

N8308
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DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

N830867161

FACILITY: ALCO Products, LLC		SRN / ID: N8308
LOCATION: 580 ST JEAN ST, DETROIT		DISTRICT: Detroit
CITY: DETROIT		COUNTY: WAYNE
CONTACT: Josh Cupp , Chemist		ACTIVITY DATE: 04/11/2023
STAFF: Samuel Liveson	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled inspection.		
RESOLVED COMPLAINTS:		

1.0. Introduction, Arrival, and Facility Overview

On April 11, 2023, AQD staff Sam Liveson and Jeff Korniski conducted an announced, scheduled inspection of ALCO Products, LLC (ALCO) located at 580 Old St Jean Street in Detroit, Michigan. The purpose of the inspection was to follow-up on a Rule 290 determination for the two coating lines and associated mixers at the facility from a previous inspection on August 16, 2022; to observe stack testing occurring from Monday April 10, 2023 through Thursday April 14, 2023; as well as to determine the facility’s compliance with the federal Clean Air Act; Part 55, Air Pollution Control, of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; and the Michigan Air Pollution Control Rules.

1.1. Scheduling, Arrival, Stack Testing, and Safety

The inspection was announced. AQD emailed David Martin, Plant Manager, on March 30, 2023, to schedule the inspection.

AQD arrived at the facility on April 11, 2023 around 1:00 PM. Weather was sunny and the temperature was 75 °F. AQD met with David Martin, Plant Manager; Josh Cupp, Chemist; and Derek Wong, National Account Manager with Apex Companies, LLC who was conducting the facility stack test this week.

When AQD arrived, stack testing was occurring on Line 1 to satisfy testing requirements in a USEPA information request under Section 114(a) of the Clean Air Act, and also to determine compliance with 40 CFR Part 63, Subpart AAAAAAA: National Emission Standards for Hazardous Air Pollutants for Area Sources: Asphalt Processing and Asphalt Roofing Manufacturing. Upon AQD’s arrival, David suggested we observe Asphalt Coating Line 1 to observe the stack test actively occurring before stack testing finished for the day.

We were advised to wear safety glasses during the facility walkthrough. Hard hats were optional. Hearing protection was not required.

1.2. General Facility Overview

ALCO is located at the end of Old St. Jean St. The facility produces rolled asphalt products for the residential roofing and tiling industries. According to the facility stack test protocol for testing on April 10 through 14, 2023, the facility “manufactures self-adhered building products (primarily ice and water shield roofing products and anti fracture flooring membranes).” They provide rolled goods for residential use.

The facility has two coating lines. Line 1 was installed in 2016/2017. Line 2, the original coating line, was installed around 1999/2000; it was stack tested per NSPS Subpart UU in 2009; and it was “mothballed” in 2017, then restarted in the fourth quarter of 2020. On the coating lines, a roller applies a heated and cooked mixture of limestone, rubber, and asphalt

evenly along the carrier sheet. The carrier sheet can be a fiberglass mat or a polyester film. Line 1 can also apply a granular surface like sand or black glass abrasive. A baghouse controls particulate emissions from the abrasive application. The facility claims that sheeting lines are exempt from obtaining a Permit to Install per Rule 290. The facility also has mixers, storage tanks, and two boilers.

1.3. Compliance Background

AQD previously visited ALCO in 2022 and 2015 for inspections, at which times the facility was found to be in compliance. Prior to the 2015 inspection, the facility was inspected in 2009 during the Subpart UU stack test for its original sheeting line, which is now called Line 2. The facility was in compliance at that time. The facility has no outstanding violations.

1.4. Rule 290 Records Follow-Up

One reason for conducting this ALCO inspection was to follow-up with the facility regarding a demonstration of whether its two asphalt coating lines are exempt from obtaining a Permit to Install per Rule 290.

AQD did not receive emissions records during its inspection in August 2022. At that time, AQD used discretion regarding a violation notice for records not being provided timely because there was confusion over records ALCO provided to the USEPA and the separate letter from the AQD related to permit exemptions.

