3:44 PM        | 5                                | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system |
| Tube Heater/Tar TO               | August 28, 2023   | 5:08 PM               | 5:16 PM        | 8                                | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system |
| Tube Heater/Tar TO               | August 29, 2023   | 10:59 AM              | 11:11 AM       | 12                               | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system |
|                                  |                   | 11:59 AM              | 12:08 PM       | 9                                | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system |
|                                  |                   | 5:20 PM               | 5:23 PM        | 3                                | Interruption of environmental controls due to commissioning of back-up control system                                  | Complete Commissioning of back-up control system |
|                                  |                   | 5:39 PM               | 5:45 PM        | 6                                | Interruption of environmental controls due to commissioning of back-up control system                                  | Complete Commissioning of back-up control system |
|                                  |                   | 5:50 PM               | 5:52 PM        | 2                                | Interruption of environmental controls due to commissioning of back-up control system                                  | Complete Commissioning of back-up control system |
|                                  |                   | 6:19 PM               | 6:28 PM        | 9                                | Interruption of environmental controls due to commissioning of back-up control system                                  | Complete Commissioning of back-up control system |
| Tube Heater/Tar TO               | August 31, 2023   | 5:27 PM               | 5:33 PM        | 6                                | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system |
|                                  |                   | 6:39 PM               | 6:47 PM        | 8                                | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system |
| Tube Heater/Tar TO               | September 2, 2023 | 2:03 PM               | 2:08 PM        | 5                                | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system |
| Tube Heater/Tar TO               | September 4, 2023 | 5:25 PM               | 6:02 PM        | 7                                | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system |
| Tube Heater/Tar TO               | September 4, 2023 | 6:31 PM               | 6:35 PM        | 4                                | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system |
| Tube Heater/Tar TO               | September 5, 2023 | 5:30 AM               | 5:35 AM        | 5                                | Malfunction of Tubeheater Waste Gas Burning System Components  | Complete Commissioning of back-up control system |

**Attachment N**  
**October 6, 2023, Deviation Report**  
**Response to Violation Notice A-2023-00162**  
**Koppers Inc.**



Koppers Inc.  
Carbon Materials and Chemicals  
3900 South Laramie Avenue  
Cicero, IL 60804-4523  
Tel 708 222 3483  
Fax 708 656 6079  
www.koppers.com

10/6/2023

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

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, 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. Koppers is providing this notification of a recent series of limited-duration events involving the temporary inoperability of components of air pollution control systems at the Stickney plant. With respect to each event, Attached Table 1 describes the event and the cause, and identifies corrective actions.

As shown in Table 1, with limited exceptions that are otherwise being addressed, the majority of the recent events were associated with the commissioning of back-up pollution control systems. Koppers is working diligently to complete the commissioning process and thereby eliminate the cause of the events.

If there are any questions concerning this report, please contact Sidney Lipp of Koppers at (708) 427-6980.

Sincerely,

  
Seth Herring  
Plant Manager

**Table 1: Summary of Deviations**  
**Reporting Period: September 8, 2023 through October 7, 2023**

| Date of Deviation  | Duration of Deviation |                |                                  | Summary of Deviation           |   |                       |                           | Cause of the Event  | Corrective/Preventive Action Taken               |
|--------------------|-----------------------|----------------|----------------------------------|--------------------------------|---|-----------------------|---------------------------|---|--|
|                    | Start (hh:mm)         | Finish (hh:mm) | Total deviation Period (Minutes) | Total Deviation Period (hours) | Regulation/Permit Conditions (see footnote) | Emission Rate (lb/hr) | Estimated Emissions (lbs) |   |  |
| September 8, 2023  | 1:55 PM               | 2:06 PM        | 11                               | 0.183                          | 2,5   | 58.98                 | 10.8                      | Malfunction of Tubeheater Waste Gas Burning System Components   | Complete Commissioning of back-up control system |
| September 9, 2023  | 3:27 AM               | 3:32 AM        | 5                                | 0.083                          | 5   | 58.98                 | 4.9                       | Malfunction of Tubeheater Waste Gas Burning System Components   | Complete Commissioning of back-up control system |
| September 11, 2023 | 9:55 AM               | 9:59 AM        | 4                                | 0.067                          | 5   | 58.98                 | 3.9                       | Malfunction of Tubeheater Waste Gas Burning System Components   | Complete Commissioning of back-up control system |
| September 12, 2023 | 3:03 AM               | 3:08 AM        | 5                                | 0.083                          | 1,3   | 60.54                 | 5.0                       | Operational Upsets  | Complete Commissioning of back-up control system |
| September 12, 2023 | 3:12 AM               | 3:17 AM        | 5                                | 0.083                          | 1,3   | 60.54                 | 5.0                       | Operational Upsets  | Complete Commissioning of back-up control system |
| September 12, 2023 | 3:20 AM               | 3:30 AM        | 10                               | 0.187                          | 1,2,3                                       | 60.54                 | 10.1                      | Operational Upsets  | Complete Commissioning of back-up control system |
| September 12, 2023 | 2:00 PM               | 2:08 PM        | 8                                | 0.133                          | 1,2,3                                       | 60.54                 | 8.1                       | Operational Upsets  | Complete Commissioning of back-up control system |
| September 14, 2023 | 12:17 AM              | 12:26 AM       | 9                                | 0.150                          | 1,2,3                                       | 60.54                 | 9.1                       | Operational Upsets  | Complete Commissioning of back-up control system |
| September 14, 2023 | 9:41 AM               | 9:44 AM        | 3                                | 0.050                          | 1,3,5                                       | 119.52                | 6.0                       | Interruption of environmental controls due to commissioning of back-up control system                   | Complete Commissioning of back-up control system |
| September 14, 2023 | 9:49 AM               | 9:55 AM        | 6                                | 0.100                          | 1,2,3,5                                     | 119.52                | 12.0                      | Interruption of environmental controls due to commissioning of back-up control system                   | Complete Commissioning of back-up control system |
| September 14, 2023 | 2:39 PM               | 2:42 PM        | 3                                | 0.050                          | 1,3,5                                       | 119.52                | 6.0                       | Interruption of environmental controls due to commissioning of back-up control system                   | Complete Commissioning of back-up control system |
| September 14, 2023 | 2:50 PM               | 2:54 PM        | 4                                | 0.067                          | 1,3,5                                       | 119.52                | 8.0                       | Interruption of environmental controls due to commissioning of back-up control system                   | Complete Commissioning of back-up control system |
| September 14, 2023 | 3:02 PM               | 3:09 PM        | 7                                | 0.117                          | 1,2,3,5                                     | 119.52                | 13.9                      | Interruption of environmental controls due to commissioning of back-up control system                   | Complete Commissioning of back-up control system |
| September 15, 2023 | 7:58AM                | 8:07 AM        | 8                                | 0.133                          | 1,2,3                                       | 60.54                 | 8.1                       | Operational Upsets  | Complete Commissioning of back-up control system |
| September 16, 2023 | 12:28 AM              | 12:33 AM       | 5                                | 0.083                          | 1,5   | 60.54                 | 5.0                       | Shutting Down Units, Operator Error   | Training & corrective action with employee.      |
| September 16, 2023 | 1:33 AM               | 3:20 AM        | 107                              | 1.783                          | 1   | 1.56                  | 2.8                       | Mechanical failure of #2 Vent Circulation Pumps   | Fix the Pump and put it back in operation        |
| September 16, 2023 | 3:20AM                | 6:40 AM        | 200                              | 3.333                          | 1   | 1.26                  | 4.2                       | Mechanical failure of #2 Vent Circulation Pumps   | Fix the Pump and put it back in operation        |
| September 17, 2023 | 4:14 PM               | 4:19 PM        | 5                                | 0.083                          | 1,5   | 60.54                 | 5.0                       | Operator Error caused low loop flow and tripped the Tubeheater while bringing the unit up to production | Training & corrective action with employee.      |
| September 18, 2023 | 9:38 AM               | 9:41 AM        | 3                                | 0.050                          | 1,5   | 60.54                 | 3.0                       | Operational Upsets  | Complete Commissioning of back-up control system |
| September 20, 2023 | 4:50 PM               | 4:56 PM        | 6                                | 0.100                          | 1,5   | 60.54                 | 6.1                       | Operational Upsets  | Complete Commissioning of back-up control system |
| September 20, 2023 | 5:49 PM               | 5:52 PM        | 3                                | 0.050                          | 1   | 60.54                 | 3.0                       | Starting Up the unit, Operator Error  | Training & corrective action with employee.      |
| September 21, 2023 | 1:49 PM               | 1:53 PM        | 4                                | 0.067                          | 1,5   | 59.28                 | 4.0                       | Operational Upsets  | Complete Commissioning of back-up control system |
| September 24, 2023 | 4:33 PM               | 4:53 PM        | 20                               | 0.333                          | 1,2,5                                       | 60.54                 | 20.2                      | Operational Upsets  | Complete Commissioning of back-up control system |
| September 25, 2023 | 7:37 AM               | 7:57 AM        | 20                               | 0.333                          | 1   | 1.56                  | 0.5                       | PLC Communication Issues  | Complete Commissioning of back-up control system |
| September 26, 2023 | 11:02 AM              | 11:07 AM       | 5                                | 0.083                          | 1,5   | 60.54                 | 5.0                       | Operational Upsets  | Complete Commissioning of back-up control system |
| September 26, 2023 | 11:39 AM              | 11:43 AM       | 4                                | 0.067                          | 1,5   | 60.54                 | 4.0                       | Operational Upsets  | Complete Commissioning of back-up control system |
| October 2, 2023    | 1:58 AM               | 2:03 AM        | 4                                | 0.067                          | 1   | 1.56                  | 0.1                       | Operational Upsets  | Complete Commissioning of back-up control system |
| October 5, 2023    | 10:05 AM              | 10:11 AM       | 6                                | 0.100                          | 1,5   | 60.54                 | 6.1                       | Operational Upsets  | Complete Commissioning of back-up control system |

