



REGION 5

CHICAGO, IL 60604

VIA ELECTRONIC MAIL

DELIVERY RECEIPT REQUESTED

Michael Delaney, EHS Manager
Royal Adhesives and Sealants, LLC
H.B. Fuller Company
2001 W. Washington Street
South Bend, Indiana, 46628

Re: Notice and Finding of Violation
Royal Adhesives and Sealants, LLC
South Bend, Indiana

Dear Michael Delaney:

The U.S. Environmental Protection Agency is issuing the enclosed Notice of Violation and Finding of Violation (NOV/FOV) to Royal Adhesives and Sealants, LLC ("Royal Adhesives" or you) under Section 113(a) of the Clean Air Act, 42 U.S.C. § 7413(a). We find that you have violated the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Miscellaneous Coating Manufacturing, at 40 C.F.R. Part 63, Subpart HHHHH; the NESHAP for Equipment Leaks – Control Level 2 Standards, at 40 C.F.R. Part 63, Subpart UU; Section 114 of the Clean Air Act; your federally enforceable Title V permit; and the Indiana State Implementation Plan at your South Bend, Indiana facility.

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

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

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 contacts in this matter are Natalia Vazquez and Victoria Nelson. You may call them at (312) 353-8314 or (312) 886-9481 or email them at vazquez.natalia@epa.gov or nelson.victoria@epa.gov to request a conference. You should make the request within 10 calendar days following receipt of this letter. We should hold any conference within 30 calendar days following receipt of this letter.

Sincerely,

SARAH
MARSHALL

Digitally signed by
SARAH MARSHALL
Date: 2024.05.22
06:38:35 -05'00'

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

cc: Janusz Johnson, Chief
Air Compliance Branch
Office of Air Quality
Indiana Department of Environmental Management
JJOHNSON@idem.IN.gov

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5**

In the Matter of:	)	
	)	
Royal Adhesives and Sealants, LLC	)	NOTICE AND FINDING OF VIOLATION
South Bend, Indiana	)	
	)	EPA-5-24-IN-08
Proceedings Pursuant to	)	
the Clean Air Act,	)	
42 U.S.C. §§ 7401 <i>et seq.</i>	)	

NOTICE AND FINDING OF VIOLATION

The U.S. Environmental Protection Agency is issuing this Notice of Violation/Finding of Violation (NOV/FOV) under Section 113(a)(1) of the Clean Air Act (CAA), 42 U.S.C. § 7413(a)(1). EPA finds that Royal Adhesives and Sealants, LLC (Royal Adhesives) is violating the CAA. Specifically, Royal Adhesives is violating Section 112 of the CAA, 42 U.S.C. § 7412, and implementing regulations at the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Miscellaneous Coating Manufacturing in 40 C.F.R. Part 63 Subpart HHHHH (MCM NESHAP); the NESHAP for Equipment Leaks – Control Level 2 Standards in 40 C.F.R. Part 63 Subpart UU; Section 114 of the CAA, 42 U.S.C. § 7414; the Indiana State Implementation Plan (SIP); and its Title V permit as follows:

General Facts and Findings

1. Royal Adhesives owns and operates a coating manufacturing operation at 2001 W. Washington Street, South Bend, Indiana (the Facility).
2. H.B. Fuller acquired Royal Adhesives in October 2017.
3. EPA inspectors conducted a CAA inspection of the Facility on March 14, 2019.
4. EPA issued Section 114 Information Requests to Royal Adhesives on June 29, 2020, May 25, 2021, and May 20, 2022.
5. Royal Adhesives responded to the first Section 114 Information Request on August 4, 2020 and the second request on August 9, 2021. Royal Adhesives submitted the performance test report required by the third request on September 30, 2022.
6. At the Facility, Royal Adhesives controls each of its adhesives and sealant churns with a dedicated condenser, referred to as primary condenser. Each primary condenser is connected through ductwork to a condenser referred to as secondary condenser. The adhesives and sealant churns are controlled by dust collectors.
7. Section 113(a)(1) of the CAA, 42 U.S.C. § 7413(a)(1), authorizes the Administrator to initiate an enforcement action whenever the Administrator finds that any person has violated or is in violation of a requirement or prohibition of an applicable implementation plan or permit.

