

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

M364865950

FACILITY: Americhem Sales Corporation		SRN / ID: M3648
LOCATION: 340 NORTH STREET, MASON		DISTRICT: Lansing
CITY: MASON		COUNTY: INGHAM
CONTACT: Melissa Merritt , Chief of Staff & Sales Support		ACTIVITY DATE: 01/05/2023
STAFF: Michelle Luplow	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Onsite inspection to determine compliance with HAPs opt-out PTI No. 27-22		
RESOLVED COMPLAINTS:		

Inspected by: Michelle Luplow (author) and David Rauch (LDO AQD)

Personnel Present: Ken Rood, Lab Manager & Tech Sales Support (ken@americhemsales.com)

Other responsible personnel:

Melissa Merritt, Chief of Staff & Sales Support (merrittm@americhemsales.com)

Purpose

Conduct an unannounced, onsite, partial compliance evaluation (PCE) inspection by determining compliance with Americhem's Permit No. 27-22, including verification that Americhem stayed within the permit's HAP opt-out limits as well as other AQD rules and regulations. This inspection was conducted as part of a full compliance evaluation (FCE).

Facility Background/Regulatory Overview

Americhem is a producer and distributor of bulk and packaged industrial oils, fluids, solvents, and specialty chemical blends.

Americhem is a HAPs opt-out facility. PTI 27-22 opt-out permit consists of FGFACILITY where individual HAP are limited to less than 8.9 tpy and aggregate HAP are limited to less than 22.4 tpy on a 12-month rolling time period basis.

Americhem currently has an active sub-slab remediation system onsite where they claim that the Rule 290 exemption is being used. Rule 290 exemption records were obtained through Hart Mathews. A review of the records required under Rule 290 was conducted in conjunction with this inspection to ensure contributions of HAP emissions from the remediation system were included in FGFACILITY calculations, as appropriate. The remediation activity as well as Americhem's operations are considered one stationary source, and therefore the Rule 290 emissions from the sub-slab depressurization system should be included within the FGFACILITY emissions.

Kim Sakowski is the Remediation and Redevelopment Division (RRD) contact for this remediation site under Part 201 of RRD's Rules. The sub-slab depressurization system located onsite is owned and operated by the State of Michigan Remediation and Redevelopment Division.

This facility was last inspected by AQD in August 2010 in response to a complaint.

Inspection: At approximately 9:45 a.m. on January 5, 2023, David Rauch and I arrived at Americhem and met with Ken Rood, Lab Manager, Tech Sales Support, and acting EHS representative.

Table 1 contains a list of all "solvent" and "oil" tanks observed onsite. None of the tanks are permitted, and I requested a Rule 278a exemption demonstration be submitted for all tanks onsite (storage, blending, etc.) of oils, chemicals, VOC-containing materials, etc. The exemption demonstration includes whether the tanks are open to atmosphere or closed with pressure relief vents. Note – "SOLVENT TANK" and "OIL TANK" are designations used by Americhem to categorize the types of storage tanks operate. Tanks 55, 57, 58, and 61 are out of service, but still onsite. The exemption demonstration was submitted to AQD on 6/8/23. Additional follow-up items to this 6/8/23 communication were submitted to AQD on 6/16/23.

Christian Smith, Impact C&T consultant, stated that each of the maximum vapor pressures reported (as contained in Table 1) for the Rule 284(2)(i) exemption demonstration were determined at the Hourly Average Maximum Ambient Temperature from AP-42 Chapter 7, Section 7.1, Table 7.1-7 for Lansing, Michigan (at 81°F).

Table 2 contains other, non-tank equipment identified onsite during this inspection.

Table 1. List of Tanks verified onsite.