**Table 1: Summary of Deviations**  
**Reporting Period: September 8, 2023 through October 7, 2023**

| Date of Deviation | Duration of Deviation |                |                                  | Summary of Deviation           |   |                       |                          | Cause of the Event  | Corrective/Preventive Action Taken               |
|-------------------|-----------------------|----------------|----------------------------------|--------------------------------|---|-----------------------|--------------------------|---|--|
|                   | Start (hh:mm)         | Finish (hh:mm) | Total deviation Period (Minutes) | Total Deviation Period (hours) | Regulation/Permit Conditions (see footnote) | Emission Rate (lb/hr) | Estimated Emissions (lb) |   |  |
| October 5, 2023   | 11:31 AM              | 11:34 AM       | 3                                | 0.050                          | 1   | 60.54                 | 3.0                      | Interruption of environmental controls due to commissioning of back-up control system | Complete Commissioning of back-up control system |
| October 5, 2023   | 11:44 AM              | 11:49 AM       | 5                                | 0.083                          | 1,3   | 60.54                 | 5.0                      | Interruption of environmental controls due to commissioning of back-up control system | Complete Commissioning of back-up control system |
| October 5, 2023   | 12:09 PM              | 12:12 PM       | 3                                | 0.050                          | 1   | 60.54                 | 3.0                      | Interruption of environmental controls due to commissioning of back-up control system | Complete Commissioning of back-up control system |

**Footnotes**

**Regulation/Permit Conditions**

- 1 CP#14100012 - Permit condition 2.2.1.a. (Naphthalene Plant Tanks)
- 2 IAC 35, § 218.301 (VOM emissions <8 lbs/hr)
- 3 CP#15080025 - Permit condition 1.a. and/or 5.a. (Tube Heater #1 emission limit)
- 4 CP# 08040005 - Permit condition 1a. (Pitch Tanks)
- 5 CP#11100041 - Permit condition 1.a and/or 5.b. (Tube Heater #2 emission limit)



**Attachment O**

**Naphthalene TO SSM Plan Deviation Notification**

**Response to Violation Notice A-2023-00162**

**Koppers Inc.**



**Koppers Inc.**  
**Carbon Materials and Chemicals**  
3900 South Laramie Avenue  
Cicero, IL 60804-4523  
Tel 708 222 3483  
Fax 708 656 6079  
[www.koppers.com](http://www.koppers.com)

**05/30/2023**

**Illinois Environmental Protection Agency  
Bureau of Air (MC 11)  
1021 N. Grand Avenue East P.O Box 19276  
Springfield, IL 62794-9276**

**RE: Notification of Permit Deviation  
Koppers Inc., Stickney Plant  
ID Number: 031300AAJ**

**To whom it may concern:**

**This notification is to report a deviation from a permit condition that occurred at Koppers Inc., Stickney facility. Information about the event is included in this notification as follows:**

**If you have any questions concerning this notification, please contact Fola Fayanjuola at (708) 427-9057**

**Sincerely,**

A handwritten signature in blue ink, appearing to read "Fola Fayanjuola".

**Fola Fayanjuola  
Environmental Manager**

**Table 1 – Deviation Summary**

|   |  |
|---|--|
| <b>Date and Description</b>               | <b>01/03/2023 1:30 am – 9:00 am:</b> SSM plan not followed during Naphthalene Thermal Oxidizer malfunction.<br><b>03/23/2023 02:50 am – 07:40 am:</b> SSM plan not followed during Naphthalene Thermal Oxidizer malfunction. |
| <b>Cause of the Event</b>                 | Program to shutdown process during the loss of the Naphthalene Thermal Oxidizer had an issue. The process was eventually shutdown manually.  |
| <b>Corrective Action Taken</b>            | Engineering is working on repairing programming issue.   |
| <b>Steps Taken to Avoid Future Events</b> | Programming issue repair.  |

**Attachment P**  
**Compliance Stack Test Report**  
**Response to Violation Notice A-2023-00162**  
**Koppers Inc.**

# Source Test Report

Koppers, Inc.  
3900 South Laramie Ave.  
Cicero, IL 60804

Sources Tested: Multiple Sources  
Test Dates: September 29-30, 2020

AST Project No. 2020-1351-001

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Prepared By  
Alliance Source Testing, LLC  
1355 Sherman Road, Suite 300  
Hiawatha, IA 52233



**CORPORATE OFFICE**

255 Grant St. SE  
Suite 600  
Decatur, AL 35601  
(256) 351-0121

[stacktest.com](http://stacktest.com)

**LOCATIONS**

Birmingham, AL  
Decatur, AL  
Anchorage, AK  
Little Rock, AR  
Denver, CO  
Cedar Rapids, IA  
Baton Rouge, LA

