



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

May 17, 2021

**VIA E-MAIL  
DELIVERY RECEIPT REQUESTED**

Brett Sago  
Director, HSE Legal Services  
Eastman Chemical Company  
Email: [bsago@eastman.com](mailto:bsago@eastman.com)

Dear Mr. Sago:

Enclosed is a file-stamped Consent Agreement and Final Order (CAFO) which resolves Solutia Inc., docket no. CAA-05-2021-0020. As indicated by the filing stamp on its first page, we filed the CAFO with the Regional Hearing Clerk on May 17, 2021.

Pursuant to paragraph 102 of the CAFO, Solutia Inc. must pay the civil penalty within 30 days of the filing date. Your electronic funds transfer must display the case name and case docket number.

Please direct any questions regarding this case to Jillian Rountree, Office of Regional Counsel, 312-353-3849.

Sincerely,

SARAH  
MARSHALL

Digitally signed by  
SARAH MARSHALL  
Date: 2021.04.21  
09:07:48 -05'00'

Sarah G. Marshall, Chief  
Air Enforcement and Compliance Assurance Section (MI/WI)

Enclosure

cc: [sjszek@eastman.com](mailto:sjszek@eastman.com)  
Ann Coyle, Regional Judicial Officer / via electronic mail  
Regional Hearing Clerk / via electronic mail  
Jillian Rountree / [Rountree.Jillian@epa.gov](mailto:Rountree.Jillian@epa.gov)  
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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5**

<b>In the Matter of:</b>	)	<b>Docket No. CAA-05-2021-0020</b>
	)	
<b>Solutia Inc.</b>	)	<b>Proceeding to Assess a Civil Penalty</b>
<b>Trenton, Michigan,</b>	)	<b>Under Section 113(d) of the Clean Air Act,</b>
	)	<b>42 U.S.C. § 7413(d)</b>
<b>Respondent.</b>	)	
<hr style="border: 1px solid black;"/>	)	

**Consent Agreement and Final Order**

**Preliminary Statement**

1. This is an administrative action commenced and concluded under Section 113(d) of the Clean Air Act (the CAA), 42 U.S.C. § 7413(d), and Sections 22.1(a)(2), 22.13(b) and 22.18(b)(2) and (3) of the Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties and the Revocation/Termination or Suspension of Permits (Consolidated Rules), as codified at 40 C.F.R. Part 22.

2. Complainant is the Director of the Enforcement and Compliance Assurance Division, U.S. Environmental Protection Agency (EPA), Region 5.

3. Respondent is Solutia Inc., a corporation doing business in Michigan.

4. Where the parties agree to settle one or more causes of action before the filing of a complaint, the administrative action may be commenced and concluded simultaneously by the issuance of a consent agreement and final order (CAFO). 40 C.F.R. § 22.13(b).

5. The parties agree that settling this action without the filing of a complaint or the adjudication of any issue of fact or law is in their interest and in the public interest.

6. Respondent consents to the assessment of the civil penalty specified in this CAFO and to the terms of this CAFO.

### **Jurisdiction and Waiver of Right to Hearing**

7. Respondent admits the jurisdictional allegations in this CAFO and neither admits nor denies the factual allegations in this CAFO.

8. Respondent waives its right to request a hearing as provided at 40 C.F.R. § 22.15(c), any right to contest the allegations in this CAFO and its right to appeal this CAFO.

### **Statutory and Regulatory Background**

#### **Michigan SIP**

9. Section 110 of CAA, 42 U.S.C. § 7410, requires each state to adopt and submit to EPA a plan that provides for the implementation, maintenance, and enforcement of primary and secondary National Ambient Air Quality Standards in the state. Upon approval by EPA, the plan becomes part of the federally enforceable State Implementation Plan (SIP) for the state.

10. Pursuant to 40 C.F.R. § 52.23, failure to comply with any approved regulatory provision of a SIP, or with any permit condition or permit denial issued pursuant to approved or promulgated regulations for the review of new or modified stationary or indirect sources, or with any permit limitation or condition contained within an operating permit issued under an EPA-approved program that is incorporated in the SIP, shall render the person so failing to comply in violation of a requirement of an applicable implementation plan and subject to enforcement action under Section 113 of the CAA.

11. On June 1, 2006, EPA approved Mich. Admin. Code R. 336.1628 (2002) (Rule 628) as part of the federally approved Michigan SIP. 71 Fed. Reg. 31093.

12. The Michigan SIP, at Rule 628.(1) states that no person shall cause or allow the emission of a volatile organic compound (VOC) from a component of existing manufacturing process equipment at a synthetic organic chemical and polymer manufacturing plant located in Wayne County, unless all of the provisions of sub-rules (2) to (16) of Rule 628 are met.

13. Rule 628.(2) states that no person shall operate existing manufacturing process equipment at a synthetic organic chemical and polymer manufacturing plant unless a monitoring program is implemented. The monitoring program shall provide for, among other things, a quarterly inspection of all components in light liquid or gaseous VOC service that are not designated as difficult-to-monitor components (Rule 628.(2)(a)), a weekly visual inspection of all seals of pumps in light liquid service (Rule 628.(2)(c)), and an inspection, as soon as is practical, but not later than 5 calendar days, after the repair of a component that was found leaking (Rule 628.(2)(f)).

