



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

APR 05 2019

REPLY TO THE ATTENTION OF

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Tanko Adahu, Environmental Health and Safety Manager
PPG Industries Inc.
559 Pittsburgh Road
Circleville, Ohio 43113

Re: Finding of Violation
PPG Industries Inc.
Circleville, Ohio

Dear Mr. Adahu:

The U.S. Environmental Protection Agency is issuing the enclosed Finding of Violation (FOV) to PPG Industries Inc. (PPG or you) under Section 113(a)(1) of the Clean Air Act, 42 U.S.C. § 7413(a)(1). We find that you are violating or have violated the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Miscellaneous Organic Chemical Manufacturing (the MON Rule) and the National Emission Standards for Equipment Leaks with Control Level 2 Standards (Subpart UU) Plan at your Circleville, Ohio 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 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 FOV prior to the conference date.

Please 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 contact in this matter is Luke Hullinger. You may call him at (312) 886-3011 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,



Edward Nam
Director
Air and Radiation Division

Enclosure

cc: Kelly Toth, Ohio EPA Central District Office Chief

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5**

IN THE MATTER OF:

**PPG Industries Inc.
Circleville, Ohio**

Proceedings Pursuant to
the Clean Air Act,
42 U.S.C. §§ 7401 et seq.

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FINDING OF VIOLATION

EPA-5-19-OH-07

FINDING OF VIOLATION

The U.S. Environmental Protection Agency finds that PPG Industries Inc. (PPG) is violating Section 112 of the Clean Air Act (Act), 42 U.S.C. § 7412. Specifically, PPG is violating the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Miscellaneous Organic Chemical Manufacturing (the MON) at 40 C.F.R. Part 63, Subpart FFFF and the National Emission Standards for Equipment Leaks with Control Level 2 Standards at 40 C.F.R. Part 63, Subpart UU (Subpart UU), as follows:

Regulatory Authority

Ohio State Implementation Plan

1. On January 22, 2003, EPA approved Ohio Administrative Code (OAC) Rule 3745-31-05 as part of the federally-enforceable Ohio State Implementation Plan (SIP) with an effective date of March 10, 2003. 68 Fed. Reg. 2909.

2. OAC rule 3745-31-05(D)(1)(a) establishes that terms and conditions necessary to ensure compliance with requirements mandated by the Act, issued in a permit-to-install (PTI) or permit-to-install and operate (PTIO) or Federally Enforceable PTIO (FEPTIO), are federally enforceable.

Title V Permit Program

3. Title V of the Act, 42 U.S.C. §§ 7661-7661f, established an operating permit program for major sources of air pollution.

4. In accordance with Section 502(b) of the Act, 42 U.S.C. § 7661a(b), EPA promulgated regulations establishing the minimum elements of a Title V permit program to be administered by any air pollution control agency. See 57 Fed. Reg. 32295 (July 21, 1992). Those regulations are codified at 40 C.F.R. Part 70.

5. Section 502(d) of the Act, 42 U.S.C. § 7661a(d), provides that each state must submit to the EPA a permit program meeting the requirements of Title V.

6. On August 15, 1995, EPA granted Ohio final approval of its Title V Permit Program, effective October 1, 1995. 60 Fed. Reg. 42045.

7. Section 502(a) of the Act, 42 U.S.C. § 7661a(a), and 40 C.F.R. § 70.7(b) provide that, after the effective date of any permit program approved or promulgated under Title V of the Act, no source subject to Title V may operate except in compliance with a Title V permit.

8. 40 C.F.R. § 70.6(b)(1) provides that all terms and conditions in a Title V permit are enforceable by EPA.

9. On December 26, 2002 the Ohio Environmental Protection Agency (Ohio EPA) issued to PPG the Title V Operating Permit Number 01-65-00-0007.

10. On June 26, 2007 Ohio EPA issued the permit to install (PTI) Number 01-12083 in addition to the 2002 Permit.

11. The PTI at Part III A.I.2.f. describes that the permittee shall comply with all applicable requirements of 40 CFR Part 63 Subpart FFFF for Group 1 continuous process vents, including those incorporated by reference including those described in paragraph 34 below.

