UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 3

In the Matter of:

BAE Systems Ordnance Systems Inc.
Radford Army Ammunition Plant
4050 Peppers Ferry Road
Radford, VA 24143,

Respondent.

Radford Army Ammunition Plant
4050 Peppers Ferry Road
Radford, VA 24143,

Facility.

Administrative
Compliance Order on Consent
EPA Docket No. CAA-03-2024-0042DA

ADMINISTRATIVE COMPLIANCE ORDER ON CONSENT

A. PRELIMINARY STATEMENT

1. This Administrative Compliance Order on Consent ("Order") is issued under the authority vested in the Administrator of the U.S. Environmental Protection Agency (EPA) by Section 113(a)(3) and (4) of the Clean Air Act (the "Act" or the "CAA"), 42 U.S.C. § 7413(a)(3) and (4). Under Section 113(a)(3)(B) of the Act, the Administrator of the EPA has the authority to issue orders requiring any person who is in violation of certain sections of the CAA, including Section 112(r)(1) and (7), 42 U.S.C. § 7412(r)(1) and (7), to comply with such requirements of the CAA.

2. On the EPA's behalf, the Director of the Enforcement & Compliance Assurance Division is delegated the authority to issue this Order under Section 113(a) of the Act.
3. Respondent is BAE Systems Ordnance Systems Inc. ("BAE Systems OSI" or "BAE"), a corporation doing business in the Commonwealth of Virginia. Respondent is a "person" as defined in Section 302(e) of the Act, 42 U.S.C. § 7602(e).
4. Respondent neither admits nor denies the allegations set forth in Section C (Findings of the EPA), stated below, and will not contest the EPA's authority or jurisdiction to issue or enforce the provisions of this Order.

B. STATUTORY AND REGULATORY BACKGROUND

5. On November 15, 1990, the President signed into law the Clean Air Act Amendments of 1990. The Clean Air Act Amendments added Section 112(r) to the Act, 42 U.S.C. § 7412(r), which requires the Administrator of the EPA to, among other things, promulgate regulations in order to prevent accidental releases of certain substances listed pursuant to Section 112(r)(3) of the Act, 42 U.S.C. § 7412(r)(3).
6. Pursuant to Section 112(r)(1) of the Act, 42 U.S.C. § 7412(r)(1), also known as the "General Duty Clause," the owners and operators of stationary sources producing, processing, handling or storing substances listed pursuant to Section 112(r)(3) of the CAA, 42 U.S.C. § 7412(r)(3), or any other extremely hazardous substance have a general duty, in the same manner and to the same extent as 29 U.S.C. § 654, to identify hazards which may result from accidental releases of such substances using appropriate hazard assessment techniques, to design and maintain a safe facility taking such steps as are

necessary to prevent releases, and to minimize the consequences of accidental releases which do occur.

7. Section 112(r)(3) of the Act, 42 U.S.C. § 7412(r)(3), mandates the Administrator to promulgate a list of regulated substances, with threshold quantities, and defines the stationary sources that will be subject to the accident prevention regulations mandated by Section 112(r)(7) of the Act, 42 U.S.C. § 7412(r)(7). Specifically, Section 112(r)(7) requires the Administrator to promulgate regulations that address release prevention, detection, and correction requirements for these listed regulated substances. The list of regulated substances and threshold levels is codified at 40 C.F.R. § 68.130.
8. On June 20, 1996, the EPA promulgated a final rule known as the Chemical Accident Prevention Provisions, 40 C.F.R. Part 68 (the "Risk Management Program Regulations" or "RMP Regulations"), which implements Section 112(r)(7) of the Act, 42 U.S.C. § 7412(r)(7). The RMP Regulations require owners and operators of stationary sources to develop and implement a risk management program that includes a hazard assessment, a prevention program, and an emergency response program. The risk management program is described in a risk management plan that must be submitted to the EPA. The risk management plan must include a hazard assessment to assess the potential effects of an accidental release of any regulated substance, a program for preventing accidental releases of hazardous substances, and a response program providing for specific actions to be taken in response to an accidental release of a regulated substance, so as to protect human health and the environment.

9. Pursuant to Section 112(r)(7)(B)(iii) of the Act, 42 U.S.C. § 7412(r)(7)(B)(iii), and its RMP Regulations at 40 C.F.R. § 68.10(a) and 68.150(a), the owner or operator of a stationary source at which a regulated substance is present in more than a threshold quantity must submit a risk management plan to the EPA no later than the latter of June 21, 1999, or the date on which a regulated substance is first present above the threshold quantity in a process.
10. Section 112(r)(2)(C) of the Act, 42 U.S.C. § 7412(r)(2)(C), defines "stationary source," as "any buildings, structures, equipment, installations, or substance emitting stationary activities (i) which belong to the same industrial group, (ii) which are located on one or more contiguous properties, (iii) which are under the control of the same person (or persons under common control), and (iv) from which an accidental release may occur."
11. Section 302(e) of the Act, 42 U.S.C. § 7602(e), defines "person" as including an individual, corporation, partnership, association, State, municipality, political subdivision of a State and any agency, department, or instrumentality of the United States and any officer, agent, or employee thereof.
12. The General Duty Clause applies to any stationary source producing, processing, handling, or storing regulated substances, as defined above, or other extremely hazardous substance ("EHS"). An EHS is any chemical which may, as a result of short-term exposures because of releases to the air, cause death, injury or property damage due to their toxicity, reactivity, flammability, volatility or corrosivity. EHSs include regulated substances listed pursuant to Section 112(r)(3) of the Act, 42 U.S.C. § 7412(r)(3), at 40 C.F.R. § 68.130, and chemicals on the list of extremely hazardous

substances published under the Emergency Planning and Community Right-to-Know Act of 1986, 42 U.S.C. §§ 11001 et seq., at 40 C.F.R. Part 355, and may include the Facility's proprietary chemicals as well.

13. The term "process" is defined at 40 C.F.R. § 68.3 to mean, in relevant part, any activity involving a regulated substance including any use, storage, manufacturing, handling, or on-site movement of such substances or combination of these activities. For purposes of this definition, any group of vessels that are interconnected, or separate vessels that are located such that a regulated substance could be involved in a potential release, shall be considered a single process.
14. The RMP Regulations at 40 C.F.R. § 68.3 define "threshold quantity" as the quantity specified for regulated substances pursuant to Section 112(r)(5) of the Act, 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.
15. The RMP Regulations at 40 C.F.R. § 68.3 define "regulated substance" as any substance listed pursuant to Section 112(r)(3) of the CAA in 40 C.F.R. § 68.130.
16. As used herein, the term "day" shall mean calendar day.
17. All terms not defined herein shall have the meanings set forth in the Act.