Tank Product	Americhem Tank ID #	Description	Permit Exemption	HAP Content (lb/gal)
100 Solvent	1	SOLVENT TANK 20,000 gallons Max vapor pressure – 0.05 psia	Rule 284(2)(i)	1.09
Methyl Ethyl Ketone (MEK)	2	SOLVENT TANK 20,000 gallons Max vapor pressure 1.58 psia	Rule 291 - PROPOSED	Non-HAP
Xylene	3	SOLVENT TANK 20,000 gallons	Rule 284(2)(i)	7.26

		Max vapor pressure 0.14 psia		
VM & P Naptha (aliphatic petroleum distillate)	4	SOLVENT TANK 20,000 gallons Contains <1% aromatics Max vapor pressure 2.19	Rule 291 - PROPOSED	Non-HAP
Odorless Mineral Spirits	5	SOLVENT TANK 20,000 gallons Max vapor pressure 0.01 psia	Rule 284(2)(i)	Non-HAP
Hexane (Calumet)	6	SOLVENT TANK 30,000 gallons Max vapor pressure is 3.42 psia	Rule 291 - PROPOSED	2.82
Methanol	7	SOLVENT TANK 30,000 gallons Max vapor pressure 2.21 psia	Rule 284(2)(n)	6.59
Acetone*	8	SOLVENT TANK 30,000 gallons *Acetone is not considered a VOC or HAP Max vapor pressure 4.08 psia	Rule 291 - PROPOSED	Non-HAP
Toluene	9	SOLVENT TANK 30,000 gallons Max vapor pressure 0.34 psia	Rule 284(2)(i)	7.26
Mineral spirits	10	SOLVENT TANK 30,000 gallons, 6.3834 lb/gal Max vapor pressure 0.05	Rule 284(2)(i)	0.0001
n-propyl alcohol	11	SOLVENT TANK	Rule 284(2)(i)	Non-HAP

		20,000 gallons Max vapor pressure 0.34 psia		
Toluene (Suncor)	12	SOLVENT TANK 20,000 gallons Max vapor pressure 0.34 psia	Rule 284(2)(i)	7.26
N-Butyl Acetate	13	SOLVENT TANK 20,000 gallons Max vapor pressure 0.19	Rule 284(2)(i)	Non-HAP
Zero Aromatic Mineral Spirits	14	SOLVENT TANK 20,000 gallons Max vapor pressure is 0.06 psia	Rule 284(2)(i)	Non-HAP
142 Solvent (Stoddard solvent)	16	SOLVENT TANK 20,000 gallons Max vapor pressure is 0.01 psia	Rule 284(2)(i)	Non-HAP
n-propyl acetate	17	SOLVENT TANK 20,000 gallons Max vapor pressure is 0.58 psia	Rule 284(2)(i)	Non-HAP
Glycol ether EB	18	SOLVENT TANK 20,000 gallons Max vapor pressure is 0.01 psia	Rule 284(2)(i)	0.07
Heptane	19	SOLVENT TANK 20,000 gallons Max vapor pressure 0.77 psia	Rule 284(2)(i)	Non-HAP
Isopropyl alcohol	20	SOLVENT TANK 20,000 gallons Max vapor pressure 0.36	Rule 284(2)(i)	Non-HAP
Diesel Fuel	70	SOLVENT TANK	Rule 284(2)(d)	Non-HAP

		12,000 gallons Max vapor pressure 0.01		
Para 100	21	OIL TANK 20,000 gallons Max vapor pressure 0.002 psia Lubricating oil	Rule 284(2)(c)	Non-HAP
Para 300	22	OIL TANK 20,000 gallons Max vapor pressure 0.40 psia Lubricating oil	Rule 284(2)(c)	Non-HAP
Para 150	23	OIL TANK 20,000 gallons Max vapor pressure 0.002 psia	Rule 284(2)(i)	Non-HAP
Amsol 600	24	OIL TANK 20,000 gallons Max vapor pressure 0.01 psia	Rule 284(2)(i)	Non-HAP
Amsol 600	25	OIL TANK 20,000 gallons Max vapor pressure 0.01 psia	Rule 284(2)(i)	Non-HAP
NAP 500 (Calumet)	26	OIL TANK 20,000 gallons Max vapor pressure 0.40 psia	Rule 284(2)(i)	Non-HAP
Nap 1200	27	OIL TANK 20,000 gallons Max vapor pressure 0.40 psia	Rule 284(2)(i)	Non-HAP
Amsol 400	28	OIL TANK 20,000 gallons	Rule 284(2)(i)	Non-HAP

