UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

In the Matter of:	)	**Docket No. CAA-05-2025-0040**
	)	
PVS Chemical Solutions, Inc.	)	**Proceeding to Assess a Civil Penalty**
Chicago, Illinois	)	**Under Section 113(d) of the Clean Air Act,**
	)	**42 U.S.C. § 7413(d)**
Respondent.	)	
_____	)	

Consent Agreement and Final Order

A. Preliminary Statement

1. This is an administrative penalty assessment proceeding 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. §§ 22.1(a)(2), 22.13(b) and 22.18(b)(2) and (3).

2. Complainant is the U.S. Environmental Protection Agency (EPA). The EPA Administrator has delegated the authority to settle civil administrative penalty proceedings under Section 113(d) of the CAA to the Division Director of the Region 5 Enforcement and Compliance Assurance Division.

3. Respondent is PVS Chemical Solutions, Inc., a corporation doing business in Illinois. Respondent is a "person," as defined in Section 302(e) of the CAA, 42 U.S.C. § 7602(e).

4. The EPA and Respondent agree that settling this action is in the public interest and consent to the entry of this Consent Agreement and Final Order (CAFO) pursuant to 40 C.F.R. § 22.18(b)(2) and (3) without the adjudication of any issues of law or fact.

5. Respondent agrees to comply with the terms of this CAFO.

B. Jurisdiction

6. The alleged violations in this CAFO are pursuant to Section 113(a)(3)(A) of the CAA.

7. The EPA and the United States Department of Justice have jointly determined that this matter, although it involves alleged violations that occurred more than one year before the initiation of this proceeding, is appropriate for an administrative penalty assessment. 42 U.S.C. § 7413(d); 40 C.F.R. § 19.4.

8. On December 3, 2024, the EPA issued to Respondent a Finding of Violation (FOV), providing notice to Respondent that the EPA found Respondent committed the alleged violations described in Section E of this CAFO and providing Respondent an opportunity to confer with the EPA. On January 7, 2025, representatives of Respondent and the EPA conferred regarding the December 3, 2024 FOV.

9. The Regional Judicial Officer of Region 5 is authorized to ratify the consent agreement memorializing the settlement between the EPA and Respondent and to issue the attached Final Order. 40 C.F.R. §§ 22.4(b) and 22.18(b).

C. Statutory and Regulatory Background

CAA Section 112(r)

10. Section 112(r)(1) of the CAA, 42 U.S.C. § 7412(r)(1), provides that it shall be the objective of the regulations and programs authorized under Section 112(r) to prevent the accidental release and to minimize the consequences of any such release of any substance listed pursuant to Section 112(r)(3) of the CAA, or any other extremely hazardous substance.

11. Section 112(r)(3) of the CAA, 42 U.S.C. § 7412(r)(3), provides, in part, that the Administrator of the EPA shall promulgate, not later than 24 months after November 15, 1990, an initial list of 100 substances which, in the case of an accidental release, are known to cause or may

reasonably be anticipated to cause death, injury, or serious adverse effects to human health or the environment. The initial list shall include, among other substances, anhydrous ammonia, anhydrous sulfur dioxide, and sulfur trioxide.

12. Pursuant to Section 112(r)(3) of the CAA, the EPA initially promulgated a list of regulated substances, with threshold quantities for applicability, at 59 Fed. Reg. 4478 (January 31, 1994), which is codified, as amended, at 40 C.F.R. § 68.130. The list includes, among other substances, anhydrous ammonia, anhydrous sulfur dioxide, and oleum (fuming sulfuric acid) [sulfuric acid, mixture with sulfur trioxide].

13. Section 112(r)(7)(A) of the CAA, 42 U.S.C. § 7412(r)(7)(A), provides, in part, that the Administrator of the EPA is authorized to promulgate release prevention, detection, and correction requirements which may include monitoring, record-keeping, reporting, training, vapor recovery, secondary containment, and other design, equipment, work practice, and operation requirements.

14. Section 112(r)(7)(B) of the CAA, 42 U.S.C. § 7412(r)(7)(B), provides, in part, that within three years after November 15, 1990, the Administrator of the EPA shall promulgate reasonable regulations and appropriate guidance to provide, to the greatest extent practicable, for the prevention and detection of accidental releases of regulated substances and for the response to such releases by the owners or operators of the sources of such releases.

15. Pursuant to Section 112(r)(7) of the CAA, the EPA promulgated "Accidental Release Prevention Requirements: Risk Management Programs Under Clean Air Act Section 112(r)(7)," 61 Fed. Reg. 31668 (June 20, 1996), which is codified, as amended, as the Chemical Accident Prevention Provisions (CAPP) at 40 C.F.R. Part 68.

16. Section 112(r)(7)(E) of the CAA, 42 U.S.C. § 7412(r)(7)(E), provides, in part, that after the effective date of any regulation or requirement promulgated pursuant to Section 112(r)(7) of the

CAA, it shall be unlawful for any person to operate any stationary source in violation of such regulation or requirement.