C. FINDINGS OF THE EPA

18. BAE Systems OSI is the operator of the Radford Army Ammunition Plan (RFAAP), which is a Government Owned Contractor Operated (GOCO) facility located at 4050 Peppers Ferry Road, Radford, VA 24143 ("Facility"). Respondent uses and stores toxic and flammable chemicals at the Facility.

19. The U.S. Army is the owner of RFAAP. RFAAP produced energetic material used in U.S. military ammunition and explosives. It was constructed in 1940 in support of U.S. efforts in World War II and remains in operation to this day. Radford has been operated by other contractors prior to BAE Systems' becoming the operator on July 1, 2012.
20. According to a report made to the National Response Center on February 7, 2022, an ammonia (anhydrous) release took place at the Facility on that date. Respondent has stated to the EPA that the release appears to have occurred due to the failure of a heat exchanger upstream from an ammonia refrigeration system. Respondent has stated to the EPA that the refrigeration system involved in the release has been offline since that date and currently locked out and tagged out, and requires refurbishment before it can be restarted. Respondent has stated to the EPA that Respondent has not used ammonia in this process area since February 7, 2022.
21. On July 16, 2023, the EPA sent an information request letter pursuant to Section 114 of the CAA to collect information to determine compliance with Section 112(r) of the Act at the Facility. BAE submitted an interim response on August 24, 2023, and a final response on September 21, 2023.
22. EPA conducted an inspection of the Facility on August 29-30, 2023 ("Inspection"), to investigate the circumstances of the February 7, 2022, anhydrous ammonia release and determine Respondent's compliance with CAA Section 112(r)(1) and (7) and the RMP Regulations.
23. As required by the RMP Regulations at 40 C.F.R. § 68.150, Respondent submitted to the EPA an initial risk management plan for the Facility on April 8, 1999. Respondent

submitted updated risk management plans for the Facility on June 23, 2004, October 19, 2010, October 15, 2015, and October 11, 2020.

24. According to the October 11, 2020, risk management plan for the Facility, Respondent has the capacity to handle a maximum of approximately 3,432,255 pounds of oleum (fuming sulfuric acid), Chemical Abstract Service ("CAS") number 8014-95-7; 273,000 pounds of ammonia (anhydrous), CAS number 7664-41-7; 1,682,860 pounds of ethyl ether, CAS number 60-29-7; and 4,735,105 pounds of nitric acid, CAS number 7697-37-2, at the Facility.
25. The substances oleum (fuming sulfuric acid), ammonia (anhydrous), and nitric acid are regulated toxic substances for purposes of Section 112(r)(7) of the CAA, 42 U.S.C. § 7412(r)(7), and the substance ethyl ether is a regulated flammable substance for purposes of Section 112(r)(7) of the CAA, 42 U.S.C. § 7412(r)(7), because each chemical is listed pursuant to Section 112(r)(3) of the CAA, at 40 C.F.R. § 68.130.
26. The threshold quantity for the regulated toxic substance oleum (fuming sulfuric acid) is 10,000 pounds pursuant to 40 C.F.R. § 68.130, Table 1 and Table 2. The threshold quantity for the regulated toxic substance ammonia (anhydrous) is 10,000 pounds pursuant to 40 C.F.R. § 68.130, Table 1 and Table 2. The threshold quantity for the regulated toxic substance nitric acid is 15,000 pounds pursuant to 40 C.F.R. § 68.130, Table 1 and Table 2. The threshold quantity for the regulated flammable substance ethyl ether is 10,000 pounds pursuant to 40 C.F.R. § 68.130, Table 3 and Table 4.
27. More than a threshold quantity of a regulated substance is present in a process at the Facility.

28. The Facility is a "stationary source" pursuant to Section 112(r)(2)(C) of the CAA, 42 U.S.C. § 7412(r)(2)(C).
29. Respondent has stated to the EPA that BAE Systems OSI has been the operator of a "stationary source" since July 1, 2012.
30. Respondent is subject to the requirements of Section 112(r)(7) of the CAA, 42 U.S.C. § 7412(r)(7), and 40 C.F.R. Part 68, at the Facility because BAE Systems OSI is the operator of a stationary source that has more than a threshold quantity of a regulated substance in a process.
31. Based on information collected by the EPA during the Inspection, the EPA determined that Respondent did not comply with the RMP Regulations as set forth in paragraphs 32-41 below.

Process Safety Information

32. The EPA determined that Respondent failed to document that the equipment at the Facility complies with recognized and generally accepted good engineering practices, in accordance with 40 C.F.R. § 68.65(d)(2), by ensuring compliance with the following industry codes and standards.
    a. According to American National Standards Institute/Compressed Gas Association ("ANSI/CGA") G-2.1—2014, *Requirements for The Storage and Handling of Anhydrous Ammonia*, Sixth Edition, Section 5.12, "[a]boveground uninsulated containers should have a reflective surface maintained in good condition." At the Inspection and upon review of photographs taken at the Inspection, the EPA inspectors observed some paint peeling on the ammonia storage tanks in the

ammonia storage tank area, resulting in surface corrosion. Therefore, the EPA concludes that the ammonia tanks were not maintained in accordance with the standard.

b. According to American Society of Mechanical Engineers ("ASME") A13.1-2015, *Scheme for the Identification of Piping Systems*, Sections 3.1-3.4, process piping for hazardous materials including ammonia, oleum, nitric acid, and ethyl ether must be labeled with arrows to indicate the direction of flow. In addition, "[c]ontents shall be identified by a legend with sufficient additional details such as temperature, pressure, etc., as are necessary to identify the hazard… Legends shall be applied close to valves or flanges and adjacent to changes in direction, branches, and where pipes pass through walls or floors; and at intervals on straight pipe runs sufficient for identification." (3.1) "Color should be used to identify the characteristic hazards of the contents." (3.2) "Where pipelines are located above or below the normal line of vision, the lettering shall be placed below or above the horizontal centerline of the pipe." (3.3) Section 3.4 requires contrast between the color field and the legend for readability and gives requirements for the size of the letters.

    i. At the Inspection, the EPA inspectors did not observe proper labeling with arrows, legends, and lettering on the ammonia process piping and the ammonia scrubber area process piping. Labels were missing from the pipes in some places, and existing labels were heavily worn down.