8. Section 113(a)(3) of the CAA, 42 U.S.C. § 7413(a)(3), authorizes the Administrator to initiate an enforcement action whenever, among other things, the Administrator finds that any person has violated or is in violation of any requirement or prohibition of Section 114 of the CAA, 42 U.S.C. § 7414; any regulation promulgated under Sections 111 and 112 of the CAA, 42 U.S.C. §§ 7411–12, including 40 C.F.R. Part 63, Subparts UU and HHHHH; or of a requirement or prohibition of an applicable permit issued under the provisions or subchapters listed in Section 113(a)(3) of the CAA.

Indiana Permit Program and Title V

9. 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 to these provisions under Section 502(a) of the CAA, 42 U.S.C. § 7661a(a).

10. For the purpose of Title V, 40 C.F.R. § 70.2 defines “major source” to include, among other things, (1) any stationary source that emits or has the potential to emit, in the aggregate, 10 tons per year (tpy) or more of any hazardous air pollutant (HAP) which has been listed pursuant to Section 112(b) of the CAA, 25 tpy or more of any combination of such HAPs, or such lesser quantity as the Administrator may establish by rule, and (2) any major stationary source, as defined in Section 302 of the CAA, that directly emits, or has the potential to emit, 100 tpy or more of any air pollutant subject to regulation.

11. On December 4, 2001, EPA granted full approval to Indiana’s Title V operating permit program, set forth at 326 IAC 2-7 *et seq.* See 66 Fed. Reg. 62,969.

12. 326 IAC 2-7-7 provides that all terms and conditions in an Indiana Title V operating permit, including any provisions designed to limit a source’s potential to emit, are enforceable by EPA.

13. 40 C.F.R. § 52.23 provides that failure to comply with any approved regulatory provision of a SIP, or with any permit limitation or condition contained within an operating permit issued under an EPA-approved program that is incorporated into the SIP, shall render the person so failing to comply in violation of a requirement of an applicable implementation plan and subject to an enforcement action under Section 113 of the CAA.

14. Royal Adhesives’ Title V Permit was issued by the Indiana Department of Environmental Management (IDEM), and has been renewed and modified, including as follows:

- a. On April 2, 2018, IDEM issued a significant permit modification, Permit No. 141-39359-00146 (April 2018 Permit).
- b. On January 5, 2022, IDEM renewed the permit, Permit No. 141-44011-00146 (January 2022 Permit).

15. Appendix A of the January 2022 Permit provides that with controls, the Facility has the potential to emit 107.35 tons per year (tpy) of total HAPs and 113.13 tpy of volatile organic compounds (VOC). As a result, the Facility is a major source for VOC and total HAPs.

Preventative Maintenance Plan

16. Conditions D.1.3 and D.4.2 of the April 2018 Permit and 326 IAC 1-6-3 require that an operator prepare and maintain a preventative maintenance plan for the Facility and its control devices.

17. Condition B.10.a of the April 2018 Permit and 326 IAC 1-6-3(a) require the preventative maintenance plan to include: identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices; a description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; identification and quantity of the replacement parts that will be maintained in inventory for quick replacement.

18. On May 3, 1990, EPA granted full approval of Indiana's preventative maintenance plan requirements, set forth at 326 IAC 1-6-3. *See* 55 Fed. Reg. 18,604.

19. Royal Adhesives provided its preventative maintenance plan as part of its response to the first Section 114 Information Request, on August 4, 2020. The preventative maintenance plan did not include identification or quantity of replacement parts for its primary condensers and its secondary condenser, as required by Condition B.10.a of the April 2018 Permit and 326 IAC 1-6-3(a).

20. Royal Adhesives failed to include all required information in its Preventative Maintenance Plan, as required by Condition B.10.a of the April 2018 Permit and 326 IAC 1-6-3(a).

Control Device Operation

21. Condition D.4.1.a of the April 2018 Permit provides that, pursuant to 326 IAC 6.5-1-2(a), emissions from each of the churns, reactors, and mixers shall not exceed 0.03 grain per dry standard cubic foot.

