



**U.S. Environmental Protection Agency Portion of the
Resource Conservation & Recovery Act Permit
Pursuant to the Hazardous & Solid Waste Amendments
Blue Grass Army Depot**

EPA I.D. Number: KY8-213-820-105

OWNER: U.S. Department of the Army
431 Battlefield Memorial Highway
Richmond, KY 40475-5001

OPERATOR: Bechtel Parsons Blue Grass
830 Eastern By-Pass, Suite 106
Richmond, KY 40475

Pursuant to the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, 42 USC Section 6901 *et seq.*, and the Hazardous and Solid Waste Amendments (HSWA) of 1984, P.L. 98-616, and regulations promulgated thereunder by the U.S. Environmental Protection Agency (EPA) (codified and to be codified in Title 40 of the Code of Federal Regulations), a Permit is issued to the U.S. Department of the Army and Bechtel Parsons Blue Grass (hereinafter collectively called the "Permittee"), which own and operate a hazardous waste facility located at 431 Battlefield Memorial Highway in Richmond, Kentucky 40475, at latitude 37°43'02" and longitude 84°12'30" (the "Facility").

This Permit, in conjunction with Hazardous Waste Management Permit No. KY8-213-820-105 issued by the Kentucky Division of Waste Management (KDWM), constitutes the full RCRA Permit for this Facility. The Permittee, pursuant to this Permit, shall be required to comply with the organic air emissions standards with respect to the treatment of hazardous waste in the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP). The Permit also requires the Permittee to comply with all other RCRA regulations applicable to the Facility.

The Permittee must comply with all terms and conditions of this Permit. This Permit consists of the conditions contained herein (including those in any appendices), the applicable regulations contained in 40 CFR Parts 260 through 264, 266, 268, 270, and 124 as specified in this Permit, and the statutory requirements of RCRA, as amended by HSWA. Nothing in this Permit shall preclude the Regional Administrator from reviewing and modifying this Permit at any time during its term in accordance with 40 CFR § 270.41.

This Permit is based on the premise that information and reports submitted by the Permittee prior to issuance of this Permit are complete and accurate. Any inaccuracies found in this information or information submitted as required by this Permit may be grounds for termination or modification of this Permit in accordance with 40 CFR § 270.41, § 270.42, and § 270.43, and potential enforcement action. The Permittee must inform EPA of any deviation from or changes in the information in the application which would affect the Permittee's ability to comply with the applicable regulations or Permit conditions.

This Permit is effective [REDACTED] and shall remain in effect for ten (10) years until [REDACTED] unless revoked and reissued, or terminated under 40 CFR § 270.41 and § 270.43, or continued in accordance with 40 CFR § 270.51(a). All obligations for performance of HSWA provisions required under this Permit are in effect until deemed complete by the Regional Administrator.

If any conditions of this Permit are appealed in accordance with 40 CFR § 124.19, the effective date of the conditions determined to be stayed in accordance with 40 CFR § 124.16 shall be determined by final agency action as specified under 40 CFR § 124.19.

[REDACTED]
Issued Date

G. Alan Farmer
Director, RCR Division

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PART I - STANDARD CONDITIONS

I.A. EFFECT OF PERMIT

(40 CFR § 260.10, § 270.4, and § 270.30(g))

The Permittee is hereby authorized to manage hazardous waste at the Facility in accordance with this Permit. Under this Permit, the treatment of RCRA hazardous waste must comply with all standards, terms, and conditions of this Permit. Subject to 40 CFR §270.4, compliance with this RCRA Permit constitutes compliance, for purposes of enforcement, with Subtitle C of RCRA. Issuance of this Permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under Sections 3008(a), 3008(h), 3004(v), 3008(c), 3007, 3013, or 7003 of RCRA; Sections 104, 106(a), or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 *et seq.*, commonly known as CERCLA); or any other law providing for protection of public health or the environment.