Therefore, the EPA concludes that the piping was not labeled in accordance with the standard.

ii. At the Inspection, the EPA inspectors did not observe proper labeling with arrows, legends, and lettering on the oleum tank area process piping. The majority of the required labels were missing; certain points were only marked with the name of the substance but did not have any other information; and the labels were fewer and more spaced out than required. Therefore, the EPA concludes that the piping was not labeled in accordance with the standard.

iii. At the Inspection, the EPA inspectors did not observe proper labeling with arrows, legends, and lettering on the nitric acid tank area process piping. Labeling was missing from the piping. Therefore, the EPA concludes that the piping was not identified in accordance with the standard.

iv. At the Inspection, the EPA inspectors did not observe proper labeling with arrows, legends, and lettering on the process piping in the ethyl ether storage tank areas containing active tanks S9 and S10. The pipes were not labeled clearly or on consistent intervals, and some labeling was spray painted on and difficult to find. Therefore, the EPA concludes that the piping was not labeled in accordance with the standard.

c. According to the National Fire Protection Association ("NFPA") 55, *Compressed Gases and Cryogenic Fluids Code*, 2016, Section 7.1.7.4.1, piping systems must be

marked according to ASME A13.1 (see paragraph 32.b., above), or other applicable approved standards, at each critical process control valve and at a minimum of every 20 feet throughout the piping run. At the Inspection, the EPA inspectors did not observe labeling at each critical process control valve and at a minimum of every 20 feet throughout the piping run in piping systems in the ammonia storage area. Therefore, the EPA concludes that the characteristic hazards of gas contents in piping systems in the ammonia storage area were not identified in accordance with the standard.

d. The American Society of Mechanical Engineers Boiler and Pressure Vessel Code ("ASME BPVC") 2023, Section VII Division I Part UG-119, provides: "Nameplates shall be used on vessels except when markings are directly applied in accordance with UG-118. Nameplates shall be metal suitable for the intended service and shall bear the markings called for in UG-116. The marking arrangement shall be substantially as shown in Figure UG-118. Required nameplates shall be located in a conspicuous place on the vessel." At the Inspection, the EPA inspectors did not observe any identifying vessel nameplate on the oleum tank in the oleum tank area. Therefore, at the time of the Inspection, the EPA concludes that the tank was not marked in accordance with the standard.

e. According to API, *Piping Inspection Code: In-service Inspection, Rating, Repair, and Alteration of Piping Systems*, API 570, Fourth Edition, February 2016, Sections 3.1.29 and 5.8, a visual inspection from the outside of a piping system is required, in part, "to find conditions that compromise the integrity of the coating

and insulation covering, the supporting structures and attachments (e.g., … pipe supports…).” (3.1.29) Section 5.8 requires consideration of inspection for CUI for externally-insulated carbon and low alloy piping operating between 10°F and 350°F. Under Section 5.8, considerations for insulation removal include “history of CUI for the specific piping system or comparable piping systems;” “visual condition of the external covering and insulation;” “evidence of areas with wet insulation;” and “potential for the type of insulation to absorb/hold more water.” At the Inspection, the EPA inspectors observed the ammonia scrubber area piping insulation in a state of severe deterioration. The insulation was also deteriorating on the supporting structures of the piping. The EPA inspectors further observed that the ammonia piping was bent in certain areas. If Respondent had been undertaking inspections in accordance with the standard, Respondent would have observed the deteriorated insulation. Therefore, the EPA concludes that Respondent failed to properly perform inspections of the ammonia scrubber area piping insulation in accordance with the standard.

f. According to ANSI/CGA G-2.1 -2014, *Requirements for The Storage and Handling of Anhydrous Ammonia*, Sixth Edition, Section 5.6.3, “[a]ll piping shall be supported in accordance with good piping practices, and provisions shall be made as necessary for expansion, contraction, impact, vibration, and settling.” At the Inspection, the EPA inspectors observed that the ammonia piping directed toward the scrubber area was bent or misshapen. Therefore, the EPA concludes that the piping was not properly maintained in accordance with the standard.

g. American National Standards Institute/International Safety Equipment Association ("ANSI/ISEA") Z358.1-2014, *American National Standard for Emergency Eyewash and Shower Equipment*, Sections 1-2, 3, 5.1, 5.4.2, provides minimum performance, use, installation, test procedures, maintenance, and training requirements for eyewash and shower equipment for emergency treatment of the eyes or body of a person exposed to a hazardous material. (1-2) A hazardous material is defined in the standard as "[a]ny substance or compound that has the capability of producing adverse effects on the health and safety of humans." (3) Section 5.1 requires that "[a] means shall be provided to ensure that a controlled flow of flushing fluid is provided to both eyes simultaneously at a velocity low enough to be non-injurious to the user." (5.1.1) Section 5.4.2 requires that the eyewash shall "[b]e in accessible locations that require no more than 10 seconds to reach. The eyewash shall be located on the same level as the hazard and the path of travel shall be free of obstructions that may inhibit its immediate use." At the Inspection, the EPA inspectors did not observe any eyewash station in the ethyl ether scale area. Ethyl ether is a substance that has the capability of producing adverse effects on the health and safety of humans. Therefore, the EPA concludes that Respondent did not provide a means of flushing eyes by locating an eyewash station near the ethyl ether scale area in accordance with the standard. Since the time of the Inspection, Respondent has provided to the EPA a photograph of an eyewash station installed in the scale area. Pursuant to Sections 5.1.6, 5.4.2, and 8.1.2, the

eyewash station in the photograph satisfies the standard only if the eyewash station is capable of delivering flushing fluid to the eyes at a rate not less than 1.5 liters per minute for 15 minutes; is protected from extreme temperatures; and if the scale area has a personal wash station within a 10 second reach.

h. According to API, *Piping Inspection Code: In-service Inspection, Rating, Repair, and Alteration of Piping Systems*, API 570, Fourth Edition, February 2016, Sections 3.1.29, 5.4.1, and 5.5.5, external inspections must be done, which, in part, are "intended to find conditions that compromise the integrity of the coating and insulation covering, the supporting structures and attachments (e.g., …. pipe supports…)." (3.1.29) An example of a common damage mechanism is soil corrosion, which can be identified by an inspection technique in API 571 Section 4.3.9. (5.4.1) "External inspections shall include surveys for the condition of piping hangers and supports." (5.5.5) At the Inspection, the EPA inspectors observed that the ethyl ether storage tank flanges had debris underneath, which can lead to soil and air interface and cause corrosion. The piping was not properly painted. If Respondent had been undertaking inspections in accordance with the standard, Respondent would have observed the debris beneath the flanges and corrosion. Therefore, the EPA concludes that Respondent failed to properly perform inspections of the ethyl ether storage tank piping in accordance with the standard.