Chemical Accident Prevention Provisions (CAPP)

17. The CAPP, at 40 C.F.R. § 68.3, provide the following definitions:

    a. "Stationary source" means, in part, any buildings, structures, equipment, installations, or substance emitting stationary activities which belong to the same industrial group, which are located on one or more contiguous properties, which are under the control of the same person (or persons under common control), and from which an accidental release may occur. The term stationary source does not apply to transportation, including storage incident to transportation, of any regulated substance or any other extremely hazardous substance under the provisions of this part. A stationary source includes transportation containers used for storage not incident to transportation and transportation containers connected to equipment at a stationary source for loading or unloading. Transportation includes, but is not limited to, transportation subject to oversight or regulation under 49 C.F.R. Parts 192, 193, or 195, or a state natural gas or hazardous liquid program for which the state has in effect a certification to the U.S. Department of Transportation under 49 U.S.C. § 60105.

    b. "Regulated substance" means any substance listed pursuant to section 112(r)(3) of the CAA as amended in 40 C.F.R. § 68.130.

    c. "Threshold quantity" means the quantity specified for regulated substances pursuant to Section 112(r)(5) of the CAA as amended, listed in 40 C.F.R. § 68.130 and determined to be present at a stationary source as specified in 40 C.F.R. § 68.115 of the CAPP.

    d. "Process" means any activity involving a regulated substance including any use, storage, manufacturing, handling, or on-site movement of such substances, or combination of these activities.

    e. "Covered process" means a process that has a regulated substance present in more than a threshold quantity as determined under 40 C.F.R. § 68.115.

    f. "Administrative controls" mean written procedural mechanisms used for hazard control.

    g. "Mechanical integrity" means the process of ensuring that process equipment is fabricated from the proper materials of construction and is properly installed, maintained, and replaced to prevent failures and accidental releases.

18. The CAPP, at 40 C.F.R. § 68.10(a)(3), require the owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process, as determined under 40 C.F.R. § 68.115, to comply with the requirements of the CAPP no later than the date on which a regulated substance is first present above a threshold quantity in a process.

19. The CAPP, at 40 C.F.R. § 68.115(a), provide that a threshold quantity of a regulated substance listed in 40 C.F.R. § 68.130 is present at a stationary source if the total quantity of the regulated substance contained in a process exceeds the threshold.

20. Table 1 to 40 C.F.R. § 68.130 lists the following regulated toxic substances:

a. Oleum[1] with a threshold limit of 10,000 pounds;

b. Anhydrous sulfur dioxide with a threshold limit of 5,000 pounds; and

c. Anhydrous ammonia with a threshold limit of 10,000 pounds.

21. The CAPP, at 40 C.F.R. § 68.10(l), provide that a covered process is subject to the Program 3 prevention program if the process does not meet the Program 1 process requirements, and if, among other things, the process is in North American Industry Classification System (NAICS) code 325188 or the process is subject to the U.S. Occupational Safety and Health Administration process safety management standard at 29 C.F.R. § 1910.119.

22. The CAPP, at 40 C.F.R. § 68.12(a), provide that the owner or operator of a stationary source subject to 40 C.F.R. Part 68 shall submit a single Risk Management Plan (RMP), as provided in 40 C.F.R. §§ 68.150 to 68.185, and that the RMP shall include a registration that reflects all covered processes.

[1] Table 1 to 40 C.F.R. § 68.130 refers to oleum as "oleum (fuming sulfuric acid) [sulfuric acid, mixture with sulfur trioxide]."

23. The CAPP, at 40 C.F.R. § 68.160(b)(7), require the RMP registration to include certain data for each covered process, including, among other things, the name and CAS number of each regulated substance held above the threshold quantity in the process and the maximum quantity of each regulated substance or mixture in the process (in pounds) to two significant digits.

24. The CAPP, at 40 C.F.R. § 68.12(d), identify additional requirements that the owner or operator of a stationary source with a process subject to Program 3 must meet, including, among other requirements, implementing the prevention requirements of 40 C.F.R. §§ 68.65 through 68.87.

25. The CAPP, at 40 C.F.R. § 68.65(d)(2), require the owner or operator of a Program 3 process to ensure and document that the process is designed and maintained in compliance with recognized and generally accepted good engineering practices (RAGAGEP).

26. The CAPP, at 40 C.F.R. § 68.67(a), require the owner or operator of a Program 3 process to perform an initial process hazard analysis (PHA) on processes covered by 40 C.F.R. Part 68. The PHA must, among other things, identify, evaluate, and control the hazards involved in the process.

27. The CAPP, at 40 C.F.R. § 68.67(c), provide that the PHA required for a Program 3 process must address, among other things:

a. The hazards of the process;

b. Engineering and administrative controls applicable to the hazards and their interrelationships such as appropriate application of detection methodologies to provide early warning of releases;

c. Consequences of failure of engineering and administrative controls; and

d. Human factors.