		Max vapor pressure 0.01 psia		
46 Hyd AW	29	OIL TANK 20,000 gallons Max vapor pressure 0.002 psia Lubricating oil	Rule 284(2)(c)	Non-HAP
Brite Stock	45	OIL TANK 19,000 gallons Max vapor pressure 0.002 psia	Rule 284(2)(i)	Non-HAP
NAP 100	46	OIL TANK 19,000 gallons Max vapor pressure 0.40 Lubricating Oil	Rule 284(2)(c)	Non-HAP
NAP 100	47	OIL TANK 19,000 gallons Max vapor pressure 0.40 Lubricating Oil	Rule 284(2)(c)	Non-HAP
32 Hyd AW	48	OIL TANK 19,000 gallons, 7.24 lb/gal Max vapor pressure 0.002 psia Lubricating Oil	Rule 284(2)(c)	Non-HAP
NAP 750	49	OIL TANK 19,000 gallons, 7.71 lb/gal Max vapor pressure 0.40 psia	Rule 284(2)(i)	Non-HAP
NAP 500 (Ergon)	50	OIL TANK 19,000 gallons Max vapor pressure 0.40 psia	Rule 284(2)(i)	Non-HAP
AM 230 Solvent	51	OIL TANK	Rule 284(2)(i)	Non-HAP

		19,000 gallons Max vapor pressure 0.002 psia		
Nap 2000 Gold	52	OIL TANK 19,000 gallons Max vapor pressure 0.40 psia	Rule 284(2)(i)	Non-HAP
Nap 100 (Ergon)	53	OIL TANK 10,000 gallons Max vapor pressure 0.40 psia Lubricating Oil	Rule 284(2)(c)	Non-HAP
68 Hyd AW	54	OIL TANK 10,000 gallons Max vapor pressure 0.002 psia Lubricating Oil	Rule 284(2)(c)	Non-HAP
Brite Stock Hygold 150 Gold	56	OIL TANK 10,000 gallons Max vapor pressure 0.002 psia	Rule 284(2)(i)	Non-HAP
Form Oil	59	OIL TANK 10,000 gallons Max vapor pressure 0.002 psia	Rule 284(2)(i)	Non-HAP
220 Gear EP	60	OIL TANK 7,500 gallons Max vapor pressure 0.002 psia Lubricating Oil	Rule 284(2)(c)	Non-HAP
AM Tractor Fluid	65	OIL TANK 3,000 gallons Max vapor pressure 0.002 psia	Rule 284(2)(i)	Non-HAP

NAP 60	66	OIL TANK 3,000 gallons Max vapor pressure 0.04 psia	Rule 284(2)(i)	Non-HAP
15w 40 wt CK-4	67	OIL TANK 3,000 gallons Max vapor pressure 0.002 psia	Rule 284(2)(i)	Non-HAP
68 Waylube	68	OIL TANK 3,000 gallons Max vapor pressure 0.002 psia Lubricating Oil	Rule 284(2)(c)	Non-HAP
Open Tank	69	19,000-gallon capacity open tank	Rule 284(2)(i)	NA

Table 2. List of non-storage tank equipment verified onsite

Equipment	Description/Inspection Notes	Permit Exemption
Natural gas-fired Fluid Heater	2,000,000 Btu/hr Combusts natural gas to heat transfer oil for indirect heating of lubricant products Installed in 2022	Rule 282(2)(b)(i)
Parts Washer (Mineral Spirits)	< 10 ft ² surface area Closed Operating instructions present	Rule 281(2)(h)
Cummins-Onan Model DNAC Gen Set	Diesel-fired Emergency engine, max input of 0.9 gallons diesel/hr or 0.12 MMBtu/hr	Rule 285(2)(g)
Heated blend tank	330 gallons, heated via electric induction	Proposed: Rule 284(2)(i) – Additional information for the exemption demonstration is requested.

