



REGION 5

CHICAGO, IL 60604

VIA ELECTRONIC MAIL
DELIVERY RECEIPT REQUESTED

Matthew McCoy, Director of Operations
Gage Products Company
mmccoy@gageproducts.com

Re: Notice and Finding of Violation
Gage Products Company
Ferndale, Michigan

Dear Matthew McCoy:

The U.S. Environmental Protection Agency ("EPA") is issuing the enclosed Notice and Finding of Violation ("NOV/FOV") to Gage Products Company ("Gage Products" or "you") under Section 113(a) of the Clean Air Act, 42 U.S.C. § 7413(a). We find that you are violating the 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; the Standards of Performance for Equipment Leaks of Volatile Organic Compounds ("VOC") in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006; the National Emission Standards for Hazardous Air Pollutants ("NESHAP") from Off-Site Waste and Recovery Operations; the Michigan State Implementation Plan ("SIP"); your 2019 Permit to Install No. 64-18B; and Title V at your Ferndale, Michigan facility.

Section 113 of the Clean Air Act gives us several enforcement options. These options include issuing an administrative compliance order, issuing an administrative penalty order, and bringing a judicial civil or criminal action.

We are offering you an opportunity to confer with us about the violations alleged in the NOV/FOV. The conference will give you an opportunity to present information on the specific findings of violation, any efforts you have taken to comply and the steps you will take to prevent future violations. In addition, in order to make the conference more productive, we encourage you to submit to us information responsive to the NOV/FOV prior to the conference date.

You should plan for your facility's technical and management personnel to attend the conference to discuss compliance measures and commitments. You may have an attorney represent you at this conference. The EPA contacts for this matter are Laura Neudorf, Sasha Letuchy, and Giles Chickering. You may email them at Neudorf.laura@epa.gov, Letuchy.alexandra@epa.gov, and

Chickering.giles@epa.gov to request a conference. You should make the request within 10 calendar days following receipt of this letter. We should hold any conference within 30 calendar days following receipt of this letter.

Sincerely,

SARAH
MARSHALL

Digitally signed by
SARAH MARSHALL
Date: 2024.09.25
14:14:22 -05'00'

Sarah Marshall
Supervisor, Air Enforcement and Compliance Assurance
Section (MI/WI)

cc: Jenine Camilleri, Enforcement Unit Supervisor
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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5**

IN THE MATTER OF:

Gage Products Company
Ferndale, Michigan

Proceedings Pursuant to
Section 113(a) of the
Clean Air Act, 42 U.S.C. §§ 7401, *et seq.*
§ 7413(a)

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NOTICE AND FINDING OF VIOLATION

EPA-5-24-MI-11

NOTICE AND FINDING OF VIOLATION

The U.S. Environmental Protection Agency (“EPA”) is issuing this Notice and Finding of Violation under Sections 111(e) and Section 113 of the Clean Air Act (“CAA” or the “Act”), 42 U.S.C. §§ 7411(e) and 7413. Specifically, Gage Products Company (“Gage Products”) is violating the 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 (“NSPS Subpart Kb”); the Standards of Performance for Equipment Leaks of Volatile Organic Compounds (“VOC”) in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006 (“NSPS Subpart VV”); the National Emission Standards for Hazardous Air Pollutants (“NESHAP”) from Off-Site Waste and Recovery Operations (“NESHAP Subpart DD”); the Michigan State Implementation Plan (“SIP”); your 2019 Permit to Install No. 64-18B (the “2019 PTI”); and Title V of the Act, as follows:

Regulatory Authority

NSPS General Provisions

1. Section 111(b)(1)(B) of the CAA, 42 U.S.C. § 7411(b)(1)(B), requires EPA to promulgate regulations establishing New Source Performance Standards (“NSPS”).
2. Section 111(e) of the CAA, 42 U.S.C. § 7411(e), makes it unlawful for any owner or operator of any new source to operate such source in violation of any standard of performance applicable to such source after the effective date of standards of performance promulgated under this section.

NSPS Subpart A

3. 40 C.F.R. § 63.2 defines a “major source” as any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air

pollutants, unless the Administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this sentence.

NSPS Subpart Kb

4. 40 C.F.R. § 60.110b(a) applies NSPS Subpart Kb to storage vessels with a capacity greater than 75 cubic meters (“m³”) that are used to “store volatile organic liquids (“VOL”) for which construction, reconstruction, or modification is commenced after July 23, 1984.
5. 40 C.F.R. § 60.110b(b) excludes from NSPS Subpart Kb applicability 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.
6. 40 C.F.R. § 60.112b(a) requires the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m³ containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m³ but less than 151 m³ containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, to equip each storage vessel with one of the following: a fixed roof in combination with an internal floating roof, an external floating roof, or a closed vent system and control device.
7. 40 C.F.R. § 60.112b(a)(3)(i) requires the closed vent system for storage vessels subject to NSPS Subpart Kb equipped with a closed vent system and control device, to be designed to collect all volatile organic compounds (“VOC”) vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 parts per million (“ppm”) above background and visual inspections, as determined in 40 C.F.R. § 60.485(b).
8. 40 C.F.R. § 60.112b(a)(3)(ii) requires the control device for storage vessels subject to NSPS Subpart Kb equipped with a closed vent system and control device, to be designed and operated to reduce inlet VOC emissions by 95 percent or greater.