14. Rule 628.(3) states that except for the visual inspections required by the provisions in Rule 628.(2)(c), all inspections shall be performed using equipment and procedures as specified in federal reference test method 21 (Method 21) as described and adopted by reference in R 336.2004. A component is leaking when a concentration of more than 10,000 parts per million (ppm), by volume, as methane or hexane, is measured by Method 21.

15. Rule 628.(9) requires that a component that is found to be leaking pursuant to the monitoring program provisions in Rule 628.(2) or for another reason shall be repaired. Except as provided in Rule 628.(11), the leak shall be repaired as soon as possible, but not more than 15 days after the leak is detected.

16. Rule 628.(11)(a) states that if a leak cannot be repaired within 15 calendar days because the leaking component cannot be repaired unless the synthetic organic chemical and polymer manufacturing process unit is shut down, then the person who operates the synthetic organic chemical and polymer manufacturing plant shall maintain a log of the non-repair and the leak shall be repaired at the next unit turnaround.

17. Rule 628.(11)(b) states that if a leak cannot be repaired within 15 calendar days due to circumstances beyond the control of the person who operates the synthetic organic chemical and polymer manufacturing plant, then the person shall notify the Michigan Department of Environment, Great Lakes & Energy (EGLE), formerly Michigan Department of Environmental Quality (MDEQ), (in either instance, Michigan) of the circumstances causing the delay in repair before the end of the fifteenth day and shall maintain a log of the non-repair. The leak shall be repaired in an expeditious manner, which shall be within six months of the date the leak was detected.

18. Rule 628.(11)(c) states that the log specified in Rule 628.(11)(a) and (b) shall list, among other things, the reason why the leak cannot be repaired within 15 days (Rule 628.(11)(c)(iii)).

19. Rule 628.(13) requires owners or operators of the synthetic organic chemical and polymer manufacturing plant to submit to Michigan, not later than 25 calendar days after the end of the previous quarter, a report that contains all of the following information for that quarter: (a) the total number of components tested, by type; (b) the total number of components which are found leaking and which are repaired, by type; (c) the total number of components, by synthetic organic chemical and polymer manufacturing process unit and type, which are found to be leaking and which are not repaired within the required time period and the reason for non-repair; (d) the type or types of monitoring equipment utilized during the quarter; and (e) the total number of unsafe-to-monitor components that are logged as required by the provisions of Rule 628.(12).

#### Title V Requirements

20. Title V of the CAA, 42 U.S.C. §§ 7661-7661f, and its implementing regulations at 40 C.F.R. Part 70, establish an operating permit program for certain sources, including major

sources, and other sources made subject under Section 502(a) of the CAA, 42 U.S.C. § 7661a(a).

21. For the purposes of Title V, Section 501(2)(B) of the CAA, 42 U.S.C. § 7661(2)(B), and 40 C.F.R. § 70.2 define “major source” as, among other things, any stationary source that directly emits or has the potential to emit 100 tons per year (tpy) or more of any air pollutant.

22. Pursuant to Section 502(b) of the CAA, 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. 57 Fed. Reg. 32295 (July 21, 1992). These regulations are codified at 40 C.F.R. Part 70.

23. On January 10, 1997, EPA granted interim approval of Michigan’s Title V permit program. 62 Fed. Reg. 1387 (effective February 10, 1997). On December 4, 2001, EPA fully approved the Michigan Title V permit program, 66 Fed. Reg. 62949 (effective November 30, 2001), and, on November 10, 2003, EPA approved revisions to the Michigan Title V permit program, 68 Fed. Reg. 63735 (effective December 10, 2003), after a December 11, 2001 notice of deficiency, 66 Fed. Reg. 64038.

24. Under Section 502(a) of the CAA, 42 U.S.C. § 7661a(a), and EPA’s implementing regulations at 40 C.F.R. § 70.7(b), it is unlawful for any person to violate any requirement or conditions of a permit issued under Title V.

25. Michigan issued Renewable Operating Permit No. MI-ROP-B2155-2009a (Title V Permit) to Solutia, effective August 12, 2009. The Renewable Operating Permit (ROP) was renewed on August 12, 2009 and last revised on December 18, 2012.

26. Condition I.1. of the Source-Wide Conditions of Solutia’s Title V Permit limits “[e]ach individual hazardous air pollutant (HAP)” to less than 9.0 tpy, based on 12-month rolling

emissions totals for each HAP.

27. Condition I.2. of the Source-Wide Conditions of Solutia's Title V Permit limits "[a]ggregate HAPs" to less than 22.5 tpy, based on 12-month rolling emissions.

28. Condition VI.1. of the Source-Wide Conditions of Solutia's Title V Permit requires Solutia to keep, in a satisfactory manner, monthly and 12-month-rolling time periods records of calculations of individual and total HAPs emissions from all equipment, as required by Condition I.1 and I.2, beginning on the effective date of the 40 C.F.R. Part 63, Subpart FFFF. Condition VI.2. requires that Solutia "complete all required calculations in a format acceptable to" Michigan.