i. According to NFPA 30 Section 24.5, "Storage tank buildings shall be constructed so as to maintain structural integrity for 2 hours under fire exposure conditions

and to provide access and egress for unobstructed movement of all personnel and fire protection equipment." (24.5.1) "Buildings or structures shall be of at least 2-hour fire resistance rating." (24.5.2) In a written response to the EPA on January 31, 2024, Respondent stated that [redacted]. Class 1A-1B flammable liquids meet the degree of flammability hazard criteria of 3. The EPA notes that Class 1A/1B liquids are subject to NFPA 30. In a written response to the EPA on February 22, 2024, Respondent stated that the [redacted]. Therefore, the EPA concludes that the Wet End Building is not properly maintained in accordance with the standard.

j. According to the 2021 International Fire Code ("IFC"), Section 703.1, "[m]aterials and firestop systems used to protect membrane and through penetrations in *fire-resistance-rated* construction and construction installed to resist the passage of smoke shall be maintained. The materials and firestop systems shall be securely attached to or bonded to the construction being penetrated with no openings visible through or into the cavity of the construction." (emphasis in original) At the Inspection, the EPA inspectors observed that the ethyl ether piping in the T-7 and T-8 tank area pierced the wall of the building holding condensate tanks, but the pipe was not sealed to the wall at the penetration. Therefore, the EPA concludes that piping wall penetration was not properly maintained in accordance with the standard.

Process Hazard Analysis

33. The RMP Regulations at 40 C.F.R. § 68.67(e) require that the owner or operator shall establish a system to promptly address the Process Hazard Analysis ("PHA") team's findings and recommendations; assure that the recommendations are resolved in a timely manner and that the resolution is documented; document what actions are to be taken; complete actions as soon as possible; develop a written schedule of when these actions are to be completed; communicate the actions to operating, maintenance and other employees whose work assignments are in the process and who may be affected by the recommendations or actions.

34. When the EPA inspectors reviewed the Facility's report titled "Anhydrous Ammonia Process Hazard Analysis – 2020 PHA Revalidation," the EPA inspectors found that the reports [redacted]:

    a. [redacted]

    b. [redacted].

When the EPA inspectors reviewed the Facility's report titled "Solvent Area Process Hazard Analysis – 2020 PHA Revalidation," the EPA inspectors found that the report [redacted]:

    c. [redacted]

[redacted]

When the EPA inspectors reviewed the Facility's 2020 Acid PHA report, the EPA inspectors found that the report [redacted]:

d. [redacted]

e. [redacted]

f. [redacted] –

[redacted]

At Inspection, the EPA inspectors observed peeling paint on the ammonia tanks and piping. Therefore, the EPA concludes that Respondent failed to establish a system to promptly address the PHA team's findings and recommendations; assure that the recommendations were resolved in a timely manner and that the resolution was documented; document what actions were to be taken; complete actions as soon as possible; develop a written schedule of when these actions were to be completed; communicate the actions to operating, maintenance and other employees whose work assignments were in the process and who may be affected by the recommendations or actions, in violation of the RMP Regulations.

35. The RMP Regulations at 40 C.F.R. § 68.67(c)(1) require that the PHA shall address the hazards of the process. At Inspection, the EPA inspectors observed that ammonia piping was misshapen. The EPA's review of the Facility's 2020 ammonia PHA found that section 4.5 stated that "[redacted]" Had the piping been properly engineered for these factors, the piping would not have been observed to be misshapen at Inspection. Therefore, the EPA concludes that the PHA did not adequately address the hazards of the process, in violation of the RMP Regulations.

Mechanical Integrity

36. Pursuant to 40 C.F.R. § 68.73(b), the owner or operator must establish and implement written procedures to maintain the mechanical integrity of process equipment. Respondent provided the EPA inspectors with documents which describe the Facility's written procedures, including a document titled "Management Manual – Mechanical Integrity Program" ("Management Manual") and a document titled "Maintenance Plan for Radford Army Ammunition Plant" ("Maintenance Plan"). Respondent provided the EPA inspectors with an assessment of its mechanical integrity program which was prepared by a contractor, Trinity, in 2021. Upon review of the mechanical integrity assessment report, the EPA inspectors found that Respondent had not implemented the written procedures for the Facility in numerous ways, including the following:

    a. [redacted]

[redacted] (pp. 2-3 of the Management Manual) The mechanical integrity assessment found that [redacted] (Section 3.7, p. 3-2 of the mechanical integrity program assessment report)

b. [redacted] (p. 1 of the Management Manual) The mechanical integrity assessment found that [redacted] (Section 3.4, p. 3-1 of the mechanical integrity program assessment report)

c. [redacted]

[redacted] (p. 13 of the Maintenance Plan) The mechanical integrity assessment found that [redacted] (Section 3.3, p. 3-1 of the mechanical integrity assessment report)

EPA inspectors also reviewed a sampling of work orders Respondent provided for maintenance work done on the processing equipment. In addition, at Inspection, the EPA inspectors' observations indicated that Respondent did not follow RAGAGEPs in its preventative maintenance, as required by the Management Manual. In addition, Respondent did not provide the EPA inspectors with evidence that the recommendations from the mechanical integrity assessment report had been implemented after the assessment. Finally, as described in paragraphs 39-40 below (Compliance Audits section), the EPA inspectors reviewed information from compliance audits conducted in 2017 and 2020. As described below, the compliance audits and the EPA's investigation indicated that Respondent did not implement the recommendations from the compliance audits, and the concerns were ongoing at the time of Inspection. Therefore, based on the Inspection and subsequent investigation, the EPA concludes that Respondent failed to implement written procedures to maintain the mechanical integrity of process equipment, in violation of the RMP Regulations.

37. Pursuant to 40 C.F.R. § 68.73(d), the owner or operator must perform inspections and tests on process equipment. During the EPA's investigation, Respondent provided records of its inspections of tanks S9 and S10. EPA review found that the records did not contain a section for inspection of the emergency vents for the tanks. Therefore, the EPA concludes that Respondent did not perform inspections on the emergency vents, in violation of the RMP Regulations.

38. Pursuant to 40 C.F.R. § 68.73(c), the owner or operator must train each employee involved in maintaining the on-going integrity of process equipment in an overview of that process and its hazards and in the procedures applicable to the employee's job tasks to assure that the employee can perform the job tasks in a safe manner. The mechanical integrity assessment report found that [redacted] ." (p. 6 of the 2021 mechanical integrity assessment, [redacted] Respondent did not provide the EPA inspectors with evidence that this training had been conducted after this assessment. Therefore, the EPA concludes that Respondent did not properly train its employees, in violation of the RMP Regulations.