2019 PTI

9. On May 6, 1980, the EPA approved Michigan Rule 201, Mich. Admin. Code R 336.1201, Permits to Install as part of the federally enforceable SIP for Michigan. 45 Fed. Reg. 29790–800.
10. The SIP requires a person to obtain a permit to install (“PTI”) to install, construct, reconstruct, relocate, or modify any process or process equipment, or control equipment that may be a source of an air contaminant or air pollutant. Mich. Admin. Code R 336.1201(1).
11. The Michigan Department of Environment, Great Lakes, and Energy issued Gage Products Permit to Install No. 64-18B on May 30, 2019 (the 2019 PTI) pursuant to the EPA-approved permit program incorporated into the Michigan SIP.

12. Under 40 C.F.R. § 52.23, any permit limitation or condition contained within a permit issued under an EPA-approved program that is incorporated into a SIP is federally enforceable under CAA Section 113, 42 U.S.C. § 7413.

EUTank70

13. The 2019 PTI states that EUTank70 (“Tank 70”) is subject to 40 C.F.R. Part 60, Subpart Kb and the only pollution controls for this tank are conservation vents (2019 PTI at 9).
14. The 2019 PTI states at EUTank70, Condition IX.1., the permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 C.F.R. Part 60, Subparts A and Kb, as they apply to Tank 70 (2019 PTI at 10).

FGNSPSLargeTanks – EUTank69, EUTank71, EUTank78, EUTank79, EUTank80, and EUTank81

15. The 2019 PTI requires EUTank69 (“Tank 69”), EUTank71 (“Tank 71”), EUTank78 (“Tank 78”), EUTank79 (“Tank 79”), EUTank80 (“Tank 80”), and EUTank81 (“Tank 81”) within FGNSPSLargeTanks to be controlled by CDFUELSCOND (“Fuels Condenser”) (2019 PTI at 17).
16. The 2019 PTI states at FGNSPSLargeTanks, Condition III.1. that the permittee shall not operate any tank in FGNSPSLargeTanks unless the tank is equipped with a closed vent system and control device (i.e., the Fuels Condenser) meeting the specification of 40 C.F.R. § 60.112b (2019 PTI at 17).
17. The 2019 PTI states at FGNSPSLargeTanks, Condition IX.1. that the permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 C.F.R. Part 60 Subparts A and Kb, as they apply to each storage tank in FGNSPSLargeTanks (2019 PTI at 18).

FGTANKFARM – EUTANKS

18. The 2019 PTI requires EUTANKS within FGTANKFARM (including, but not limited to, Tanks 2–3 and 6–11) to be controlled by the Fuels Condenser (2019 PTI at 19).

FGBLEND – EU9600BLEND

19. The 2019 PTI requires EU9600BLEND (Tanks 229 and 231–235) and EUNEBLEND (Tanks 661–663) within FGBLEND to be controlled by the Fuels Condenser (2019 PTI at 34).

FGTKS – EU33KTKS, EUHIVPTKS, and EU9600TKS

20. The 2019 PTI requires EU33KTKS (Tanks 203–208), EUHIVPTKS (Tanks 209–210), and EU9600TKS (Tanks 211–222) within FGTKS to be controlled by the Fuels Condenser (2019 PTI at 31).

FGFUELBLEND – EU33KTKS, EUHIVPTKS, EU9600TKS, EU9600BLEND, and EUNEBLEND

21. The 2019 PTI requires Tanks 203–208, Tanks 209–210, Tanks 211–222, Tanks 229 and 231–235, and Tanks 661–663 within FGFUELBLEND to be controlled by the Fuels Condenser (2019 PTI at 37–38).
22. The 2019 PTI states at FGFUELBLEND, Condition III.2., that the permittee shall exhaust all emissions from Tanks 203–208 to a closed vent system and emission control device (Fuels Condenser) meeting the requirements of 40 C.F.R. § 60.112b(a)(3) (2019 PTI at 37).
23. The 2019 PTI states at FGFUELBLEND, Condition IV.1. that the permittee shall equip Tanks 203–208 with a closed vent system designed to collect all discharged VOC vapors and gases and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections (2019 PTI at 38).
24. The 2019 PTI states at FGFUELBLEND, Condition IV.2. that the permittee shall equip Tanks 203–208 with a control device (Fuels Condenser) designed and operated to reduce inlet VOC emissions by 95 percent or greater (2019 PTI at 38).
25. The 2019 PTI states at FGFUELBLEND, Condition IX.1 that the permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 C.F.R. Part 60, Subparts A and Kb, as they apply to Tanks 203–208 (2019 PTI at 39).