29. Condition VI.3. of the Source-Wide Conditions of Solutia's Title V Permit requires that Solutia implement a leak detection and repair (LDAR) monitoring program acceptable to Michigan for monitoring fugitive HAP emissions on the in-HAP service equipment and monitor in-HAP service equipment at least semi-annually.

30. Condition VI.4. of the Source-Wide Conditions of Solutia's Title V Permit requires Solutia to keep, in a satisfactory manner, records of the fugitive HAPs LDAR monitoring program.

31. Condition I.1. of the FGRULE631COMB Flexible Group Conditions of Solutia's Title V Permit prohibits Solutia from emitting greater than 221 pounds (lbs.) of VOC per day from, among other equipment, Solutia's three polykettles.

32. Condition VI.1. of the FGRESETHOAC Flexible Group Conditions of Solutia's Title V Permit requires Solutia to implement a fugitive emission monitoring program as defined in Rule 628(2).

33. Conditions III.1. and VI.2. of the FGRESETHOAC Flexible Group Conditions of Solutia's Title V Permit requires Solutia to maintain records of actions taken as outlined in and pursuant to the Fugitive Emission Monitoring Program and references Title V Permit Appendix 9-S1, which sets forth the same requirements as Rule 628.(2)-(5). (R 336.1213(3)).

34. Under General Conditions 19 and 20 of Solutia's Title V Permit, Solutia is required to annually certify its compliance with the ROP as detailed in the ROP's special conditions except for deviations that have been or are being reported to the appropriate Michigan official pursuant to Rule 213(3)(c). Under General Condition 19, this certification must include the following:

- a. The identification of each term or condition of the permit that is the basis of the certification;
- b. The compliance status of the stationary source with respect to each identified term or condition;
- c. Whether compliance was continuous or intermittent;
- d. The methods used for determining the compliance status of the stationary source, currently and over the reporting period consistent with subrule (3)(a), (b), and (c) of this Rule 213; and
- e. Other facts as the department may require in the permit that are necessary to determine the compliance status of the stationary source.

35. Under General Condition 24 of Solutia's Title V Permit, Solutia is required, on an annual basis, to report its actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit, utilizing the emissions inventory forms provided by Michigan. (R 336.1212(6)).



## NESHAP

36. Pursuant to Section 112(b) of the CAA, 42 U.S.C. § 7412(b), EPA designates HAPs that present or may present a threat of adverse effects to human health or the environment.

37. Section 112(c) of the CAA, 42 U.S.C. § 7412(c), requires EPA to publish a list of categories of sources that EPA finds present a threat of adverse effects to human health or the environment due to emissions of HAPs, and to promulgate emission standards for each source category. These standards are known as “national emission standards for hazardous air pollutants” or “NESHAPs.” EPA codifies these requirements at 40 C.F.R. Part 63.

38. Section 112(d) of the CAA, 42 U.S.C. § 7412(d), requires EPA to establish NESHAPs for both major and area sources of HAPs that are listed for regulation under CAA Section 112(c).

39. A “major source” includes a “stationary source” that emits or has the potential to emit considering controls, in the aggregate, 10 tpy or more of any single HAP or 25 tpy or more of any combination of HAPs.

40. An “area source” is a “stationary source” that is not a major source. 42 U.S.C. § 7412(a).

41. A “stationary source” is any building, structure, facility, or installation that emits or may emit any air pollutant. 42 U.S.C. §§ 7412(a), 7411(a).

42. The NESHAPs are national technology-based performance standards for HAP sources in each category that become effective on a specified date. The purpose of these standards is to ensure that all sources achieve the maximum degree of reduction in emissions of HAPs that EPA determines is achievable for each source category.

43. Section 112(i)(3) of the CAA, 42 U.S.C. § 7412(i)(3), prohibits any person subject to a NESHAPs from operating an existing source in violation of a NESHAPs after its effective date. See also 40 C.F.R. § 63.4.

#### The NESHAP General Provisions (Subpart A)

44. The General Provisions for the NESHAPs are codified at 40 C.F.R. Part 63, Subpart A.

45. The NESHAPs General Provisions, 40 C.F.R. §§ 63.1-63.16, apply to affected sources regulated by a relevant NESHAP, provided that the NESHAP explicitly identifies whether each General Provision is included in the NESHAP.

46. Subpart A, at 40 C.F.R. § 63.10(b)(1), requires that the owner or operator of an affected source maintain files of all information required by 40 C.F.R. Part 63 in a form suitable and readily available for expeditious inspection and review.

47. Subpart A, 40 C.F.R. § 63.10(b)(2)(vii), requires that the owner or operator of an affected source maintain relevant records of required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of continuous monitoring system data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report).