Pittsburgh, PA  
Philadelphia, PA  
Dallas, TX  
Houston, TX  
Salt Lake City, UT  
Roanoke, VA



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**Regulatory Information**

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*Permit No.* IEPA Construction Permit No. 14100012

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**Source Information**

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| <i>Source Name</i>      | <i>Target Parameters</i>                            |
|-------------------------|---|
| Reboiler/SCR Outlet     | SO <sub>2</sub> , NO <sub>x</sub> , NH <sub>3</sub> |
| Main Stack              | PM, SO <sub>2</sub> , NO <sub>x</sub> , CO, VOM     |
| Thermal Oxidizer Inlet  | VOM   |
| Thermal Oxidizer Outlet | SO <sub>2</sub> , VOM                               |

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**Contact Information**

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*Test Location*  
Koppers, Inc.  
3900 South Laramie Ave.  
Cicero, IL 60804

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Alliance Source Testing, LLC (AST) has completed the source testing as described in this report. Results apply only to the source(s) tested and operating condition(s) for the specific test date(s) and time(s) identified within this report. All results are intended to be considered in their entirety, and AST is not responsible for use of less than the complete test report without written consent. This report shall not be reproduced in full or in part without written approval from the customer.

To the best of my knowledge and abilities, all information, facts and test data are correct. Data presented in this report has been checked for completeness and is accurate, error-free and legible. Onsite testing was conducted in accordance with approved internal Standard Operating Procedures. Any deviations or problems are detailed in the relevant sections on the test report.

This report is only considered valid once an authorized representative of AST has signed in the space provided below; any other version is considered draft. This document was prepared in portable document format (.pdf) and contains pages as identified in the bottom footer of this document.



**James Holder, QSTI**  
**Alliance Source Testing, LLC**

11/19/2020

Date

**Table 2-3**  
**Summary of Results – Thermal Oxidizer**

| Run Number                                      | Run 2   | Run 3   | Run 4   | Average |
|---|---------|---------|---------|---------|
| Date  | 9/29/20 | 9/30/20 | 9/30/20 | --      |
| <b>Sulfur Dioxide Data</b>                      |         |         |         |         |
| Concentration, ppmvd                            | 0.0     | 0.0     | 0.0     | 0.0     |
| Emission Rate, lb/hr                            | 0.00    | 0.00    | 0.00    | 0.00    |
| <b>Volatile Organic Matter Data</b>             |         |         |         |         |
| Inlet Concentration, ppmvd                      | 29.9    | 16.1    | 19.4    | 21.8    |
| Outlet Concentration, ppmvd @ 3% O <sub>2</sub> | 9.6     | 6.4     | 4.7     | 6.9     |
| Outlet Emission Rate, lb/hr                     | 0.059   | 0.040   | 0.026   | 0.042   |



**Attachment Q**  
**SO2 Emissions Data**  
**Response to Violation Notice A-2023-00162**  
**Koppers Inc.**

| Date   | Monthly averaged SO2 rate Train A (lb SO2/month) | Monthly averaged SO2 rate Train B (lb SO2/month) |
|--------|--|--|
| Jan-22 | 16846  | 9631   |
| Feb-22 | 14088  | 14113  |
| Mar-22 | 22624  | 16867  |
| Apr-22 | 1479   | 1562   |
| May-22 | 16839  | 21247  |
| Jun-22 | 5432   | 7433   |
| Jul-22 | 29207  | 26578  |
| Aug-22 | 11326  | 12396  |
| Sep-22 | 340  | 319  |
| Oct-22 | 23992  | 29511  |
| Nov-22 | 13640  | 7422   |
| Dec-22 | 12759  | 11183  |
| Jan-23 | 12263  | 11606  |
| Feb-23 | 10453  | 17714  |
| Mar-23 | 6494   | 21974  |
| Apr-23 | 8124   | 25028  |
| May-23 | 5015   | 36123  |
| Jun-23 | 17402  | 20837  |
| Jul-23 | 14191  | 13572  |
| Aug-23 | 15552  | 7317   |
| Sep-23 | 1618   | 0  |

al total 2022            84                    79  
al total 2023            46                    77

*Phthalic Anhydride Reactor Trains A and B SO2 data*

| Date      | Daily averaged SO2 rate Train A (lb SO2/Day) | Daily averaged SO2 rate Train B (lb SO2/Day) |
|-----------|--|--|
| 1/1/2022  | 1027.5                                       | 545.6  |
| 1/2/2022  | 1031.6                                       | 548.2  |
| 1/3/2022  | 623.5  | 386.0  |
| 1/4/2022  | 252.8  | 314.8  |
| 1/5/2022  | 351.3  | 349.8  |
| 1/6/2022  | 406.0  | 348.2  |
| 1/7/2022  | 399.4  | 348.1  |
| 1/8/2022  | 383.7  | 330.5  |
| 1/9/2022  | 384.7  | 319.5  |
| 1/10/2022 | 403.2  | 336.9  |
| 1/11/2022 | 673.4  | 340.3  |
| 1/12/2022 | 797.0  | 340.9  |
| 1/13/2022 | 776.8  | 349.0  |
| 1/14/2022 | 762.6  | 349.6  |

| Date      | Daily averaged SO2 rate Train A (lb SO2/Day) | Daily averaged SO2 rate Train B (lb SO2/Day) |
|-----------|--|--|
| 1/15/2022 | 752.6  | 350.8  |
| 1/16/2022 | 751.3  | 357.0  |
| 1/17/2022 | 749.8  | 355.4  |
| 1/18/2022 | 747.9  | 354.9  |
| 1/19/2022 | 763.6  | 357.3  |
| 1/20/2022 | 615.4  | 363.7  |
| 1/21/2022 | 364.0  | 323.7  |
| 1/22/2022 | 322.3  | 278.5  |
| 1/23/2022 | 279.7  | 244.8  |
| 1/24/2022 | 441.2  | 0.0  |
| 1/25/2022 | 558.5  | 0.0  |
| 1/26/2022 | 454.1  | 173.5  |
| 1/27/2022 | 357.3  | 253.4  |
| 1/28/2022 | 346.7  | 240.5  |
| 1/29/2022 | 354.1  | 247.6  |
| 1/30/2022 | 353.4  | 246.1  |
| 1/31/2022 | 359.9  | 275.9  |
| 2/1/2022  | 362.4  | 290.6  |
| 2/2/2022  | 349.4  | 274.9  |
| 2/3/2022  | 360.3  | 269.9  |
| 2/4/2022  | 360.4  | 273.1  |
| 2/5/2022  | 376.7  | 286.0  |
| 2/6/2022  | 363.5  | 275.5  |
| 2/7/2022  | 360.9  | 287.1  |
| 2/8/2022  | 361.5  | 557.6  |
| 2/9/2022  | 382.3  | 687.8  |
| 2/10/2022 | 392.9  | 709.8  |
| 2/11/2022 | 514.1  | 330.1  |
| 2/12/2022 | 764.6  | 0.0  |
| 2/13/2022 | 334.2  | 1.6  |
| 2/14/2022 | 24.7   | 23.8   |
| 2/15/2022 | 27.2   | 87.6   |
| 2/16/2022 | 396.2  | 909.7  |
| 2/17/2022 | 754.6  | 427.5  |
| 2/18/2022 | 746.6  | 24.2   |
| 2/19/2022 | 783.8  | 879.1  |
| 2/20/2022 | 774.7  | 671.7  |
| 2/21/2022 | 778.2  | 926.1  |
| 2/22/2022 | 848.9  | 940.5  |
| 2/23/2022 | 920.1  | 898.2  |
| 2/24/2022 | 814.5  | 893.5  |
| 2/25/2022 | 753.2  | 980.1  |
| 2/26/2022 | 809.6  | 1034.5                                       |
| 2/27/2022 | 372.5  | 490.4  |
| 2/28/2022 | 0.0  | 682.5  |
| 3/1/2022  | 0.0  | 950.0  |