Compliance Audits

39. The RMP Regulations at 40 C.F.R. § 68.79(d) require that the owner or operator promptly determine and document an appropriate response to each of the findings of the compliance audit, and document that deficiencies have been corrected. Upon review of a compliance audit for the Facility completed in 2017, an RMP inspection

report for the Facility completed in 2019, and a compliance audit completed in 2020, the EPA inspectors concluded that numerous recommended action items had not been completed promptly, as they remained ongoing issues at the EPA's 2023 Inspection. These action items included the following:

a. The RMP Regulations at 40 C.F.R. § 68.65(d)(2) require that the owner or operator document that equipment complies with RAGAGEP. 40 C.F.R. § 68.65(d)(3) provides that, for existing equipment designed and constructed in accordance with codes, standards, or practices that are no longer in general use, the owner or operator determine and document that the equipment is designed, maintained, inspected, tested, and operating in a safe manner. The 2017 compliance audit noted that "[redacted]." (p. 3 of Appendix A to the 2017 compliance audit, PSM Compliance Audit Protocol with Findings) The 2020 compliance audit determined that [redacted] (p. 6 of Attachment 1 to the 2020 compliance audit, USEPA RMP Audit Checklist with Findings) The 2020 compliance audit also found that [redacted]

[redacted]. (p. 6 of Attachment 1 to the 2020 compliance audit, the USEPA RMP Audit Checklist with Findings) Therefore, the EPA concludes that Respondent violated the RMP Regulations at both 40 C.F.R. § 68.65(d)(2) and (3) and 40 C.F.R. § 68.79(d).

b. The RMP Regulations at 40 C.F.R. § 68.73(d)(2) require that inspection and testing procedures follow RAGAGEP. The 2017 compliance audit noted that [redacted] (p. 10 of Appendix A to the 2017 compliance audit, PSM Compliance Audit Protocol with Findings) The 2020 compliance audit determined that [redacted] (p. 2 of the 2020 compliance audit) [redacted]" (p. 11 of Attachment 1 to the 2020 compliance audit, the USEPA RMP Audit Checklist with Findings) Therefore, the EPA concludes that Respondent violated the RMP Regulations at both 40 C.F.R. § 68.73(d)(2) and 40 C.F.R. § 68.79(d).

c. The RMP Regulations at 40 C.F.R. § 68.73(f)(3) require that the owner or operator assure that maintenance materials, spare parts and equipment are suitable for the process application for which they will be used. The 2017

compliance audit noted that [redacted]

[redacted]

[redacted]" (p. 11 of Appendix A to the 2017 compliance audit, PSM Compliance Audit Protocol with Findings) The 2020 compliance audit determined that "[redacted]

[redacted]

[redacted]

[redacted]

[redacted]" (p. 11 on the compliance audit checklist) Therefore, the EPA concludes that Respondent violated the RMP Regulations at both 40 C.F.R. § 68.73(f)(3) and 40 C.F.R. § 68.79(d).

40. Respondent's failure to comply with the requirements as set out in paragraph 39 is a violation of Respondent's obligation to comply with the compliance audit requirements in the RMP Regulations.

Training

41. The RMP Regulations at 40 C.F.R. § 68.71 require each employee presently involved in an operating process, and each employee before being involved in operating a newly assigned process, to be trained in an overview of the process and in the operating procedures; 40 C.F.R. § 68.71 also requires refresher training and documentation of training. EPA's investigation indicated ether peroxide crystals forming in ethyl ether piping areas, including area M10. Ether peroxide is a dangerous byproduct of ethyl

ether, and the presence of crystals could indicate a release. Respondent has indicated that the [redacted] Therefore, the EPA concludes that Respondent failed to properly train its employees in the ethyl ether process in accordance with the standard.

General Duty Clause

42. The February 7, 2022, ammonia (anhydrous) release took place in a part of the Facility that uses ammonia (anhydrous) below the threshold quantity level for the RMP Regulations. This area of the Facility is therefore subject to the General Duty Clause, Section 112(r)(1) of the CAA, 42 U.S.C. § 7412(r)(1).

43. According to American National Standards Institute/American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc. ("ANSI /ASHRAE") 15-2013, *Safety Standard for Refrigeration Systems*, Section 8.11.4, and the American National Standards Institute/International Institute of Ammonia Refrigeration ("ANSI/IIAR") 9-2020, *Standard for Minimum System Safety Requirements for Exiting Closed-Circuit Ammonia Refrigeration Systems*, Section 7.3.13.3, provision must be made for inlet air to replace the air being exhausted, and "[o]penings for inlet air shall be positioned to avoid recirculation." (8.11.4) In addition, "[m]ake-up air supply locations in a machinery room shall prevent short circuiting of the make-up air directly to the exhaust." (7.3.13.3) At the Inspection, the EPA inspectors found that the ventilation in the machinery room in the area of the Facility described in paragraph 42 had the intake and the exhaust on the same side of the room. Therefore, the EPA concludes that there was not adequate

ventilation in the machinery room in accordance with the standard. Respondent has stated to the EPA that the ammonia system in the machinery room is currently offline.

44. According to ANSI/IIAR 9-2020, *Standard for Minimum System Safety Requirements for Exiting Closed-Circuit Ammonia Refrigeration Systems*, Section 7.3.6.2, and ANSI/ASHRAE 15-2013, *Safety Standard for Refrigeration Systems*, Section 8.12.f, "[p]ipes penetrating the machinery room envelope shall be sealed to walls, ceilings, or floors through which they pass to prevent leakage of ammonia vapor to adjoining spaces and to maintain the fire rating of the machinery room envelope" (7.3.6.2), and "[a]ll pipes piercing the interior walls, ceiling, or floor of such rooms shall be tightly scaled to the walls, ceiling, or floor through which they pass." (8.12.f) At Inspection, the EPA inspectors found that the pipe penetrations in the ammonia machinery room in the area of the Facility described in paragraph 42 were not sealed. Therefore, the EPA concludes that the pipe penetrations were not maintained in accordance with the standard. Respondent has stated to the EPA that the ammonia system in the machinery room is currently offline.

45. Sulfuric acid is an EHS under the Emergency Planning and Community Right-to-Know Act of 1986, 42 U.S.C. §§ 11001 et seq., and its regulations at 40 C.F.R. Part 355, Appendix A. All sulfuric acid piping and storage at the Facility is therefore subject to the General Duty Clause, Section 112(r)(1) of the CAA, 42 U.S.C. § 7412(r)(1).