#### The NESHAPs for Chemical Manufacturing Area Sources (Subpart VVVVVV)

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

49. Pursuant to Section 112(d) of the CAA, 42 U.S.C. § 7412(d), EPA promulgated Subpart VVVVVV on October 29, 2009. 74 Fed. Reg. 56008, 56041 (October 29, 2009). Subpart VVVVVV establishes emission standards, requirements to demonstrate initial and

continuous compliance with emission limits, operating limits, work practice standards, and recordkeeping requirements associated with chemical manufacturing area sources. The owner or operator of an existing affected source with a startup date before October 6, 2008, must comply with the provisions of this subpart no later than March 21, 2013, as required under 40 C.F.R. § 63.11494(f).

50. Subpart VVVVVV, at 40 C.F.R. § 63.11494(a), applies to a chemical manufacturing process unit (CMPU) that: (1) is located at an area source of HAP emissions; and (2) for which HAPs listed in Table 1 to Subpart VVVVVV are present, as specified in 40 C.F.R. § 63.11494(a)(2)(i)-(iv), which includes that any Table 1 HAP is produced as a product of the CMPU at an individual concentration greater than 0.1 percent (%) by weight.

51. Table 1 of Subpart VVVVVV lists, among others, acetaldehyde.

52. Subpart VVVVVV, at 40 C.F.R. § 63.11494(b), states that a CMPU includes all process vessels, equipment, and activities necessary to operate a chemical manufacturing process that produces a material or a family of materials described by North American Industry Classification System (NAICS) code 325. A CMPU consists of one or more-unit operations and any associated recovery devices. A CMPU also includes each storage tank, transfer operation, surge control vessel, and bottoms receiver associated with the production of such NAICS code 325 materials.

53. Subpart VVVVVV, at 40 C.F.R. § 63.11495(a)(3), states that owners or operators of CMPUs “must conduct inspections of process vessels and equipment for each CMPU in organic HAP service or metal HAP service, as specified in paragraphs (a)(3)(i) through (v) of this section, to demonstrate compliance with paragraph (a)(1) of this section and to determine that the process vessels and equipment are sound and free of leaks.”

54. Subpart VVVVVV, at 40 C.F.R. § 63.11502(b), defines “equipment” as “each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, and instrumentation system in or associated with a CMPU.”

55. Subpart VVVVVV, at 40 C.F.R. § 63.11495(a)(3)(i), requires inspections to be conducted at least quarterly.

56. Subpart VVVVVV, at 40 C.F.R. § 63.11495(a)(3)(ii), states that detection methods incorporating sight, sound, or smell are acceptable methods for performing inspections required pursuant to 40 C.F.R. § 63.11495(a)(3).

57. Subpart VVVVVV, at 40 C.F.R. § 63.11495(a)(4), states that owners or operators of CMPUs “must repair any leak within 15 calendar days after detection of the leak or document the reason for any delay of repair.”

58. Subpart VVVVVV, at 40 C.F.R. § 63.11495(a)(5), states that owners or operators of CMPUs “must keep records of the dates and results of each inspection event, the dates of equipment repairs, and, if applicable, the reasons for any delay in repair.”

59. Subpart VVVVVV, at 40 C.F.R. § 63.11496(a), requires owners or operators of CMPUs to comply with the requirements in paragraphs (a)(1) through (4) of 40 C.F.R. § 63.11496(a), for organic HAP emissions from batch process vents for each CMPU using Table 1 organic HAP, and with the emission limits and other requirements in Table 2, if uncontrolled organic HAP emissions from all batch process vents from a CMPU are equal to or greater ( $\geq$ ) than 10,000 lbs. per year (lb/yr).

60. Table 2, 1.a., of Subpart VVVVVV requires owners or operators of CMPUs to reduce collective uncontrolled total organic HAP emissions from the sum of all batch process vents by  $\geq$  85% by weight or equal to or less than 20 ppm by volume by routing emissions from

a sufficient number of the batch process vents through a closed vent system to any combination of control devices (except a flare) in accordance with the requirements of 40 C.F.R. § 63.982(c) and the requirements referenced therein.

61. Subpart VVVVVV, at 40 C.F.R. § 63.11501(c), requires owners or operators of CMPUs to maintain files of all information required by this subpart for at least 5 years following the date of each occurrence according to the requirements in 40 C.F.R. § 63.10(b)(1) and to comply with the recordkeeping and reporting requirements of 40 C.F.R. § 63.10(b)(2)(iii) and (vi) through (xiv).

62. The Administrator of EPA (the Administrator) may assess a civil penalty of up to \$37,500 per day of violation up to a total of \$320,000 for CAA violations that occurred after December 6, 2013 through November 2, 2015 and \$48,762 per day of violation up to a total of \$390,092 for violations that occurred after November 2, 2015 under Section 113(d)(1) of the CAA, 42 U.S.C. § 7413(d)(1), and 40 C.F.R. Part 19.

63. Section 113(d)(1) limits the Administrator's authority to matters where the first alleged date of violation occurred no more than 12 months prior to initiation of the administrative action, except where the Administrator and the Attorney General of the United States jointly determine that a matter involving a longer period of violation is appropriate for an administrative penalty action.

64. The Administrator and the Attorney General of the United States, each through their respective delegates, have determined jointly that an administrative penalty action is appropriate for the period of violations alleged in this CAFO.

