



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

**SEP 28 2016**

REPLY TO THE ATTENTION OF:

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Mark Cunningham, Environmental Health and Safety Manager  
Solvay Specialty Polymers LLC  
17005 Ohio Highway 7  
Marietta, Ohio 45750

Re: Finding of Violation  
Solvay Specialty Polymers LLC, Marietta, Ohio

Dear Mr. Cunningham:

The U.S. Environmental Protection Agency is issuing the enclosed Finding of Violation (FOV) to Solvay Specialty Polymers LLC ("Solvay") under Section 113(a)(1) of the Clean Air Act (CAA), 42 U.S.C. § 7413(a)(1). We find that you are violating Section 112 of the CAA, 42 U.S.C. § 7412, at your Marietta, Ohio, facility.

Section 113 of the CAA gives EPA 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 Albana Bega. You may call her at (312) 353-4789 or reach her at [bega.albana@epa.gov](mailto:bega.albana@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,



Edward Nam  
Acting Director  
Air and Radiation Division

cc: Robert Hodanbosi,  
Chief Division of Air Pollution Control  
Ohio Environmental Protection Agency

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5

IN THE MATTER OF:	)	
	)	
Solvay Specialty Polymers LLC	)	FINDING OF VIOLATION
Marietta, Ohio	)	
	)	EPA-5-16-OH-18
Proceedings Pursuant to	)	
the Clean Air Act,	)	
42 U.S.C. §§ 7401 et seq.	)	
	)	

**FINDING OF VIOLATION**

The U.S. Environmental Protection Agency finds that Solvay Specialty Polymers LLC (“Solvay”) is violating Section 112 of the Clean Air Act (CAA), 42 U.S.C. § 7412, at its Marietta, Ohio, facility (“facility”). Specifically, Solvay is violating the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Miscellaneous Organic Chemicals Manufacturing at 40 C.F.R. Part 63, Subpart FFFF (MON or “Subpart FFFF”), the NESHAP for the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater at 40 C.F.R. Part 63, Subpart G (HON or “Subpart G”), the National Emission Standards for Equipment Leaks - Control Level 2 at 40 C.F.R. Part 63, Subpart UU (“Subpart UU”), and the National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process at 40 C.F.R. Part 63, Subpart SS (“Subpart SS”), as follows:

**Regulatory Authority**

**NESHAP for Miscellaneous Organic Chemicals Manufacturing (MON or Subpart FFFF)**

1. On November 10, 2003, EPA promulgated Subpart FFFF, 68 Fed. Reg. 63888 (November 10, 2003). The owner or operator of an 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).
2. Subpart FFFF, at 40 C.F.R. § 63.2440, applies to each miscellaneous organic chemical manufacturing affected source, which is the facility wide collection of miscellaneous organic chemicals manufacturing process units (MCPUs) and heat exchange systems, wastewater, and waste management units that are associated with materials described in 40 C.F.R. § 63.2435(b)(1).
3. Subpart FFFF, at 40 C.F.R. § 63.2435(a), applies to owners or operators of MCPUs that are located at, or are part of, a major source of hazardous air pollutant (HAP) emissions, as defined in Section 112(a) of the CAA, 42 U.S.C. § 7412(a).

4. Subpart FFFF, at 40 C.F.R. § 63.2435(b), states that an MCPU includes equipment necessary to operate a miscellaneous organic chemical manufacturing process, as defined in 40 C.F.R. § 63.2550, that satisfies all of the conditions specified in paragraphs (b)(1) through (3) of 40 C.F.R. § 63.2435. An MCPU also 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 instrumentation systems that are used to manufacture any material or family of materials described in paragraphs (b)(1)(i) through (v) of 40 C.F.R. § 63.2435.
5. Subpart FFFF, at 40 C.F.R. § 63.2450(e) (1), requires that, if the owner or operator of MCPUs is reducing the organic HAP emissions by venting emissions through a closed-vent system to any combination of control devices (except a flare) or recovery devices, the owner or operator must meet the requirements of 40 C.F.R. § 63.982(c) and the requirements referenced therein.
6. Subpart FFFF, at 40 C.F.R. § 63.2460(a), states that owners or operators of MCPUs “must meet each emission limit in Table 2 to this subpart that applies to you, and you must meet each applicable requirement specified in paragraphs (b) and (c) of this section.”
7. Table 2 of Subpart FFFF requires owners or operators of MCPUs to reduce collective uncontrolled organic HAP emissions from the sum of all Group 1 batch process vents within each process with Group 1 batch process units by  $\geq 98$  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).
8. Table 2 of Subpart FFFF requires owners or operators of MCPUs to use a halogen reduction device after the combustion control device, and to reduce overall emissions of hydrogen halide and halogen HAP by  $\geq 99$  percent, or to  $\leq 0.45$  kg/hr, or to a concentration  $\leq 20$  ppmv, for halogenated Group 1 batch process vents for which the owner or operator uses a combustion device to control organic HAP emissions.
9. Subpart FFFF, at 40 C.F.R. § 63.2460(c)(1), requires owners or operators of MCPUs to determine whether a condenser is a control device for a batch process vent or a process condenser from which the uncontrolled HAP emissions are evaluated as part of the initial compliance demonstration for each MCPU and report the results with supporting rationale in the owner or operator’s notification of compliance status report.
10. Subpart FFFF, at 40 C.F.R. § 63.2550, defines “process condenser” as a condenser whose primary purpose is to recover material as an integral part of an MCPU. All condensers recovering condensate from an MCPU at or above the boiling point or all condensers in line prior to a vacuum source are considered process condensers.
11. Subpart FFFF, at 40 C.F.R. § 63.2460(c)(2)(v), states that if a process condenser is used for any boiling operations, the owner or operator must demonstrate that it is properly operated according to the procedures specified in 40 C.F.R. § 63.1257(d)(2)(i)(C)(~~A~~)(ii) and (d)(3)(iii)(B), and the demonstration must occur only during the boiling operation.