28. The CAPP, at 40 C.F.R. § 68.67(f), provide, in part, that the PHA for a Program 3 process shall be updated and revalidated at least every five years after the completion of the initial PHA to assure that the PHA is consistent with the current process.

29. The CAPP, at 40 C.F.R. § 68.69(a), require the owner or operator of a Program 3 process to develop and implement written operating procedures that provide clear instructions for safely conducting activities involved in each covered process consistent with the process safety information and that address at least the following elements:

a. Steps for each operating phase;

b. Operating limits;

c. Safety and health considerations; and

d. Safety systems and their functions.

30. The CAPP, at 40 C.F.R. § 68.69(a)(1)(iv), require the steps for each operating phase within the written operating procedures developed and implemented for a Program 3 process to address emergency shutdown, including the conditions under which emergency shutdown is required, and the assignment of shutdown responsibility to qualified operators to ensure that emergency shutdown is executed in a safe and timely manner.

31. The CAPP, at 40 C.F.R. § 68.69(a)(2), require the operating limits within the written operating procedures developed and implemented for a Program 3 process to address consequences of deviation and steps required to correct or avoid deviation.

32. The CAPP, at 40 C.F.R. § 68.69(d), require the owner or operator of a Program 3 process to develop and implement safe work practices to provide for the control of hazards during operations such as, among other practices, opening process equipment or piping. These safe work practices shall apply to employees and contractor employees.

33. The CAPP, at 40 C.F.R. § 68.73(a), provide that the mechanical integrity requirements set forth at 40 C.F.R. § 68.73(b) through (f) apply to certain equipment in Program 3 processes, including, among other things, piping systems (including piping components such as valves) and controls (including monitoring devices and sensors, alarms, and interlocks).

34. The CAPP, at 40 C.F.R. § 68.73(b), require the owner or operator of a Program 3 process to establish and implement written procedures to maintain the on-going integrity of process equipment.

35. The CAPP, at 40 C.F.R. § 68.73(d), provide the following inspection and testing requirements for equipment in a Program 3 process:

a. Inspections and tests shall be performed on process equipment;

b. Inspection and testing procedures shall follow RAGAGEP;

c. The frequency of inspections and tests of process equipment shall be consistent with applicable manufacturers' recommendations and good engineering practices, and more frequently if determined to be necessary by prior operating experience; and

d. The owner or operator shall document each inspection and test that has been performed on process equipment. The documentation shall identify the date of the inspection or test, the name of the person who performed the inspection or test, the serial number or other identifier of the equipment on which the inspection or test was performed, a description of the inspection or test performed, and the results of the inspection or test.

D. <u>Stipulated Facts</u>

36. Respondent owns and operates a chemical manufacturing plant at 12260 South Carondolet Avenue, Chicago, Illinois (Facility) that produces oleum, anhydrous sulfur dioxide, sulfuric acid, and ammonium thiosulfate.

37. The Facility is a stationary source as defined at 40 C.F.R. § 68.3.

38. The EPA received a first-time RMP submission for the Facility on June 22, 1999.

39. Respondent re-submitted an RMP for the Facility on February 11, 2022 (2022 RMP) that identifies the following three covered processes that are subject to the Program 3 requirements of the CAPP:

a. Oleum Process, which contains the regulated toxic substance oleum at a quantity of 968,400 pounds;

b. Sulfur Dioxide Process, which contains the regulated toxic substance anhydrous sulfur dioxide at a quantity of 1,614,000 pounds; and

c. Ammonia Thiosulfate Production Process (ATS Process), which contains the regulated toxic substance anhydrous ammonia at a quantity of 907,440 pounds.

E. Allegations

Count 1: Failure to Evaluate Hazards of Open-Ended Valves or Lines in Sulfur Dioxide Process

40. For the purposes of this CAFO, "open-ended valves or lines" means valves (except for pressure relief valves) that have one side of the valve seat open to the atmosphere, either directly or through open piping, without the use of a positive closure mechanism such as a blind, plug, or cap.

41. During an inspection on October 26 and 27, 2023 (Inspection), the EPA observed open-ended valves or lines within the Sulfur Dioxide Process that relied on a single closed valve with no lock to contain regulated and other extremely hazardous substances.

42. Respondent conducted a 5-year revalidation of a PHA covering both the Oleum and Sulfur Dioxide Processes in 2019 (2019 PHA).

43. Loss of containment through an unlocked and open-ended valve or line is a recognized hazard, but Respondent did not evaluate the hazard of loss containment through the open-ended valves or lines in the Sulfur Dioxide Process during the 2019 PHA or at any other time prior to the EPA's inspection.

44. Respondent failed to conduct a PHA that evaluated the hazard of loss of containment through the open-ended valves or lines in the Sulfur Dioxide Process during the 2019 PHA or any other time prior to the Inspection, in violation of 40 C.F.R. § 68.67(c).