2.0. Facility Walkthrough: Process Overview and Compliance Status

ALCO operates two asphalt coating lines that apply a mixture of asphalt, rubber, and limestone onto fiberglass or polyester sheets to produce a flooring or roofing product. Line 1 may also apply a granular surface like sand. The facility considers the lines exempt from obtaining a Permit to Install per Rule 290 for emission units with limited emissions. The facility also has mixers which heat, mix, and pipe the mixture to the asphalt coating lines. According to ALCO, Line 2, the older of the two lines, was installed around 1999/2000; Line 1, the newer of the two lines, was installed around 2016/2017 and became operational in 2017; and a new mixer tank was installed in 2016. The facility also has two operational boilers, and storage tanks for asphalt and granular materials.

2.1. Asphalt Coating Line 1 – Rule 290

AQD observed Asphalt Coating Line 1 upon arriving in order to observe stack testing occurring on this line. Asphalt Coating Line 1 was operating during the facility inspection. Line 1 was installed in 2016/2017 and was operational in 2017, according to the facility Summary Equipment History document provided following the August 2022 facility inspection. According to the facility stack test plan, the line is approximately 160 feet long.

2.1.1. Line 1 Process

Dave explained the process for Asphalt Coating Line 1. A fiberglass roll is loaded to the start of the line, and unrolled over loopers, or accumulators. The unrolled fiberglass sheet is known as a carrier sheet, or scrim. Accumulators provide time to change out the fiberglass roll without stopping the line.

After the accumulator, the carrier sheet appears to pass through a dip tank with rollers so that both sides of the carrier sheet are coated with an asphalt rubber limestone material. Currently one coat is used on both sides of the carrier. A granular aggregate like sand or black glass abrasive may be added to one side of the carrier sheet after the coating application. A roll of release film is also unrolled and physically applied to the carrier sheet.

Finally, cooler loopers or accumulators allow the sheet to cool down before being rolled for packaging. Asphalt coating lines don't appear to have wet loopers, because the sheet isn't wet after being coated. Since there are not wet loopers, the dip tank part of the process appears to be a coater rather than a saturator.

2.1.2. Line 1 Stacks

Line 1 appears to have two stacks; one located at the coater, and another associated with aggregate application, which is controlled by a baghouse. The coating stack exhausts out the side of the building at an elbow slightly facing down. There is a metal mesh over the end of the exhaust stack. For today's stack test, a temporary exhaust stack was constructed which traveled through the building along the floor and exhausted horizontally near an open garage door. This allowed the port and stack test sampling have the correct distance between disturbances and the sampling port to comply with Method 1 of the Appendix to 40 CFR Part 60. When first observing Asphalt Coating Line 1, there appeared to be a haze associated with the line or stack. Sunlight was coming through the garage doors in front of me into the plant; sunlight was not behind me per Method 9.

2.1.3. Line 1 Stack Test Process Parameters

AQD observed the temporary total enclosure over the coating tank. The enclosure did not include the loopers that followed the coater nor the granular application point. The facility demonstrated that thin strips of paper were being drawn into the opening. AQD observed the inlet and outlet. Derek provided the following parameters.

	Inlet	Outlet
Height (inches)	4.9	3.1
Length (inches)	38.1	38.5
Flow (Cubic feet per minute)	227	219

AQD observed Line 1's speed from the computer screen at the end of the line.

Time	Line 1 Speed (feet per minute)
1:42 PM	140

At this time when AQD observed Line 1's speed, stack testing had completed for the day. Staff explained that during the test, the line speed had been 160 feet per minute. The facility also has a scale and knows that each roll weighs between 52 and 56 pounds. This allows the facility to calculate how much product weight is processed during the stack test.

2.1.4. Line 1 Rule 290 Compliance Status

Rule	Brief Rule Summary	Determination	Explanation
290(2)(a)(i)	Noncarcinogenic VOC emissions below 500 pounds per month for each emission unit.	Noncompliance	Coating line 1 processes asphaltic bitumen (CAS No. 8052-42-4) and therefore emit asphalt fumes of the same material. Footnote 5 on asphalt fumes in the Michigan Air Toxics Database states "The