12. Subpart FFFF, at 40 C.F.R. § 63.2480(a), states that owners or operators of MCPUs must meet each requirement in Table 6 to this subpart that applies to the owner or operator's equipment leaks, except as specified in paragraphs (b) through (d) of 40 C.F.R. § 63.2480.
13. Subpart FFFF, at 40 C.F.R. § 63.2550, defines "equipment" as each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, and instrumentation system in organic HAP service; and any control devices or systems used to comply with Table 6 to this subpart.
14. Table 6 of Subpart FFFF requires that all equipment in organic HAP service must comply with the requirements of either 40 C.F.R. Part 63, Subpart UU, or Subpart H, and the requirements referenced therein, except as specified in 40 C.F.R. § 63.2480(b) and (d), or 40 C.F.R. Part 65, Subpart F, and the requirements referenced therein, except as specified in 40 C.F.R. § 63.2480(c) and (d).
15. Subpart FFFF, at 40 C.F.R. § 63.2550, 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).
16. Subpart FFFF, at 40 C.F.R. § 63.2485(a), states that owners or operators of MCPUs "must meet each requirement in Table 7 to this subpart that applies to your wastewater streams and liquid streams in open systems within an MCPU, except as specified in paragraphs (b) through (o) of this section."
17. Table 7 of Subpart FFFF requires that each process wastewater stream must comply with the requirements in 40 C.F.R. §§ 63.132 through 63.148 of the HON and the requirements referenced therein, except as specified in 40 C.F.R. § 63.2485.
18. Table 7 of Subpart FFFF requires that each liquid stream in an open system within an MCPU must comply with the requirements in 40 C.F.R. § 63.149 and the requirements referenced therein, except as specified in 40 C.F.R. § 63.2485.
19. Subpart FFFF, at 40 C.F.R. § 63.2485(e), states for individual drain systems, "[t]he provisions of 40 C.F.R. § 63.136(e)(3) apply except as specified in paragraph (e)(1) of this section. (1) A sewer line connected to drains that are in compliance with 40 C.F.R. § 63.136(e)(1) may be vented to the atmosphere, provided that the sewer line entrance to the first downstream junction box is water sealed and the sewer line vent pipe is designed as specified in 40 C.F.R. § 63.136(e)(2)(ii)(A)."
20. Subpart FFFF, at 40 C.F.R. § 63.2485(j), requires owners or operators to determine the annual average concentration and annual average flowrate for wastewater streams for each MCPU. The procedures for flexible operation units specified in 40 C.F.R. § 63.144 (b) and (c) do not apply for the purposes of this subpart.
21. Subpart FFFF, at 40 C.F.R. § 63.2550, defines "point of determination (POD)" as each point where process wastewater exits the MCPU or control device.

22. Subpart FFFF, at 40 C.F.R. § 63.2550, defines “wastewater” as the water that is discarded from an MCPU or control device through a POD and that contains either: an annual average concentration of compounds in tables 8 and 9 to this subpart of at least 5 ppmw and has an annual average flowrate of 0.02 liters per minute or greater; or an annual average concentration of compounds in tables 8 and 9 to this subpart of at least 10,000 ppmw at any flowrate. Wastewater means process wastewater or maintenance wastewater.
23. Subpart FFFF, at 40 C.F.R. § 63.2550, defines “Group 1 wastewater stream” as a wastewater stream consisting of process wastewater at an existing or new source that meets the criteria for Group 1 status in 40 C.F.R. § 63.2485(c) for compounds in Tables 8 and 9 to this subpart and/or a wastewater stream consisting of process wastewater at a new source that meets the criteria for Group 1 status in 40 C.F.R. § 63.132(d) for compounds in Table 8 to subpart G of Part 63.
24. Subpart FFFF, at 40 C.F.R. § 63.2550, defines “Group 2 wastewater stream” as any process wastewater stream that does not meet the definition of a Group 1 wastewater stream.

NESHAP for the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater (HON or Subpart G)

25. On April 22, 1994, EPA promulgated the NESHAP for the Synthetic Organic chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations and Wastewater (HON or Subpart G) 59 Fed. Reg. 19468 (April 22, 1994). This subpart applies to all process vents, storage vessels, transfer racks, wastewater streams and in-process equipment subject to 40 C.F.R. §63.149 within a source subject to Part 63, Subpart F.
26. Subpart G, at 40 C.F.R. § 63.111, defines a “wastewater stream” as “...a stream that contains only wastewater as defined in 40 C.F.R. §63.101 of subpart F of this part.”
27. Subpart G, at 40 C.F.R. § 63.111, defines a “sewer line” as “... a lateral, trunk line, branch line, or other conduit including, but not limited to, grates, trenches, etc., used to convey wastewater streams or residuals to a downstream waste management unit.”
28. Subpart G, at 40 C.F.R. § 63.132(a)(1), requires an owner or operator to determine whether each wastewater stream requires control for Table 9 compounds by complying with the requirements in either paragraph (a)(1)(i) or (a)(1)(ii) of this section, and comply with the requirements in paragraph (a)(1)(iii) of this section.
29. Subpart G, at 40 C.F.R. § 63.132(c), provides instructions for determining whether a wastewater stream is Group 1 or Group 2 for Table 9 compounds. This section states, “Total annual average concentration shall be determined according to the procedures specified in § 63.144(b) of this subpart. Annual average flow rate shall be determined according to the procedures specified in § 63.144(c) of this subpart.”
30. Subpart G, at 40 C.F.R. § 63.132(d), provides instructions for determining whether a wastewater stream is Group 1 or Group 2 for Table 8 compounds. This section states, “Annual average concentration for each Table 8 compound shall be determined according to the procedures specified in § 63.144(b) of this subpart. Annual average flow rate shall be determined according to the procedures specified in § 63.144(c) of this subpart.”