| Date      | Daily averaged SO2 rate Train A (lb SO2/Day) | Daily averaged SO2 rate Train B (lb SO2/Day) |
|-----------|--|--|
| 3/2/2022  | 0.0  | 939.9  |
| 3/3/2022  | 0.0  | 963.3  |
| 3/4/2022  | 527.1  | 685.3  |
| 3/5/2022  | 939.3  | 790.1  |
| 3/6/2022  | 1035.6                                       | 964.0  |
| 3/7/2022  | 1039.9                                       | 961.5  |
| 3/8/2022  | 1054.7                                       | 776.1  |
| 3/9/2022  | 1077.5                                       | 668.0  |
| 3/10/2022 | 1090.9                                       | 671.6  |
| 3/11/2022 | 1077.0                                       | 661.9  |
| 3/12/2022 | 79.3   | 303.6  |
| 3/13/2022 | 203.4  | 731.6  |
| 3/14/2022 | 971.5  | 708.5  |
| 3/15/2022 | 1064.9                                       | 582.7  |
| 3/16/2022 | 1051.7                                       | 498.5  |
| 3/17/2022 | 1059.3                                       | 514.2  |
| 3/18/2022 | 995.9  | 530.2  |
| 3/19/2022 | 993.3  | 525.7  |
| 3/20/2022 | 985.4  | 509.6  |
| 3/21/2022 | 1012.3                                       | 496.8  |
| 3/22/2022 | 1115.2                                       | 523.2  |
| 3/23/2022 | 1140.7                                       | 510.5  |
| 3/24/2022 | 1106.7                                       | 579.8  |
| 3/25/2022 | 1085.9                                       | 383.8  |
| 3/26/2022 | 1046.9                                       | 12.1   |
| 3/27/2022 | 474.9  | 11.4   |
| 3/28/2022 | 0.7  | 0.1  |
| 3/29/2022 | 0.6  | 0.1  |
| 3/30/2022 | 0.5  | 0.0  |
| 3/31/2022 | 392.7  | 413.3  |
| 4/1/2022  | 521.5  | 522.5  |
| 4/2/2022  | 507.2  | 509.1  |
| 4/3/2022  | 221.5  | 228.1  |
| 4/4/2022  | 6.6  | 9.1  |
| 4/5/2022  | 3.7  | 5.7  |
| 4/6/2022  | 0.0  | 2.4  |
| 4/7/2022  | 0.0  | 2.7  |
| 4/8/2022  | 0.0  | 2.2  |
| 4/9/2022  | 0.0  | 2.2  |
| 4/10/2022 | 0.0  | 1.9  |
| 4/11/2022 | 0.0  | 0.7  |
| 4/12/2022 | 0.1  | 0.0  |
| 4/13/2022 | 0.0  | 0.0  |
| 4/14/2022 | 0.0  | 5.2  |
| 4/15/2022 | 7.6  | 12.3   |
| 4/16/2022 | 11.0   | 12.7   |

| Date      | Daily averaged SO2 rate Train A (lb SO2/Day) | Daily averaged SO2 rate Train B (lb SO2/Day) |
|-----------|--|--|
| 4/17/2022 | 12.3   | 16.2   |
| 4/18/2022 | 7.0  | 13.6   |
| 4/19/2022 | 0.0  | 20.0   |
| 4/20/2022 | 0.3  | 7.5  |
| 4/21/2022 | 2.8  | 3.1  |
| 4/22/2022 | 25.4   | 27.6   |
| 4/23/2022 | 5.9  | 7.3  |
| 4/24/2022 | 4.2  | 4.4  |
| 4/25/2022 | 24.6   | 25.2   |
| 4/26/2022 | 29.3   | 29.6   |
| 4/27/2022 | 32.8   | 33.0   |
| 4/28/2022 | 24.6   | 25.4   |
| 4/29/2022 | 13.9   | 14.8   |
| 4/30/2022 | 16.5   | 17.7   |
| 5/1/2022  | 19.7   | 20.7   |
| 5/2/2022  | 11.1   | 11.7   |
| 5/3/2022  | 3.1  | 4.3  |
| 5/4/2022  | 11.9   | 857.2  |
| 5/5/2022  | 194.1  | 1175.5                                       |
| 5/6/2022  | 838.0  | 1123.0                                       |
| 5/7/2022  | 839.1  | 1089.1                                       |
| 5/8/2022  | 860.8  | 1105.0                                       |
| 5/9/2022  | 898.4  | 1091.5                                       |
| 5/10/2022 | 979.1  | 1114.0                                       |
| 5/11/2022 | 1003.4                                       | 1023.9                                       |
| 5/12/2022 | 1107.3                                       | 1371.2                                       |
| 5/13/2022 | 1155.1                                       | 1432.3                                       |
| 5/14/2022 | 1175.7                                       | 1436.6                                       |
| 5/15/2022 | 1114.1                                       | 1293.8                                       |
| 5/16/2022 | 942.7  | 1056.1                                       |
| 5/17/2022 | 1138.2                                       | 1176.4                                       |
| 5/18/2022 | 1185.7                                       | 1213.8                                       |
| 5/19/2022 | 972.6  | 890.0  |
| 5/20/2022 | 693.9  | 696.2  |
| 5/21/2022 | 449.7  | 430.8  |
| 5/22/2022 | 427.5  | 408.6  |
| 5/23/2022 | 207.9  | 207.6  |
| 5/24/2022 | 85.2   | 92.5   |
| 5/25/2022 | 79.3   | 112.5  |
| 5/26/2022 | 59.0   | 121.3  |
| 5/27/2022 | 96.0   | 152.7  |
| 5/28/2022 | 66.0   | 125.3  |
| 5/29/2022 | 71.4   | 135.5  |
| 5/30/2022 | 74.3   | 136.7  |
| 5/31/2022 | 78.7   | 140.9  |
| 6/1/2022  | 85.4   | 150.3  |