			polycyclic aromatic hydrocarbons (PAHs) with this footnote are carcinogenic...”
290(2)(a)(ii)(C)	Emit no air contaminants with an ITSL or IRSL less than 0.04 ug/m3.	Noncompliance	Asphalt fumes (CAS No. 8052-42-4) are evaluated using the benzo(a)pyrene (CAS# 50-32-8) IRSL, which is 0.001 ug/m3.
290(2)(a)(iii)	Particulate emissions controlled via fabric filter or equivalent control system.	Not applicable	The facility did not indicate that they were complying with particulate limits via this part of Rule 290.
290(2)(c)	Maintain a description of the emission unit.	Compliance	MAERS and the facility Summary Equipment History document provide a description including an installation timeframe.
290(2)(d)	Keep records to demonstrate compliance with Rule 290	Noncompliance	Records were not provided at the August 2022 inspection and were not available following the April 2023 inspection.
290(2)(e)	Records are maintained on file and available upon request.	Noncompliance	Records were not provided at the August 2022 inspection and were not available following the April 2023 inspection.

2.2. Asphalt Coating Line 2 – Rule 290

AQD observed Line 2. It was not operating during the inspection. No opacity was observed along the line. AQD observed that the accumulator along the line had a date of 2002. Line 2 was installed in 1999 or 2000. It was stack tested per NSPS Subpart UU in 2009. It was mothballed in 2017 with the start of the south sheeting line, and then started up again in the fourth quarter of 2020, according to the facility Summary Equipment History document provided following the August 2022 facility inspection. According to the facility stack test plan, the line is approximately 80 feet long.

2.2.1. Line 2 Process

Discussions on site indicated that Asphalt Coating Line 2 runs at a slower rate (60 to 75 linear feet per minute) than Line 1 due to the specialty products it produces. Like Line 1, Line 2 has accumulators (loopers) before and after the dip or coating area. Accumulators after the coating area are cooling accumulators; not wet accumulators or wet loopers. At the coating area, a single coating is applied, either to both sides of the carrier sheet or to one side, via rollers and a dip tank. No granular coating is applied on Line 2. A release film is physically applied to the sheet similarly to Line 1.

2.2.2. Line 2 Exhaust

Unlike Line 1, there is no stack dedicated to the coater in Line 2. Fugitive emissions exhaust vertically through general ventilation from a fan in the ceiling above the line near the coating application.

2.2.3. Line 2 Rule 290 Compliance Status

Because Line 2 was installed in 1999/2000, Rule 290 conditions as effective June 13, 1997 are provided below.

Rule	Brief Rule Summary	Determination	Explanation
290(a)(i)	Noncarcinogenic VOC emissions below 500 pounds per month for each emission unit.	Noncompliance	Coating line 2 processes asphaltic bitumen (CAS No. 8052-42-4) and therefore emit asphalt fumes of the same material. Footnote 5 on asphalt fumes in the Michigan Air Toxics Database states "The polycyclic aromatic hydrocarbons (PAHs) with this footnote are carcinogenic..."
290(a)(ii)(D)	Emit no air contaminants with an ITSL or IRSL less than 0.04 ug/m ³ .	Noncompliance	Asphalt fumes (CAS No. 8052-42-4) are evaluated using the benzo(a)pyrene (CAS# 50-32-8) IRSL, which was 0.0005 ug/m ³ in 1995.
290(a)(iii)	Particulate emissions controlled via fabric filter or equivalent control system.	Not applicable	The facility did not indicate that they were complying with particulate limits via this part of Rule 290.
290(b)	Maintain a description of the emission unit.	Compliance	MAERS and the facility Summary Equipment History document provide a description including an installation timeframe.
290(c)	Keep records to demonstrate compliance with Rule 290	Noncompliance	Records were not provided at the August 2022 inspection and were not available following the April 2023 inspection.
290(d)	Records are maintained on file and available upon request.	Noncompliance	Records were not provided at the August 2022 inspection and were not available following the April 2023 inspection.

2.3 Mixers – Rule 290

AQD visited the facility mixing room. There are two mixers; however only one is currently operational. (The second mixer was damaged during a malfunction; currently materials are put in this mixer for temporary storage.) The mixer was operating during the inspection.

According to staff the mixer was installed several years ago (during the inspection, a mixer installation date of 2013/2014 was discussed; the facility Summary Equipment History document states that the new mixer tank was added in 2016).

In the mixer, asphalt, limestone, oil, and rubber pellets are mixed and heated for 2-3 hours. Asphalt and oil are liquid raw materials, while rubber and limestone are solid raw materials. The resulting asphalt coating is then pumped over to the dip tank of either of the two asphalt coating lines.