FGFACILITY

26. The 2019 PTI requires FGFACILITY (the “Facility”) to limit its aggregate hazardous air pollutants (“HAPs”) to 24.9 tons per year on a twelve-month rolling time period as determined at the end of each calendar month (2019 PTI at 40).

NSPS VV

27. 40 C.F.R. § 60.480(a)(1) applies NSPS Subpart VV to affected facilities in the synthetic organic chemicals manufacturing industry.
28. 40 C.F.R. § 60.480(a)(2) identifies the group of all equipment within a process unit as an affected facility.
29. 40 C.F.R. § 60.480(b) subjects any affected facility under 40 C.F.R. § 60.480(a) that commences construction, reconstruction, or modification after January 5, 1981, and on or before November 7, 2006, to the requirements of NSPS Subpart VV.
30. 40 C.F.R. § 60.481 defines “control device” as an enclosed combustion device, vapor recovery system, or flare.
31. 40 C.F.R. § 60.481 defines “closed vent system” as a system that is not open to the atmosphere and is composed of hard-piping, ductwork, connections, and, if necessary, flow inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device or back to a process.

32. 40 C.F.R. § 60.481 defines “equipment” as each pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, and flange or other connector in VOC service and any devices or systems required by NSPS Subpart VV.
33. 40 C.F.R. § 60.481 defines “in VOC service” as a piece of equipment that contains or contacts a process fluid that is at least 10 percent VOC by weight.
34. 40 C.F.R. § 60.481 defines “in gas/vapor service” as a piece of equipment that contains process fluid that is in the gaseous state at operating conditions.
35. 40 C.F.R. § 60.481 defines “in light liquid service” as a piece of equipment that contains a liquid that meets the conditions specified in 40 C.F.R. § 60.485(e).
36. 40 C.F.R. § 60.481 defines “process unit” as components assembled to produce, as intermediate or final products, one or more of the chemicals listed in 40 C.F.R. § 60.489. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product.
37. 40 C.F.R. § 60.481 defines “synthetic organic chemicals manufacturing industry” as the industry that produces, as intermediates or final products, one or more of the chemicals listed in 40 C.F.R. § 60.489.
38. 40 C.F.R. § 60.482–1(a) requires each owner or operator subject to the provisions of NSPS Subpart VV to demonstrate compliance with the requirements of 40 C.F.R. §§ 60.482–1 through 60.482–10 or 40 C.F.R. § 60.480(e) for all equipment within 180 days of initial startup.
39. 40 C.F.R. § 60.482–10(a) requires owners or operators of closed vent systems and control devices used to comply with provisions of NSPS Subpart VV to comply with the provisions of 40 C.F.R. § 60.482–10.
40. 40 C.F.R. § 60.482–10(b) requires vapor recovery systems (for example, condensers and absorbers) to be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent.
41. 40 C.F.R. § 60.482–10(e) requires owners or operators of control devices used to comply with Subpart VV to monitor these control devices to ensure that they are operated and maintained in conformance with their designs.
42. 40 C.F.R. § 60.482–10(f)(1)(i) requires that if the closed vent system is constructed of hard-piping, the owner or operator conduct an initial inspection according to Method 21, as described in 40 C.F.R. § 60.485(b)(1); and conduct annual inspections for visible, audible, or olfactory indications of leaks.
43. 40 C.F.R. § 60.482–10(g)(2) requires that leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, be repaired as soon as practicable, but no later than 15 days after the leak is detected.

- 44. 40 C.F.R. § 60.482–10(m) requires that closed vent systems and control devices used to comply with provisions of NSPS Subpart VV be operated at all times when emissions may be vented to them.
- 45. 40 C.F.R. § 60.485(c) identifies test method requirements for demonstrating compliance with the no detectable emission standards in 40 C.F.R. § 60.482–10(e).