22. Condition D.4.3 of the April 2018 Permit requires that, in order to comply with Condition D.4.1.a, particulate matter emissions from each adhesive and sealant manufacture churn, reactor and mixer shall be controlled by dust collectors, and the Permittee shall operate the control device in accordance with the manufacturer's specifications.

23. Condition D.4.4 of the April 2018 Permit requires that visible emission notations of the particulate control devices at the point of exhaust shall be performed once per day during normal daylight operations when exhausting to the outside atmosphere. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, 80% of the time the process is in operation, not counting startup or shut down time. In the case of batch operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. If abnormal emissions are observed, the Permittee shall take reasonable response steps as required by Section C of the Permit. Failure to take response steps shall be considered a deviation from the Permit.

24. Condition D.4.5.b of the April 2018 Permit requires that for a single compartment baghouse controlling emissions from a batch process, the feed to the process unit shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue

only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions in Section B of the Permit. Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

25. Condition D.4.8 of the April 2018 Permit requires that to document compliance with Condition D.4.4, the Permittee shall maintain records of the daily visible emission notations of the churn and process vessel stacks exhaust on days when the churn and process vessels are exhausting to the outside atmosphere. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason (e.g., the process did not operate).

26. Condition C.13.a of the April 2018 Permit requires that upon detecting an excursion where a response step is required by Section D of the Permit, Royal Adhesives shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.

27. Condition C.13.b of the April 2018 Permit requires that the response shall include minimizing the period of any startup, shutdown, or malfunction. The response to a malfunction may include, but is not limited to, any necessary follow-up actions to return operation of the dust collectors to normal operation (Condition C.13.b.3).

28. Condition C.13.c of the April 2018 Permit states that a determination of whether the Facility has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to monitoring results, review of operation and maintenance procedures and records and inspection of the control device, associated capture system, and the process.

29. Condition C.13.d of the April 2018 Permit states that failure to take reasonable response steps shall be considered a deviation from the permit.

30. Royal Adhesives stated in its response to the first Section 114 Information Request that it does not have in its possession the manufacturer's operation manual for its dust collectors DC-2, DC-4 and DC-5. DC-2 and DC-4 are Wheelabrator dust collectors and DC-5 is a Scientific dust collector. The Facility provided its Torit dust collector manufacturer manual and stated that it maintains all of its dust collectors similar to the Torit dust collectors and in accordance with generally recognized good maintenance practices and the Facility's Preventative Maintenance Plan.

31. The Facility also provided a "Maintenance Checklist for a Better Baghouse" document (Exhibit no. 11.c) as part of its response to the first Section 114 Information Request. This document contains recommendations on operation and maintenance practices to reduce potential emissions. In Section 5, "Visible Emissions," it states: "Any particulate that can be seen discharging from the exhaust stack is considered visible emissions. These emissions are an indication that there is a breach in a seal or a broken (torn) filter bag. In either case, the leak must be found and corrected immediately."

32. Royal Adhesives provided copies of its pressure drop readings and visible emission observations for the DC-2, DC-3, DC-4, DC-5, DC-7, DC-8, DC-9 dust collectors as part of its response to

the first Section 114 Information Request (see Exhibit #11.e.f – 2018 DC Pressure Drop and VE Re.pdf, Exhibit #11.e.f – April 2020-June 2020 DC Pressure.pdf, Exhibit 11.e.f – Jan 2019-June 2019 DC Pressure D.pdf, Exhibit 11.e.f – Jan 2020-Mar 2020 DC Pressure.pdf, Exhibit #11.e.f July 2019-Dec 2019 DC Pressure D.pdf, Exhibit #11.e.f – Oct 2017-Dec 2017 DC Pressure Dr.pdf.).

33. Royal Adhesives stated in its response to the second Section 114 Information Request that its dust collectors are operated with a maximum pressure drop of 8 inches of water for compliance purposes. It also stated that it replaces its filter media when the daily pressure drop reading is above 6 inches of water.

34. EPA found that the Facility operated its DC-5 dust collector with visible emissions and out of operational pressure drop as follows:

The DC-5 dust collector operated 32 days with a pressure drop above 8 inches of water between February 18, 2019 and March 26, 2019 (non-continuously); operated 9 days with visible emissions and a pressure drop above 8 inches of water between April 12, 2019 and May 1, 2019 (non-continuously); and operated 5 days with visible emissions and a pressure drop above 8 inches of water between May 23, 2019 and May 30, 2019.