I.B. PERMIT ACTIONS

(40 CFR § 124.5, § 270.4(a), § 270.30(f), § 270.41, § 270.42, and § 270.43)

This Permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR §270.41, §270.42, and §270.43. The filing of a request for a permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee, does not stay the applicability or enforceability of any permit condition.

I.C. STAYS OF CONTESTED PERMIT CONDITIONS (SEVERABILITY)

(40 CFR § 124.16)

As specified in 40 CFR §124.16, if there is a request for review of this Permit, the contested permit conditions shall be stayed. Uncontested conditions, which are not severable from those contested, shall also be stayed together with the contested conditions. All other conditions of the Permit become fully effective and enforceable thirty (30) calendar days after the Regional Administrator notifies the Environmental Appeals Board, the Permittee, and all other interested parties of this Permit's uncontested (and severable) conditions.

I.D. DEFINITIONS

(40 CFR Parts 124, 260, 261, 264, 266, 268, 270 & RCRA, as amended)

For purposes of this Permit, terms used herein shall have the same meaning as those in RCRA and 40 CFR Parts 124, 260, 261, 264, 266, 268, and 270, unless this Permit specifically provides otherwise. Where terms are not defined in the regulations, the Permit, or EPA guidelines or publications, the meaning associated with such terms shall

be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

For purposes of this Permit, the following terms shall have the meanings set forth below:

- I.D.1.** “**Approved Permit Application**” shall mean the Part A and Part B RCRA Permit Application submitted for the EDT facility dated March 29, 2016, and supplemented on August 4, 2016.
- I.D.2.** “**Blister Agent**” includes the compound listed below, or degradation byproducts of this compound:
- H, also known as Mustard (bis(2-chloroethyl) sulfide), and related compounds
- I.D.3.** “**Buffer Tank**” means the equalization unit designed to smooth gas pressure and volume surges from the Static Detonation Chamber that occur whenever a projectile is treated. The Buffer Tank is a cone-bottom cylindrical tank made of stainless steel. The inlet and outlet of the tank are designed to provide a cyclonic effect allowing the removal of large particles.
- I.D.4.** “**Chemical Munitions**” are assembled projectiles or rockets containing chemical warfare agents, including GB (also known as sarin or isopropyl methylphosphonofluoridate), VX (also known as O-Ethyl-S-(2-diisoproylaminoethyl) methyl phosphonothiolate), or H (mustard agent).
- I.D.5.** “**Detonation Chamber**” (**DC**) means the detonation chamber of the Static Detonation Chamber treatment technology used for the treatment/destruction of Chemical Munitions.
- I.D.6.** “**Explosive Destruction Technology facility**” (**EDT facility**) means the Static Detonation Chamber, which includes the DC and the Buffer Tank, and the Off-gas Treatment System. The EDT facility will be processing M110, 155mm mustard (H) agent-filled projectiles, over-packed projectiles, and mustard (H) agent-filled Department of Transportation (DOT) bottles from the Blue Grass Army Depot (BGAD) stockpile. No off-site wastes shall be treated in the EDT facility. The EDT facility is depicted in Figure 2.
- I.D.7.** “**Facility**” includes all contiguous land, and structures, other appurtenances, and improvements on the land known as Blue Grass Army Depot (BGAD), under the control of the U.S. Department of the Army. The BGAD Facility is depicted in Figure 1.
- I.D.8.** “**Hazardous Constituents**” are those substances listed in 40 CFR Part 261 Appendix VIII and Part 264 Appendix IX.
- I.D.9.** “**Hot-Idle**” means an operating status where the thermal oxidizer is operating at a reduced temperature and when no waste is being treated in the SDC.

- I.D.10.** “**Leak Detection and Repair Program**” (**LDAR Program**) refers to the process and procedures contained in Appendix L-3 of the Approved Permit Application.
- I.D.11.** “**Off-gas Treatment System**” (**OTS**) includes the thermal oxidizer control (THO) and serves as the control device for vapor/gas emissions from the SDC.
- I.D.12.** “**Regional Administrator**” means the Regional Administrator for the EPA Region in which the Facility is located, or his/her designee.
- I.D.13.** “**Release**” includes any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment of any hazardous waste or hazardous constituents.
- I.D.14.** “**Static Detonation Chamber**” (**SDC**) means the combination of the DC and the Buffer Tank used for the treatment/destruction of Chemical Munitions.