12. The PTI at Part III A.I.2.f. describes that the permittee shall comply with all applicable requirements of 40 CFR 63 Subpart FFFF for Group 1 storage tanks, including those incorporated by reference including those described in paragraph 36 below.

National Emission Standards for Hazardous Air Pollutants

13. The NESHAP for Miscellaneous Organic Chemical Manufacturing applies to owners or operators of miscellaneous organic chemical manufacturing process units (MCPU) that are located at, or are part of, a major source of hazardous air pollutants (HAP) emissions, as defined in Section 112(a) of the Act.

14. Section 112(d) of the Act, 42 U.S.C. § 7412(d), authorizes EPA to promulgate regulations for particular industrial sources that emit one or more of the HAPs listed in Section 112(b) of the Act, 42 U.S.C. § 7412(b), in significant quantities.

15. Pursuant to Section 112(d) of the Act, 42 U.S.C. § 7412(d), EPA promulgated the MON on November 10, 2003. 68 Fed. Reg. 63888. The MON states that the owner or operator of an existing affected source as of November 10, 2003 must comply with the provisions of this subpart no later than May 10, 2008, as required under 40 C.F.R. § 63.2445(b). The owner or operator of a new affected source after November 10, 2003, must comply with the requirements for new sources upon startup of the affected source under 40 C.F.R. § 63.2445(b).

16. Pursuant to Section 112(d) of the Act, 42 U.S.C. § 7412(d), EPA promulgated Subpart UU on June 29, 1999, 64 Fed. Reg. 34899. Subpart UU applies only to owners and operators of facilities subject to a referencing subpart, per 40 C.F.R. § 63.1019(a).

17. The MON applies to each miscellaneous organic chemical manufacturing affected source, which is the facility-wide collection of miscellaneous organic chemical manufacturing

process units (MCPUs) and heat exchange systems, wastewater, and waste management units that are associated with manufacturing materials described in 40 C.F.R. § 63.2435(b)(1). 40 C.F.R. § 63.2440.

18. The MON applies to owners or operators of MPCUs that are located at, or are part of, a major source of HAP emissions as defined in Section 112(a) of the Act, 42 U.S.C.

19. The MON, at 40 C.F.R. § 63.2435(b), states that a MCU includes equipment necessary to operate a miscellaneous organic chemical manufacturing process, as defined in 40 C.F.R. § 63.2550, that satisfies the following conditions: a) produces an organic chemical classified using the 1987 version of Standard Industrial Classification (SIC) code 282, 283, 284, 285, 286, 287, 289, or 386; an organic chemical classified using the 1997 version of North American Industry Classification System (NAICS) code 325; quaternary ammonium compounds and ammonium sulfate produced with caprolactam; hydrazine; or organic solvents classified in any of the SIC or NAICS previously listed that are recovered using non-dedicated solvent recovery operations; b) processes, uses, or generates any of the organic HAP listed in Section 112(b) of the Act or hydrogen halide and halogen HAP, as defined in 40 C.F.R. § 63.2550; and c) is not an affected source or part of an affected source under another subpart in Part 63, except for process vents from batch operations within a chemical manufacturing process unit, as identified in 40 C.F.R. § 63.100(j)(4).

20. The MON, at 40 C.F.R. § 63.2435(b), also states that a MCU includes any assigned storage tanks and transfer racks; equipment in open systems that is used to convey or store water having the same concentration and flow characteristics as wastewater; and components such as pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, and instrumentations systems that are used to manufacture any material or family of materials described above.

21. The MON, at 40 C.F.R. § 63.2550(i), defines “in organic HAP service” as a piece of equipment that either contains or contacts a fluid (liquid or gas) that is at least 5 percent by weight of total organic HAP as determined according to the provisions of 40 C.F.R. § 63.180(d).

22. Table 6 of the MON states that for all equipment that is in organic HAP service, the owner or operator of an affected source must either comply with the requirements of Subpart UU or Subpart H of Part 63 and the requirements referenced therein, except as specified in 40 C.F.R. §§ 63.2480(b) and (d), or comply with the requirements of Subpart F of Part 65 and the requirements referenced therein, except as specified in 40 C.F.R. §§ 63.2480(c) and (d).