NESHAP Subpart DD

- 46. Pursuant to Section 112 of the Act, the EPA promulgated the NESHAP for Off-Site Waste and Recovery Operations (“NESHAP Subpart DD”) at 40 C.F.R. Part 63, Subpart DD, 40 C.F.R. §§ 63.680–63.698, on July 1, 1996. 61 Fed. Reg. 34140, 34158-200.
- 47. The provisions of NESHAP Subpart DD apply to the owner and operator of a plant site that is a major source of HAP emissions as defined in 40 C.F.R. § 63.2 where there is a waste management operation that receives "off-site material" and is regulated as a hazardous waste treatment, storage, and disposal facility (“TSDF”) under either 40 C.F.R. part 264 or 265 or a recovery operation that recycles or reprocesses used solvent which is an off-site material and the operation is not part of the chemical, petroleum, or other manufacturing process that is required to use air emission controls by another subpart of 40 C.F.R. parts 63 or 61. 40 C.F.R. § 63.680(a) and (b)(1).
- 48. 40 C.F.R. § 63.681 defines “plant site” as all contiguous or adjoining property that is under common control including properties that are separated only by a road or other public right-of-way. Common control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, or any combination thereof. A unit or group of units within a contiguous property that are not under common control (e.g., a wastewater treatment unit or solvent recovery unit located at the site but is sold to a different company) is a different plant site.
- 49. 40 C.F.R. § 63.681 defines “waste management operation” as the collection of off-site material management units, process vents, and equipment components used at a plant site to manage an off-site material stream from the point-of-delivery to the point where the waste exits or is discharged from the plant site or the waste is placed for on-site disposal in a unit not subject to this subpart (e.g., a waste incinerator, a land disposal unit).
- 50. 40 C.F.R. § 63.681 defines “recovery operation” as the collection of off-site material management units, process vents, and equipment components used at a plant site to manage an off-site material stream from the point-of-delivery through the point where the material has been recycled, reprocessed, or re-refined to obtain the intended product or to remove the physical and chemical impurities of concern.
- 51. 40 C.F.R. § 63.681 defines “off-site material” as a material that meets all of the criteria specified in 40 C.F.R. § 63.680(b)(1) but is not one of the materials specified in 40 C.F.R. § 63.680(b)(2).
- 52. Except under limited circumstances that do not apply here, an “off-site material” under the NESHAP Subpart DD is: (i) a waste, used oil, or used solvent, as those terms are defined in 40

C.F.R. § 63.681; (ii) that is not produced or generated within the plant site but is delivered, transferred, or otherwise moved to the plant site from an outside location; and (iii) contains one or more of the HAPs listed in Table 1 of the NESHAP Subpart DD. 40 C.F.R. § 63.680(b)(1).

53. An "affected source" under the NESHAP Subpart DD is the entire group of off-site material management units associated with the operation. An off-site material management unit is a tank, container, surface impoundment, oil-water separator, organic-water separator, or transfer system used to manage off-site material. 40 C.F.R. § 63.680(c)(1).
54. The owner or operator must control air emissions from the off-site material management unit in accordance with the applicable standards specified in 40 C.F.R. §§ 63.685–63.689, including the control of air emissions from tanks at 40 C.F.R. § 63.685. 40 C.F.R. § 63.683(b).
55. At all times, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. 40 C.F.R. § 63.683(e).
56. For each process vent that is part of an affected source, the owner or operator must meet the requirements in accordance with the applicable standards or procedures specified in 40 C.F.R. § 63.690 or § 63.683(c)(1)(ii). 40 C.F.R. § 63.683(c)(1).
57. The owner or operator must control equipment leaks from each equipment component that is part of the affected source by implementing leak detection and control measures in accordance with the standards specified in 40 C.F.R. § 63.691. 40 C.F.R. § 63.683(d).
58. The owner or operator must meet closed vent system and control device requirements specified in 40 C.F.R. § 63.693, recordkeeping requirements specified in 40 C.F.R. § 63.696, and reporting requirements specified in 40 C.F.R. § 63.697.

Title V Requirements

59. Pursuant to Section 502(a) of the CAA, 42 U.S.C. § 7661a(a), it is unlawful for any person to, among other things, operate a major source subject to Title V except in compliance with a Title V permit after the effective date of any permit program approved or promulgated under Title V of the Act. The EPA first promulgated regulations governing state operating permit programs on July 21, 1992. See 57 Fed. Reg. 32295–312; 40 C.F.R. Part 70.
60. The EPA granted interim approval of the Michigan Title V program on January 10, 1997. See 62 Fed. Reg. 1387–99 (effective on February 10, 1997). The EPA fully approved the Michigan Title V program on December 4, 2001. See 66 Fed. Reg. 62949–51 (effective on November 30, 2001). The Michigan regulations governing the Title V permit program, also known as the “renewable operating permit program,” are codified at Mich. Admin. Code R 336.1210–336.1219.
61. 40 C.F.R. § 70.2 defines “major source,” in part, as any stationary source (or any group of stationary sources that are located on one or more continuous or adjacent properties, and are under common control of the same person (or persons under common control)) belonging to a

single major industrial grouping and that directly emits or has the potential to emit greater than 100 tpy of any air pollutant subject to regulation, 10 tpy of a single HAP, or 25 tpy of all HAPs combined. *See also* Mich. Admin. Code R 336.1211.

- 62. 40 C.F.R. § 70.5(a) provides that for each part 70 source, the owner or operator shall submit a timely and complete permit application in accordance with 40 C.F.R. § 70.5. Section 503 of the CAA, 42 U.S.C. § 7661b, and 40 C.F.R. § 70.5(a), set forth the requirement to submit a timely, accurate, and complete permit application for a permit, including information required to be submitted with the application. *See also* Mich. Admin. Code R 336.1210, 336.1212.
- 63. 40 C.F.R. § 70.7(b) provides that no source subject to 40 C.F.R. part 70 requirements may operate without, and except in compliance with, a permit issued under a part 70 program. *See also* Mich. Admin. Code R 336.1210.
- 64. 40 C.F.R. § 70.1(b) provides that all sources subject to part 70 shall have a permit to operate that assures compliance by the source with all applicable requirements. *See also* Mich. Admin. Code R 336.1213.