Count 2: Failure to Control Hazards of Open-Ended Valves or Lines in ATS Process

45. During the Inspection, the EPA observed an open-ended valve on the anhydrous ammonia feed piping to the Gassing Tank within the ATS Process that was in the open position. The open valve relied on a single closed upstream valve with no lock to contain anhydrous ammonia.

46. During the Inspection, the EPA observed an open-ended line with two closed valves downstream of a pressure gauge located between the Digest Ammonia Throttling Valve and the Digest Ammonia Block Valve within the ATS Process. The "Normal Operations- Digest Tank Batch" procedure provided by Respondent at the time of the Inspection shows closed piping downstream of the pressure gauge, not an open-ended valve or line.

47. Respondent failed to implement safe work practices to provide for the control of hazards during opening process equipment by failing to close an open-ended valve on the anhydrous ammonia feed line to the Gassing Tank and failing to provide closed piping on the anhydrous ammonia feed line to the Digest Tank, as observed within the ATS Process at the time of the Inspection on October 27, 2023, in violation of 40 C.F.R. § 68.69(d).

Count 3: Failure to Design and Maintain Toxic Gas Detection Alarms in Accordance with RAGAGEP

48. Respondent has installed gas detectors at the Facility for ambient and/or fence line monitoring of sulfur dioxide and ammonia.

49. The gas detectors at the Facility are alarmed in the control room to notify Respondent's operators of a toxic gas detection event.

50. The gas detectors and their associated alarms (toxic gas detection alarms) are safety systems for the Program 3 processes at the Facility because they provide for the detection of releases of regulated substances.

51. Toxic gas detection alarms at the Facility are equipment in a Program 3 process and therefore must be designed and maintained in compliance with RAGAGEP, as set forth at 40 C.F.R. § 68.65(d)(2).

52. Sources of RAGAGEP for safety alarms in the process industries include, but are not limited to, standards published by the International Electrotechnical Commission (IEC) and the International Society of Automation (ISA).

53. IEC 62682, *Management of Alarm Systems for the Process Industries*, is a consensus standard that addresses the development, design, installation, and management of alarm systems in the process industries and requires an alarm philosophy document to be developed to cover each alarm system.

54. By failing to develop an alarm philosophy in accordance with IEC 62682 or any equivalent standard at any time, Respondent failed to ensure and document that the toxic gas detection alarms at the Facility are designed and maintained in compliance with RAGAGEP, in violation of 40 C.F.R. § 68.65(d)(2).

Count 4: Failure to Evaluate Human Factors for Toxic Gas Detection Alarms

55. During the 2019 PHA, Respondent evaluated process control systems and alarms as part of a human factors checklist. The human factors checklist provides a series of guiding questions and the PHA team's responses related to alarms, including:

a. Q: "Are alarms displayed by priority and is the system designed to avoid alarm flood in an emergency?"

A: "No. Alarms are displayed by time, this is [adequate]."

b. Q: “Are critical alarms distinct and does the [standard operating procedure] have instructions on what the required operator response is to critical alarms?”

A: “No. Not an issue.”

c. Q: “Is there an alarm review program in place which ensures that alarms levels are appropriate to the risk and which takes action to eliminate nuisance alarms?”

A: “No. Not an issue.”

56. The 2019 PHA does not document what information was reviewed by the PHA team when completing the human factors checklist and does not reference any RAGAGEP used to determine that the lack of an alarm prioritization system, lack of distinct critical alarms, and lack of an alarm review program was not an issue.

57. Respondent failed to conduct a PHA that adequately addresses human factors related to toxic gas detection alarms during the 2019 PHA or any other time through at least the Inspection, in violation 40 C.F.R. § 68.67(c)(6).

Count 5: Failure to Perform Inspections and Tests on Sulfur Dioxide Detection Alarms

58. Gas detection alarms at the Facility are subject to the mechanical integrity requirements for equipment in Program 3 processes, including the requirement to perform inspections and tests using procedures that follow RAGAGEP, as set forth at 40 C.F.R. § 68.73(d)(1) and (d)(2).

59. ANSI/ISA-84.91.01, *Identification and Mechanical Integrity of Process Safety Controls, Alarms, and Interlocks in the Process Industry Sector*, is a consensus standard that addresses the instruments that are classified as process safety safeguards by the authority having jurisdiction and establishes requirements for their mechanical integrity, including inspection/testing and documenting the inspection/test results.

60. ANSI/ISA-84.91.01-2021 states that process safety controls, alarms, and interlocks shall be included in a mechanical integrity program that uses periodic inspection/testing and preventive maintenance to maintain their integrity in the operating environment.

61. As a result of an information request issued by Complainant to Respondent on April 9, 2024 pursuant to Section 114(a) of the CAA (April 2024 Request), Respondent discovered that its sulfur dioxide alarms were erroneously configured to provide "high" and "high high" alarms at lower concentrations than intended by the alarm design.