### **Factual Allegations**

65. Solutia owns and operates a resin production facility at 5100 West Jefferson Avenue, Trenton, Michigan (Facility). At its Facility, Solutia processes and emits vinyl acetate, acetaldehyde, and methanol, HAPs listed in Section 112(b) of the CAA, 42 U.S.C. § 7412(b), and other VOCs (e.g., ethanol and ethyl acetate).

66. Solutia owns or operates an “emission source” within the meaning of Section 114(a)(1) of the CAA, 42 U.S.C. § 7414(a)(1). Therefore, Solutia is subject to the requirements of Section 114(a)(1).

67. At the Facility, acetaldehyde, a Subpart VVVVVV Table 1 HAP, is generated as a byproduct and used as a raw material at concentrations greater than 0.1% and, therefore, the Facility includes CMPUs as that term is defined in Subpart VVVVVV, at 40 C.F.R. § 63.11494.

68. The Facility is an “area source,” as that term is defined at Section 112(a) of the CAA, 42 U.S.C. § 7412(a), so long as it does not emit or have the potential to emit considering controls, in the aggregate, 10 tpy or more of any single HAP or 25 tpy or more of any combination of HAPs.

69. The Facility has the potential to emit over 100 tpy of VOC, making it a “major source,” as that term is defined at Section 502(2)(B) of the CAA, 42 U.S.C. § 7661(2)(B), and 40 C.F.R. § 70.2, for purposes of Title V.

70. In a March 2, 2015, ROP Malfunction Report, Solutia reported that on February 19, 2015, 1,924 lbs. (approximately 1 ton) of vinyl acetate and 75 lbs. of acetaldehyde were released from Polykettle #2 following a rupture disk failure.

71. In its Title V Permit semi-annual report, dated September 15, 2015, Solutia reported that 5,550 lbs. (approximately 2.78 tons; from Polykettle #3), 1,353 lbs. (approximately

0.68 tons; from Polykettle #2), 9 lbs. (approximately 0.005 tons; from Polykettle #3), and 192 lbs. (approximately 0.096 tons; from Polykettle #1) of vinyl acetate were released due to rupture disk failures, on February 23, April 20, June 23, and June 28, 2015, respectively.

72. Further, in its semi-annual Subpart VVVVVV report for the Facility dated July 30, 2015, and covering the reporting period for the first half of 2015, Solutia reported the following:

- a. For the event on February 23, 2015, for approximately 31 minutes, collective uncontrolled HAP emissions from the sum of all batch process vents were not reduced by 85% for Polykettle #3;
- b. For the event on April 20, 2015, for approximately 10 minutes, collective uncontrolled HAP emissions from the sum of all batch process vents were not reduced by 85% for Polykettle #2.

73. In its ROP malfunction report dated August 5, 2013 (Solutia's January 2018 Response), Solutia reported that on July 26, 2013, 465 lbs. (approximately 0.233 tons) of vinyl acetate and 0.46 lbs. of acetaldehyde were released from Polykettle #1.

74. In its ROP malfunction report dated September 11, 2014 (Solutia's January 2018 Response), Solutia reported that on September 1, 2014, 2,405 lbs. (approximately 1.20 tons) of vinyl acetate and 25 lbs. of acetaldehyde were released from Polykettle #1.

75. In its ROP malfunction report dated July 20, 2015 (Solutia's January 2018 Response), Solutia reported that a June 18, 2015 rupture disk failure on Hydrolysis Reactor #3 resulted in a release of 212 lbs. of ethyl acetate, 141 lbs. of ethanol, 0.8 lbs. (approximately 0.0004 tons) of vinyl acetate and 0.05 lbs. of acetaldehyde.

76. In its semi-annual Subpart VVVVVV report for the Facility dated February 1, 2016, and covering the reporting period for the second half of 2015, Solutia reported that on August 18, 2015, it experienced uncontrolled emissions, resulting in the release of approximately 400 lbs. of uncontrolled HAP emissions. Solutia has updated that approximation to 355 lbs. (approximately 0.178 tons) of vinyl acetate.

77. On August 31, 2015, Solutia submitted to Michigan officials information on the Facility's 12-month rolling vinyl acetate emissions for July 2013 through July 2015 and, on July 17, 2017, upon request from Michigan, Solutia submitted information, regarding its 12-month rolling vinyl acetate emissions for June 2015 through May 2017, which included updates to the reported 12-month rolling emissions for June 2015 and July 2015.

78. As set forth in the August 2015 report and July 2017 update, the Facility reported vinyl acetate emissions above 9.0 tons per year, as measured by 12-month rolling emissions, from February 2015 through January 2016, as set forth in the table below.