Relevant Factual Background

- 65. Gage Products owns and operates a chemical manufacturing facility at 625 Wanda Avenue, Ferndale, Michigan 48220 (the “Facility”) classified under North American Industry Classification System (“NAICS”) codes 325510 (Paint and Coating Manufacturing) and 325998 (All Other Miscellaneous Chemical Product and Preparation Manufacturing). The Facility is a plant site where there is a waste management operation that receives off-site material, as defined in NESHAP Subpart DD.
- 66. The EPA conducted CAA inspections of the Facility on August 17–18, 2022 (“August 2022 Inspection”), October 25, 2022 (“October 2022 Inspection”), and June 3–4, 2024 (“June 2024 Inspection”).
- 67. The EPA issued a Section 114 Information Request to Gage Products on June 12, 2023 (“June 2023 Information Request”). The June 2023 Information Request required, among other things, that Gage Products conduct Method 21 monitoring on the pressure relief components on each tank connected to the vent condenser and perform VOC emissions testing to determine the control efficiency of the Fuels Condenser used to control emissions from various tanks at the Facility.

NSPS Subpart Kb Applicability

- 68. Due to the information detailed in Paragraph 14 (Condition IX.1 of the EUTank70 section of the 2019 PTI), Paragraph 17 (Condition IX.1. of the FGNSPSLargeTanks section of the 2019 PTI), and Paragraph 25 (Condition IX.1. of the FGFUELBLEND section of the 2019 PTI), Tanks 69–71, 78–81, and 203–208 are subject to the provisions of NSPS Subpart Kb.
- 69. Due to the information detailed in Paragraphs 17 (Condition IX.1. of the FGNSPSLargeTanks section of the 2019 PTI) and 25 (Condition IX.1. of the FGFUELBLEND section of the 2019 PTI),

Tanks 69, 71, 78–81, and 203–208 shall not be operated unless the tank is equipped with a closed-vent system and control device meeting the specification of 40 C.F.R. § 60.112b(a)(3).

NSPS Subpart VV Applicability

70. During the EPA’s October 2022 Inspection, Gage Products personnel informed the EPA that two thin-film evaporators and a distillation column are used to manufacture solvents and paint-related products through separation at the Facility for sale.
71. On September 22, 2022, Gage Products submitted to the EPA safety data sheets for all evaporator and distillation column products during the year prior to November 7, 2022.
72. According to the safety data sheets referenced in Paragraph 71 of this NOV/FOV, three of the Facility’s evaporator and distillation column products are entirely comprised (100%) of chemicals listed in 40 C.F.R. § 60.489 (“NSPS Subpart VV-listed chemicals”). All other evaporator and distillation column products contain high quantities (52–99%)¹ of NSPS Subpart VV-listed chemicals.
73. The EPA’s June 2023 Information Request asked Gage Products to state whether it believes the Facility qualifies for any exemptions listed in 40 C.F.R. § 60.480(d) or complies with any alternative standards listed in 40 C.F.R. §§ 60.480(e), 60.483–1, or 60.483–2.
74. In response to the request referenced in Paragraph 73 of this NOV/FOV, Gage Products did not indicate that the Facility qualifies for any NSPS Subpart VV exemptions or complies with any alternative standards.
75. In response to the EPA’s June 2023 Information Request, Gage Products stated that the thin-film evaporator #1 and the distillation column were installed in March 1989, and the thin-film evaporator #2 was installed in 1993.
76. Gage Products’ two evaporators and distillation column are process units in the synthetic organic chemicals manufacturing industry, as defined in NSPS Subpart VV, and therefore, the group of equipment associated with these process units is an affected facility under NSPS Subpart VV.
77. In response to the EPA’s June 2023 Information Request, Gage Products stated there is no equipment at the Facility that is operating in VOC service less than 300 hours per year. *See* 40 C.F.R. § 60.482–1(e).
78. In response to the EPA’s June 2023 Information Request, Gage Products stated that there is no equipment in vacuum service at the Facility. *See* 40 C.F.R. § 60.482–1(d).

¹ If the composition of a listed chemical in a given product is displayed as a range on the product’s safety data sheet, the midpoint of the range was taken to be this chemical’s composition in the product (e.g., for a composition range of 20–50%, a composition of 35% was used).

79. In response to the EPA’s June 2023 Information Request, Gage Products stated that there is no equipment in vacuum service at the Facility. *See* 40 C.F.R. § 60.482–1(d).
80. Gage Products’ Fuels Condenser is a vapor recovery system and a control device. *See* 40 C.F.R. § 60.481 and 40 C.F.R. § 60.482-10(b).