62. Respondent failed to conduct inspections and tests on the sulfur dioxide detection alarms at the Facility to ensure that the alarms were properly installed and maintained at any time prior to the April 2024 Request, in violation of 40 C.F.R. § 68.73(d).

Count 6: Failure to Develop and Implement Operating Procedures for Sulfur Dioxide Detection Alarms

63. Neither the Oleum Process nor the Sulfur Dioxide Process operating procedures provided by Respondent at the time of the Inspection address the sulfur dioxide detection alarms at the Facility and do not provide the information set forth at Paragraphs 29 through 31, above:

a. Procedures for sulfur dioxide detector alarm response are not provided;

b. Sulfur dioxide detection levels under which emergency shutdown is required are not specified;

c. The safe operating limits for the sulfur dioxide detectors are not specified; and

d. The alarm levels for the sulfur dioxide detector alarms are not specified.

64. Respondent failed to develop and implement written operating procedures for the Sulfur Dioxide and Oleum Processes that provide clear instructions for safely responding to sulfur dioxide detector alarms at all relevant times, in violation of 40 C.F.R. § 68.69(a).

Count 7: Failure to Develop and Implement Operating Procedures for Ammonia Detection Alarms

65. While the operating procedure for the ATS Process provided by the Respondent at the time of the Inspection titled "Emergency Operations - Anhydrous Ammonia Leak Shutdown" states that the detection of ammonia will trigger an alarm status to the programmable logic controller (PLC) to notify Respondent's operators of a leak, the ATS Process operating procedures do not provide the information set forth at Paragraphs 29 through 31, above:

a. Procedures for ammonia detector alarm response are not provided;

b. Ammonia detection levels under which emergency shutdown is required are not specified;

c. The safe operating limits for the ammonia detectors are not specified; and

d. The alarm levels for the ammonia detector alarms are not specified.

66. Respondent failed to develop and implement written operating procedures for the ATS Process that specify ammonia detection levels under which emergency shutdown is required, safe operating limits for the ammonia detectors, and the alarm levels for the ammonia detector alarms at all relevant times, in violation of 40 C.F.R. § 68.69(a).

Count 8: Failure to Establish and Implement Mechanical Integrity Procedures for Piping Systems

67. The Oleum, Sulfur Dioxide, and ATS Processes each contain piping systems subject to the mechanical integrity requirements for equipment in Program 3 processes at 40 C.F.R. § 68.73.

68. Respondent provided an internal document titled EHS-500, *Process Safety Management/Risk Management Plan Management Program* during the Inspection and as part of its response to the April 2024 Request.

69. The narrative provided by Respondent in response to the April 2024 Request states that Section 12.3 of EHS-500 details the procedures that Respondent follows at the Facility to ensure

the on-going integrity of the covered processes in accordance with 40 C.F.R. § 68.73(b), including the piping systems for those processes.

70. Section 12.3 of EHS-500 does not provide written procedures specific to maintaining the on-going integrity of in-service process piping for the covered processes at the Facility, such as a description of the inspections or tests that should be performed on piping systems or the frequency at which such inspections or tests should be performed.

71. Respondent failed to establish and implement written procedures to maintain the on-going integrity of piping systems for the Program 3 processes at the Facility at all relevant times, in violation of 40 C.F.R. § 68.73(b).

Count 9: Failure to Conduct Inspections and Tests on Piping Systems

72. Sources of RAGAGEP for inspecting and testing process piping include, but are not limited to, standards published by the American Petroleum Institute (API).

73. API 570, *Piping Inspection Code: In-service Inspection, Rating, Repair, and Alteration of Piping Systems*, is an industry consensus standard that covers the inspection, rating, repair, and alteration procedures for metallic piping systems and their associated pressure-relieving devices that have been placed in-service.

74. API 570 applies to all piping systems for process fluids that are hazardous to personnel, such as hydrocarbons, and similar flammable or toxic fluid services and processes, unless specifically designated as optional by the code.

75. Respondent sets forth general inspection criteria for maintaining the on-going integrity of process equipment at the Facility in Section 12.3.3 of EHS-500 as follows [**emphasis added**]: "Inspection criteria must follow [RAGAGEP]. Examples include, but are not limited to: PVS standards, manufacturer instructions and ASTM/**API** standards…"

76. API 570 generally requires external visual inspections to be performed on piping systems at least every five years and thickness measurements to be performed on piping systems at least every ten years (or at least every five years for fluid services that have the highest potential of resulting in an immediate emergency if a leak were to occur). *See* Table 1 of API 570.

77. Section 12.3.4 of EHS-500 states: "The results of inspections must be documented including the following information: Date, inspector, equipment name, item number, description of test, result of test and corrective actions taken. Inspection records must be retained for the life of the equipment. The [computerized maintenance management system] software will be used to assure the inspections have occurred while hard copies of the records will be kept in the equipment files."

78. In response to the April 2024 Request, Respondent did not provide evidence that it had performed inspections or tests on in-service process piping in response to Complainant's request for documentation of all inspections and tests that Respondent has performed on the piping systems of covered processes at the Facility from April 1, 2019 through the April 2024 Request.