31. Subpart G, at 40 C.F.R. §§ 63.132(c)(3)-(d)(3), requires an owner or operator of a Group 2 wastewater to re-determine group status for each Group 2 stream, as necessary, to determine whether the stream is Group 1 or Group 2 whenever process changes are made that could reasonably be expected to change the stream to a Group 1 stream. Examples of process changes include, but are not limited to, changes in production capacity, production rate, feedstock type, or whenever there is a replacement, removal, or addition of recovery or control equipment.
32. Subpart G, at 40 C.F.R. § 63.144(b), requires an owner or operator who elects to comply with the requirements of paragraph (a)(1) of 40 C.F.R. § 63.144 to determine the annual average concentration for Table 8 and/or Table 9 compounds according to paragraph (b)(1) of this section for existing sources.
33. Subpart G, at 40 C.F.R. § 63.144(b)(5), requires an owner or operator who elects to comply with paragraph (a)(1) of this section by measuring the concentration for the relevant Table 8 or Table 9 compounds, to comply with the requirements of this paragraph. For each wastewater stream, measurements shall be made either at the point of determination, or downstream of the point of determination with adjustment for concentration changes made according to paragraph (b)(6) of this section. A minimum of three samples from each wastewater stream shall be taken. Samples may be grab samples or composite samples.
34. Subpart G, at 40 C.F.R. § 63.144(b)(5)(ii), requires an owner or operator to prepare a sampling plan. Wastewater samples shall be collected using sampling procedures which minimize loss of organic compounds during sample collection and analysis and maintain sample integrity.
35. Subpart G, at 40 C.F.R. § 63.144(c)(1), states that an owner or operator may use knowledge of the wastewater stream and/or the process to determine the annual average flow rate. Where knowledge is used to determine the annual average flow rate, the owner or operator shall provide sufficient information to document the flow rate for wastewater streams determined to be Group 2 wastewater streams.
36. Subpart G, at 40 C.F.R. § 63.149(a), requires an owner or operator to comply with the provisions of Table 35 of this subpart, for each item of equipment meeting all the criteria specified in paragraphs (b) through (d) and either paragraph (e)(1) or (e)(2) of this section.
37. Table 35 of Subpart G requires that manholes, which include sumps and other points of access to a conveyance system, be controlled with a tightly fitting solid cover (TFSC); or a TSFC with a vent to either a process, or to a fuel gas system, or to a control device meeting the requirements of §63.139(c); or, if the item is vented to the atmosphere, with a TFSC with a properly operating water seal at the entrance or exit to the item to restrict ventilation in the collection system.

NESHAP for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry (Subpart F)

38. Subpart F, at 40 C.F.R. § 63.101, defines “wastewater” as water that “....(1) contains either: (i) an annual average concentration of Table 9 compounds (as defined in §63.111 of subpart G) of at least 5 parts per million by weight and has an annual average flow rate of 0.02 liter per minute or greater, or (ii) an annual average concentration of Table 9 compounds (as defined in § 63.111 of subpart G) of at least 10,000 parts per million by weight at any flow rate, and that (2) is discarded from a chemical manufacturing process unit that meets all of the criteria specified in

§ 63.100 (b)(1) through (b)(3) of this subpart. Wastewater is process wastewater or maintenance wastewater.

NESHAP for Equipment Leaks – Control Level 2 (Subpart UU)

39. On June 29, 1999, EPA promulgated the 40 C.F.R. Part 63, Subpart UU, 64 Fed. Reg. 34899 (June 29, 1999).
40. As stated in paragraphs 12 and 14, among the requirements of 40 C.F.R Part 63, Subpart FFFF is 40 C.F.R. § 63.2480(a) and Table 6, which require that organic manufacturing facilities comply with either Subpart UU, or 40 C.F.R. Part 63, Subpart H, or 40 C.F.R. Part 65, Subpart F. On October 7, 2008, Solvay elected to comply with Subpart UU.
41. Subpart UU, at 40 C.F.R. § 63.1020, defines “open-ended valve or line” as any valve, except relief valves, having one side of the valve seat in contact with process fluid and one side open to atmosphere, either directly or through open piping.
42. Subpart UU, at 40 C.F.R. § 63.1022(a), states that "equipment subject to this subpart shall be identified. Identification of the equipment does not require physical tagging of the equipment. For example, the equipment may be identified on a plant site plan, in log entries, by designation of process unit or affected facility boundaries by some form of weatherproof identification, or by other appropriate methods."
43. Subpart UU, at 40 C.F.R. § 63.1023(a), requires that the owner or operator of a regulated source subject to this subpart shall monitor regulated equipment as specified in paragraph (a)(1) of this section for instrument monitoring and paragraph (a)(2) of this section for sensory monitoring.
44. Subpart UU, at 40 C.F.R. § 63.1023(a)(i), requires that the valves in gas and vapor service and in light liquid service shall be monitored pursuant to 40 C.F.R. §63.1025(b).
45. Subpart UU, at 40 C.F.R. § 63.1023(b), requires instrument monitoring shall comply with the requirements specified in paragraphs (b)(1) through (b)(6) of this section.
46. Subpart UU, at 40 C.F.R. § 63.1023(b)(1), requires monitoring shall comply with Method 21 of 40 CFR Part 60, Appendix A, except as otherwise provided in this section.
47. Subpart UU, at 40 C.F.R. § 63.1024(a), requires the owner or operator of an affected source to 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 this 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.
48. Subpart UU, at 40 C.F.R. § 63.1024(d), requires the owner or operator of an affected source to maintain a record of the facts that explain any delay of repairs and, where appropriate, why the repair was technically infeasible without a process unit shutdown.
49. Subpart UU, at 40 C.F.R. § 63.1024(d)(5), states that delay of repair beyond a process unit or affected facility shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit or affected facility shutdown, and valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the second process unit or affected facility shutdown will not