Materials are added into the top of the mixer. AQD observed some opacity from the top of the mixer, which staff explained was steam. From talking with staff and observing the mixer, the mixer vents into the in-plant environment.

2.3.1. Mixers Rule 290 Compliance Status

Rule	Brief Rule Summary	Determination	Explanation
290(2)(a)(i)	Noncarcinogenic VOC emissions below 500 pounds per month for each emission unit.	Noncompliance	Mixers processes asphaltic bitumen (CAS No. 8052-42-4) and therefore emit asphalt fumes of the same material. Footnote 5 on asphalt fumes in the Michigan Air Toxics Database states "The polycyclic aromatic hydrocarbons (PAHs) with this footnote are carcinogenic..."
290(2)(a)(ii)(C)	Emit no air contaminants with an ITSL or IRSL less than 0.04 ug/m3.	Noncompliance	Asphalt fumes (CAS No. 8052-42-4) are evaluated using the benzo(a)pyrene (CAS# 50-32-8) IRSL, which is 0.001 ug/m3.
290(2)(a)(iii)	Particulate emissions controlled via fabric filter or equivalent control system.	Not applicable	The facility did not indicate that they were complying with particulate limits via this part of Rule 290.
290(2)(c)	Maintain a description of the emission unit.	Compliance	MAERS and the facility Summary Equipment History document provide a description including an installation timeframe.
290(2)(d)	Keep records to demonstrate compliance with Rule 290	Noncompliance	Records were not provided at the August 2022 inspection and were not available following the April 2023 inspection.
290(2)(e)	Records are maintained on file and available upon request.	Noncompliance	Records were not provided at the August 2022 inspection and were not available following the April 2023 inspection.

2.4. Rule 290 Exemption for Asphalt Coating Lines 1 & 2, and Mixers

According to MAERS and from facility discussions, ALCO has considered its two asphalt coating lines and mixers exempt from obtaining a Permit to Install under Rule 290 for emission units with limited emissions.

However, as a result of the inspection, AQD determined that the two asphalt coating lines and mixers do not appear to be exempt from obtaining an air quality Permit to Install per Rule 290 for two reasons.

2.4.1 Asphalt Fumes Screening Level

First, the initial risk screening level for asphalt fumes is less than allowable Rule 290 thresholds.

Rule 290 was first promulgated in 1993 and then revised in 1995, 1997, and 2016. At its inception, Rule 290 applied exclusively to process or process equipment that only emitted noncarcinogenic volatile organic compounds. With its revision in 1997 the applicability of Rule 290 was expanded to include additional pollutants, including carcinogens. However, no category of volatile organic compound or particulate matter emissions in Rule 290 allow for emissions of a carcinogenic air toxic with a screening level below 0.04 micrograms per cubic meter. In 1997, Rule 290(a)(ii)(D) read as follows:

(D) The emission unit shall not emit any air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in R 336.1122(f) as not contributing appreciably to the formation of ozone, with an initial threshold screening level or initial risk screening level less than 0.04 micrograms per cubic meter.

This prohibition is retained within the current rule at Rule 290(2)(a)(ii)(C).

The two asphalt coating lines and their associated mixers process asphaltic bitumen (CAS No. 8052-42-4) and therefore emit asphalt fumes of the same material. Footnote 5 on asphalt fumes in the Michigan Air Toxics Database states that

The polycyclic aromatic hydrocarbons (PAHs) with this footnote are carcinogenic and have potency equivalency factors (PEFs) that quantitate their potency relative to that of benzo(a)pyrene (CAS# 50-32-8). Air emission mixtures of carcinogenic PAHs, including asphalt fumes, should be evaluated additively using these PEFs and the benzo(a)pyrene IRSL and SRSL. The ITSL for benzo(a)pyrene applies only to benzo(a)pyrene and none of the other PAHs.