46. According to American Society of Mechanical Engineers ("ASME") A13.1-2015, *Scheme for the Identification of Piping Systems*, Sections 3.1-3.4, process piping for hazardous materials including ammonia, sulfuric acid, oleum, nitric acid, and ethyl ether must be

labeled with arrows to indicate the direction of flow. In addition, "[c]ontents shall be identified by a legend with sufficient additional details such as temperature, pressure, etc., as are necessary to identify the hazard… Legends shall be applied close to valves or flanges and adjacent to changes in direction, branches, and where pipes pass through walls or floors; and at intervals on straight pipe runs sufficient for identification." (3.1) "Color should be used to identify the characteristic hazards of the contents." (3.2) "Where pipelines are located above or below the normal line of vision, the lettering shall be placed below or above the horizontal centerline of the pipe." (3.3) Section 3.4 requires contrast between the color field and the legend for readability and gives requirements for the size of the letters. At the Inspection, the EPA inspectors did not observe proper labeling with arrows, legends, and lettering on the sulfuric acid process piping in the sulfuric acid area. Labels were missing from the piping. Therefore, the EPA concludes that the piping was not labeled in accordance with the standard.

47. According to the American Petroleum Institute ("API"), *Piping Inspection Code: In-service Inspection, Rating, Repair, and Alteration of Piping Systems*, API 570, Fourth Edition, February 2016, Sections 3.1.29, 5.5.5, 6.3.3, and 6.4, external inspections must be done, which, in part, are "intended to find conditions that compromise the integrity of the coating and insulation covering, the supporting structures and attachments (e.g…. pipe supports…)." (3.1.29) "External inspections shall include surveys for the condition of piping hangers and supports." (5.5.5) For Class 1 circuits, such as the circuit at the Facility, the external visual inspection must be done at least every 5 years. (6.3.3, 6.4) At the Inspection, the EPA inspectors observed multiple problems with the sulfuric acid

piping. The sulfuric acid piping coating was deteriorated. Portions of the piping were supported by wooden blocks. The insulation was breached in several areas, which could cause corrosion under insulation ("CUI") if moisture becomes trapped in the insulation. If Respondent had been undertaking inspections in accordance with the standard, Respondent would have observed the insufficient piping support. Therefore, the EPA concludes that Respondent failed to properly perform inspections of the sulfuric acid process piping in accordance with the standard.

48. EPA's investigation indicates that Respondent violated the requirements of the General Duty Clause, Section 112(r)(1) of the CAA, 42 U.S.C. § 7412(r)(1), by failing to design and maintain a safe facility taking such steps as are necessary to prevent releases, and to minimize the consequences of accidental releases which do occur, as set forth in paragraphs 42-47.

D. ORDER

49. The EPA hereby issues this Order to address violations alleged by the EPA in Section C (Findings of the EPA). Respondent neither admits nor denies the Findings of the EPA set forth in Section C above. The Findings of the EPA set forth in Section C above shall not constitute or be construed as admissions by Respondent that may be relied upon for any other purpose or in any other proceeding by anyone, including the EPA.

50. In order to further evaluate Respondent's regulatory compliance, as set forth in Section C above, Respondent agrees and is so ordered to take steps to (1) identify hazards which may result from accidental releases of regulated substances and other extremely hazardous substances from the Facility, (2) design and maintain a safe Facility taking

such steps as are necessary to prevent releases, (3) minimize the consequences of accidental releases which do occur and comply with all applicable regulations in 40 C.F.R. Part 68 for a Program Level 3 facility (the "Work"). Such steps shall include, but shall not be limited to:

a. Within thirty (30) days of the effective date of this Order, identify a person(s), subject to acceptance by the EPA, to perform a third-party compliance audit of the Facility ("Audit") to determine compliance with CAA Section 112(r)(1) and (7), 42 U.S.C.§7412(r)(1), (7), and implementing regulations at 40 C.F.R. Part 68. The Audit shall include, but is not limited to:

   i. evaluation of piping network referenced in subparagraphs 32.e-f;

   ii. evaluation of Wet End Building construction for proper fire protection referenced in subparagraph 32.i;

   iii. evaluation of sealing the wall penetrated by the ethyl ether piping in the T-7 and T-8 tank area referenced in subparagraph 32.j;

   iv. evaluation of current and historical mechanical integrity program, including training, as referenced in paragraphs 36 and 38;

   v. evaluation of inspections for emergency vents referenced in paragraph 37;

   vi. evaluation of training for ethyl ether process as referenced in paragraph 41;

   vii. evaluation of whether the ammonia refrigeration machinery room was properly shut down and what would be required to bring the ammonia

refrigeration machinery back on-line, referenced in paragraphs 43-44; and

viii. review of all RMP process areas against the RMP Regulations and applicable industry standards and review of all concerns raised in the 2020 anhydrous ammonia PHA, ether solvent area PHA, and acid PHA, and the 2017 and 2020 compliance audits and 2019 RMP inspection report, to determine whether Respondent has adequately addressed these concerns at the Facility.

b. Within sixty (60) days of receipt of the EPA's written acceptance of the person competent to undertake the Audit, Respondent shall submit to the EPA for approval a report from the person approved by the EPA who completed the Audit detailing any and all recommendations resulting from the Audit ("Audit Report"). Respondent may propose for the EPA's approval an addendum to the Workplan and Schedule, required by paragraph 50.d, below, to add any recommendations from the Audit Report to the Work if such additional Work items will be completed before the one-year anniversary of the Effective Date of this Order. Respondent will forward these recommendations to the U.S. Army with copy to the EPA. The EPA reserves the right to take further enforcement action on any violations that are not addressed by Respondent under this Order due to insufficient time to complete the work before the one-year anniversary of the Effective Date of this Order or for any other reason.

c. Within thirty (30) days of the Effective Date of this Order, identify a person(s), subject to acceptance by the EPA, competent to undertake the implementation of improvements to the Facility to address the conditions described in paragraphs 32.a (paint ammonia tank), 32.b-d and 46 (pipe labeling and oleum vessel nameplate install), 32.g (install eyewash station), 32.h (address ethyl ether storage tank piping, painting, and debris beneath flanges), and 47 (replace insulation, replace wooden support, and paint pipes in sulfuric acid area) (hereinafter, the "Work"). If Respondent intends to restart the ammonia system discussed in paragraphs 42-44 before the termination of this Order, the Work shall include submission to the U.S. Army, with copy to the EPA, of funding requests needed for implementation of improvements to address the conditions identified in paragraphs 43-44. The Work shall be consistent with the safety protection provided by the industry standards referenced in paragraphs 32-48, above, and any other applicable industry codes or standards;

d. Within forty-five (45) days of receipt of the EPA's written acceptance of the person competent to undertake the Work, Respondent shall submit to the EPA for approval a workplan and schedule ("Workplan and Schedule") to undertake the Work described in subparagraph 50.c, above. Such Workplan and Schedule shall provide that the Work shall be completed no later than the one-year anniversary of the Effective Date of this Order.