I.E. DUTIES AND REQUIREMENTS

I.E.1. Duty to Comply

(40 CFR § 270.30(a))

The Permittee shall comply with all conditions of this Permit, except to the extent and for the duration such noncompliance is authorized by an emergency permit. Any permit noncompliance, other than noncompliance authorized by an emergency permit, constitutes a violation of RCRA and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application.

I.E.2. Duty to Reapply

(40 CFR § 270.10(h) and § 270.30(b))

If the Permittee will continue an activity allowed or required by this Permit, after the expiration date of this Permit, the Permittee shall submit a complete application for permit renewal per 40 CFR § 270.30(b) at least one hundred eighty (180) calendar days before this Permit expires, unless permission for a later date has been granted by the Regional Administrator.

I.E.3. Need to Halt or Reduce Activity Not a Defense

(40 CFR § 270.30(c))

In the event of an enforcement action, it shall not be a defense that the Permittee must halt or reduce permitted activities in order to maintain compliance with the conditions of this Permit.

I.E.4. Duty to Mitigate
(40 CFR § 270.30(d))

In the event of noncompliance with this Permit, the Permittee shall take all reasonable steps to minimize releases of hazardous waste or hazardous constituents to the environment, and shall carry out such measures as are reasonable to prevent significant adverse effects on human health or the environment.

I.E.5. Proper Operation and Maintenance
(40 CFR § 270.30(e))

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve and maintain compliance with the conditions of the Permit.

I.E.6. Duty to Provide Information
(40 CFR § 270.30(h))

The Permittee shall furnish to the Regional Administrator, within a reasonable time, any relevant information which the Regional Administrator may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittee shall also furnish to the Regional Administrator, upon request, copies of any record required to be kept by this Permit or required to be kept per applicable RCRA requirements of 40 CFR Parts 260, 261, 262, 264, 266, and 268.

I.E.7. Inspection and Entry
(40 CFR § 270.30(i))

The Permittee shall allow the Regional Administrator, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

- a. Enter the Permittee's premises where a RCRA regulated activity is located or conducted, or where records must be kept under the conditions of this Permit and applicable RCRA requirements;
- b. Have access to and copy any records that must be kept under the conditions of this Permit and applicable RCRA requirements;
- c. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit or subject to RCRA; and

- d. Sample or monitor for the purposes of assuring permit compliance or as otherwise authorized by RCRA, any substances or parameters at any location.

I.E.8. Monitoring and Records

(40 CFR § 264.74(b) and § 270.30(j))

- I.E.8.a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative waste sample to be analyzed must be the appropriate method from Appendix I of 40 CFR Part 261, the EPA Region 4 Field Branches Quality System and Technical Procedures (most recent version), or an equivalent method approved by the Regional Administrator. Procedures for sampling contaminated media must be those identified in the EPA Region 4 Field Branches Quality System and Technical Procedures (most recent version), or an equivalent method approved by the Regional Administrator. Laboratory methods must be those specified in the most recent edition of Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW 846, or an equivalent method approved by the Regional Administrator.
- I.E.8.b. As provided for in 40 CFR Part 264, the Permittee shall retain at the Facility, or other appropriate location as approved by the Regional Administrator, records of all monitoring information required under the terms of this Permit and applicable monitoring and record keeping required for the applicable requirements of 40 CFR Parts 260, 261, 262, 264, 266, 268, 270, and 124; including all calibration and maintenance records, records of all data used to prepare documents required by this Permit, copies of all reports and records required by this Permit, the certification required by 40 CFR § 264.73(b)(9), and records of all data used to complete the application for this Permit, for a period of at least three (3) years from the date of the sample, measurement, report, certification or application, or through the term of the Permit, whichever date is later. As a generator of hazardous waste, the Permittee shall retain a copy of all notices, certifications, demonstrations, waste analysis data, and other documentation produced pursuant to 40 CFR Part 268 for at least three (3) years from the date that the waste which is the subject of such documentation was last sent for onsite or off-site treatment, storage, or disposal. These periods may be extended by request of the Regional Administrator at any time and are automatically extended during the course of any unresolved enforcement action regarding this Facility.
- I.E.8.c. Records of monitoring information shall specify:
 - i. The dates, exact place, and times of the sampling or measurements;
 - ii. The individuals who performed the sampling or measurements;
 - iii. The dates analyses were performed;
 - iv. The name of the laboratory that performed the analyses;
 - v. The analytical techniques or methods used; and
 - vi. The results of such analyses.