23. Subpart UU, at 40 C.F.R. § 63.1033(b)(1), requires each open-ended valve or line to be equipped with a cap, blind flange, plug, or second valve.

24. Subpart UU, at 40 C.F.R. § 63.1025(b)(1), requires that the valves be monitored to detect leaks by the method specified in 40 C.F.R. § 63.1023(b).

25. Subpart UU, at 40 C.F.R. § 63.1023(b)(1), requires monitoring to comply with Method 21, except as otherwise provided in that section.

26. Method 21, at 40 C.F.R. Part 60, Appendix A, Section 8.3.1, requires the owner or operator of an affected source to slowly sample the interface of a component where leakage is indicated until the maximum meter reading is obtained.

27. Subpart UU, at 40 C.F.R. § 63.1025(b)(3), requires the owner or operator to monitor valves for leaks at the intervals specified in paragraphs (b)(3)(i) through (b)(3)(v) and keep the record specified in paragraph (b)(3)(vi).

28. Subpart UU, at 40 C.F.R. § 63.1025(b)(3)(iii) provides that for process units with less than 1 percent leaking valves, the owner or operator may elect to monitor each valve once every two quarters.

29. Subpart UU, at 40 C.F.R. § 63.1025(b)(3)(iv) provides that for process units with less than 0.5 percent leaking valves, the owner or operator may elect to monitor each valve once every four quarters.

30. Subpart UU, at 40 C.F.R. § 63.1025(b)(3)(v) provides that for process units with less than 0.25 percent leaking valves, the owner or operator may elect to monitor each valve once every 2 years.

31. Subpart UU, at 40 C.F.R. § 63.1032(b), requires each sampling connection system to be equipped with a closed-purge, closed-loop, or closed vent system.

32. Subpart UU, at 40 C.F.R. § 63.1024(a) requires that the owner or operator repair each leak detected as soon as practical, but not later than 15 calendar days after it is detected, except as provided in paragraphs (d) and (e) of the section. A first attempt at repair as defined in this subpart shall be made no later than 5 calendar days after the leak is detected. First attempt at repair for pumps includes, but is not limited to, tightening the packing gland nuts and/or ensuring that the seal flush is operating at design pressure and temperature. First attempt at repair for valves includes, but is not limited to, tightening the bonnet bolts, and/or replacing the bonnet bolts, and/or tightening the packing gland nuts, and/or injecting lubricant into the lubricated packing.

33. The MON, at 40 C.F.R. § 63.2460(a), states that each emission limit in Table 2 of the subpart applies to batch process vents, and each batch process vent must meet each applicable requirement specified in paragraphs (b) and (c) of the section.

34. Table 2 of the MON states that each process with a Group 1 process vent must reduce collective uncontrolled organic HAP emissions from the sum of all batch process vents within the process by ≥ 98 percent by weight by venting emissions from a sufficient number of the vents through one or more closed-vent systems to any combination of control devices (except a flare).

35. The MON, at 40 C.F.R. § 63.2470(a), requires that you must meet each emission limit in Table 4 of the subpart that applies to the facility's storage tanks, and must meet each applicable requirement specified in paragraphs (b) through (e) of the section.

36. Table 4 of the MON requires for each Group 1 storage tank for which the maximum true vapor pressure of total HAP at the storage temperature is ≥ 76.6 kilopascals must reduce total HAP emissions by ≥ 95 percent by weight or to ≤ 20 ppmv of TOC or organic HAP and ≤ 20 ppmv of hydrogen halide and halogen HAP by venting emissions through a closed vent system to any combination of control devices (excluding a flare).

37. Table 12 of the MON requires compliance with 40 C.F.R. §§ 63.6(e)(1). 40 C.F.R. § 63.6(e)(1) states that at all times, including periods of startup, shutdown, and malfunction, owners or operators shall operate and maintain any affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions to at least levels required by all relevant standards.