June 2023 Method 21 Monitoring, EPA 2024 Inspection, Stack Testing, and June 2024 Method 21 Monitoring

81. During the August 2022 Inspection, the EPA used an optical gas imaging (“OGI”) camera to screen for emissions. The EPA observed emissions escaping from the covers of Tanks 80, 81, 206, and 207.
82. During the August 2022 Inspection, the EPA observed a blackened substance on the vents of Tanks 80, 81, 206, and 207, along with severe rusting on the piping associated with the closed vent system on Tanks 80 and 81 (August 2022 Inspection, Image numbers 8–10).
83. During the October 2022 Inspection, the EPA performed Method 21 monitoring on tanks subject to NSPS Subpart Kb using two Toxic Vapor Analyzers (“TVAs”). The EPA also used an OGI camera to screen for emissions. The EPA’s Method 21 readings are summarized below, along with whether the EPA also observed emissions with the OGI camera:

Tank #	Component Type	TVA Reading, B37055 (ppm)	TVA Reading, B37056 (ppm)	Additional Notes
78	PRV	>10,000	840	Emissions were observed with OGI.
79	Mixer	2,800	2,100	
80	PRV	–	>10,000	Emissions were observed with OGI.
81	Mixer	700	1,500	
203	Vacuum breaker	520	580	
204	Vacuum breaker	>10,000	10,000	Emissions were observed with OGI.
206	Valve	>10,000	>10,000	Emissions were observed with OGI. This valve was open.
207	Valve	>10,000	>10,000	Emissions were observed with OGI. This valve was open.
208	Vacuum breaker	2,200	750	

84. On January 8, 2024, Gage Products submitted a report to the EPA which contained the results of Method 21 monitoring performed by a third party on July 12, 2023 on the tanks connected

to the Fuels Condenser, as required by the EPA's June 2023 Information Request. The report identified 19 leaks greater than 500 ppm, as follows:

Tank #	Description of Fitting	Highest PPM Recorded 7/12/2023	NSPS Kb Tank
6	Lid Seal	60,000	N
10	Lid Seal	590	N
71	Gasket	50,000	Y
78	Lid Seal	700	Y
81	Flange	700	Y
203	Swagelok	5,000	Y
	Swagelok	1,000	
	Threaded Fitting	1,000	
206	Threaded Fitting	2,400	Y
	Lid Seal	600	
207	Threaded Fitting	2,600	Y
	Lid Seal	800	
208	Threaded Fitting	1,800	Y
210	Lid Seal	5,000	N
211	Threaded Fitting	600	N
212	Lid Seal	2,000	N
233	Lid Seal	1,000	N
662	Lid Seal	700	N
663	Lid Seal	700	N

85. During the June 2024 Inspection, Gage Products conducted Method 21 monitoring on the equipment on each tank connected to the Fuels Condenser and performed the emissions testing which were both required by the June 2023 Information Request ("June 2024 Emissions Test").
86. During the June 2024 Inspection, the EPA inspected tanks routed to the Fuels Condenser and observed emissions venting from components on Tanks 8, 10, 19, 204, 207, 206, 209, 211, 232, and the condensate collection tank (Tank 398) using OGI.
87. During the June 2024 Inspection, Gage Products told the EPA that on April 19 and 22 of 2024, a third party performed Method 21 on the tanks connected to the Fuels Condenser. On June 21, 2024, Gage Products provided a summary identifying that 12 leaks greater than 500 ppm were found, as follows:

Tank #	Leak Location	Result (ppm)	NSPS Kb Tank
211	Flange	1,820	N
215	Flange	540	N
662	Seal	9,900	N
662	Loose Cap	1,386	N
662	Flange	11,900	N

663	Seal	1,381	N
663	Loose Cap	37,400	N
232	Flange	1,186	N
10	Flange	837	N
81	Missing bolts	6,679	Y
69	O-ring fitting	715	Y
209	Flange	1,742	Y
70	O-ring fitting	7,739	Y

88. On July 8, 2024, Gage Products submitted the results of the June 2024 Emissions Test, dated July 2, 2024, to the EPA ("June 2024 Stack Test Report"). Gage Products submitted additional information on leak repairs on July 27, 2024. The June 2024 Stack Test Report identified 20 leaks greater than 500 ppm. The table below summarizes the leak data from the June 2024 Stack Test Report and the repair data:

Tank #	Description of Fitting	Highest PPM Recorded 6/3/24	NSPS Kb Tank	Repair Confirmation Date	Days Between Identified Leak and Repair Confirmed
7	Lid Seal	1,146	N	6/26/2024	23
8	Fitting Seal	7,566	N	6/26/2024	23
10	Fitting Seal	17,000	N	6/26/2024	23
11	Lid Seal	908	N	7/1/2024	28
69	Lid Seal	12,000	Y	7/1/2024	28
203	Swagelok	5,216	Y	Est. 9/18/2024	107
	Swagelok	15,200	Y	Est. 9/18/2024	107
	Threaded Fitting	204,000	Y	7/18/2024	45
204	Threaded Fitting	992	Y	6/27/2024	24
207	Bolted Cap Seal	942	Y	6/27/2024	24
209	Flange Seal	8,729	N	6/26/2024	23
212	Flange Seal	871	N	6/26/2024	23
220	Lid Seal	5,089	N	7/1/2024	28
229	Lid Seal	120,000	N	7/1/2024	28
232	Flange Seal	6,347	N	6/26/2024	23
233	Flange Seal	1,642	N	7/17/2024	44
234	Flange Seal	1,634	N	6/26/2024	23
235	Flange Seal	4,645	N	6/26/2024	23
	Flange Seal	1,566	N	6/26/2024	23
	Flange Seal	4,007	N	6/26/2024	23

89. The June 2024 Emissions Test measured VOC (as propane) at the inlet and outlet of the Fuels Condenser using EPA Method 25A during three one-hour runs. The June 2024 Stack Test Report summarizes the emission rate and percent control efficiency for each run as:

	Run 1	Run 2	Run 3	Average
VOC (as propane) Inlet (lb/hr)	51	52	35	46
VOC (as propane) Outlet (lb/hr)	9.8	17.1	3.0	10.0
Control Efficiency (%)	80.8	66.9	91.3	79.7

The average VOC concentration at the outlet of the Fuels Condenser during the June 2024 Stack Test was 165,782 parts per million by volume, dry (“ppmvd”).

90. During the 2024 Inspection, the EPA observed that Tank 70 is not equipped with a closed vent system that routes emissions from this tank to a control device, which would result in emissions from this tank venting to the atmosphere during filling and temperature/pressure changes.
91. The 2019 PTI states that Tank 70 must comply with the provisions of Subpart Kb (2019 PTI states at EUTank70, Condition IX.1.). Based on information provided by Gage Products on September 22, 2022, the tank has a capacity greater than 75 m³ but less than 151 m³ and is permitted to store liquids with a maximum true vapor pressure greater than 15.0 kPa.

Design Evaluation

92. On September 7, 2022, Gage Products provided a copy of a design evaluation for emissions resulting from the installation of Tanks 203–208, dated February 8, 2017. The design evaluation is inconclusive but stated that as little as 50% of the VOCs from the six evaluated tanks would be condensed under worst case conditions. The design evaluation recommended testing of the Fuels Condenser.
93. The design evaluation does not evaluate the minimum or maximum instantaneous rate of vapor and peak pressure experienced by the closed vent system and Fuels Condenser, nor does it evaluate the capability of the Fuels Condenser to handle these rates and pressures.

NESHAP Subpart DD Applicability and Title V

94. On September 7, 2022 and September 22, 2022, Gage Products provided emission calculation information for September 2019–2022 which showed that Gage Products was calculating fugitive emissions from the facility using emission factors from the EPA’s 1995 Protocol for Equipment Leak Emission Estimates screening ranges emission factors (Table 2-7). These emission factors relied on leak detection data from a period of time during which Gage Products was implementing a leak detection and repair program pursuant to NESHAP Subpart DD. According to the August 2022 Inspection, the company stopped conducting leak detection and repair on these components around 2018 (excluding components subject to the Resource Conservation and Recovery Act).
95. The EPA estimated fugitive emissions from the equipment using EPA’s 1995 Protocol for Equipment Leak Emission Estimates average emission factors for the Synthetic Organic Chemical Manufacturing Industry (Table 2-1) and the component counts provided in the leak detection and repair data in the 2019 Calculation.

96. Based on the results of the Fuels Condenser performance test described in Paragraph 89 and fugitive emission calculations described in Paragraphs 94–95, Gage Products’ facility-wide aggregate HAP emissions exceeded the major source thresholds of 10 tpy of emissions from a single HAP or 25 tpy total HAP emissions.
97. Because Gage Products’ facility-wide aggregate HAP emissions exceeded the major source thresholds, the Facility is a major source of HAPs as defined in 40 C.F.R. § 63.2.
98. The Facility contains a “waste management operation”, as defined in NESHAP Subpart DD.
99. The used solvent (off-site material) Gage Products receives from its customers contains one or more of the HAPs listed in Table 1 of 40 C.F.R. Part 63, Subpart DD, according to a list of feedstock compounds provided by Gage Products on December 27, 2022.
100. On February 23, 2023, the EPA obtained a copy of Gage Products’ Hazardous Waste Limited Storage Facility Operating License under 40 C.F.R. Part 264. Gage Products receives off-site material and its operation is regulated as a hazardous waste storage facility under 40 C.F.R. Part 264. The facility also operates a recovery operation.
101. On May 7, 2019, Gage Products submitted a request to Michigan Department of Environment, Great Lakes, and Energy (“EGLE”) voiding its Title V/Renewable Operating Permit (ROP) and its renewal application. The letter states that Gage Products was originally subject to NESHAP Subpart DD as a major source but had obtained a synthetic minor PTI (No. 64-18A) on April 30, 2019. On May 24, 2019, EGLE responded voiding the permit and the renewal application.