79. Respondent failed to conduct inspections and tests on Oleum and Sulfur Dioxide Process piping systems in accordance with RAGAGEP at any time since at least April 1, 2019, in violation of 40 C.F.R. § 68.73(d).

Count 10: Failure to Include Rail Tank Car Storage in RMP

80. Respondent stores rail tank cars containing oleum and anhydrous sulfur dioxide at the Facility after the rail tank cars are disconnected from the Oleum or Sulfur Dioxide Processes and before the rail tank cars are connected to the motive power (*i.e.*, locomotive) that will transport the cars out of the Facility.

81. Rail tank car storage of oleum and anhydrous sulfur dioxide is part of Respondent's stationary source because the transportation containers are used for storage not incident to transportation.

82. In response to the April 2024 Request, Respondent provided a plot plan showing the locations at the Facility where rail tank cars may be stored. Certain rail tank car storage locations that Respondent identified on the plot plan are neither interconnected nor co-located with the Oleum or Sulfur Dioxide Processes, including Tracks 1, 2, 9, and 10.

83. EHS-500 provides the basis for the maximum intended inventories of oleum and anhydrous sulfur dioxide listed in the 2022 RMP as follows:

a. The maximum intended oleum inventory listed for the Oleum Process does not include any amount stored in rail tank cars; and

b. The maximum intended anhydrous sulfur dioxide inventory listed for the Sulfur Dioxide Process includes three rail tank cars containing 180,000 pounds of anhydrous sulfur dioxide each, or 540,000 pounds combined rail tank car storage.

84. Records of rail tank car storage at the Facility since April 1, 2021 provided in response to the April 2024 Request demonstrate that:

a. Respondent stores a maximum of two oleum rail tank cars at the Facility with a total oleum inventory of 404,800 pounds; and

b. Respondent stores a maximum of five sulfur dioxide rail tank cars at the Facility with a total anhydrous sulfur dioxide inventory of 891,800 pounds.

85. Rail tank car storage at the Facility is a covered process because it contains regulated toxic substances above the threshold quantities listed in Table 1 to 40 C.F.R. § 68.130.

86. The 2022 RMP does not include rail tank car storage of oleum as a covered process and does not include rail tank car storage of more than three anhydrous sulfur dioxide rail tank cars as a covered process.

87. By failing to include rail tank car storage of oleum and anhydrous sulfur dioxide as a covered process in its RMP filing, Respondent failed to submit a single RMP, as provided in 40 C.F.R. §§ 68.150 to 68.185, that includes a registration that reflects all covered processes, in violation of 40 C.F.R. § 68.12(a).

F. Terms of Consent Agreement

88. For the purposes of this proceeding, as required by 40 C.F.R. § 22.18(b)(2), Respondent:

a. admits to the jurisdictional allegations in this CAFO;

b. admits to the stipulated facts stated in Section D of this CAFO and neither admits nor denies the allegations stated in Section E of this CAFO;

c. consents to the assessment of a civil penalty as stated below;

d. consents to any conditions specified in this CAFO;

e. waives any right to contest the allegations set forth in Section E of this CAFO; and

f. waives its right to appeal this CAFO.

89. For the purposes of this proceeding, Respondent:

a. agrees this CAFO states a claim upon which relief may be granted against Respondent;

b. acknowledges this proceeding constitutes an enforcement action for purposes of considering Respondent's compliance history in any subsequent enforcement actions;

c. waives any and all remedies, claims for relief and otherwise available rights to judicial or administrative review that Respondent may have with respect to any issue of fact or law set forth in this CAFO, including any right of judicial review under Section 307(b)(1) of the Clean Air Act, 42 U.S.C. § 7607(b)(1);

d. waives its right to request a hearing as provided at 40 C.F.R. § 22.15(c);

e. waives any rights or defenses that Respondent has or may have for this matter to be resolved in federal court, including but not limited to any right to a jury trial, and waives any right to challenge the lawfulness of the final order accompanying the consent agreement; and

f. waives any rights it may possess at law or in equity to challenge the authority of the EPA to bring a civil action in a United States District Court to compel compliance with the CAFO, and to seek an additional penalty for noncompliance, and agrees that federal law shall govern in any such civil action.

90. 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, and Respondent's cooperation, the EPA has determined that an appropriate civil penalty to settle this action is $174,000.

91. Respondent agrees to pay a civil penalty in the amount of $174,000 ("Assessed Penalty") within thirty (30) days after the date the Final Order ratifying this Agreement is filed with the Regional Hearing Clerk ("Filing Date").

92. Respondent shall pay the Assessed Penalty and any interest, fees, and other charges due using any method, or combination of appropriate methods, as provided on the EPA website: https://www.epa.gov/financial/makepayment. For additional instructions see: https://www.epa.gov/financial/additional-instructions-making-payments-epa.