I.E.9. Reporting Planned Changes

(40 CFR § 270.30(l)(1)-(2))

The Permittee shall give written notice to the Regional Administrator as soon as possible of any planned physical alterations or additions to the permitted Facility. The notice shall include, at a minimum, a summary of the planned change and the reason for the planned change.

I.E.10. Anticipated Noncompliance

(40 CFR § 270.30(l)(2))

The Permittee shall give advance notice to the Regional Administrator of any planned changes in the permitted Facility or activity that may result in noncompliance with the requirements of this Permit.

I.E.11. Transfer of Permit

(40 CFR § 264.12(c), § 270.30(l) (3), and § 270.40)

This Permit may be transferred to a new owner or operator only after notice to the Regional Administrator and only if the Permit is modified or revoked and reissued pursuant to 40 CFR § 270.40(b) or § 270.41(b)(2) to identify the new owner or operator and incorporate such other requirements as may be necessary under RCRA. Before transferring ownership or operation of all or any portion of a facility during its operating life, or of a disposal facility during the post-closure care period, the Permittee shall notify the new owner or operator in writing of the requirements of 40 CFR Parts 264 and 270, HSWA, and this Permit.

I.E.12. Compliance Schedules

(40 CFR § 270.33)

Written notification of compliance or noncompliance with any item identified in the Permit shall be submitted according to each applicable schedule date. If the Permittee does not notify the Regional Administrator within fourteen (14) calendar days of its compliance or noncompliance with the schedule, the Permittee shall be subject to an enforcement action. Submission of a required item according to the schedule constitutes notification of compliance.

I.E.13. Twenty-four Hour Reporting

(40 CFR § 264.56(d), § 270.30(l) (6), and § 270.30(h))

I.E.13.a. The Permittee shall report any noncompliance or any imminent or existing hazard which may endanger human health or the environment. Any such information shall be reported orally to the Regional Administrator within twenty-four (24) hours from the time the Permittee becomes aware of the circumstances. This report shall include:

- i. Information concerning the release of any hazardous waste or hazardous constituents which may endanger public drinking water supplies; and

- ii. Information concerning the release or discharge of any hazardous waste or hazardous constituents, or of a fire or explosion at the Facility, which could threaten the environment or human health outside the Facility.

I.E.13.b. The description of the occurrence and its cause shall include:

- i. Name, address, and telephone number of the owner or operator;
- ii. Name, address, and telephone number of the Facility;
- iii. Date, time, and type of incident;
- iv. Name and quantity of materials involved;
- v. The extent of injuries, if any;
- vi. An assessment of the actual or potential hazard to the environment and human health outside the Facility; and
- vii. Estimated quantity and disposition of recovered material that resulted from the incident.

I.E.13.c. A written report shall also be provided to the Regional Administrator within fifteen (15) calendar days of the time the Permittee becomes aware of the circumstances of Condition I.E.13.a. The written report shall contain the information specified under Conditions I.E.13.a. and b. and a description of the noncompliance or imminent hazard and its cause; the periods of noncompliance (including exact dates and times); whether the noncompliance or imminent hazard has been corrected; and if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance or imminent hazard.