35. Royal Adhesives did not repair or replace the DC-5 dust collector or otherwise take reasonable response steps to correct the visible emissions or the pressure drop during the periods of time mentioned in Paragraph 34, in violation of Conditions C.13.a, D.4.4, and D.4.5.b of the April 2018 Permit.

NESHAP for Miscellaneous Coating, 40 C.F.R. Part 63 Subpart HHHHH

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

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

38. 40 C.F.R. § 63.2 defines a “major source” as any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any single HAP or 25 tons per year or more of any combination of HAPs, unless the Administrator establishes a lesser quantity, or in case of radionuclides, different criteria from those specified in this sentence.

39. The MCM NESHAP applies to miscellaneous coating manufacturing operations that are located at or are part of a major source of HAP emissions, as defined in Section 112(a) of the CAA; manufacture coatings as defined in 40 C.F.R. § 63.8105; process, use, or produce HAP; and are not part of an affected source under another subpart of 40 C.F.R. Part 63. 40 C.F.R. § 63.7985.

40. Pursuant to 40 C.F.R. § 63.7985(b), miscellaneous coating manufacturing operations include the facility-wide collection of process vessels; storage tanks for feedstocks and products;

components such as pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, and instrumentation systems; and wastewater tanks and transfer racks.

41. “Coating” means a material such as paint, ink, or adhesive that is intended to be applied to a substrate and consists of a mixture of resins, pigments, solvents and/or other additives, where the material is produced by a manufacturing operation where materials are blended, mixed, diluted, or otherwise formulated. Coating does not include materials made in processes where a formulation component is synthesized by chemical reaction or separation activity and then transferred to another vessel where it is formulated to produce a material used as a coating, where the synthesized or separated component is not stored prior to formulation. Typically, coatings include products described by the following North American Industry Classification System (NAICS) codes, code 325510, Paint and Coating Manufacturing, code 325520, Adhesive and Sealant Manufacturing, and code 325910, Ink Manufacturing. 40 C.F.R. § 63.8105

42. “Process vessel” means any stationary or portable tank or other vessel with a capacity greater than or equal to 250 gal and in which mixing, blending, diluting, dissolving, temporary holding, and other processing steps occur in the manufacturing of a coating.

43. The MCM NESHAP requires facilities with applicable manufacturing operations to comply with the emission limits and work practice standards in Tables 1 through 5 of the MCM NESHAP at all times, except during periods of startup, shutdown, and malfunction. 40 C.F.R. § 63.8000(a)(1).

44. Process vessels must meet each emission limit and work practice standard in Table 1 to the MCM NESHAP as it applies to the Facility. 40 C.F.R. § 63.8005(a).

45. Table 1 to the MCM NESHAP requires, in part, that a stationary process vessel at an existing source reduce emissions of total organic HAP in one of three ways. One option, identified at Section 2.b.iii of Table 1, is to reduce total organic HAP by venting emissions through a closed vent system to a condenser that reduces the outlet gas temperature to: $<10^{\circ}\text{C}$ if the process vessel contains HAP with a partial pressure $<0.6\text{ kPa}$, or $<2^{\circ}\text{C}$ if the process vessel contains HAP with a partial pressure $\geq 0.6\text{ kPa}$ and $<17.2\text{ kPa}$, or $<-5^{\circ}\text{C}$ if the process vessel contains HAP with a partial pressure $\geq 17.2\text{ kPa}$.

46. “Process condenser” means a condenser whose primary purpose is to recover material as an integral part of a process. The condenser must support a vapor-to-liquid phase change for periods of source equipment operation that are at or above the boiling or bubble point of substance(s) at the liquid surface. Examples of process condensers include distillation condensers, reflux condensers, and condensers used in stripping or flashing operations. In a series of condensers, all condensers up to and including the first condenser with an exit gas temperature below the boiling or bubble point of the substance(s) at the liquid surface are considered to be process condensers. All condensers in line prior to a vacuum source are included in this definition. 40 C.F.R. § 63.1251.

47. Process condensers, as defined in 40 C.F.R. § 63.1251, are not considered to be control devices for process vessels. 40 C.F.R. § 63.8005(c).