Findings of Fact

38. PPG Industries Inc. owns and operates a resin and polymer manufacturing facility in Circleville, Ohio.

39. EPA performed a CAA inspection of the Facility from October 1, 2018 to October 4, 2018 (the Inspection).

40. During the Inspection, EPA discovered the 32 open-ended lines. Table A shows the open-ended lines that EPA found.

Table A – Open-Ended Lines found by EPA During Inspection

Date	Tag/Tank	Date	Tag /Tank	Date	Tag/Tank
10/2/2018	135 B/T	10/3/2018	12277	10/3/2018	15856
10/2/2018	136 B/T	10/3/2018	12759	10/3/2018	15856
10/2/2018	10519	10/3/2018	12730	10/3/2018	15867
10/2/2018	12260	10/3/2018	12710	10/3/2018	14682
10/2/2018	12272	10/3/2018	12407.1 (2 OEL's)	10/3/2018	14689
10/2/2018	12277	10/3/2018	12494	10/3/2018	14650
10/3/2018	15983	10/3/2018	12371	10/3/2018	14706
10/3/2018	16093	10/3/2018	12374	10/3/2018	14730
10/3/2018	S/T manifold	10/3/2018	12372	10/3/2018	14736
10/3/2018	12260	10/3/2018	199280	10/3/2018	14751
10/3/2018	12272	10/3/2018	15925		

41. During the Inspection EPA monitored 808 valves and discovered seven valves leaking. Table B shows EPA's leaking valve results from the Inspection.

Table B – EPA’s Leaking Valve Results from Inspection

Date	Process Unit	Equipment Tag #	Equipment Type	EPA’s Reading (ppm)	Team Environmental’s Reading (ppm)
10/2/2018		11967	Valve	585	615
10/2/2018		11182	Valve	775	590
10/2/2018	K8 Reactor	None	Valve OEL	7,600	Confirmed
10/2/2018	B/T 12000	11835	Valve	1900	1500
10/3/2018	Tank 122	None	Control valve	2500	1400
10/3/2018	Tank 122	None	Valve	945	1600
10/3/2018	Tank 121	None	Valve	558	2598

42. During the Inspection, EPA noted that several valves on hoses were a part of the total valve count but are not in use over 300 hours a year.

43. During the Inspection, EPA noted that purge material was left open to the atmosphere in sampling buckets, specifically at the bottom of K8 RxR, the bottom of K10 RxR, the first floor finishing near tag 12494, and the sample purge from K8 monomer tank.

44. In reviewing PPG’s leak detection and repair (LDAR) database, EPA discovered that PPG reported a valve leak rate under 0.25 percent. PPG accordingly monitors valves every two years and has had two valve monitoring events in the past 5 years.

45. In reviewing PPG’s leak history in the LDAR database, EPA discovered four leaks at valves and connectors that did not have a first attempt at repair within 5 days of detection. Table C shows the leaking valves and connectors.

Table C- Leaking Valves and Connectors found During the Inspection with no 5-Day First Attempt at Repair

Component ID	Inspection Date	Final Repair Date	Component Type
108296	6/19/2018	None	Connector
108278	6/19/2018	None	Connector
49619	5/19/2016	None	Valve
49781	6/19/2018	None	Valve

46. In reviewing PPG’s LDAR database, EPA discovered the following leaks that were not repaired within 15 days of detection:

Table D- Leaking Valves and Connectors found During the Inspection with no 15-Day First Attempt at Repair

Component ID	Inspection Date	Final Repair Date	Component Type
108296	6/19/2018	None	Connector
108278	6/19/2018	None	Connector
49619	5/19/2016	None	Valve
49781	6/19/2018	None	Valve

47. In reviewing PPG's LDAR database, EPA discovered that the daily and hourly rates at which components were monitored during past monitoring events exceeded what is considered consistent with good air pollution control practices for minimizing emissions.

48. In reviewing PPG's LDAR database, EPA discovered that PPG monitors components every 2 years, and reports a leak rate below 0.25 percent.

49. On October 7, 2008 PPG submitted a MON Notice of Compliance Status (NOCS) Report to U.S. EPA and Ohio EPA.

50. The NOCS Report classifies B/T 135 and C-Line reactor system as Group 1 process vents that are routed to the Thermal Oxidizer Unit and Regenerative Thermal Oxidizer respectively.