Oil blend tank	20,000 gallons, heated via the fluid heater system.	Proposed: Rule 284(2)(i) – Additional information for the exemption demonstration is requested.
Oil blend tank	5,000 gallons, heated via the fluid heater system	Proposed: Rule 284(2)(i) – Additional information for the exemption demonstration is requested.
Solvent blend tank	10,000 lb blend tank for solvents	Proposed: Rule 291 – Additional information for the exemption demonstration is requested.

Tables 1 & 2 also identify the tanks where additional information regarding Americhem's proposed exemptions is required. This includes Tanks 2, 4, 6, and 8, the 3 oil-blending tanks and the solvent blending tank. A report will be written to evaluate these remaining tanks; Americhem is required to submit this additional information by September 6, 2023.

PTI 27-22: FGFACILITY

Americhem obtained PTI 27-22 in March 2022, and therefore records were requested for March – November 2022. Additionally, an exemption demonstration for all tanks was also requested. As of 2/6/23 Americhem had been unable to provide the aforementioned records required by PTI 27-22. The AQD granted Americhem's request of an extension on February 8, 2023 to provide all requested records by March 10, 2023. On March 10, 2023, Americhem requested an additional extension to provide all requested records by April 7, 2023. Records for FGFACILITY as well as exemption demonstrations were submitted to AQD on April 7, 2023. An additional extension was granted for June 8, 2023 to provide exemption demonstrations for the blending tanks listed in Table 2, and the SDS's for all materials contained within the solvent and oil tanks. On June 16, 2023, a corrected emission calculation spreadsheet was provided to AQD to correct errors in the calculations the AQD found in the June 8, 2023 submittal.

Recordkeeping was provided covering calendar year 2021 through June 2023.

FGFACILITY requires that the following records be kept in order to demonstrate compliance with the individual and aggregate HAPs opt-out limits of 8.9 tpy for each individual HAP and 22.4 tpy for aggregate HAPs:

- Manufacturer's formulation data for all HAP materials onsite.
- Monthly and 12-month rolling records for individual and aggregate HAPS emissions, including:
 - Gallons or pounds of each HAP-containing material used;
 - Gallons or pounds of each HAP-containing material reclaimed;
 - A list of emission factors, equations, and respective sources for each, used in the HAP emission calculations

- All calculations for the determination of individual and aggregate HAPs emissions on a monthly and 12-month rolling basis

I confirmed by a review of records that the emissions from the Rule 290 sub-slab depressurization system have been incorporated into the FGFACILITY emissions recordkeeping; I also confirmed that it appears Rule 290 is being met for this system (via the AQD Rule 290 calculator Excel spreadsheet supplied by Hart Mathews). Table 3 contains the FGFACILITY highest 12-month rolling total of individual and aggregate HAP emissions during the period of March 2022 – April 2023. The FGFACILITY emissions include emissions from the solvent and oil tanks, SSDS ongoing remediation, the diesel-fired engine, and natural gas-fired heaters.

The records also confirm that all storage tank and blending tank throughputs, emission calculations and emission factors (from AP-42), etc have been included in order to determine monthly and 12-month rolling HAP emissions facility-wide. Safety Data Sheets were used to determine HAP content. I have notified the consultant that manufacturer’s formulation data sheets must be used when calculating HAP emissions, particularly from the tanks. At this time, the AQD believes that any differences between the SDS reported HAP content and manufacturer’s formulation data reported HAP content would not be sufficient enough to cause HAP emission exceedances, because actual HAP emissions are 88 – 94% below the opt-out limits.

Table 3. Facility-wide HAP Emissions.

HAP	Highest Aggregate HAP tons (Period)	Highest Individual HAP tons (Period)
NA	2.73 (January – December 2022)	NA
Hexane	NA	0.587 (January – December 2022)

Compliance Statement: Americhem appears to be in compliance with opt-out PTI 27-22. Additional information will be requested, and exemptions evaluated, for the proposed Rule 291 tanks and Rule 284(2)(i) oil blending tanks.

NAME Michelle Luyfow

DATE 8/8/23

SUPERVISOR RB