48. The Facility is an adhesive and sealant manufacturer. The Facility emits, among other pollutants, VOC, particular matter, and HAPs, including ethyl benzene, hexane, tetrachloroethylene, toluene, and xylene. This operation is subject to the MCM NESHAP.

49. The Facility's primary condenser is a process condenser under the MCM NESHAP.

50. The Facility's secondary condenser is a control device under MCM NESHAP.

51. A May 4, 2007 MCM NESHAP Notification of Compliance report (May 4, 2007 Notification of Compliance) submitted to EPA on behalf of Royal Adhesives states that Royal Adhesives complies with the requirements of 40 C.F.R. § 63.8005 by complying with the emission limit and work practice standards in Section 2.b.iii of Table 1 of the MCM NESHAP and maintaining the secondary condenser's outlet temperature below 2 °C for process vessels containing HAP with partial pressure equal or over 0.6 kPa and below 17.2 kPa.

52. On March 21, 2019, Royal Adhesives provided to EPA "Attachment C – 2018 Second half semi-annual report.pdf", and "Attachment E- Engineering Study Summary.pdf."

53. Attachment C also identified the set outlet temperature for the secondary condenser as 2 °C.

54. Attachment E included results from a test done on the secondary condenser on January 29, 2019 and February 6, 2019. The average outlet temperature of the secondary condenser in the first test was 4.2 °C (39.5 °F). The average temperature in the second test was 2.6 °C (36.7 °F).

55. On May 31, 2019, Royal Adhesives provided EPA a record titled "HB Fuller South Bend update to EPA 2019_0531.pdf." This document includes a written description of Royal Adhesives' audit completed by Cornerstone Environmental Health and Safety Inc. The audit included a study of the secondary condenser. Through the study, the Facility determined that 2 °C was the wrong temperature setting for the secondary condenser. The Facility had mistakenly used the vapor pressure of 20 °C instead of 25 °C. The Facility determined that the secondary condenser's outlet temperature should be maintained at -5 °C based on hexane vapor pressure at 25 °C.

56. Royal Adhesives' document titled "Question #7 Narrative – Secondary Condenser.pdf" stated that the effective date for the change from 2 °C to -5 °C was June 3, 2019.

57. Temperature records for the secondary condenser show that the outlet temperature was above -5 °C during the following period: 1/2/2019-5/23/2019.

58. On November 2, 2022, Royal Adhesives conducted a performance test, and the results show that the secondary condenser had an average gas outlet temperature of 5 °C for the first run and 9.4 °C for the second run.

59. By failing to reduce emissions of total organic HAP by maintaining an outlet temperature below -5 °C, Royal Adhesives violated the 40 C.F.R. § 63.8005(a) and Table 1 requirement for stationary process vessels with a partial pressure equal or over 17.2 kPa.

NESHAP for Equipment Leaks – Control Level 2 Standards, 40 C.F.R. Part 63, Subpart UU

60. Subpart UU provisions apply to the control of air emissions from equipment leaks for which another subpart references the use of this subpart for such air emission control. Subpart UU applies to equipment that contains or contacts regulated material. Subpart UU applies to pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, instrumentation systems, and closed vent systems and control devices used to meet the requirements of Subpart UU. 40 C.F.R. § 63.1019(a) and (b).

61. Table 3 of the MCM NESHAP includes requirements for equipment leaks. This rule gives facilities three options for equipment that is in organic HAP service. One of those options is to comply with Subpart UU.

62. “Connector” means flanged, screwed, or other joined fittings used to connect two pipelines or a pipeline and a piece of equipment. A common connector is flange. Joined fittings welded completely around the circumference of the interface are not considered connectors for the purpose of this regulation. For the purpose of reporting and recordkeeping, connector means joined fittings that are not inaccessible, ceramic, or ceramic-lined (e.g., porcelain, glass, or glass-lined) as described in 40 C.F.R. § 63.1027(e)(2). 40 C.F.R. § 63.1020.

63. “Equipment” means each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, and instrumentation system in regulated material service; and any control devices or systems used to comply with Subpart UU. 40 C.F.R. § 63.1020.