51. During the Inspection EPA discovered a leak on the hatch for B/T 6000 of 753 ppm, and on the hatch of C-Line reactors of 680 ppm.

52. On October 7, 2008 PPG submitted a MON Status of Compliance Report to U.S. EPA and Ohio EPA classifying H/T 124, and H/T 142 as Group 1 Storage Tanks that are routed to the Thermal Oxidizer Unit.

53. During the Inspection EPA discovered a leak on the hatch H/T 142 of 664 ppm and on the hatch of H/T 124 of 4100 ppm.

54. During the October Inspection PPG informed EPA that the hatches were not regularly monitored as part of the LDAR program.

Violations

55. By failing to equip each open-ended valve or line to be with a cap, blind flange, plug, or second valve, PPG violated Subpart UU, at 40 C.F.R. § 63.1033(b)(1).

56. By failing to slowly sample the interface of a component where leakage is indicated until the maximum meter reading is obtained PPG violated Subpart UU, at 40 C.F.R. § 63.1025(b)(1).

57. By failing to empty purge material or cover purge material in sampling buckets, PPG violated Subpart UU, at 45 C.F.R. § 63.1032(b).

58. By failing to make a first attempt at repair within 5 calendar days of detection of leaks in the components listed in paragraph 45, PPG violated Subpart UU, at 40 C.F.R. § 63.1024(a).

59. By failing to make a final repair within 15 calendar days of detection of leaks in the components listed in paragraph 46, PPG violated Subpart UU, at 40 C.F.R. § 63.1024(a).

60. By having less than 1 percent and above 0.5 percent leaking valves and failing to monitor valves once every two quarters, PPG violated Subpart UU, at 40 C.F.R. § 63.1025(b)(3)(iii).

61. By failing to route emissions through a closed-vent system and reduce total HAP emissions by ≥ 98 percent on the hatches for B/T 6000, B/T 135, and the C-Line reactors, PPG violated the MON, at 40 C.F.R. § 63.2460(a) and the PTI at Part III A.I.2.f.

62. By failing to route emissions through a closed-vent system and reduce total HAP emissions by ≥ 95 percent on the hatches H/T 142 and H/T 124, PPG violated the MON, at 40 C.F.R. § 63.2470(a) and PTI at Part III A.I.2.f.

Environmental Impact of Violations

63. VOCs contribute to ozone formation which can result in adverse effects to human health and vegetation. Ozone can penetrate into different regions of the respiratory tract and be absorbed through the respiratory system.

64. HAP emissions can lead to adverse health effects like cancer, respiratory irritation, and damage to the nervous system.

65. Short-term exposure to high levels of toluene results first in light-headedness and euphoria, followed by dizziness, sleepiness, unconsciousness, and in some cases death. Long-term exposures at low levels have caused effects to the kidneys.

66. The main effect of inhaling xylene vapor is depression of the central nervous system, with symptoms such as headache, dizziness, nausea and vomiting.

Date

4/5/19

Edward Nam

Director

Air and Radiation Division

Standard bcc's:	Official File Copy w/Attachment(s)
	Originating Organization Reading File w/Attachment(s)
Other bcc's:	Kathleen Schnieders C-14J

CERTIFICATE OF MAILING

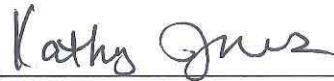
I certify that I sent a Finding of Violation, No. EPA-5-19-OH-07, by Certified Mail, Return Receipt Requested, to:

Tanko Adahu, Environmental Health and Safety Manager
PPG Industries Inc.
559 Pittsburgh Road
Circleville, Ohio 43113

I also certify that I sent copies of the Finding of Violation by first-class mail to:

Kelly Toth, Ohio EPA Central District Office Chief
Ohio EPA/DAPC
Central District Office
P.O. Box 1049
Columbus, OH 43216-1049
Kelly.toth@epa.ohio.gov

On the 5th day of April 2019



Kathy Jones
Program Technician
AECAB, PAS

CERTIFIED MAIL RECEIPT NUMBER:

7017 1070 0000 1030 0805