be allowed unless the third process unit or affected facility shutdown occurs sooner than 6 months after the first process unit or affected facility shutdown.

50. Subpart UU, at 40 C.F.R. § 63.1025(b), states that all valves shall be monitored for leaks at the intervals specified in paragraphs (b)(3) and/or (b)(4) of this section.
51. Subpart UU, at 40 C.F.R. § 63.1025(b)(1), states that valves shall be monitored to detect leaks by the method specified in 40 C.F.R. §63.1023(b) and, as applicable, 40 C.F.R. § 63.1023(c).
52. Subpart UU, at 40 C.F.R. § 63.1025(d)(2), states that, after a leak has been repaired, the valve shall be monitored at least once within the first 3 months after the leak has been repaired. The monitoring required by this paragraph is in addition to the monitoring required to satisfy the definition of repaired and first attempt at repair.
53. Subpart UU, at 40 C.F.R. § 63.1026(b)(1), states that that each pump in light liquid service shall be monitored monthly to detect leaks by the method specified in 40 C.F.R. §63.1023(b) and, as applicable, 40 C.F.R. § 63.1023(c).
54. Subpart UU, at 40 C.F.R. § 63.1026(b)(4), states that that each pump shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. The owner or operator shall document that the inspection was conducted and the date of the inspection.
55. Subpart UU, at 40 C.F.R. § 63.1027(b), states that the owner or operator shall monitor all connectors in gas and vapor and light liquid service as specified in paragraphs (a) and (b)(3) of this section, except as allowed in 40 C.F.R. §63.1021(b), 40 C.F.R. §63.1036, 40 C.F.R. §63.1037, or as specified in paragraph (e) of this section.
56. Subpart UU, at 40 C.F.R. § 63.1028(c)(3), requires that each agitator seal in gas or vapor or light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the agitator seal. The owner or operator shall document that the inspection was conducted and the date of the inspection.
57. Subpart UU, at 40 C.F.R. § 63.1029(b), states that "...Pumps, valves, connectors, and agitators in heavy liquid service...shall be monitored within 5 calendar days by the method specified in § 63.1023(b) and, as applicable, § 63.1023(c), if evidence of a potential leak to the atmosphere is found by visual, audible, olfactory, or any other detection method, unless the potential leak is repaired as required in paragraph (c) of this section."
58. Subpart UU, at 40 C.F.R. § 63.1030(c), states that, after each pressure release of a pressure relief device in gas or vapor service, the pressure relief device shall be returned to a condition indicated by an instrument reading of less than 500 parts per million, as soon as practical, but no later than 5 calendar days after each pressure release, except as provided in 40 C.F.R. § 63.1024(d).
59. Subpart UU, at 40 C.F.R. § 63.1030(c)(3), requires the owner or operator of an affected source to record the dates and results of the monitoring required by paragraph (c)(2) of 40 C.F.R. § 63.1030 following a pressure release, including the background level measured and the maximum instrument reading measured during the monitoring.

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

NESHAP for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process (Subpart SS)

61. On June 29, 1999, EPA promulgated Subpart SS, 64 Fed. Reg. 34866 (June 29, 1999).
62. Subpart SS, at 40 C.F.R. § 63.982(c), states that owners or operators who vent emissions through a closed vent system to a non-flare control device shall meet the requirements in 40 C.F.R. §63.983 for closed vent systems, the applicable recordkeeping and reporting requirements of 40 C.F.R. §§63.998 and 63.999, and the applicable requirements listed in paragraphs (c)(1) through (3) of this section.
63. Subpart SS, at 40 C.F.R. § 63.983(a)(3)(ii), requires owners or operators of closed vent systems collecting regulated material from a regulated source to secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration. Records shall be generated as specified in 40 C.F.R. § 63.998(d)(1)(ii)(B).
64. Subpart SS, at 40 C.F.R. § 63.998(d)(1)(ii)(B), states that, where a seal mechanism is used to comply with 40 C.F.R. § 63.983(a)(3)(ii), hourly records of flow are not required. In such cases, the owner or operator shall record that the monthly visual inspection of the seals or closure mechanisms has been done, the occurrence of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has been broken.