I.E.14. Other Noncompliance

(40 CFR § 270.30(l)(10))

The Permittee shall report all other instances of noncompliance not otherwise required to be reported in accordance with Condition I.E.13. at the time written reports as required by this Permit are submitted. The reports shall contain the information listed in Condition I.E.13., as appropriate.

I.E.15. Other Information

(40 CFR § 270.30(l)(11))

Whenever the Permittee becomes aware that the Permittee failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report(s) or document(s) submitted to the Regional Administrator, the Permittee shall promptly submit such facts or information.

I.F. SIGNATORY REQUIREMENT

(40 CFR § 270.11 and § 270.30(k))

All applications, reports, or information submitted to the Regional Administrator shall be signed and certified in accordance with 40 CFR § 270.11.

I.G. CONFIDENTIAL INFORMATION
(40 CFR § 270.12 and Part 2)

The Permittee may claim confidential any information required to be submitted by this Permit in accordance with 40 CFR § 270.12.

PART II
ORGANIC AIR EMISSION STANDARDS FOR PROCESS VENTS, EQUIPMENT LEAKS,
TANKS, CONTAINERS, AND MISCELLANEOUS UNITS
40 CFR §§264.1030, 264.1050, 264.1080

II.A. SUBPART AA: AIR EMISSION STANDARDS FOR PROCESS VENTS
(40 CFR Part 264 Subpart AA)

II.A.1. Applicability
(40 CFR §264.1030)

40 CFR Part 264 Subpart AA applies to process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or stream stripping operations that manage hazardous wastes with organics concentrations of at least 10 parts per million by weight (ppmw).

The EDT facility does not contain any process vents regulated under Subpart AA.

II.A.2. Standards: Process Vents
(40 CFR §264.1032)

This requirement is not applicable; the EDT facility does not contain any process vents regulated under Subpart AA.

II.A.3. Standards: Closed-Vent Systems and Control Devices
(40 CFR §264.1033)

This requirement is not applicable; the EDT facility does not contain any process vents regulated under Subpart AA.

II.A.4. Test Methods and Procedures
(40 CFR §264.1034)

This requirement is not applicable; the EDT facility does not contain any process vents regulated under Subpart AA.

II.A.5. Recordkeeping Requirements
(40 CFR §264.1035)

This requirement is not applicable; the EDT facility does not contain any process vents regulated under Subpart AA.

II.A.6. Reporting Requirements
(40 CFR §264.1036)

This requirement is not applicable; the EDT facility does not contain any process vents regulated under Subpart AA.

II.B. SUBPART BB: AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS
(40 CFR Part 264 Subpart BB)

II.B.1. Applicability
(40 CFR §264.1050)

CFR Part 264 Subpart BB applies to all equipment that contains or contacts hazardous wastes with organic concentrations of at least 10 percent by weight.

The EDT facility is permitted to treat/destroy mustard (H) Chemical Munitions and DOT bottles containing mustard. The Blister Agent H (mustard) is present in the projectiles at concentrations greater than 10 percent by weight, thus triggering the applicability of Subpart BB. It has a vapor pressure of 0.0096 kiloPascals (kPa) at 20°C and is therefore considered a heavy liquid. Upon heating the projectiles and DOT bottles to the final operating temperature, the heavy mustard liquid will no longer be present, and the SDC system will contain only gases.

Specifically, Subpart BB applies to all Permittee equipment identified in Appendix B of this Permit. All subject equipment is uniquely marked for the specific purposes of tracking, monitoring, inspecting, and repairing each piece of equipment in accordance with the Permittee's approved Leak Detection & Repair (LDAR) Program (Appendix L-3 of the Approved Permit Application) and 40 CFR Part 264 Subpart BB. All subject equipment shall comply with Part II.B of this Permit and 40 CFR Part 264 Subpart BB.