| Date      | Daily averaged SO2 rate Train A (lb SO2/Day) | Daily averaged SO2 rate Train B (lb SO2/Day) |
|-----------|--|--|
| 6/2/2022  | 89.3   | 90.5   |
| 6/3/2022  | 97.8   | 24.8   |
| 6/4/2022  | 98.4   | 106.6  |
| 6/5/2022  | 95.5   | 104.2  |
| 6/6/2022  | 84.3   | 92.7   |
| 6/7/2022  | 89.3   | 97.8   |
| 6/8/2022  | 103.2  | 146.5  |
| 6/9/2022  | 364.9  | 226.0  |
| 6/10/2022 | 511.1  | 662.4  |
| 6/11/2022 | 0.0  | 811.0  |
| 6/12/2022 | 0.0  | 779.4  |
| 6/13/2022 | 308.7  | 654.7  |
| 6/14/2022 | 748.3  | 776.1  |
| 6/15/2022 | 651.3  | 661.4  |
| 6/16/2022 | 590.8  | 701.2  |
| 6/17/2022 | 697.8  | 603.1  |
| 6/18/2022 | 385.1  | 371.0  |
| 6/19/2022 | 88.4   | 86.9   |
| 6/20/2022 | 28.1   | 26.9   |
| 6/21/2022 | 33.7   | 31.7   |
| 6/22/2022 | 28.2   | 25.9   |
| 6/23/2022 | 23.7   | 21.5   |
| 6/24/2022 | 18.6   | 17.0   |
| 6/25/2022 | 8.8  | 7.6  |
| 6/26/2022 | 8.3  | 5.6  |
| 6/27/2022 | 8.5  | 6.4  |
| 6/28/2022 | 5.8  | 4.1  |
| 6/29/2022 | 3.0  | 1.5  |
| 6/30/2022 | 175.8  | 138.4  |
| 7/1/2022  | 325.5  | 293.5  |
| 7/2/2022  | 389.6  | 361.2  |
| 7/3/2022  | 497.1  | 384.9  |
| 7/4/2022  | 815.1  | 376.0  |
| 7/5/2022  | 958.6  | 558.9  |
| 7/6/2022  | 1107.5                                       | 764.0  |
| 7/7/2022  | 1112.4                                       | 751.5  |
| 7/8/2022  | 1100.6                                       | 720.7  |
| 7/9/2022  | 1067.5                                       | 821.5  |
| 7/10/2022 | 1082.9                                       | 815.2  |
| 7/11/2022 | 1075.3                                       | 889.5  |
| 7/12/2022 | 1073.2                                       | 992.3  |
| 7/13/2022 | 1097.8                                       | 995.7  |
| 7/14/2022 | 1122.0                                       | 1002.7                                       |
| 7/15/2022 | 1118.7                                       | 1006.5                                       |
| 7/16/2022 | 1112.7                                       | 1002.2                                       |
| 7/17/2022 | 1111.2                                       | 1002.1                                       |

| Date      | Daily averaged SO2 rate Train A (lb SO2/Day) | Daily averaged SO2 rate Train B (lb SO2/Day) |
|-----------|--|--|
| 7/18/2022 | 1113.6                                       | 859.6  |
| 7/19/2022 | 918.8  | 765.1  |
| 7/20/2022 | 805.3  | 776.5  |
| 7/21/2022 | 846.2  | 811.1  |
| 7/22/2022 | 858.9  | 820.7  |
| 7/23/2022 | 856.2  | 829.0  |
| 7/24/2022 | 852.4  | 832.2  |
| 7/25/2022 | 849.0  | 1154.7                                       |
| 7/26/2022 | 853.3  | 1439.7                                       |
| 7/27/2022 | 951.0  | 1447.8                                       |
| 7/28/2022 | 1117.4                                       | 1183.1                                       |
| 7/29/2022 | 998.4  | 965.4  |
| 7/30/2022 | 1009.1                                       | 975.6  |
| 7/31/2022 | 1009.7                                       | 979.2  |
| 8/1/2022  | 782.6  | 751.2  |
| 8/2/2022  | 626.9  | 594.1  |
| 8/3/2022  | 624.5  | 559.2  |
| 8/4/2022  | 615.5  | 440.2  |
| 8/5/2022  | 612.7  | 555.3  |
| 8/6/2022  | 624.6  | 561.2  |
| 8/7/2022  | 648.0  | 559.5  |
| 8/8/2022  | 405.0  | 358.3  |
| 8/9/2022  | 291.7  | 261.7  |
| 8/10/2022 | 288.8  | 270.0  |
| 8/11/2022 | 292.0  | 554.1  |
| 8/12/2022 | 466.3  | 908.7  |
| 8/13/2022 | 660.9  | 939.4  |
| 8/14/2022 | 658.6  | 945.9  |
| 8/15/2022 | 462.0  | 584.9  |
| 8/16/2022 | 353.5  | 304.6  |
| 8/17/2022 | 354.8  | 275.6  |
| 8/18/2022 | 355.4  | 276.7  |
| 8/19/2022 | 353.6  | 274.6  |
| 8/20/2022 | 352.9  | 274.3  |
| 8/21/2022 | 355.8  | 275.0  |
| 8/22/2022 | 103.1  | 120.6  |
| 8/23/2022 | 0.4  | 59.2   |
| 8/24/2022 | 0.5  | 59.9   |
| 8/25/2022 | 0.5  | 59.2   |
| 8/26/2022 | 129.9  | 382.4  |
| 8/27/2022 | 265.7  | 324.1  |
| 8/28/2022 | 267.2  | 320.3  |
| 8/29/2022 | 179.6  | 247.8  |
| 8/30/2022 | 103.7  | 185.4  |
| 8/31/2022 | 89.4   | 112.8  |
| 9/1/2022  | 93.6   | 83.4   |

| Date       | Daily averaged SO2 rate Train A (lb SO2/Day) | Daily averaged SO2 rate Train B (lb SO2/Day) |
|------------|--|--|
| 9/2/2022   | 58.9   | 49.6   |
| 9/3/2022   | 23.9   | 21.9   |
| 9/4/2022   | 23.6   | 21.6   |
| 9/5/2022   | 22.7   | 7.7  |
| 9/6/2022   | 14.1   | 0.0  |
| 9/7/2022   | 32.6   | 0.0  |
| 9/8/2022   | 18.6   | 0.0  |
| 9/9/2022   | 20.3   | 0.0  |
| 9/10/2022  | 19.7   | 0.0  |
| 9/11/2022  | 11.6   | 0.0  |
| 9/12/2022  | 0.1  | 0.0  |
| 9/13/2022  | 0.0  | 0.0  |
| 9/14/2022  | 0.0  | 0.0  |
| 9/15/2022  | 0.0  | 0.0  |
| 9/16/2022  | 0.0  | 23.6   |
| 9/17/2022  | 0.0  | 25.1   |
| 9/18/2022  | 0.0  | 24.9   |
| 9/19/2022  | 0.0  | 23.6   |
| 9/20/2022  | 0.0  | 22.8   |
| 9/21/2022  | 0.0  | 15.2   |
| 9/22/2022  | 0.0  | 0.0  |
| 9/23/2022  | 0.0  | 0.0  |
| 9/24/2022  | 0.0  | 0.0  |
| 9/25/2022  | 0.0  | 0.0  |
| 9/26/2022  | 0.0  | 0.0  |
| 9/27/2022  | 0.0  | 0.0  |
| 9/28/2022  | 0.0  | 0.0  |
| 9/29/2022  | 0.0  | 0.0  |
| 9/30/2022  | 0.0  | 0.0  |
| 10/1/2022  | 0.0  | 0.0  |
| 10/2/2022  | 0.0  | 17.2   |
| 10/3/2022  | 0.0  | 18.3   |
| 10/4/2022  | 10.3   | 186.9  |
| 10/5/2022  | 31.5   | 762.2  |
| 10/6/2022  | 449.7  | 1122.9                                       |
| 10/7/2022  | 756.8  | 1175.4                                       |
| 10/8/2022  | 759.6  | 1174.3                                       |
| 10/9/2022  | 748.6  | 1161.4                                       |
| 10/10/2022 | 742.6  | 1155.0                                       |
| 10/11/2022 | 611.7  | 1147.9                                       |
| 10/12/2022 | 304.8  | 1117.8                                       |
| 10/13/2022 | 699.3  | 1099.0                                       |
| 10/14/2022 | 831.0  | 1098.6                                       |
| 10/15/2022 | 869.4  | 1142.8                                       |
| 10/16/2022 | 875.9  | 1147.1                                       |
| 10/17/2022 | 880.6  | 1156.4                                       |