General Allegations

65. Solvay owns and operates a resin manufacturing plant at 17005 State Route 7, Marietta, Ohio (“facility”).
66. Solvay emits monochlorobenzene (MCB), methyl chloride (MeCl), and other HAPs in a combined quantity of over 25 tons per year, and is thus a major source of HAPs, as defined in Section 112(a) of the CAA, 42 U.S.C. § 7412(a).
67. Solvay owns and operates two MCPUs as defined at 40 C.F.R. § 63.2435(b), in the resin manufacturing process at the facility: the Udel Resin unit process (P003) and the Radel Resin unit process (P010). P003 and P010 are subject to the requirements of 40 C.F.R. Part 63, Subpart FFFF and, by reference, Subpart A, Subpart G, Subpart UU, and Subpart SS. Process vents, storage vessels, transfer operations, and wastewater at the facility are also subject to the requirements at 40 C.F.R. Part 63, Subpart G.
68. From June 9, 2015, through June 12, 2015, EPA conducted an unannounced CAA investigation of the facility for compliance with Subpart FFFF (hereafter referred to as the “2015 Inspection”).
69. During the 2015 Inspection, EPA found that the facility has a total of twenty nine (29) and twenty seven (27) process condensers for the P003 and P010, respectively. In its Notification of Compliance Status MON report for the facility, dated October 7, 2008 (2008 Notification), Solvay identified a total of twelve (12) process condensers for the P010, three (3) of which were

used in boiling operations. In its Notification of Compliance Status MON report for the facility dated October 20, 2009 (2009 Notification), Solvay identified a total of four (4) process condensers for the P003, two (2) of which were used in boiling operations.

70. During the 2015 Inspection, EPA found that the facility had expanded its production capacity, on at least three occasions since 2007. Specifically, P003 was expanded in 2009 (a total of three (3) reactors were added to the process), and P010 was last expanded in 2014. In addition, the facility's vent stream control devices (i.e., the carbon adsorption system and the cryogenic condenser) were replaced by two (2) thermal oxidizer/wet scrubber control systems in May 2009.
71. During the 2015 Inspection, EPA discovered five (5) open-ended lines (OELs) at P010 without a cap, blind flange, plug, or second valve, identified as: (1) the west line of MMV 571-04; (2) the line by pump G-942; (3) unrecorded location, shown to Solvay personnel during the inspection; (4) the line near the pump G-1598; and (5) the line south of the pump G-1598. The last two lines were equipped with second valves. According to Solvay personnel, all second valves were less than 300 hours in service at the time of the 2015 Inspection, and thus were not subject to the facility's leak detection and repair (LDAR) program.
72. During the 2015 Inspection, EPA found two (2) valves at P010 to be visually leaking; the valve east of Tank 885, and the valve by pump G-1806 to the MCB tank near MMV 1802-08B.
73. During the 2015 Inspection, EPA found polymer on the ground from three (3) sample lines at P010.
74. During the 2015 Inspection, EPA found two (2) valves (715-10 and 720-10) at P003 to be visually leaking.
75. During the 2015 Inspection, EPA found a visual leak of dried polymer at two (2) valves at 721-05 (P003).
76. During the 2015 Inspection, EPA found that insulated valves are not monitored by Solvay. According to Solvay personnel, insulated valves are not required to be monitored by the MON.
77. During the 2015 Inspection, EPA observed an open sump, located at P003, west of the Tank Farm. EPA recorded a 3,000 ppm VOC reading at the sump. According to Solvay personnel, sump water is pumped back into the process.
78. After the 2015 Inspection, Solvay submitted two letters to EPA on June 10, 2015, and June 11, 2015, respectively (June 2015 Letters).
79. On June 23, 2015, Solvay provided EPA with the LDAR monitoring data from its LeakDAS database.
80. In the June 2015 Letters, Solvay provided to EPA the "August 2005 MON MACT Wastewater Characterization" report (2005 Report). The 2005 Report shows procedures and rationales, including lab reports that were used to determine the facility's process wastewater Group status. The 2005 Report states that "Results for samples collected on December 6, 2004 and the morning of December 7, 2004 are not valid due to high sample blank concentrations." However, the analytical results for sample collected on the afternoon of December 7, 2004, were used for

the wastewater Group status determination, and the lab analytical report dated December 22, 2004, shows no daily blank sample taken on December 7, 2004.

81. Solvay conducted performance testing on the carbon adsorption system on September 23 through 24, 2008 (2008 Report). Two additional HAPs, methanol and 1,3-butadiene, which were not included in the air emission profile, were detected during the performance test. Methanol is a soluble HAP listed in Table 9 of the MON, and 1,3-butadiene is a partially soluble HAP listed in Table 8 of the MON. These soluble and partially soluble HAPs, present at Solvay's process vent stream, were not analyzed during the wastewater stream Group status determination.
82. In its 2008 Report, Solvay states that "Solvay has estimated that annual average concentrations for wastewater HAPs are less than 1,000 ppmw. Therefore, the flow rate in liters per minute does not affect the applicability determination."
83. In its semi-annual MON report for the facility dated August 30, 2011, and covering the reporting period of January 1, 2011, through June 30, 2011, Solvay identified the following deviations:
  - a. OELs;
  - b. Failed to perform follow-up monitoring for several valves previously found leaking;
  - c. Failed to record status of the UHS-757 waste gas bypass valve for time periods; and
  - d. Failed to maintain the South Scrubber pH daily average operating limit for four (4) days.
84. In its semi-annual MON report for the facility dated February 24, 2012, and covering the reporting period of July 1, 2011, through December 31, 2011, Solvay identified the following deviations:
  - a. OELs;
  - b. Failed to perform follow-up monitoring for several valves previously found leaking;
  - c. Failed to record status of the UHS-757 waste gas bypass valve for time periods;
  - d. Failed to perform monthly Method 21 monitoring for few pumps;
  - e. Failed to maintain the North Thermal Oxidizer daily average temperature operating limit for one (1) day; and
  - f. Failed to maintain the North Scrubber liquid/gas (L/G) daily average operating limit for fourteen (14) days.
85. In its semi-annual MON report for the facility dated August 31, 2012, and covering the reporting period of January 1, 2012, through June 30, 2012, Solvay identified the following deviations:
  - a. OELs; and
  - b. Failed to perform follow-up monitoring for two (2) valves previously found leaking.