e. The EPA will review the Workplan and Schedule submitted pursuant to subparagraph 50.d, above, and will either accept it or direct Respondent to make

changes and resubmit the Workplan and Schedule to the EPA within twenty (20) days;

f. Within seven (7) days of receipt of the EPA's written acceptance of the Workplan and Schedule, submitted pursuant to subparagraph 50.d, Respondent shall initiate implementation of the EPA-accepted Workplan and complete the Workplan in accordance with the EPA-accepted Schedule;

g. On the one-month anniversary of the Effective Date of this Order, and each thirty (30) days thereafter, Respondent shall submit a written monthly progress report to the EPA detailing steps taken during the preceding month to implement the Work including the EPA-accepted Workplan in accordance with the EPA-accepted Schedule;

h. Two weeks after the 11-month anniversary of the Effective Date of this Order, Respondent shall submit to the EPA, for the EPA's approval, a written report verifying that Respondent has complied with the requirements of subparagraph 50.f at the Facility and has completed the Work in accordance with the EPA-accepted Workplan and Schedule at the Facility ("Completion Report"). The Completion Report, with the following certification, shall be signed by a responsible official of Respondent, as such term is defined in paragraph 51, below:

> I certify under penalty of law that I have examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true,

accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

i. The EPA will review the Completion Report submitted pursuant to subparagraph 50.h, above, and will either approve it in writing or identify deficiencies in writing ("Notice of Work Deficiencies") and direct Respondent to correct and/or re-perform any or all Work disapproved by the EPA and resubmit the report for the EPA's approval within thirty (30) days of receiving the Notice of Work Deficiencies associated with the Completion Report.

j. Within fourteen (14) days of the Effective Date of this Order and to the extent that any part of the Work set forth in subparagraphs 50.c-d has been completed, prior to entry of this Order, Respondent shall submit to EPA, for the EPA's approval, a written report verifying the Work that has been completed consistent with the Completion Report requirements sets forth in subparagraphs 50.h (certification) and 50.i (approval) and all applicable sections of the Order.

51. Any notice, report, plan, certification, data presentation or other document submitted by Respondent under or pursuant to this Order which discusses, describes, demonstrates or supports any finding or makes any representation concerning Respondent's compliance or noncompliance with any requirement(s) of this Order shall be certified by a responsible official of Respondent. The term "responsible official" means: (i) the president, secretary or vice-president of the corporation in charge of principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing

facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. The responsible official of a partnership or sole proprietorship means the general partners or the proprietor, respectively.

52. Respondent shall provide the EPA and its representatives, including contractors and grantees, with access to the Facility for the purpose of assessing Respondent's compliance with this Order and with the Act. Respondent shall also provide the EPA and its representatives, including contractors and grantees, with access to all records relating to Respondent's implementation of this Order, and shall comply with all requests for information pertaining to this Order.
53. Respondent shall preserve all documents and information relating to the activities carried out pursuant to this Order for five (5) years after completion of the Work required by this Order. Upon request, Respondent shall provide the EPA with copies of such documents and information.
54. All documents submitted by Respondent to the EPA in the course of implementing the Order shall be available to the public unless identified as confidential by the Respondent pursuant to 40 C.F.R. Part 2, Subpart B, and determined by the EPA to require treatment as confidential business information in accordance with applicable law.

E. GENERAL PROVISIONS

55. Any violation of this Order by Respondent may result in a civil administrative or judicial action for an injunction or civil penalties of up to $55,808 per day per violation, or both,

as provided in Sections 113(b)(2) and 113(d)(1) of the Act, 42 U.S.C. §§ 7413(b)(2) and 7413(d)(1), as amended by the Debt Collection Improvement Act, as well as criminal sanctions as provided in Section 113(c) of the Act, 42 U.S.C. § 7413(c). The EPA may use any information submitted under this Order in an administrative, civil judicial, or criminal action.

56. Nothing in this Order shall relieve Respondent of the duty to comply with all applicable provisions of the Act or other federal, state or local laws or statutes, nor shall it restrict the EPA's authority to seek compliance with any applicable law or regulations, nor shall it be construed to be a ruling on, or determination of, any issue related to any federal, state, or local permit.

57. Nothing herein shall be construed to limit 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.

58. Neither the EPA nor the United States, by issuance of this Order, assumes any liability for any acts or omissions by Respondent or Respondent's employees, agents, contractors, or consultants engaged to carry out any action or activity pursuant to this Order, nor shall the EPA or the United States be held as a party to any contract entered into by Respondent or Respondent's employees, agents, contractors, or consultants engaged to carry out the requirements of this Order.

59. The provisions of this Order shall apply to and be binding upon Respondent and their officers, directors, employees, agents, trustees, servants, authorized representatives,

successors, and assigns. From the Effective Date of this Order until the Termination Date as set out in paragraph 72 below, Respondent must give written notice and a copy of this Order to any successors in interest prior to any transfer of ownership or control of any portion of or interest in the Facility. Simultaneously with such notice, Respondent shall provide written notice of such transfer, assignment, or delegation to the EPA. In the event of any such transfer, assignment, or delegation, Respondent shall not be released from the obligations or liabilities of this Order unless the EPA has provided written approval of the release of said obligations or liabilities.

60. Unless this Order states otherwise, whenever, under the terms of this Order, written notice or other document is required to be given, it shall be directed to the individuals specified via email at the email addresses below unless those individuals or their successors give notice of a change of address to the other party in writing:

For the EPA:

Liam Fisher, Risk Management Program Coordinator
Enforcement & Compliance Assurance Division (3ED41)
U.S. Environmental Protection Agency, Region 3
Phone: (215) 814-2169
fisher.liam@epa.gov

cc: Lauren Curry, Assistant Regional Counsel
Office of Regional Counsel (3RC20)
U.S. Environmental Protection Agency, Region 3
Phone: (215) 814-2496
curry.lauren@epa.gov

For Respondent BAE Systems OSI:

Charles Strong, Environmental Director
BAE Systems, Ordnance Systems, Inc.
Radford Army Ammunition Plant

Phone: (540) 639-7209
charles.strong@baesystems.us

All notices and submissions shall be considered effective upon receipt.

61. To the extent this Order requires Respondent to submit any information to the EPA, Respondent may assert a business confidentiality claim covering part or all of that information, but only to the extent and only in the manner described in 40 C.F.R. Part 2, Subpart B. The EPA will disclose information submitted under a confidentiality claim only as provided in 40 C.F.R. Part 2, Subpart B. If Respondent does not assert a confidentiality claim, the EPA may make the submitted information available to the public without further notice to Respondent.
62. Each undersigned representative of the Parties certifies that he or she is authorized to enter into the terms and conditions of this Order to execute and bind legally the respective Party to this document.
63. For purposes of the identification requirement in Section 162(f)(2)(A)(ii) of the Internal Revenue Code, 26 U.S.C. § 162(f)(2)(A)(ii), and 26 C.F.R. § 162-21(b)(2), performance of the tasks set forth in paragraphs 50 through 54 of this Order, above, is deemed restitution, remediation, or required to come into compliance with the law.