| Date       | Daily averaged SO2 rate Train A (lb SO2/Day) | Daily averaged SO2 rate Train B (lb SO2/Day) |
|------------|--|--|
| 10/18/2022 | 885.3  | 1164.2                                       |
| 10/19/2022 | 1025.1                                       | 1173.7                                       |
| 10/20/2022 | 1122.1                                       | 1160.0                                       |
| 10/21/2022 | 1117.8                                       | 1128.4                                       |
| 10/22/2022 | 1094.1                                       | 1101.0                                       |
| 10/23/2022 | 1101.6                                       | 1109.8                                       |
| 10/24/2022 | 1107.1                                       | 1114.4                                       |
| 10/25/2022 | 1112.6                                       | 1109.0                                       |
| 10/26/2022 | 1120.9                                       | 1114.9                                       |
| 10/27/2022 | 1123.4                                       | 1052.5                                       |
| 10/28/2022 | 1163.3                                       | 945.7  |
| 10/29/2022 | 1180.3                                       | 916.5  |
| 10/30/2022 | 1041.3                                       | 893.0  |
| 10/31/2022 | 1225.0                                       | 844.1  |
| 11/1/2022  | 1241.4                                       | 708.6  |
| 11/2/2022  | 1265.2                                       | 598.0  |
| 11/3/2022  | 1280.9                                       | 449.3  |
| 11/4/2022  | 1286.7                                       | 280.7  |
| 11/5/2022  | 1123.7                                       | 305.1  |
| 11/6/2022  | 1268.0                                       | 270.3  |
| 11/7/2022  | 929.6  | 274.1  |
| 11/8/2022  | 639.0  | 262.2  |
| 11/9/2022  | 524.9  | 258.0  |
| 11/10/2022 | 340.4  | 251.4  |
| 11/11/2022 | 304.9  | 251.8  |
| 11/12/2022 | 310.4  | 255.2  |
| 11/13/2022 | 316.8  | 263.9  |
| 11/14/2022 | 316.1  | 264.8  |
| 11/15/2022 | 184.5  | 209.3  |
| 11/16/2022 | 80.7   | 641.4  |
| 11/17/2022 | 292.9  | 273.4  |
| 11/18/2022 | 287.5  | 257.9  |
| 11/19/2022 | 286.9  | 246.9  |
| 11/20/2022 | 298.5  | 243.6  |
| 11/21/2022 | 299.2  | 244.8  |
| 11/22/2022 | 303.1  | 242.3  |
| 11/23/2022 | 297.0  | 236.8  |
| 11/24/2022 | 159.2  | 129.0  |
| 11/25/2022 | 0.8  | 0.9  |
| 11/26/2022 | 0.6  | 0.6  |
| 11/27/2022 | 0.9  | 0.9  |
| 11/28/2022 | 0.6  | 0.8  |
| 11/29/2022 | 0.0  | 0.0  |
| 11/30/2022 | 0.0  | 0.0  |
| 12/1/2022  | 0.0  | 0.0  |
| 12/2/2022  | 0.0  | 0.0  |

| Date       | Daily averaged SO2 rate Train A (lb SO2/Day) | Daily averaged SO2 rate Train B (lb SO2/Day) |
|------------|--|--|
| 12/3/2022  | 0.0  | 0.0  |
| 12/4/2022  | 0.0  | 0.0  |
| 12/5/2022  | 0.0  | 0.0  |
| 12/6/2022  | 0.0  | 0.0  |
| 12/7/2022  | 0.0  | 0.0  |
| 12/8/2022  | 0.0  | 0.0  |
| 12/9/2022  | 350.0  | 322.5  |
| 12/10/2022 | 686.2  | 636.9  |
| 12/11/2022 | 660.3  | 632.1  |
| 12/12/2022 | 691.7  | 638.2  |
| 12/13/2022 | 688.7  | 624.2  |
| 12/14/2022 | 676.5  | 607.3  |
| 12/15/2022 | 410.4  | 773.6  |
| 12/16/2022 | 664.0  | 628.5  |
| 12/17/2022 | 667.1  | 628.6  |
| 12/18/2022 | 667.7  | 625.4  |
| 12/19/2022 | 677.3  | 619.4  |
| 12/20/2022 | 785.7  | 430.2  |
| 12/21/2022 | 652.4  | 600.9  |
| 12/22/2022 | 636.7  | 583.7  |
| 12/23/2022 | 713.9  | 662.4  |
| 12/24/2022 | 665.6  | 617.1  |
| 12/25/2022 | 629.1  | 583.7  |
| 12/26/2022 | 610.1  | 566.9  |
| 12/27/2022 | 345.3  | 209.4  |
| 12/28/2022 | 217.5  | 8.5  |
| 12/29/2022 | 133.3  | 43.8   |
| 12/30/2022 | 253.3  | 114.5  |
| 12/31/2022 | 276.4  | 24.8   |
| 1/1/2023   | 277.2  | 23.4   |
| 1/2/2023   | 255.8  | 22.3   |
| 1/3/2023   | 255.8  | 23.6   |
| 1/4/2023   | 126.8  | 27.7   |
| 1/5/2023   | 73.8   | 32.6   |
| 1/6/2023   | 101.6  | 38.9   |
| 1/7/2023   | 60.2   | 45.9   |
| 1/8/2023   | 43.3   | 46.0   |
| 1/9/2023   | 44.6   | 47.7   |
| 1/10/2023  | 34.5   | 40.8   |
| 1/11/2023  | 33.8   | 37.8   |
| 1/12/2023  | 29.3   | 39.2   |
| 1/13/2023  | 21.8   | 48.4   |
| 1/14/2023  | 58.3   | 62.2   |
| 1/15/2023  | 63.0   | 66.3   |
| 1/16/2023  | 63.5   | 66.8   |
| 1/17/2023  | 423.0  | 379.8  |