86. In its semi-annual MON report for the facility dated February 26, 2013, and covering the reporting period of July 1, 2012, through December 31, 2012, Solvay identified the following deviations:
- a. OELs;
  - b. Failed to perform follow-up monitoring for nine (9) valves previously found leaking;
  - c. Failed to record two (2) rupture disks delayed repairs; and
  - d. Failed to record into facility's LeakDAS the Method 21 monitoring performed on the pressure relieve device PSV-920-104, following the pressure relief event.
87. In its semi-annual MON report for the facility dated August 30, 2013, and covering the reporting period of January 1, 2013, through June 30, 2013, Solvay identified the following deviations:
- a. OELs;
  - b. Failed to perform weekly visual inspections for leaks for three (3) valves;
  - c. Failed to perform initial Method 21 monitoring for three (3) valves;
  - d. Failed to perform weekly visual inspections for leaks for one (1) pump;
  - e. Failed to perform monthly Method 21 monitoring for one (1) pump; and
  - f. Failed to maintain the South Scrubber pH daily average operating limit for one (1) day.
88. In its semi-annual MON report for the facility dated February 27, 2014, and covering the reporting period of July 1, 2013, through December 31, 2013, Solvay identified the following deviations:
- a. OELs;
  - b. Failed to perform monthly Method 21 monitoring for one (1) pump;
  - c. Failed to perform weekly visual inspections for leaks for a few pumps;
  - d. Failed to make a first attempt at repair of two (2) valves within five (5) calendar days; and
  - e. Failed to make a first attempt at repair of one (1) rupture disk within five (5) calendar days.
89. In its semi-annual MON report for the facility dated August 29, 2014, and covering the reporting period of January 1, 2014, through June 30, 2014, Solvay identified the following deviations:
- a. OELs;
  - b. Failed to perform weekly visual inspections for leaks for a few pumps;

- c. Failed to perform monthly Method 21 monitoring for one (1) pump;
  - d. Failed to perform follow-up monitoring for one (1) valve previously found leaking;
  - e. Method 21 monitoring performed within nine (9) days from when the visual leak was observed for one (1) connector. The connector was placed on delay of repair within five (5) days of performing Method 21 monitoring;
  - f. Delay of repair for two (2) P003 components extended beyond the process unit shutdown;
  - g. Used incorrect calibration gas concentrations for Method 21 monitoring;
  - h. Failed to maintain the South Scrubber pH daily average operating limit for one (1) day;
  - i. Failed to maintain the North Thermal Oxidizer daily average temperature operating limit for one (1) day; and
  - j. Failed to maintain the South Thermal Oxidizer daily average temperature operating limit for one (1) day.
90. In its semi-annual MON report for the facility dated February 27, 2015, and covering the reporting period of July 1, 2014, through December 31, 2014, Solvay identified the following deviations:
- a. OEL;
  - b. Failed to perform a weekly visual inspection for leaks for two (2) pumps;
  - c. Failed to perform monthly Method 21 monitoring for one (1) pump;
  - d. Failed to perform follow-up monitoring for some valves previously repaired;
  - e. Failed to perform follow-up monitoring for one (1) flange previously repaired;
  - f. Failed to make a first attempt at repair of three (3) valves within five (5) calendar days;
  - g. Failed to perform Method 21 monitoring for certain difficult-to-monitor valves. All valves were monitored in January 2015;
  - h. Delay of repair for two (2) valves in P003 extended beyond two (2) unscheduled process unit shutdowns; and
  - i. Missing identification designations for a number of components.
91. In its semi-annual MON report for the facility dated August 31, 2015, and covering the reporting period of January 1, 2015, through June 30, 2015, Solvay identified the following deviations:
- a. Two (2) OELs;
  - b. Failed to record weekly visual inspections for leaks for certain pumps and agitators;

- c. Failed to perform monthly Method 21 monitoring for two (2) pumps removed from HAP service, and for one (1) newly installed pump;
  - d. Failed to perform follow-up monitoring for six (6) valves previously repaired;
  - e. Failed to make a first attempt at repair of four (4) valves within five (5) calendar days;
  - f. Failed to make a first attempt at repair of one (1) instrumentation within five (5) calendar days;
  - g. Delay of repair for one (1) pump in P003 extended beyond the process unit shutdown;
  - h. Required update of equipment identification designations for a number of components; and
  - i. Unrecoverable data loss of the status of the UHS-757 waste gas bypass valve due to a failure of a DSC data-cable power supply.
92. In its semi-annual MON report for the facility dated February 26, 2016, and covering the reporting period of July 1, 2015, through December 31, 2015, Solvay identified the following deviations:
- a. OEL;
  - b. Failed to perform monthly visual inspections for leaks for one (1) bypass line;
  - c. Missing equipment identification designations for a number of components (valves, pumps, etc.);
  - d. Missing records of weekly visual inspections for leaks for pumps;
  - e. Missing records of weekly visual inspections for leaks for agitators;
  - f. Failed to maintain the South Thermal Oxidizer daily average temperature operating limit for one (1) day; and
  - g. Failed to maintain the North Scrubber pH daily average operating limit for one (1) day.
93. In its semi-annual MON reports for the facility dated August 30, 2011, February 24, 2012, August 31, 2012, February 26, 2013, August 30, 2013, February 27, 2014, August 29, 2014, February 27, 2015, August 31, 2015, and February 26, 2016, covering the reporting period of January 1, 2011, through December 31, 2015, Solvay reported the following:
- a. P003 LDAR Summary of Numbers of Valves Monitored for Leaks:

	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter
2011	1,920	1,928	1,886	1,802
2012	1,646	1,814	1,817	1,814
2013 <sup>(1)</sup>	1,739	1,779	Not Reported	1,667
2014	1,899	1,900	1,581 <sup>(2)</sup>	
2015			Not applicable	1,789

(1) Total number of valves counts revised to 1,749 and 2,609 for the Udel and Radel Resin units, respectively, during the 2nd half of 2013 reporting period.