Appendix B provides a list of subject equipment based on system configurations at the time of this Permit's issuance. The Permittee shall maintain the most current equipment identification list in the Facility operating record accompanied by a written copy of the approved LDAR Program. The current equipment list and LDAR Program shall be available at all times to regulators at the Facility.

II.B.2. Standards: Valves in Gas/Vapor or Light Liquid Service
(40 CFR §264.1057)

The equipment identified in Appendix B will be unsafe to monitor while the system is in operation due to the hazards associated with entry into the areas where the equipment is located. This equipment is therefore exempt from monitoring in accordance with 40 CFR §264.1057(g); however, the Permittee must adhere to a written plan that requires monitoring under 40 CFR §264.1057(a) as frequently as practicable during safe-to-monitor times.

Repairs to equipment listed in Appendix B shall comply with the requirements of 40 CFR §264.1057, as applicable.

II.B.3. Standards: Pumps and Valves in Heavy Liquid Service
(40 CFR §264.1058)

The equipment identified in Appendix B will be unsafe to monitor and inaccessible while the system is in operation due to the hazards associated with entry into the areas where the equipment is located. This equipment is therefore exempt from monitoring in accordance with 40 CFR §264.1058(e); however, monitoring under 40 CFR §264.1058(a) is required as frequently as practicable during safe-to-monitor times.

Repairs to equipment listed in Appendix B shall comply with the requirements of 40 CFR §264.1058, as applicable.

II.B.4. Standards: Delay of Repair
(40 CFR §264.1059)

The Permittee shall document in the Facility operating record any delay of repair of equipment that meets the requirements of 40 CFR §264.1059.

II.B.5. Test Method and Procedures
(40 CFR §264.1063)

The Permittee shall comply with the test methods and procedures identified in Appendix L-3 of the Approved Permit Application. All records of testing shall be kept in the Facility operating record at the Facility for a period of not less than three (3) years.

II.B.6. Recordkeeping Requirements
(40 CFR §264.1064)

Records shall be the primary demonstration of compliance with the equipment requirements of Part II.B. of this Permit and 40 CFR Part 264 Subpart BB. The Permittee shall maintain all records necessary to demonstrate compliance as required under 40 CFR §264.1064, and such records shall be accessible in the Facility operating record at the Facility for a period of not less than three (3) years.

If the Permittee elects to comply with an equivalent recordkeeping system pursuant to 40 CFR §264.1064(m), the Permittee shall provide thirty (30) calendar days' advance notice to the Regional Administrator outlining the specific equipment and the applicable provisions of 40 CFR Parts 60, 61, or 63 with which the equipment must comply.

II.B.7. Reporting Requirements

(40 CFR §264.1065)

The Permittee shall prepare and submit a report semiannually to the Regional Administrator documenting for that semiannual reporting period: (1) equipment for which delays in repair exceed the required response and repair times; (2) emission control devices exceeding or operating outside of device design specifications for a duration of greater than 24 hours prior to correction; and (3) the dates of hazardous waste management unit shutdowns.

All information required by 40 CFR § 264.1065 shall be submitted in the semiannual report. The semiannual report shall be submitted by January 31 and July 31 of each year the EDT facility is in operation. A copy of the semiannual report shall be maintained in the Facility operating record.

II.B.8. Equipment Additions or Modifications

Prior to installing any new equipment subject to 40 CFR Part 264 Subpart BB, or prior to significantly modifying existing equipment layout for other than periodic, equivalent equipment replacement, the Permittee shall apply for a Permit modification under 40 CFR §270.42, and provide revised Part B application information required under 40 CFR §§270.14 - 16, and 270.25, as applicable, with the modification request.

II.B.9. Equipment Maintenance and Installation of Temporary Equipment

Temporary equipment installed during maintenance activities shall be noted in the daily inspection log in the Facility's operating record. The notation shall include the equipment identification numbers replaced during the maintenance activity, the date the maintenance started, the date the maintenance is expected to be completed, and a brief statement as to what the activity is that includes installation of temporary equipment.