93. When making a payment, Respondent shall:

a. Identify every payment with Respondent's name and the docket number of this Agreement, CAA-05-2025-0040,

b. Concurrently with any payment or within 24 hours of any payment, Respondent shall serve proof of such payment to the following person(s):

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

Air Enforcement and Compliance Assurance Branch
U.S. Environmental Protection Agency, Region 5
R5airenforcement@epa.gov

Sophie Grueterich
Office of Regional Counsel
U.S. Environmental Protection Agency, Region 5
grueterich.sophie@epa.gov

U.S. Environmental Protection Agency
Cincinnati Finance Center
Via electronic mail to:
CINWD_AcctsReceivable@epa.gov

"Proof of payment" means, as applicable, a copy of the check, confirmation of credit card or debit card payment, or confirmation of wire or automated clearinghouse transfer, and any other information required to demonstrate that payment has been made according to EPA requirements, in the amount due, and identified with the appropriate docket number and Respondent's name.

94. Interest, Charges, and Penalties on Late Payments. Pursuant to 42 U.S.C. § 7413(d)(5), 31 U.S.C. § 3717, 31 C.F.R. § 901.9, and 40 C.F.R. § 13.11, if Respondent fails to timely pay the full amount of the Assessed Penalty per this Agreement, the entire unpaid balance of the Assessed Penalty and all accrued interest shall become immediately owing, and the EPA is authorized to recover the following amounts.

a. Interest. Interest begins to accrue from the Filing Date. If the Assessed Penalty is paid in full within thirty (30) days, interest accrued is waived. If the Assessed Penalty is not paid in full within thirty (30) days, interest will continue to accrue until any unpaid portion of the Assessed Penalty as well as any interest, penalties, and other charges are paid in full. Per 42 U.S.C. § 7413(d)(5), interest will be assessed pursuant to 26 U.S.C. § 6621(a)(2), that is, the IRS standard underpayment rate, equal to the Federal short-term rate plus 3 percentage points.

b. Handling Charges. The United States' enforcement expenses including, but not limited to, attorneys' fees and costs of handing collection.

c. Late Payment Penalty. A ten percent (10%) quarterly non-payment penalty.

95. Late Penalty Actions. In addition to the amounts described in the prior Paragraph, if Respondent fails to timely pay any portion of the Assessed Penalty, interest, or other charges and penalties per this Agreement, the EPA may take additional actions. Such actions the EPA may take include, but are not limited to, the following.

a. Refer the debt to a credit reporting agency or a collection agency, per 40 C.F.R. §§ 13.13 and 13.14.

b. Collect the debt by administrative offset (*i.e.*, the withholding of money payable by the United States government to, or held by the United States government for, a person to satisfy the debt the person owes the United States government), which includes, but is not limited to, referral to the Internal Revenue Service for offset against income tax refunds, per 40 C.F.R. Part 13, Subparts C and H.

c. Suspend or revoke Respondent's licenses or other privileges or suspend or disqualify Respondent from doing business with EPA or engaging in programs EPA sponsors or funds, per 40 C.F.R. § 13.17.

d. Request that the Attorney General bring a civil action in the appropriate district court to enforce the Final Order and recover the full remaining balance of the Assessed Penalty, in addition to interest and the amounts described above, per 42 U.S.C. § 7413(d)(5). In any such action, the validity, amount, and appropriateness of the Assessed Penalty and Final Order shall not be subject to review.

96. Allocation of Payments. Pursuant to 31 C.F.R. § 901.9(f) and 40 C.F.R. § 13.11(d), a partial payment of debt will be applied first to outstanding handling charges, second to late penalty charges, third to accrued interest, and last to the principal that is the outstanding Assessed Penalty amount.

97. Tax Treatment of Penalties. Penalties, interest, and other charges paid pursuant to this Agreement shall not be deductible for purposes of federal taxes.

98. Pursuant to 26 U.S.C. § 6050X and 26 C.F.R. § 1.6050X-1, EPA is required to send to the Internal Revenue Service ("IRS") annually, a completed IRS Form 1098-F ("Fines, Penalties, and Other Amounts") with respect to any court order or settlement agreement (including administrative settlements), that require a payor to pay an aggregate amount that EPA reasonably believes will be equal to, or in excess of, $50,000 for the payor's violation of any law or the investigation or inquiry into the payor's potential violation of any law, including amounts paid for "restitution or remediation of property" or to come "into compliance with a law." EPA is further required to furnish a written statement, which provides the same information provided to the IRS, to each payor (*i.e.*, a copy of IRS Form 1098-F). Failure to comply with providing IRS Form W-9 or