(2) The number represent the July 2014 through June 2015 operational period. Based on previous percent leak values, Solvay elected to monitor each valve once every four (4) quarters starting in July 2014.

b. P010 LDAR Summary of Numbers of Valves Monitoring for Leaks:

	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter
2011	2,738	2,710	2,654	2,603
2012	2,164	2,509	2,936	2,801
2013 <sup>(1)</sup>	2,445	2,442	Not Reported	2,551
2014	2,538	2,873	2,627 <sup>(2)</sup>	
2015			Not applicable	2,926

(1) Total number of valves counts revised to 1,749 and 2,609 for the Udel and Radel Resin units, respectively, during the 2nd half of 2013 reporting period.

(2) The number represent the July 2014 through June 2015 operational period. Based on previous percent leak values, Solvay elected to monitor each valve once every four (4) quarters starting in July 2014.

c. No system downtimes;

d. No new operating scenarios;

e. No process changes; and

f. Solvent Feed Tank (C-1897) placed into service in March 2011 for the Radel Resin unit.

**Alleged Violations**

94. From October 7, 2008, to present, Solvay failed to perform process condenser uncontrolled HAP emissions evaluations and report the results with supporting rationales in its notification of compliance status reports for its P003, as indicated in Paragraph 69, in violation of the MON at 40 C.F.R. § 63.2460(c)(1) and 63.2460(c)(2)(v).

95. From October 20, 2009, to present, Solvay failed to perform process condenser uncontrolled HAP emissions evaluations and report the results with supporting rationales in its notification of compliance status reports for its P010, as indicated in Paragraph 69, in violation of the MON at 40 C.F.R. § 63.2460(c)(1) and 63.2460(c)(2)(v).

96. From October 20, 2009, to present, Solvay failed to demonstrate proper operation of the process condensers used for any boiling operations at the facility, as indicated in Paragraph 69, in violation of the MON at 40 C.F.R. § 63.2460(c)(2)(v).
97. From October 7, 2008, to present, Solvay failed to properly determine wastewater streams group status by not analyzing wastewater stream samples for two additional Table 8 and Table 9 process knowledge HAPs, as indicated in Paragraph 81, in violation of the MON at 40 C.F.R. § 63.2480(a) and the HON at 40 C.F.R. §§ 63.132(a)(1), 63.132(c), and 63.132(d).
98. From October 7, 2008, to present, Solvay failed to provide sufficient information to document the flow rate for wastewater streams determined to be Group 2 wastewater streams, as indicated in Paragraph 82, in violation of the MON at 40 C.F.R. § 63.2480(a) and the HON at 40 C.F.R. § 63.144(c).
99. From October 7, 2008, to present, Solvay failed to properly determine wastewater stream group status by not taking a minimum of three samples from each wastewater stream, as shown in the 2005 Report, in violation of the HON at 40 C.F.R. § 63.144(5).
100. Solvay failed to follow sampling procedures outline in its sampling plan by not taking a blank sample, as indicated in Paragraph 80, in violation of the HON at 40 C.F.R. § 63.144(b)(5)(ii).
101. From May 10, 2009, to present, Solvay failed to properly re-determine its process wastewater group status for each Group 2 stream, to determine whether the stream is Group 1 or Group 2, following process changes indicated in Paragraph 70, in violation of the HON at 40 C.F.R. § 63.132(c)(3)-(d)(3).
102. Solvay failed to equip each open-ended line at the facility with a cap, blind flange, plug, or second valve, as referenced in Paragraphs 71, 83, and 92, in violation of the MON at 40 C.F.R. § 63.2480(a) and Subpart UU at 40 C.F.R. § 63.1033(b)(1).
103. Solvay failed to perform Method 21 leak monitoring for a pressure relief device following a pressure release at the facility, as indicated in Paragraph 86, in violation of the MON at 40 C.F.R. § 63.2480(a) and Subpart UU at 40 C.F.R. § 63.1030(c).
104. Solvay failed to perform weekly visual pump inspections for leaks at the facility, as referenced in Paragraphs 87 through 92, in violation of the MON at 40 C.F.R. § 63.2480(a) and Subpart UU at 40 C.F.R. § 63.1026(b)(4).
105. Solvay failed to perform weekly visual inspections for leaks for valves at the facility, as referenced in Paragraphs 76 and 87, in violation of the MON at 40 C.F.R. § 63.2480(a) and Subpart UU at 40 C.F.R. § 63.1025(b)(1).
106. Solvay failed to perform weekly visual inspections for leaks for agitators at the facility, as referenced in Paragraphs 91 and 92, in violation of the MON at 40 C.F.R. § 63.2480(a) and Subpart UU at 40 C.F.R. § 63.1028(c)(3).
107. Solvay failed to perform monthly Method 21 monitoring for leaks of pumps at the facility, as referenced in Paragraphs 84 and 87 through 91, in violation of the MON at 40 C.F.R. § 63.2480(a) and Subpart UU at 40 C.F.R. § 63.1026(b)(1).