| Date      | Daily averaged SO2 rate Train A (lb SO2/Day) | Daily averaged SO2 rate Train B (lb SO2/Day) |
|-----------|--|--|
| 1/18/2023 | 924.2  | 860.2  |
| 1/19/2023 | 887.1  | 821.3  |
| 1/20/2023 | 905.1  | 836.3  |
| 1/21/2023 | 908.1  | 844.9  |
| 1/22/2023 | 592.5  | 916.3  |
| 1/23/2023 | 416.8  | 1029.9                                       |
| 1/24/2023 | 826.2  | 766.6  |
| 1/25/2023 | 768.3  | 714.4  |
| 1/26/2023 | 767.0  | 711.5  |
| 1/27/2023 | 769.6  | 715.1  |
| 1/28/2023 | 780.5  | 722.5  |
| 1/29/2023 | 784.6  | 723.7  |
| 1/30/2023 | 559.7  | 514.3  |
| 1/31/2023 | 407.1  | 379.7  |
| 2/1/2023  | 405.0  | 381.8  |
| 2/2/2023  | 586.4  | 382.8  |
| 2/3/2023  | 697.5  | 400.4  |
| 2/4/2023  | 686.1  | 405.8  |
| 2/5/2023  | 667.6  | 396.1  |
| 2/6/2023  | 666.8  | 402.2  |
| 2/7/2023  | 682.2  | 393.2  |
| 2/8/2023  | 690.0  | 399.0  |
| 2/9/2023  | 679.5  | 397.8  |
| 2/10/2023 | 490.3  | 397.0  |
| 2/11/2023 | 405.2  | 394.4  |
| 2/12/2023 | 402.3  | 394.5  |
| 2/13/2023 | 399.9  | 393.0  |
| 2/14/2023 | 397.0  | 392.8  |
| 2/15/2023 | 284.8  | 690.8  |
| 2/16/2023 | 208.2  | 973.6  |
| 2/17/2023 | 164.1  | 611.4  |
| 2/18/2023 | 218.2  | 969.5  |
| 2/19/2023 | 210.7  | 950.0  |
| 2/20/2023 | 212.4  | 958.8  |
| 2/21/2023 | 215.2  | 945.4  |
| 2/22/2023 | 195.0  | 792.1  |
| 2/23/2023 | 217.7  | 941.9  |
| 2/24/2023 | 196.5  | 764.8  |
| 2/25/2023 | 224.9  | 946.6  |
| 2/26/2023 | 218.2  | 939.8  |
| 2/27/2023 | 31.0   | 811.3  |
| 2/28/2023 | 0.3  | 887.0  |
| 3/1/2023  | 0.3  | 852.6  |
| 3/2/2023  | 0.1  | 616.3  |
| 3/3/2023  | 0.1  | 812.1  |
| 3/4/2023  | 0.2  | 833.2  |

| Date      | Daily averaged SO2 rate Train A (lb SO2/Day) | Daily averaged SO2 rate Train B (lb SO2/Day) |
|-----------|--|--|
| 3/5/2023  | 0.2  | 832.5  |
| 3/6/2023  | 0.2  | 838.6  |
| 3/7/2023  | 0.1  | 650.6  |
| 3/8/2023  | 44.8   | 790.4  |
| 3/9/2023  | 168.0  | 378.9  |
| 3/10/2023 | 187.3  | 364.4  |
| 3/11/2023 | 214.6  | 367.6  |
| 3/12/2023 | 196.2  | 365.3  |
| 3/13/2023 | 182.1  | 367.9  |
| 3/14/2023 | 197.7  | 375.0  |
| 3/15/2023 | 258.7  | 514.8  |
| 3/16/2023 | 323.8  | 665.8  |
| 3/17/2023 | 287.9  | 671.8  |
| 3/18/2023 | 287.1  | 672.2  |
| 3/19/2023 | 287.8  | 677.5  |
| 3/20/2023 | 292.3  | 676.9  |
| 3/21/2023 | 358.8  | 846.3  |
| 3/22/2023 | 453.6  | 1171.3                                       |
| 3/23/2023 | 519.4  | 1415.9                                       |
| 3/24/2023 | 522.0  | 1413.0                                       |
| 3/25/2023 | 516.4  | 1390.8                                       |
| 3/26/2023 | 467.8  | 1231.6                                       |
| 3/27/2023 | 234.1  | 525.3  |
| 3/28/2023 | 201.4  | 418.3  |
| 3/29/2023 | 115.4  | 416.1  |
| 3/30/2023 | 174.8  | 421.9  |
| 3/31/2023 | 0.3  | 398.8  |
| 4/1/2023  | 0.1  | 395.7  |
| 4/2/2023  | 2.1  | 398.8  |
| 4/3/2023  | 146.0  | 364.1  |
| 4/4/2023  | 127.0  | 320.6  |
| 4/5/2023  | 125.2  | 319.9  |
| 4/6/2023  | 132.2  | 328.2  |
| 4/7/2023  | 135.5  | 333.3  |
| 4/8/2023  | 136.9  | 333.5  |
| 4/9/2023  | 111.1  | 335.6  |
| 4/10/2023 | 139.1  | 347.3  |
| 4/11/2023 | 143.8  | 345.1  |
| 4/12/2023 | 177.2  | 483.4  |
| 4/13/2023 | 236.0  | 662.7  |
| 4/14/2023 | 353.4  | 948.1  |
| 4/15/2023 | 391.4  | 979.6  |
| 4/16/2023 | 226.0  | 409.9  |
| 4/17/2023 | 0.1  | 353.8  |
| 4/18/2023 | 521.9  | 1373.8                                       |
| 4/19/2023 | 724.4  | 1783.9                                       |

| Date      | Daily averaged SO2 rate Train A (lb SO2/Day) | Daily averaged SO2 rate Train B (lb SO2/Day) |
|-----------|--|--|
| 4/20/2023 | 758.6  | 1908.0                                       |
| 4/21/2023 | 773.7  | 1995.6                                       |
| 4/22/2023 | 772.5  | 2003.7                                       |
| 4/23/2023 | 776.0  | 2010.1                                       |
| 4/24/2023 | 533.0  | 1291.4                                       |
| 4/25/2023 | 158.1  | 732.1  |
| 4/26/2023 | 146.9  | 722.1  |
| 4/27/2023 | 135.4  | 711.3  |
| 4/28/2023 | 125.0  | 722.5  |
| 4/29/2023 | 79.3   | 601.9  |
| 4/30/2023 | 36.2   | 1511.6                                       |
| 5/1/2023  | 281.1  | 1863.4                                       |
| 5/2/2023  | 202.6  | 1830.1                                       |
| 5/3/2023  | 321.8  | 1849.7                                       |
| 5/4/2023  | 181.2  | 739.0  |
| 5/5/2023  | 182.4  | 722.6  |
| 5/6/2023  | 153.6  | 698.0  |
| 5/7/2023  | 142.8  | 682.8  |
| 5/8/2023  | 112.0  | 647.8  |
| 5/9/2023  | 118.0  | 654.9  |
| 5/10/2023 | 122.0  | 663.2  |
| 5/11/2023 | 117.2  | 657.7  |
| 5/12/2023 | 129.2  | 876.2  |
| 5/13/2023 | 145.9  | 1276.3                                       |
| 5/14/2023 | 145.0  | 1278.0                                       |
| 5/15/2023 | 149.5  | 1272.9                                       |
| 5/16/2023 | 144.2  | 1260.3                                       |
| 5/17/2023 | 139.4  | 1255.5                                       |
| 5/18/2023 | 139.9  | 1262.8                                       |
| 5/19/2023 | 168.4  | 1281.9                                       |
| 5/20/2023 | 180.1  | 1295.2                                       |
| 5/21/2023 | 170.9  | 1298.7                                       |
| 5/22/2023 | 172.9  | 1330.5                                       |
| 5/23/2023 | 169.4  | 1291.4                                       |
| 5/24/2023 | 157.3  | 1286.2                                       |
| 5/25/2023 | 152.2  | 1339.0                                       |
| 5/26/2023 | 149.8  | 1238.5                                       |
| 5/27/2023 | 152.5  | 1248.1                                       |
| 5/28/2023 | 154.1  | 1251.2                                       |
| 5/29/2023 | 154.3  | 1254.3                                       |
| 5/30/2023 | 154.6  | 1254.4                                       |
| 5/31/2023 | 150.6  | 1262.9                                       |
| 6/1/2023  | 453.7  | 957.3  |
| 6/2/2023  | 655.3  | 650.9  |
| 6/3/2023  | 643.4  | 646.7  |
| 6/4/2023  | 634.8  | 638.5  |