Vinyl Acetate Emissions from Solutia's Trenton, Michigan Facility (in Tons)

Month/Year	12-Month Rolling Emissions
02/2015	9.93
03/2015	9.96
04/2015	10.63
05/2015	10.53
06/2015	13.97
07/2015	14.12
08/2015	13.98
09/2015	12.97
10/2015	13.07
11/2015	13.33



12/2015	13.19
1/2016	13.21

79. On February 19, and March 2 and 9, 2018, Solutia submitted information to EPA, responding to the January 2018 114 Request. EPA found inconsistencies between information provided by Solutia regarding its LDAR programs in the 2018 Response, LDAR Database, and semi-annual Subpart VVVVVV reports. On June 6, 2018, EPA requested additional information via email to supplement the January 2018 Response and to clarify inconsistencies.

80. In its semi-annual Subpart VVVVVV report for the Facility dated January 29, 2015, and covering the reporting period for the second half of 2014, Solutia reported that quarterly inspections (3Q2014) for equipment leaks were not carried out for 114 components.

81. In its semi-annual Subpart VVVVVV report for the Facility dated January 26, 2017, and covering the reporting period for the second half of 2016, Solutia reported that the audio, visual, olfactory inspections were not performed on 1,142 LDAR components at the Facility during the third quarter 2016 (3Q2016).

82. Solutia's LDAR Database shows that Solutia did not make timely repairs on components as detailed in the table below. Solutia also did not place these components on delay of repair.

<b>Component ID</b>	<b>Component Type</b>	<b>Date Found Leaking</b>	<b>Date Repairs</b>	<b>Total Days from Identification to Repair</b>
2058	Pump	December 9, 2014	January 5, 2015	27
1739	Connector	October 24, 2015	November 16, 2015	23

83. According to Solutia's July 2018 Response, twenty valves in HAP service were not monitored because they were not included in the LDAR program. These valves were added to the LDAR Database 4th Quarter 2015.

84. According to Solutia's July 2018 Response, 73 connectors in HAP service were not monitored because they were not included in the Facility's LDAR Database. The table below summarizes the number of connectors and the quarter they were added to the LDAR Database:

<b>Number of Connectors</b>	<b>Added to LDAR Database</b>
71	4 <sup>th</sup> Quarter 2015
1	2 <sup>nd</sup> Quarter 2016
1	3 <sup>rd</sup> Quarter 2016

85. According to Solutia's July 2018 Response, one open-ended line in HAP service was not monitored because it was not included in the Facility's LDAR Database. This open-ended line was added to the LDAR Database in the 4th Quarter 2015.

86. According to Solutia's July 2018 Response, several valves in VOC service were not monitored because they were missing from the Facility's LDAR Database. The table below summarizes the number of valves and the quarter they were added to the LDAR Database:

<b>Number of Valves</b>	<b>Added to LDAR Database</b>
12	4 <sup>th</sup> Quarter 2015
14	3 <sup>rd</sup> Quarter 2016

87. On August 24, 2016, EPA issued to Solutia a finding of violation alleging, among other things, that Solutia violated provisions of its Title V permit and the National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing, Subpart FFFF, at 40 C.F.R. Part 63.

88. On September 28, 2016, and subsequently thereafter, representatives of Solutia and EPA discussed the August 24, 2016 finding of violation.

89. On December 19, 2018, EPA issued to Solutia a notice and finding of violation (NOV/FOV) alleging that it violated the Michigan SIP, provisions of its Title V permit, and Subpart VVVVVV.

90. On March 13, 2019, and subsequently thereafter, representatives of Solutia and EPA discussed the December 19, 2018 notice and finding of violation.

91. Solutia has had an opportunity to confer with EPA regarding all findings herein, as required at 42 U.S.C. § 7413(a)(4).

92. Since EPA issued the August 24, 2016 FOV, and the December 19, 2018 NOV/FOV, Solutia has made several improvements to its process equipment and procedures, as follows, which address some of its violations and/or emissions exceedances:

- a. Since February 2016, Solutia reported compliance with its Title V permit limit of 9.0 tpy of HAP, as calculated on a 12-month rolling basis;
- b. On March 31, 2017, Solutia applied for a permit to install (PTI) for the replacement of the three polykettles that are the subject of the allegations in Paragraphs 70-74 and a reflux condenser (process condenser). Michigan issued the PTI on August 31, 2017 (Permit Number 12-13A). In October 2017, Solutia replaced all three polykettles and their process condensers and installed a new

common spare process condenser, to enhance washing and the ability to switch process condensers in the event maintenance or cleaning is necessary;

- c. Permit Number 12-13A limits emissions from the polykettle batch vents to 98% emission control consistent with 40 C.F.R. Part 63, Subpart FFFF, instead of the 85% emission control required under the Subpart VVVVVV;
- d. On June 16, 2017 and again on February 12, 2018, Solutia amended its MAP (which had not been amended since May 28, 2009). These amendments added steps to minimize emissions if there is a process equipment failure, such as a polykettle rupture disc failure, a polykettle short stop system failure, a site-wide power loss, or a chiller failure; and
- e. Solutia added a collector tank conductivity probe recalibration to the annual maintenance plan following a September 6, 2017 emissions exceedance event. (During that event, the probe failed to detect the organic phase allowing 60 gallons of wastewater containing an organic phase to transfer to the on-site wastewater treatment system instead of recycling it back into the process).