64. “In organic hazardous air pollutant or in organic HAP service” means that piece of equipment either contains or contracts a fluid (liquid or gas) that is at least 5 percent by weight of total organic HAP’s as determined according to the provisions of 40 C.F.R. § 63.180(d) of Subpart H. The provisions of § 63.180(d) of Subpart H also specify how to determine that a piece of equipment is not in organic HAP service. 40 C.F.R. § 63.1020.

65. “In regulated material service” means, for the purpose of Subpart UU, equipment which meets the definition of “in VOC service,” “in VHAP service,” “in organic hazardous air pollutant service,” or “in” other chemicals or groups of chemicals “service” as defined in the referencing subpart (the MCM NESHAP for the purposes of this NOV/FOV). 40 C.F.R. § 63.1020.

66. “Pressure relief device or valve” means a safety device used to prevent operating pressures from exceeding the maximum allowable working pressure of the process equipment. A common pressure relief device is a spring-loaded pressure relief valve. Devices that are actuated either by a pressure of less than or equal to 2.5 pounds per square inch gauge or by a vacuum are not pressure relief devices. 40 C.F.R. § 63.1020.

67. “Process unit” means the equipment specified in the definitions of process unit in the applicable referencing subpart. If the referencing subpart does not define process unit, then for the purposes of Subpart UU, process unit means the equipment assembled and connected by pipes or ducts to process raw materials and to manufacture an intended product. 40 C.F.R. § 63.1020.

68. “Process unit shutdown” means a work practice or operational procedure that stops production from a process unit, or part of a process unit during which it is technically feasible to clear process material from a process unit, or part of a process unit, consistent with safety constraints and during which repairs can be affected. The following are not considered process unit shutdowns:

- a. An unscheduled work practice or operations procedure that stops production from a process unit, or part of a process unit, for less than 24 hours.
- b. An unscheduled work practice or operations procedure that would stop production from a process unit, or part of a process unit, for a shorter period of time than would be required to clear the process unit, or part of the process unit, of materials and start up the unit, and would result in greater emissions than delay of repair of leaking components until the next scheduled process unit shutdown.
- c. The use of spare equipment and technically feasible bypassing of equipment without stopping production. 40 C.F.R. § 63.1020.

69. “Regulated material,” for purposes of 40 C.F.R. Part 63, refers to gas from volatile organic liquids (VOL), VOC, HAP, or other chemicals or groups of chemicals that are regulated by the referencing subpart. 40 C.F.R. § 63.1020.

70. “Relief device or valve” means a valve used only to release an unplanned, nonroutine discharge. A relief valve discharge can result from an operator error, a malfunction such as a power failure or equipment failure, or other unexpected cause that requires immediate venting of gas from process equipment in order to avoid safety hazards or equipment damage. 40 C.F.R. § 63.1020.

71. 40 C.F.R. § 63.1023(a) provides that the owner or operator of a regulated source subject to 40 C.F.R. Part 63, Subpart UU shall monitor regulated equipment. The equipment monitored by instrument monitoring includes: valves in gas and vapor service and light liquid service; pumps in light liquid service; connectors in gas and vapor service and in light liquid service; agitators in gas and vapor service and light liquid service; pressure relief devices in gas and vapor service; and compressors designated to operate with an instrument reading less than 500 part per million above background. The equipment monitored by sensory monitoring are pumps in light liquid service and agitators in gas and vapor service, and light liquid service.

72. 40 C.F.R. § 63.1024(a) provides that the owner or operator of a regulated source shall repair each leak detected as soon as practical, but not later than 15 calendar days after it is detected, except as provided in paragraph (d) and (e) of 40 C.F.R. § 63.1024.

73. 40 C.F.R. § 63.1024(d) provides that delay of repair is allowed for any of the following conditions, and the owner or operator shall 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:

- a. Delay of repair of equipment for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible without a

process unit or affected facility shutdown. Repair of this equipment shall occur as soon as practical, but no later than the end of the next process unit or affected facility shutdown, except as provided in 40 C.F.R. § 63.1024(d)(5). 40 C.F.R. § 63.1024(d)(1).