F. EFFECTIVE DATE AND OPPORTUNITY FOR A CONFERENCE

64. Pursuant to Section 113(a)(4) of the Act, an Order does not take effect until the person to whom it has been issued has had an opportunity to confer with the EPA concerning the alleged violations. By signing this Order, Respondent acknowledges and agrees that it has been provided an opportunity to confer with the EPA prior to issuance of this

Order. Accordingly, this Order will take effect upon receipt by Respondent of a fully executed copy of the Order.

65. Any reports, plans, specifications, or other submissions required by this Order are, upon acceptance by the EPA, incorporated into this Order. Any non-compliance with such EPA-accepted reports, plans, specifications, schedules, or other submissions shall be considered non-compliance with the requirements of this Order.
66. No informal advice, guidance, suggestions or comments by the EPA regarding reports, plans, specifications, schedules, or other submissions by the Respondent or the requirements of this Order will be construed as relieving the Respondent of its obligations to obtain formal acceptance when required by this Order, and to comply with the requirements of this Order unless formally modified.
67. This Order may be modified or amended in a writing executed by the Director of the Enforcement & Compliance Assurance Division. Such modifications or amendments shall be effective on the date they are fully executed by Respondent and the Director of the Enforcement & Compliance Assurance Division or such other date as set by the Director of the Enforcement & Compliance Assurance Division. Minor modifications to the Order and/or schedule thereto may be approved by the EPA's Risk Management Coordinator, Liam Fisher.
68. In the event of an inability or anticipated inability on the part of the Respondent to perform any of the actions required by this Order in the time and manner required herein, the Respondent shall notify the EPA orally within twenty-four (24) hours of such event (or, if the event occurs on a Friday or Saturday, Sunday, or legal holiday, no later

than the following business day) and in writing as soon as possible, but in no event more than three (3) days after such event. Such notice shall set forth the reason(s) for, and the expected duration of, the inability to perform; the actions taken and to be taken by Respondent to avoid and mitigate the impact of such inability to perform; and the proposed schedule for completing such actions. Such notification shall not relieve Respondent of any obligation of this Order. Respondent shall take all reasonable actions to prevent and minimize any delay.

69. Failure by Respondent to carry out any requirement of this Order in accordance with the terms and conditions specified herein may result in the initiation of an enforcement action against Respondent to require Respondent to perform such actions, in addition to any other relief that may be available to the EPA pursuant to applicable law. Respondent reserves all rights, claims and defenses to respond to any enforcement by the EPA pursuant to this paragraph or under any authority.
70. Nothing in this Section or any other provision of this Order shall be construed to limit any powers the EPA may have under the Act or any other law or regulation, nor shall they be construed to limit any defenses that Respondent may have under the Act or otherwise.

G. JUDICIAL REVIEW

71. Respondent 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 Order, including any right of judicial review under Section 307(b)(1) of the Act, 42 U.S.C. § 7607(b)(1).

H. TERMINATION

72. This Order shall terminate on the earlier of the following (the "Termination Date"):

    a. One year after the Effective Date of this Order;

    b. The effective date of any determination by the EPA that Respondent has achieved compliance with all terms of this Order; or

    c. Immediately upon receipt by Respondent of notice from the EPA finding that an imminent and substantial endangerment to public health, welfare, or the environment has occurred.

73. Termination of this Order shall not, however, terminate Respondent's obligation to comply with any continuing obligations of any federal, state or local law, statute, ordinance, rule or regulations, and all continuing obligations shall continue as they did before the termination of the Order.

I. COPIES OF ADMINISTRATIVE ORDER

74. Copies of this Order will be provided to:

Margaret Wagner, Air Compliance Manager
Virginia Department of Environmental Quality
Blue Ridge Regional Office
901 Russell Drive
Salem, Virginia 24153
Phone: (540)-597-0689
margaret.wagner@deq.virginia.gov

Megan Joyce
Virginia Department of Environmental Quality
Central Office
P.O. Box 1105
Richmond, VA 23218
Phone: (804) 592-8191
megan.joyce@deq.virginia.gov

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 3

In the Matter of: BAE Systems Ordnance Systems Inc. Radford Army Ammunition Plant 4050 Peppers Ferry Road Radford, VA 24143, Respondent. Radford Army Ammunition Plant 4050 Peppers Ferry Road Radford, VA 24143, Facility.	Administrative Compliance Order on Consent EPA Docket No. CAA-03-2024-0042DA

For United States Environmental Protection Agency Region 3

KAREN MELVIN

Digitally signed by KAREN MELVIN
Date: 2024.09.27 10:00:41 -04'00'

Digitally Signed and Dated
Karen Melvin, Director
Enforcement & Compliance Assurance Division

For Respondent, BAE Systems Ordnance Systems Inc.

September 26, 2024

Signature

Printed Name: Aron Theroux

Title: General Manager - RFAAP

Address: 4050 Peppers Ferry Road, Radford, VA 24143

In the Matter of: BAE Systems Ordnance Systems Inc. Radford Army Ammunition Plant 4050 Peppers Ferry Road Radford, VA 24143, Respondent. Radford Army Ammunition Plant 4050 Peppers Ferry Road Radford, VA 24143, Facility.	Administrative Compliance Order on Consent EPA Docket No. CAA-03-2024-0042DA

CERTIFICATE OF SERVICE

I certify that the foregoing Administrative Order on Consent was filed with the EPA Region 3 Regional Hearing Clerk on the date that has been electronically stamped on the Administrative Order on Consent. I further certify that on the date set forth below, I caused to be served a true and correct copy of the foregoing Administrative Order on Consent to each of the following persons, in the manner specified below, at the following addresses:

Copies served via email to:

Aron Theroux
General Manager, Radford Army Ammunition Plant
BAE Systems Ordnance Systems, Inc.
aron.theroux@baesystems.us

Joe Romero
Senior Counsel
BAE Systems Ordnance Systems, Inc.
joe.romero2@baesystems.us

Copies served via email to:

Lauren Curry
Assistant Regional Counsel
U.S. EPA, Region 3
curry.lauren@epa.gov

Liam Fisher
Risk Management Program Coordinator
U.S. EPA, Region 3
fisher.liam@epa.gov

BEVIN ESPOSITO

Digitally signed by BEVIN ESPOSITO
Date: 2024.09.27 11:16:52 -04'00'

[Digital Signature and Date]

Regional Hearing Clerk
U.S. Environmental Protection Agency,
Region 3