93. Solutia has announced its plans to permanently shut down the Trenton Facility no later than April 30, 2021. Solutia's shut down plans are unrelated to this Order and EPA enforcement actions.

#### **Alleged Violations**

94. Solutia's vinyl acetate emissions exceeded its 9 tpy monthly rolling average limit from at least February 2015 through January 2016, as described in Paragraphs 77 and 78, in violation of Condition I.1 of the Source-Wide Conditions of Solutia's Title V Permit.

95. Solutia failed to limit daily emissions of VOC from the Emissions Units listed in the FGRULE631COMB Flexible Group Condition to less than 221 lbs. on July 26, 2013, September 1, 2014, February 19, 2015, February 23, 2015, April 20, 2015, June 18, 2015, and August 18, 2015, as described in Paragraphs 70 - 76, in violation of FGRULE631COMB Flexible Group Condition I.1., of Solutia's Title V Permit.

96. Solutia failed to conduct quarterly monitoring for leaks for 114 LDAR components in 3Q2014 and 1,142 LDAR components in 3Q2016, as described in Paragraphs 80 and 81, in violation of Subpart VVVVVV at 40 C.F.R. § 63.11495(a)(3)(i).

97. Solutia failed to repair two LDAR components at the Facility within 15 calendar days of discovering evidence of a leak, as described in Paragraph 82, in violation of the Michigan SIP at Rule 628.(9); FGRESETHOAC Flexible Group Condition VI.1 of Solutia's Title V Permit (for components in VOC service); and Subpart VVVVVV, at 40 C.F.R. § 63.11495(a)(4) for components in HAP service.

98. Solutia failed to monitor several valves, connectors, and one open-ended line because the components were not included in the LDAR program, as described in Paragraphs 83 - 86, in violation of the Michigan SIP Rule 628.(2); FGRESETHOAC Flexible Group Condition VI.1 of Solutia's Title V Permit (for components in VOC service); and/or Solutia's Title V Permit Special Condition VI.3 of the Source-Wide Conditions for components in HAP service; and Subpart VVVVVV, at 40 C.F.R. § 63.11495(a)(3).

99. Solutia failed to maintain information regarding its LDAR programs in a form suitable and readily available for expeditious inspection and review, as described in Paragraph 79, in violation of Subpart VVVVVV, at 40 C.F.R. § 63.11501(c); Subpart A, at 40 C.F.R. § 63.10(b)(1); Condition VI.4. of the Source-Wide Conditions of Solutia's Title V Permit (for

the components in HAP service); and FGRESETHOAC Flexible Group Condition VI.1 of Solutia's Title V Permit (for components in VOC service).

100. Following the December 19, 2018 notice and finding of violation, EPA identified additional issues with Solutia's fugitive emissions calculations and notified Solutia of the issues on July 26, 2019. Solutia did not properly account for its total HAP emissions. Accordingly, for at least the year 2018, Solutia failed to calculate its individual and total HAP emissions from all equipment and to demonstrate compliance with the individual HAP and aggregate HAP limit, in violation of Conditions I.1., I.2., and VI.1. of the Source-Wide Conditions of Solutia's Title V Permit.

#### **Civil Penalty**

101. Based on analysis of the factors specified in Section 113(e) of the CAA, 42 U.S.C. § 7413(e), the facts of this case, cooperation, and prompt return to compliance, Complainant has determined that an appropriate civil penalty to settle this action is \$295,000.

102. Within 30 days after the effective date of this CAFO, Respondent must pay a \$295,000 civil penalty by electronic funds transfer, payable to "Treasurer, United States of America," and sent to:

Federal Reserve Bank of New York  
ABA No. 021030004  
Account No. 68010727  
33 Liberty Street New York, New York 10045  
Field Tag 4200 of the Fedwire message should read:  
"D68010727 Environmental Protection Agency"

In the comment or description field of the electronic funds transfer, state Respondent's name and the docket number of this CAFO.

103. Respondent must send a notice of payment that states Respondent's name and the

docket number of this CAFO to EPA at the following addresses when it pays the penalty:

Air Enforcement and Compliance Assurance Branch  
U.S. Environmental Protection Agency, Region 5  
[r5airenforcement@epa.gov](mailto:r5airenforcement@epa.gov)

Jillian Rountree  
Office of Regional Counsel  
U.S. Environmental Protection Agency, Region 5  
[Rountree.Jillian@epa.gov](mailto:Rountree.Jillian@epa.gov)

Regional Hearing Clerk (E-19J)  
U.S. Environmental Protection Agency, Region 5  
[r5hearingclerk@epa.gov](mailto:r5hearingclerk@epa.gov)

104. This civil penalty is not deductible for federal tax purposes.

105. If Respondent does not pay timely the civil penalty, EPA may request the Attorney General of the United States to bring an action to collect any unpaid portion of the penalty with interest, nonpayment penalties and the United States enforcement expenses for the collection action under Section 113(d)(5) of the CAA, 42 U.S.C. § 7413(d)(5). The validity, amount and appropriateness of the civil penalty are not reviewable in a collection action.