- b. Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the process and that does not remain in regulated material service. 40 C.F.R. § 63.1024(d)(2).
- c. Delay of repair for valves, connectors, and agitators is allowed if the owner or operator determines that emissions of the purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair and when repair procedures are effected, the purged material is collected and destroyed, collected and routed to a fuel gas system or process, or recovered in a control device complying with either 40 C.F.R. § 63.1034 or 40 C.F.R. § 63.1021(b). 40 C.F.R. § 63.1024(d)(3).
- d. Delay of repair for pumps is allowed if both of the following are met:
 - 1. Repair requires replacing the existing seal design with a new system that the owner or operator has determined under the provisions of 40 C.F.R. § 63.1035(d) will provide better performance, or if a dual mechanical seal system than meets the requirements of § 63.1026(e)(1) will be installed, a pump that meets the requirements of § 63.1026(e)(2) will be installed, or a system that routes emissions to a process or a fuel gas system or a closed vent system and control device that meets the requirements of § 63.1026(e)(3) will be installed, and
 - 2. Repair is completed as soon as practical but not later than 6 months after the leak was detected. 40 C.F.R. § 63.1024(d)(4).
- e. 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. 40 C.F.R. § 63.1024(d)(5).

74. 40 C.F.R. § 63.1024(e) provides that any connector that is designated as described in 40 C.F.R. § 63.1022(d) as an unsafe-to-repair connector is exempt from the requirements of 40 C.F.R. § 63.1027(d) and 40 C.F.R. § 63.1024(a).

75. Royal Adhesives operates equipment at the Facility that includes but is not limited to agitators, connectors, pumps, valves, and pressure relief devices that are intended to operate in HAP service and are, therefore, subject to Subpart UU.

76. Royal Adhesives provided its leak detection, repair and delay of repair (DOR) records in response to the first Section 114 Information Request: Exhibit #10.a – Components under LDAR Program.xlsx, Exhibit #10.b – Repair Delay Report -2018.pdf, Exhibit #10.b – Repair Delay Report -2019.pdf, and Exhibit #10.b – Repair Delay Report -2020.pdf.

77. Royal Adhesives' DOR records include reasons that each piece of equipment was placed in DOR, either "shutdown required" or "cannot isolate." Both reasons would require a shutdown for the equipment to be repaired. "Shutdown required" was used for agitators and pressure relief devices and certain connectors, pumps, and valves. "Cannot isolate" was used for other connectors, pumps, and valves. None of the connectors were identified as "unsafe-to-repair" as described in 40 C.F.R. § 63.1022(d) in the provided records.

78. The DOR records listed expected shutdown dates for nine of Royal Adhesives' pumps as their future repair dates. The number of days between the pumps being placed in DOR and the expected shutdown date were: 1,091 days for five pumps, 912 days for one pump, 697 days for one pump, 365 days for one pump, and 364 days for one pump.

79. Because the pumps were not repaired within six months, the exception in 40 C.F.R. § 63.1024(d)(4) does not apply.

80. The DOR records also included five agitators, 109 connectors, one pressure relief valve, and 18 valves. According to the DOR records, this equipment stayed, or was expected to stay, in DOR between 364 and 1,093 days. More specifically:

- a. Royal Adhesives placed two agitators in DOR on July 17, 2019, and three agitators in DOR on December 11, 2019. The expected shutdowns for the agitators were July 16, 2021 and December 22, 2021, respectively.
- b. The pressure relief valve was placed in DOR on July 17, 2019 and had an expected shutdown scheduled on July 16, 2021.
- c. Twelve valves were placed in DOR on July 17, 2019, with expected shutdowns on July 16, 2021 (though one valve was repaired on July 20, 2020).
- d. Three valves were placed in DOR on November 5, 2019, with an expected shutdown for November 4, 2020.
- e. One valve was placed in DOR on December 10, 2019, with expected shutdown for December 9, 2020.
- f. One valve was placed in DOR on January 16, 2020, with an expected shutdown on January 16, 2021.

g. Eight connectors were placed in DOR, with expected shutdowns in December of 2020. 94 connectors were placed in DOR in 2019 with expected shutdowns in either 2020 or 2021.

h. Seven connectors were placed in DOR in 2020 with expected shutdowns in 2021.