AQD's history of regulating mixtures of carcinogenic PAHs is further described in the February 7, 2017 AQD document entitled "File for Benzo(a)pyrene and Other Carcinogenic PAHs":

In 1995, the Air Quality Division (AQD) started to regulate B(a)P and carcinogenic PAHs based on the recommendation of the Scientific Advisory Panel (SAP, 1995a; SAP, 1995b). The SAP recommended that the relative potency factors (RPFs) used by EPA (1993) be applied to 6 carcinogenic PAHs that cause cancer in the same way that B(a)P does. The new IUR used above to derive the IRSL and SRSL

updates the November 4, 2015 AQD methodology by applying this EPA (2017) IUR. There is no change to the November 4, 2015 expanded number of 15 specific PAHs (Table 1), which superseded the approach described by EPA (1993) and confirmed by the SAP.

The expanded list of PAHs (Table 1) is based on California's Office of Environmental Health Hazard Assessment (OEHHA, 2011, 2015) potency equivalency factors (PEFs), which are analogous to the RPFs used by EPA. The general method of assessing the risk of a mixture of PAHs recommended by Michigan's SAP (1995a; SAP, 1995b) based on their relative potency to that of B(a)P is retained. The addressing of asphalt fume PAHs was originally recommended by the SAP (1995b) and was adopted by the AQD; this approach is also being updated by the current B (a)P IUR and PEFs.

The potency of asphalt fumes is therefore evaluated in relation to benzo(a)pyrene. The manner of the evaluation is in the variation of predicted ambient impacts, not in the variation of the screening level, as described in the same February 7, 2017 document:

The combined maximum ambient impacts of all carcinogenic PAHs (as B(a)P equivalents) must be below the IRSL. The SRSL can be used in lieu of the IRSL, if appropriate, pursuant to Rule 225(2).

In 1995, the initial risk screening level for benzo(a)pyrene had already been established at 0.0005 micrograms per cubic meter. The IRSL was modified to 0.0006 micrograms per cubic meter on November 4, 2015, and then to 0.001 micrograms per cubic meter in the February 7, 2017 document.

In summary, since 1995, the AQD has evaluated emissions of asphalt fumes against a baseline IRSL for benzo(a)pyrene, which has always been lower than the 0.04 micrograms per cubic meter minimum allowed under Rule 290 since 1997. As the two asphalt coating lines and their associated mixers emit asphalt fumes and were installed after 1997, this equipment is not eligible to utilize Rule 290 in order to be exempt from the requirement to obtain a Permit to Install under Rule 201(1).

2.4.2 Records Maintenance Under Rule 290

Second, notwithstanding the eligibility of the equipment, it appears that ALCO has not maintained the emissions calculations required under Rule 290. Rule 290 as effective on June 13, 1997 read, in part, "The requirement of R 336.1201(1) to obtain a permit to install does not apply to any of the emission units listed in (a) if the conditions listed in (b), (c), and (d) are met."

Subsection Rule 290(c) and (d) read:

(c) Records of material use and calculations identifying the quality, nature, and quantity of the air contaminant emissions are maintained in sufficient detail to demonstrate that the emissions meet the emission limits outlined in this rule.

(d) The records are maintained on file for the most recent 2-year period and are made available to the air quality division upon request.

Rule 290 was updated effective December 20, 2016. It appears Line 1 may be subject to this most-recent version of Rule 290. Rule 290(2) reads, in part, "The requirement of R

336.1201(1) to obtain a permit to install does not apply to any of the emission units listed in subdivision (a) of this subrule, if the conditions listed in subdivisions (b), (c), (d), and (e) of this subrule are met.”

Subsection Rule 290 (d) and (e) read:

- (d) Records of material use and calculations identifying the quality, nature, and quantity of the air contaminant emissions are maintained in sufficient detail to demonstrate that the emissions meet the emission limits outlined in this rule. Volatile organic compound emissions shall be calculated using mass balance, generally accepted engineering calculations, or another method acceptable to the department.
- (e) The records are maintained on file for the most recent 2-year period and are made available to the department upon request.

On August 19, 2022, following the inspection of August 16, 2022, AQD sent a Rule 278a letter requesting the facility's equipment and the applicable exemptions listed in Rules 280 through 291. AQD has not received this information. In follow-up correspondence, ALCO explained that the facility's understanding was that their response to EPA inspectors addressed the issue of permit to install exemptions. The facility provided the November 2, 2009 letter issued by the Air Quality Division to ALCO that discussed how AQD considered ALCO Line 2 exempt from obtaining a Permit to Install per Rule 290. AQD used discretion regarding a violation notice for Rule 278a records not being provided within 30 days per Rule 278a(2) since there was some confusion over records provided to the EPA. AQD explained they would follow up with the facility regarding Rule 290, which resulted in the April 11, 2023 inspection.