108. Solvay failed to perform follow-up monitoring for leaks for valves following repairs at the facility, as referenced in Paragraphs 83 through 86, and 89 through 91, in violation of the MON at 40 C.F.R. § 63.2480(a) and Subpart UU at 40 C.F.R. § 63.1025(d)(2).
109. Solvay failed to perform follow-up monitoring for leaks for one (1) connector following repairs at the facility, as referenced in Paragraph 90, in violation of the MON at 40 C.F.R. § 63.2480(a) and Subpart UU at 40 C.F.R. § 63.1027(b).
110. Solvay failed to make a first attempt at repair of rupture disks at the facility within five (5) calendar days of discovering evidence of a leak, as referenced in Paragraphs 86 and 88, in violation of the MON at 40 C.F.R. § 63.2480(a) and Subpart UU at 40 C.F.R. § 63.1024(a).
111. Solvay failed to repair completely ruptured disks at the facility within fifteen (15) calendar days of discovering evidence of a leak, as referenced in Paragraph 86, in violation of the MON at 40 C.F.R. § 63.2480(a) and Subpart UU at 40 C.F.R. § 63.1024(a).
112. Solvay failed to make a first attempt at repair of valves at the facility within five (5) calendar days of discovering evidence of a leak, as referenced in Paragraphs 88, 90, and 91, in violation of the MON at 40 C.F.R. § 63.2480(a) and Subpart UU at 40 C.F.R. § 63.1024(a).
113. Solvay failed to make a repair of valves at the facility during a process unit shutdown, as referenced in Paragraphs 89 and 90, in violation of the MON at 40 C.F.R. § 63.2480(a) and Subpart UU at 40 C.F.R. § 63.1024(d).
114. Solvay failed to make a first attempt at repair of one (1) connector at the facility within five (5) calendar days of discovering evidence of a leak, as referenced in Paragraph 89, in violation of the MON at 40 C.F.R. § 63.2480(a) and Subpart UU at 40 C.F.R. § 63.1029(b).
115. Solvay failed to make a first attempt at repair of one (1) instrumentation at the facility within five (5) calendar days of discovering evidence of a leak, as referenced in Paragraph 91, in violation of the MON at 40 C.F.R. § 63.2480(a) and Subpart UU at 40 C.F.R. § 63.1029(b).
116. Solvay failed to properly perform Method 21 monitoring for leaks by using incorrect calibration gas concentrations for its monitoring device, as referenced in Paragraph 89, in violation of the MON at 40 C.F.R. § 63.2480(a) and Subpart UU at 40 C.F.R. § 63.1023(b).
117. Solvay failed to identify a number of components, such as valves and pumps, at its facility, as referenced in Paragraphs 90 through 92, in violation of the MON at 40 C.F.R. § 63.2480(a) and Subpart UU at 40 C.F.R. § 63.1022(a).
118. Solvay failed to monitor all valves during each periodic monitoring event, as referenced in Paragraphs 76 and 93, in violation of the MON at 40 C.F.R. § 63.2480(a) and Subpart UU at 40 C.F.R. § 63.1025(b).
119. Solvay failed to maintain the pH daily average operating limit at its South Scrubber, as referenced in Paragraphs 83, 87, and 89, in violation of the MON at 40 C.F.R. § 63.2460(a).
120. Solvay failed to maintain the pH daily average operating limit at its North Scrubber, as referenced in Paragraph 92, in violation of the MON at 40 C.F.R. § 63.2460(a).

120. Solvay failed to maintain the pH daily average operating limit at its North Scrubber, as referenced in Paragraph 92, in violation of the MON at 40 C.F.R. § 63.2460(a).
121. Solvay failed to maintain the L/G daily average operating limit at its North Scrubber for fourteen (14) days, as referenced in Paragraph 84, in violation of the MON at 40 C.F.R. § 63.2460(a).
122. Solvay failed to maintain the daily average temperature operating limit at its North Thermal Oxidizer for a total of two (2) days, as referenced in Paragraphs 84 and 89, in violation of the MON at 40 C.F.R. § 63.2460(a).
123. Solvay failed to maintain the daily average temperature operating limit at its South Thermal Oxidizer for a total of two (2) days, as referenced in Paragraphs 89 and 92, in violation of the MON at 40 C.F.R. § 63.2460(a).
124. From October 7, 2008, to present, Solvay failed to identify and to control liquid streams in open systems at the facility, as referenced in Paragraph 77, in violation of the MON at 40 C.F.R. § 63.2480(a) and Subpart G at 40 C.F.R. § 63.149(a).
125. Solvay failed to record the status of waste gas bypass valves at the facility, as referenced in Paragraphs 83 and 84, in violation of the Subpart SS at 40 C.F.R. § 63.983(a)(3)(ii) and § 63.998(d)(1)(ii)(B).

**Environmental Impact of Violations**

126. VOC emissions increase the amount of pollutants that have the ability to create photochemical smog under certain conditions.
127. HAP emissions increase the amount of pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects and/or adverse environmental effects.

9/28/16

Date



Edward Nam  
Acting Director  
Air and Radiation Division

**CERTIFICATE OF MAILING**

I, Loretta Shaffer, certify that I sent a Finding of Violation, No. EPA-5-16-OH-18, by Certified Mail, Return Receipt Requested, to:

Mark Cunningham, Environmental Health and Safety Manager  
Solvay Specialty Polymers USA, LLC  
17005 Ohio Highway 7  
Marietta, Ohio 45750

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

Robert Hodanbosi, Chief  
Division of Air Pollution Control  
Ohio Environmental Protection Agency  
1800 WaterMark Drive  
Columbus, Ohio 43266-1049  
Bob.hodanbosi@epa.ohio

On the 29 day of September, 2016



Loretta Shaffer  
Program Technician  
AECAB, PAS

CERTIFIED MAIL RECEIPT NUMBER: 7009 1680 0000 7674 1002