81. Royal Adhesives provided its dust collectors visible emission notations in response to the first Section 114 Information Request. The dust collector records included the instances when the churns routed to respective dust collectors were not in production. EPA compared each equipment DOR timeframe to the dust collector monitoring data. Between September 2019 and June 2020 there were 43 instances with “no production” noted on all four dust collectors (DC-2, DC-3, DC-4, DC-5). Eighteen of those 43 instances noted “no production” for all four dust collectors for two days or more. It appears that in these periods of time there was no manufacturing taking place and the process units were shutdown. If the equipment placed in DOR had been repaired at the earliest of these periods of time, the equipment would have been repaired at an earlier date than the expected shutdown during which Royal Adhesives did the repair, and so the exception in 40 C.F.R. § 63.1024(d)(1) does not apply.

82. The DOR records included 13 pieces of equipment (two valves and 11 connectors) that were repaired in 369 or 389 days after being placed in DOR.

83. Equipment placed in delay to repair remained unrepaired beyond a process unit shutdown for 365 days or more (365 – 1096 days). Royal Adhesives’ failures to complete equipment repair during process unit shutdowns are violations of 40 C.F.R. § 63.1024(a).

CAA Section 114

84. The third Section 114 Information Request, issued to Royal Adhesives on May 20, 2022, required Royal Adhesives to submit a performance test protocol, complete a performance test and submit a performance test report. Royal Adhesives submitted the protocol on September 30, 2022, a performance test report on January 5, 2023, and a revision of the performance test report on February 9, 2023.

85. The third Section 114 Information Request required a performance test pertaining to the Facility’s primary condensers connected to churns CH-26, CH-29, CH-43 and CH-60 and the secondary condenser. The Information Request required Royal Adhesives to measure the mass emission rate of VOC and the control efficiency for each tested condenser. Royal Adhesives conducted the performance test on November 1 and 2, 2022.

86. The Nov. 2022 performance test for churn CH-26 lasted 15 minutes instead of the 60 minutes required by the third Section 114 Information Request. According to Royal Adhesives, the performance test was stopped because the Erlenmeyer flask in the performance test equipment filled up with liquid and became a safety concern. Royal Adhesives did not repeat the test.

87. According to Royal Adhesives, the Nov. 2022 performance test for churn CH-29 was completed during a malfunction because the condenser had a leak during the test.

88. Royal Adhesives was required by the third Section 114 Information Request to complete three runs of the performance test on the secondary condenser. It completed only two because it ran out of dilution air.

89. Section 114(a)(1) of the CAA, 42 U.S.C. § 7414(a)(1), states that the Administrator may require any person who owns or operates any emission source, who manufactures emission control equipment or process equipment, who the Administrator believes may have information necessary for the purposes set forth in Section 114(a)(1), or who is subject to any requirement of the CAA (other than a manufacturer subject to the provisions of section 7525(c) or 7542 of the CAA with respect to a provision of subchapter II) on a one-time, periodic or continuous basis to, among other things, sample such emissions in accordance with such procedures or methods, at such locations, at such intervals, during such periods and in such manner as the Administrator may prescribe.

90. The authority provided for in CAA Section 114(a)(1) has been delegated to the Regional Administrator, who redelegated the authority to the Director of the Enforcement and Compliance Assurance Division, EPA Region 5.

91. By failing to run the Nov. 2022 performance test for churn CH-26 for the required amount of time and completing it during a malfunction, and by failing to complete three runs of the performance test on the secondary condenser, Royal Adhesives failed to complete the performance tests required under Section 114(a)(1) of the CAA, as prescribed by the Administrator.

92. Failure to fully comply with an information request pursuant to Section 114 of the CAA, 42 U.S.C. § 7414, subjects Royal Adhesives to an enforcement action under 42 U.S.C. § 7413(a)(3).

Environmental Impact of Violations

93. These violations have caused or can cause excess emissions of ozone. Breathing ozone contributes to a variety of health problems including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground-level ozone also can reduce lung function and inflame lung tissue. Repeated exposure may permanently scar lung tissue.

94. These violations have caused or can cause excess emissions of particulate matter. Particulate matter, especially fine particulates, contains microscopic solids or liquid droplets, which can get deep into the lungs and cause serious health problems.

**MICHAEL
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Michael D. Harris
Division Director
Enforcement and Compliance Assurance Division