Alleged Violations

NSPS Subpart Kb and 2019 PTI

102. Gage Products failed to operate Ferndale Facility’s closed vent system associated with Tanks 69, 71, 78–81, and 203–208 with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as described in Paragraphs 81–88, in violation of 40 C.F.R. § 60.112b(a)(3)(i), Condition IX.1. of the FGNSPSLargeTanks section of the 2019 PTI, and Conditions III.2., IV.1., and IX.1. of the FGFUELBLEND section of the 2019 PTI.
103. Gage Products failed to design the Ferndale Facility’s closed vent system associated with Tanks 69, 71, 78–81, and 203–208 to operate with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as described in Paragraphs 81–88 and 92–93, in violation of 40 C.F.R. § 60.112b(a)(3)(i), Condition IX.1. of the FGNSPSLargeTanks section of the 2019 PTI, and Conditions III.2., IV.1., and IX.1. of the FGFUELBLEND section of the 2019 PTI.
104. Gage Products failed to design and operate the Fuels Condenser to reduce inlet VOC emissions by 95 percent or greater during maximum loading conditions, as described in Paragraph 89 and 92–93, in violation of 40 C.F.R. §§ 60.112b(a)(3)(ii) and 60.113b(c)(1)(i), Conditions III.1. and IX.1. of the FGNSPSLargeTanks section, and Conditions III.2., IV.2., and IX.1. of the FGFUELBLEND section of the 2019 PTI.

NSPS Subpart VV

105. Gage Products failed to design the closed vent system with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background and visual inspections, and to route the collected emissions to a vapor recovery system operated to recover VOC emissions with an efficiency of 95 percent or greater or an exit concentration of 20 ppmv, as described in Paragraphs 81–89 and 92–93, in violation of 40 C.F.R. § 60.482–10(b), (e), (g), and (m).
106. Gage Products failed to operate the closed vent system with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background and visual inspections, and to route the collected emissions to a vapor recovery system designed to recover VOC emissions with an efficiency of 95 percent or greater or an exit concentration of 20 ppmv, as described in Paragraphs 81–89, in violation of 40 C.F.R. § 60.482–10(b), (e), (g), and (m).
107. Gage Products failed to repair leaks as soon as practicable, but no later than 15 days after the leak is detected, as described in Paragraph 88, in violation of 40 C.F.R. § 60.482–10(g)(2).

2019 PTI

108. Gage Products failed to comply with the facility-wide aggregate HAP emission limit of 24.9 tpy, as described in Paragraph 96, in violation of Condition I.2. of the FGFACILITY section (page 40 of the 2019 PTI).

NESHAP Subpart DD

109. Gage Products failed to comply with the provisions of NESHAP Subpart DD, including, but not limited to, the requirements to comply with general standards that apply to: off-site material management units (such as tanks and organic-water separators) and process vents from thin-film evaporation and distillation processes; control, inspect, and monitor equipment leaks; control, inspect, and monitor closed-vent systems; and maintain records and submit reports as described in Paragraphs 81–101, in violation of 40 C.F.R. §§ 63.683(b)(1), 63.683(c)(1), 63.683(d), 63.685, 63.690, 63.691, 63.693, 63.696, 63.697.

Title V

110. Gage Products failed to submit a timely Title V permit application to the State of Michigan and operated without a Title V permit, as described in Paragraph 101, in violation of 40 C.F.R. §§ 70.1(b), 70.5(a), and 70.7(b) and Mich. Admin. Code R 336.1210–13.

Environmental Impact of Violations

111. The violations identified in Paragraphs 102–110 have caused excess emissions of VOCs and HAPs.
112. Excess VOC emissions can cause eye, nose, and throat irritation, headaches, loss of coordination, nausea and damage to the liver, kidneys, and the central nervous system.

113. VOC emissions are a precursor to ground-level ozone. Breathing ozone contributes to a variety of health problems including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground-level ozone also can reduce lung function and inflame lung tissue.
114. Excess emissions of HAPs such as benzene, n-hexane, toluene, and contribute to various health problems:
- a) Benzene exposure can result in neurological damage, including drowsiness, dizziness, headaches, unconsciousness, and blood disorders. Chronic impacts include blood disorders and increased risk of leukemia.
 - b) N-hexane exposure can result in negative impacts to the central nervous system, including dizziness, giddiness, slight nausea, and headache. Chronic exposure can cause sensorimotor polyneuropathy, with numbness in the extremities, muscular weakness, and blurred vision.
 - c) Toluene exposure can result in negative impacts to the central nervous system, narcosis, fatigue, headaches, nausea, tremors, cerebral atrophy, impaired speech, hearing, and vision.

**MICHAEL
HARRIS**

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Michael D. Harris
Division Director
Enforcement and Compliance Assurance Division