| Date      | Daily averaged SO2 rate Train A (lb SO2/Day) | Daily averaged SO2 rate Train B (lb SO2/Day) |
|-----------|--|--|
| 6/5/2023  | 298.6  | 836.8  |
| 6/6/2023  | 106.3  | 943.5  |
| 6/7/2023  | 129.1  | 751.4  |
| 6/8/2023  | 381.5  | 847.9  |
| 6/9/2023  | 591.9  | 775.0  |
| 6/10/2023 | 373.2  | 772.3  |
| 6/11/2023 | 460.6  | 864.8  |
| 6/12/2023 | 777.9  | 929.8  |
| 6/13/2023 | 947.6  | 933.6  |
| 6/14/2023 | 947.0  | 939.3  |
| 6/15/2023 | 942.3  | 936.2  |
| 6/16/2023 | 946.0  | 940.1  |
| 6/17/2023 | 935.7  | 942.1  |
| 6/18/2023 | 935.8  | 943.3  |
| 6/19/2023 | 709.6  | 559.6  |
| 6/20/2023 | 575.2  | 343.8  |
| 6/21/2023 | 411.6  | 345.3  |
| 6/22/2023 | 336.1  | 341.1  |
| 6/23/2023 | 375.3  | 321.6  |
| 6/24/2023 | 326.8  | 313.5  |
| 6/25/2023 | 321.8  | 307.3  |
| 6/26/2023 | 324.9  | 311.8  |
| 6/27/2023 | 657.5  | 654.3  |
| 6/28/2023 | 787.9  | 791.7  |
| 6/29/2023 | 727.0  | 601.1  |
| 6/30/2023 | 687.3  | 696.1  |
| 7/1/2023  | 684.4  | 695.3  |
| 7/2/2023  | 652.9  | 219.4  |
| 7/3/2023  | 673.6  | 566.9  |
| 7/4/2023  | 690.8  | 655.6  |
| 7/5/2023  | 469.8  | 441.1  |
| 7/6/2023  | 303.7  | 346.6  |
| 7/7/2023  | 368.1  | 338.5  |
| 7/8/2023  | 371.3  | 344.0  |
| 7/9/2023  | 365.1  | 342.8  |
| 7/10/2023 | 367.9  | 346.4  |
| 7/11/2023 | 378.3  | 350.0  |
| 7/12/2023 | 283.0  | 260.9  |
| 7/13/2023 | 43.0   | 48.5   |
| 7/14/2023 | 302.3  | 297.8  |
| 7/15/2023 | 386.6  | 360.2  |
| 7/16/2023 | 389.6  | 365.7  |
| 7/17/2023 | 365.7  | 375.2  |
| 7/18/2023 | 349.6  | 375.5  |
| 7/19/2023 | 353.8  | 359.6  |
| 7/20/2023 | 349.0  | 357.7  |

| Date      | Daily averaged SO2 rate Train A (lb SO2/Day) | Daily averaged SO2 rate Train B (lb SO2/Day) |
|-----------|--|--|
| 7/21/2023 | 283.8  | 349.1  |
| 7/22/2023 | 332.6  | 337.2  |
| 7/23/2023 | 327.2  | 334.8  |
| 7/24/2023 | 566.5  | 568.3  |
| 7/25/2023 | 548.7  | 695.0  |
| 7/26/2023 | 645.1  | 698.3  |
| 7/27/2023 | 688.8  | 684.5  |
| 7/28/2023 | 681.1  | 678.1  |
| 7/29/2023 | 602.1  | 415.0  |
| 7/30/2023 | 680.6  | 679.5  |
| 7/31/2023 | 685.6  | 684.7  |
| 8/1/2023  | 811.4  | 868.5  |
| 8/2/2023  | 936.1  | 942.9  |
| 8/3/2023  | 692.9  | 714.0  |
| 8/4/2023  | 698.6  | 730.2  |
| 8/5/2023  | 714.1  | 768.6  |
| 8/6/2023  | 698.8  | 747.0  |
| 8/7/2023  | 693.6  | 743.0  |
| 8/8/2023  | 686.2  | 736.5  |
| 8/9/2023  | 679.7  | 732.8  |
| 8/10/2023 | 620.9  | 110.5  |
| 8/11/2023 | 793.8  | 81.4   |
| 8/12/2023 | 779.8  | 71.4   |
| 8/13/2023 | 795.1  | 69.9   |
| 8/14/2023 | 782.3  | 0.0  |
| 8/15/2023 | 683.4  | 0.0  |
| 8/16/2023 | 530.6  | 0.0  |
| 8/17/2023 | 530.0  | 0.0  |
| 8/18/2023 | 445.7  | 0.0  |
| 8/19/2023 | 370.0  | 0.0  |
| 8/20/2023 | 376.4  | 0.0  |
| 8/21/2023 | 379.3  | 0.0  |
| 8/22/2023 | 377.3  | 0.0  |
| 8/23/2023 | 394.9  | 0.0  |
| 8/24/2023 | 396.4  | 0.0  |
| 8/25/2023 | 98.6   | 0.0  |
| 8/26/2023 | 95.5   | 0.0  |
| 8/27/2023 | 126.2  | 0.0  |
| 8/28/2023 | 147.1  | 0.0  |
| 8/29/2023 | 144.9  | 0.0  |
| 8/30/2023 | 73.2   | 0.0  |
| 8/31/2023 | 0.1  | 0.0  |
| 9/1/2023  | 0.0  | 0.0  |
| 9/2/2023  | 0.0  | 0.0  |
| 9/3/2023  | 0.0  | 0.0  |
| 9/4/2023  | 0.0  | 0.0  |

| Date      | Daily averaged SO2 rate Train A (lb SO2/Day) | Daily averaged SO2 rate Train B (lb SO2/Day) |
|-----------|--|--|
| 9/5/2023  | 0.3  | 0.0  |
| 9/6/2023  | 1.9  | 0.0  |
| 9/7/2023  | 0.7  | 0.0  |
| 9/8/2023  | 7.3  | 0.0  |
| 9/9/2023  | 0.2  | 0.0  |
| 9/10/2023 | 0.1  | 0.0  |
| 9/11/2023 | 0.0  | 0.0  |
| 9/12/2023 | 0.4  | 0.0  |
| 9/13/2023 | 0.0  | 0.0  |
| 9/14/2023 | 0.0  | 0.0  |
| 9/15/2023 | 0.0  | 0.0  |
| 9/16/2023 | 0.2  | 0.0  |
| 9/17/2023 | 0.6  | 0.0  |
| 9/18/2023 | 2.8  | 0.0  |
| 9/19/2023 | 5.9  | 0.0  |
| 9/20/2023 | 10.7   | 0.0  |
| 9/21/2023 | 10.9   | 0.0  |
| 9/22/2023 | 8.5  | 0.0  |
| 9/23/2023 | 7.8  | 0.0  |
| 9/24/2023 | 11.0   | 0.1  |
| 9/25/2023 | 10.5   | 0.0  |
| 9/26/2023 | 3.2  | 0.0  |
| 9/27/2023 | 0.0  | 0.0  |
| 9/28/2023 | 0.0  | 0.0  |
| 9/29/2023 | 475.8  | 0.0  |
| 9/30/2023 | 1059.5                                       | 0.0  |