Tax Identification Number ("TIN"), as described below, may subject Respondent to a penalty, per 26 U.S.C. § 6723, 26 U.S.C. § 6724(d)(3), and 26 C.F.R. § 301.6723-1. In order to provide EPA with sufficient information to enable it to fulfill these obligations, EPA herein requires, and Respondent herein agrees, that:

a. Respondent shall complete an IRS Form W-9 ("Request for Taxpayer Identification Number and Certification"), which is available at https://www.irs.gov/pub/irs-pdf/fw9.pdf;

b. Respondent shall therein certify that its completed IRS Form W-9 includes Respondent's correct TIN or that Respondent has applied and is waiting for issuance of a TIN;

c. Respondent shall email its completed Form W-9 to EPA's Cincinnati Finance Center at wise.milton@epa.gov, on or before the date that Respondent's penalty payment is due, pursuant to Paragraph 91 of the CAFO, or within 30 days after the Final Order ratifying this Agreement is filed, and EPA recommends encrypting IRS Form W-9 email correspondence; and

d. In the event that Respondent has certified in its completed IRS Form W-9 that it does not yet have a TIN but has applied for a TIN, Respondent shall provide EPA's Cincinnati Finance Center with Respondent's TIN, via email, within five (5) days of Respondent's receipt of a TIN issued by the IRS.

99. By signing this CAFO, Respondent consents to the release of any information in this CAFO to the public and agrees this CAFO does not contain business information that is entitled to confidential treatment under 40 C.F.R. Part 2.

100. By signing this CAFO, the undersigned representative of the EPA and the undersigned representative of Respondent each certify that they are fully authorized to execute and enter into the terms and conditions of this CAFO and have the legal capacity to bind the party they represent to this CAFO.

101. By signing this CAFO, Respondent certifies the information it has supplied concerning this matter was at the time of submission true, accurate, and complete for each such submission, response, and statement. Respondent acknowledges that, under 18 U.S.C. § 1001, there are

significant penalties for submitting false or misleading information, including the possibility of fines and imprisonment for knowing submission of such information.

102. Each party shall bear its own attorney's fees, costs, and disbursements incurred in this proceeding, except in the case of a civil action brought by the Attorney General of the United States to recover unpaid penalties as described above.

G. Effect of Consent Agreement and Attached Final Order

103. The parties consent to service of this CAFO by e-mail at the following e-mail addresses: grueterich.sophie@epa.gov (for the EPA), and sdunkle@pvschemicals.com (for Respondent).

104. In accordance with 40 C.F.R. § 22.18(c), completion of the terms of this CAFO resolves only Respondent's liability for federal civil penalties for the violations specifically alleged in this CAFO.

105. This CAFO constitutes the entire agreement and understanding of the parties and supersedes any prior agreements or understandings, whether written or oral, among the parties with respect to this matter with the exception of the Administrative Compliance Order, docket number EPA-5-25-113(a)-IL-4 issued concurrently.

106. The terms, conditions, and compliance requirements of this CAFO may not be modified or amended except upon the written agreement of both parties and approval of the Regional Judicial Officer.

107. The provisions of this Agreement shall apply to and be binding upon Respondent and its officers, directors, authorized representatives, successors, and assigns.

108. Any violation of this CAFO may result in a civil judicial action for an injunction or civil penalties of up to $124,426 per day per violation, or both, as provided in Section 113(b) of the CAA, 42 U.S.C. § 7413(b), and 40 C.F.R. § 19.4, as well as criminal sanctions as provided in Section 113(c)

of the CAA, 42 U.S.C. § 7413(c). The EPA may use any information submitted under this CAFO in an administrative, civil judicial, or criminal action.

109. Nothing in this CAFO relieves Respondent of the duty to comply with all applicable provisions of the CAA and other federal, state, or local laws or statutes, nor does it restrict the EPA's authority to seek compliance with any applicable laws or regulations, nor is it a ruling on, or determination of, any issue related to any federal, state, or local permit.

110. Nothing in this CAFO limits the power of the EPA to undertake any action against Respondent or any person in response to conditions that may present an imminent and substantial endangerment to the public health, welfare, or the environment.

111. The EPA reserves the right to revoke this CAFO and settlement penalty if and to the extent that the EPA finds, after signing this CAFO, that any information provided by Respondent was materially false or inaccurate at the time such information was provided to the EPA, and to assess and collect any civil penalties permitted by statute for any violation described herein. The EPA will give Respondent written notice of its intent to revoke this CAFO, which will not be effective until received by Respondent.

H. Effective Date

112. This CAFO will be effective on the date of filing with the Regional Hearing Clerk. Upon filing, the EPA will transmit a copy of the filed CAFO to Respondent.

PVS Chemical Solutions, Inc., Respondent

07/30/2025
Date

Sean Dunkle
Digitally signed by Sean Dunkle
Date: 2025.07.30 05:57:38 -05'00'

Sean Dunkle
Plant Manager
PVS Chemical Solutions, Inc.

United States Environmental Protection Agency, Complainant

MICHAEL HARRIS

Digitally signed by MICHAEL HARRIS
Date: 2025.08.06 09:25:20 -05'00'

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

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.

ANN COYLE Digitally signed by ANN COYLE Date: 2025.08.06 15:04:27 -05'00'

_____ _____

Date

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