On April 13, 2023, AQD requested monthly VOC and PM records from the coating lines. The facility responded on Monday April 17 that the facility is contacting their suppliers to get correct emission rates for their raw materials, and is waiting for their replies. Additionally, the facility responded that they may have over-estimated their emissions for 2022 in the Michigan Air Emissions Reporting System.

From the air quality inspection, it appears that the facility has not maintained records, and records were not made available upon request as required by Rule 290.

Because the two asphalt coating lines and associated mixers are not exempt from obtaining a Permit to Install, it appears ALCO has installed and commenced operation of unpermitted equipment at this facility. A violation notice will be sent to the facility.

2.4.3. 2009 Stack Test and Rule 290 Determination

In 2009, AQD determined that Line 2 (the only line present in 2009) was exempt from obtaining a PTI per Rule 290. The determination appeared to be based upon particulate matter stack testing for Line 2 conducted on September 2, 2009, which resulted in 0.01 pound of particulate matter per ton of roll roofing produced out of baghouse SFC8-2. AQD wrote the following to ALCO on November 2, 2009:

... the actual emissions measured showed that ALCO Products qualifies for exemption from Air Pollution Control Rule R336.1201 (rule 201) as allowed by the provisions of Rule 336.1290 (Rule 290). Although ALCO Products does not have to

obtain a permit to install, it will have to comply with all applicable recordkeeping requirements of Rule 290.

This baghouse is no longer in operation, because Line 2 no longer applies granular material. Stack testing did not test VOC emissions. It does not appear that asphalt fume emissions, or its associated screening levels, were included as part of the 2009 exemption determination.

2.5. NSPS Subpart UU - Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture

The two asphalt coating lines; mineral handling and storage equipment; and the two heated asphalt storage tanks appear to be subject to 40 CFR Part 60 Subpart UU - Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture per 40 CFR 60.470 (a). Coating lines, mineral handling and storage equipment, and asphalt storage tanks appear to have been installed after November 18, 1980 according to the facility Summary Equipment History document, so that it is subject to NSPS Subpart UU per 40 CFR 60.470 (b). ALCO stack tested their original sheeting line on September 2, 2009 for compliance with NSPS Subpart UU.

AQD will not determine compliance with NSPS Subpart UU at this time while USEPA's review of requested information and stack test results remains ongoing.

2.6. 40 CFR Part 63, Subpart AAAAAAA – National Emission Standards for Hazardous Air Pollutants for Area Sources: Asphalt Processing and Asphalt Roofing Manufacturing

AQD is not currently delegated authority for 40 CFR Part 63 Subpart AAAAAAA. Therefore, AQD did not evaluate the facility for compliance with this regulation. AQD will defer to USEPA's compliance conclusion regarding NESHAP Subpart AAAAAAA.

2.7. Storage Tanks

The facility has storage tanks to hold asphalt, oil, mineral spirits, rubber (styrene-butadiene-styrene), and quartz (silica). The facility provided safety datasheets for these materials as part of the August 2022 inspection. The horizontal and vertical asphalt tanks and Calsol 5550 tank are heated.

Staff identified the eight storage tanks south of the facility as follows. Tanks 1-4 are located north of Tanks 5-8.

Tank 1 • Empty, heated	Tank 2 • Empty	Tank 3 • Calsol 5550, heated	Tank 4 • Empty
Tank 5 • Previously 630 ox asphalt; now empty; not heated	Tank 6 • Aromatic TS-100, still here, not used	Tank 7 • Mineral spirits, not heated	Tank 8 • Asphalt, heated

2.7.1. Rule 284(2)(k)

Storage tanks that hold solids appear to be exempt from obtaining a Permit to Install per Rule 284(2)(k) for storage containers of noncarcinogenic solid material, including silos, that

only emit particulate matter and are controlled appropriately. These solids are silica, limestone, slag, and styrene-butadiene-styrene.