106. Respondent must pay the following on any amount overdue under this CAFO. Interest will accrue on any overdue amount from the date payment was due at a rate established by the Secretary of the Treasury pursuant to 26 U.S.C. § 6621(a)(2). Respondent must pay the United States enforcement expenses, including but not limited to attorney's fees and costs incurred by the United States for collection proceedings. In addition, Respondent must pay a quarterly nonpayment penalty each quarter during which the assessed penalty is overdue. This nonpayment penalty will be 10% of the aggregate amount of the outstanding penalties and nonpayment penalties accrued from the beginning of the quarter. 42 U.S.C. § 7413(d)(5).

### **General Provisions**

107. The parties consent to service of this CAFO by e-mail at the following valid e-mail addresses: [Rountree.Jillian@epa.gov](mailto:Rountree.Jillian@epa.gov) (for Complainant), and [bsago@eastman.com](mailto:bsago@eastman.com) and [sjszek@eastman.com](mailto:sjszek@eastman.com) (for Respondent).

108. This CAFO resolves only Respondent's liability for federal civil penalties for the violations alleged in this CAFO.

109. The CAFO does not affect the rights of EPA or the United States to pursue appropriate injunctive or other equitable relief or criminal sanctions for any violation of law.

110. This CAFO does not affect Respondent's responsibility to comply with the CAA and other applicable federal, state and local laws. Except as provided in paragraph 108, above, compliance with this CAFO will not be a defense to any actions subsequently commenced pursuant to federal laws administered by EPA.

111. Respondent certifies that it is complying fully with NESHAP VVVVVV and the Michigan SIP.

112. This CAFO constitutes an "enforcement response" as that term is used in EPA's Clean Air Act Stationary Civil Penalty Policy to determine Respondent's "full compliance history" under Section 113(e) of the CAA, 42 U.S.C. § 7413(e).

113. The terms of this CAFO bind Respondent, its successors and assigns.

114. Each person signing this consent agreement certifies that he or she has the authority to sign for the party whom he or she represents and to bind that party to its terms.

115. Each party agrees to bear its own costs and attorney's fees in this action.

116. This CAFO constitutes the entire agreement between the parties.



**In the Matter of: Solutia Inc.  
Consent Agreement and Final Order**

**Solutia Inc., Respondent**

April 14, 2021  
Date

B. Travis Smith  
B. Travis Smith, President  
Solutia Inc.

**In the Matter of: Solutia Inc.  
Consent Agreement and Final Order**

**United States Environmental Protection Agency, Complainant**

**MICHAEL  
HARRIS**

Digitally signed by  
MICHAEL HARRIS  
Date: 2021.05.05  
15:27:49 -05'00'

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Michael D. Harris  
Division Director  
Enforcement and Compliance Assurance Division  
U.S. Environmental Protection Agency, Region 5

**Consent Agreement and Final Order**  
**In the Matter of: Solutia Inc.**  
**Docket No. CAA-05-2021-0020**

**Final Order**

This Consent Agreement and Final Order, as agreed to by the parties, shall become effective immediately upon filing with the Regional Hearing Clerk. This Final Order concludes this proceeding pursuant to 40 C.F.R. §§ 22.18 and 22.31. IT IS SO ORDERED.

\_\_\_\_\_  
Date

**ANN COYLE** Digitally signed by ANN  
COYLE  
Date: 2021.05.12  
15:34:26 -05'00'

\_\_\_\_\_  
Ann L. Coyle  
Regional Judicial Officer  
U.S. Environmental Protection Agency  
Region 5

Consent Agreement and Final Order  
In the matter of: Solutia Inc.  
Docket Number: [CAA-05-2021-0020](#)

**CERTIFICATE OF SERVICE**

I certify that I served a true and correct copy of the foregoing **Consent Agreement and Final Order**, docket number [CAA-05-2021-0020](#), which was filed on May 17, 2021, in the following manner to the following addresses:

Copy by E-mail to  
Attorney for Respondent: Brett Sago, Director, HSE Legal Services Eastman  
Chemical Company  
[bsago@eastman.com](mailto:bsago@eastman.com)

Copy by E-mail to  
Respondent: S. Jszek  
Eastman Chemical Company  
[sjszek@eastman.com](mailto:sjszek@eastman.com)

Copy by E-mail to  
Attorney for Complainant: Jillian Rountree  
[Rountree.Jillian@epa.gov](mailto:Rountree.Jillian@epa.gov)

Copy by E-mail to  
Regional Judicial Officer: Ann Coyle  
[coyle.ann@epa.gov](mailto:coyle.ann@epa.gov)

Copy by E-mail to  
Enforcement Unit Supervisor  
(EGLE): Jenine Camilleri  
[CamilleriJ@michigan.gov](mailto:CamilleriJ@michigan.gov)

Copy by E-mail to  
Air District Supervisor  
(EGLE): April Wendling  
[WendlingA@michigan.gov](mailto:WendlingA@michigan.gov)

Dated: \_\_\_\_\_

\_\_\_\_\_  
LaDawn Whitehead  
Regional Hearing Clerk  
U.S. Environmental Protection Agency, Region 5