2.7.2. Rule 284(2)(i)

Storage tanks of VOCs appear to be exempt from obtaining a Permit to Install per Rule 284 (2)(i) for the storage, mixing, blending, or transfer operations of VOCs or noncarcinogenic liquids in a vessel with a capacity not greater than 40,000 gallons where the contents have a true vapor pressure of not more than 1.5 psia at the storage conditions. Below are VOCs stored at the facility and their vapor pressure. Asphalt vapor pressure was listed as “<1” with no unit given in the facility MSDS for asphalt. The psia and kPa vapor pressure for asphalt is based on the staff report from the 2015 inspection using a temperature of 390 °F.

Product Name	Vapor Pressure (mm Hg)	Vapor Pressure (psia)	Vapor Pressure (kPa)
Mineral Spirits 66/3	0.009	1.74E-04	0.0012
Aromatic TS-100	2.02 at 20 °C; 6.13 at 38 °C	0.04 at 20 °C; 0.12 at 38 °C	0.269 at 20 °C; 0.815 at 38 °C
Base Asphalt	"<1" per MSDS	0.56	3.83

2.7.3. Rule 284(2)(c)

The storage tank of Calsol 5550 appears to be exempt from obtaining a Permit to Install per Rule 284(2)(c) for the storage of lubricating oils. Calsol 5550 is identified as a lubricant on its safety datasheet under the section titled Identified Uses.

2.7.4. 40 CFR Part 60, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

40 CFR Part 60 Subpart Kb does not appear to be applicable to ALCO storage tanks due to the vapor pressures of products stored on site. Per 40 CFR 60.110b(b), “This subpart does not apply to storage vessels with a capacity greater than or equal to 151 m³ storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or with a capacity greater than or equal to 75 m³ but less than 151 m³ storing a liquid with a maximum true vapor pressure less than 15.0 kPa.” Vapor pressures of facility products are below 3.5 kPa per the table above.

2.8. Boilers – Rule 282(2)(b)(i)

AQD visited the three boilers on site. Boiler 1 is out of commission. Below is more information about the boilers.

Boiler Number	1	2	3
Servicing	Out of commission	Asphalt Coating Line 2	Asphalt Coating Line 1
Visited during inspection?	Yes	Yes	Yes
Operating during inspection?	No	No	Yes
Heat input	Not observed. 2.5 MMBtu/hr per MAERS.	Not observed on the nameplate. According to staff, the heat input is less than Boiler 3 (5	5 MMBtu/hour per nameplate

		MMBtu/hr). 1.3 MMBtu per MAERS.	
Date	12/1/1980 per MAERS	May 2012 per nameplate	11/18/2016 per MAERS
Fuel	Natural gas	Natural gas	Natural gas

Staff explained that the horizontal asphalt storage tank is heated, and oil is heated to maintain heat for the facility and to heat the vertical asphalt storage tank. AQD did not observe these heaters or request their heat input. The 2015 inspection report discusses oil heaters of 1.3 and 2.5 MMBtu/hr, and the heated asphalt storage tank heater of 1 MMBtu/hr.

2.8.1. Rule 282(2)(b)(i)

Boilers, the oil heater, and heated asphalt storage tank appear to be exempt from obtaining a Permit to Install per Rule 282(2)(b)(i) for fuel burning equipment used for service water heating or indirect heating which burns natural gas and has a heat input less than 50 MMBtu/hr.

2.8.2. 40 CFR Part 63 Subpart JJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

Boiler federal standard 40 CFR Part 63 Subpart JJJJJ for area sources does not appear to apply to boilers 1, 2, and 3 because these are "gas-fired boilers" per the definition in section 40 CFR 63.11237 of the federal standard. MAERS reports dating back to 2015 indicate these boilers only fire natural gas. Per 40 CFR 63.11195(e), gas-fired boilers are not subject to 40 CFR Part 63 Subpart JJJJJ.

2.8.3. 40 CFR Part 60 Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

Federal standard 40 CFR Part 60 Subpart Dc for steam generating units does not appear to apply to boilers 1, 2, and 3 because the heat input capacities of these boilers are each less than 10 MMBtu/hr per 40 CFR 60.40c(a).

3.0. Conclusion

The facility will receive a violation notice for operating its two asphalt coating lines and associated mixers without a Permit to Install. AQD will defer to USEPA’s compliance conclusions at this time regarding NSPS Subpart UU and NESHAP Subpart AAAAAA.

NAME *A L* DATE *6/13/23* SUPERVISOR *JK*