All temporary equipment shall be selected and installed to ensure engineering performance equivalent to the equipment it is replacing to prevent system performance upsets, releases of hazardous waste, fire or explosion.

II.C. SUBPART CC: AIR EMISSION STANDARDS FOR TANKS, CONTAINERS, & MISCELLANEOUS UNITS

(40 CFR Part 264 Subpart CC)

II.C.1. Applicability

(40 CFR §264.1080)

40 CFR Part 264 Subpart CC applies to facilities that treat, store or dispose of hazardous waste in tanks, containers, surface impoundments and certain miscellaneous units for which all hazardous wastes entering the unit have an average volatile organic concentration equal to or more than 500 parts per million by weight (ppmw) unless excepted as provided for in 40 CFR §§264.1 and 264.1080(b).

II.C.2. RCRA 40 CFR Part 264 Subpart CC Exemption

(40 CFR §264.1080)

The mustard agent-containing projectiles and two Department of Transportation (DOT) bottles containing mustard shall be stored in the EDT Service Magazine (ESM) and staged in the EDT Enclosure Building (EEB) prior to treatment in the SDC. The projectiles and DOT bottles contain less than 0.1 m³ of hazardous waste liquid and are therefore exempt from the requirements of Subpart CC in accordance with 40 CFR §264.1080(b)(2).

See Appendix C, Table 1, for a list of EDT facility containers which are exempt from the Subpart CC requirements pursuant to 40 CFR §264.1080(b)(2).

II.C.3. Standards: General

(40 CFR §264.1082)

The Permittee shall control air pollutant emissions associated with the DC and the Buffer Tank. The DC and Buffer Tank are miscellaneous units that are considered tank-like, with the potential to contain average volatile organic concentrations greater than or equal to 500 ppmw (as H mustard). These units are permitted as Subpart X hazardous waste management units and are subject to the Subpart CC requirements. See Appendix C, Table 2, for a listing of the Subpart X hazardous waste management units subject to Subpart CC.

The air emissions are controlled in accordance with the standards specified in 40 CFR §§264.1084 (tanks) and 264.1087 (closed-vent systems and control devices), as applicable to the hazardous waste management units.

II.C.4. Standards: Tanks
(40 CFR §264.1084)

The DC and Buffer Tank must comply with the standards set forth in 40 CFR §264.1084. The DC and Buffer Tank shall provide a continuous barrier around the waste to be treated. The OTS system serves as the Level 2 control device for the DC and Buffer Tank. Any DC and Buffer Tank openings not vented to the OTS shall be equipped with a closure device designed to operate with no detectable emissions. The DC and Buffer Tank shall be constructed of suitable materials and operated to minimize exposure of wastes to the atmosphere.

II.C.5. Standards: Closed-Vent Systems & Control Devices
(40 CFR §264.1087)

The closed-vent system shall route gases and vapors from the DC and Buffer Tank to the thermal oxidizer (THO) control device, which is part of the OTS. The closed-vent system shall be designed to operate with no detectable emissions. The closed-vent system shall not contain bypass devices that divert gas or vapor to the atmosphere before entering the control device. The THO control device shall meet the requirements of 40 CFR §264.1087. Performance testing of the THO and associated OTS shall be conducted according to emission testing requirements specified in the EDT facility's Title V Permit No. V-10-023 and the KDWM Hazardous Waste Management Permit (KY8-213-820-105).

II.C.6. Inspection and Monitoring Requirements
(40 CFR §264.1088)

The closed-vent system and the THO control device shall be inspected and monitored to ensure no detectable emissions. All associated hazardous waste management units and the control device are considered unsafe-to-monitor due to chemical agent exposure and operating hazards of entry into the area during operation. Alternate monitoring and inspection methods shall be used in accordance with 40 CFR §264.1084(l). Inspections shall be performed in accordance with the alternate monitoring methods set forth in Appendix D.

II.C.7. Recordkeeping Requirements
(40 CFR §264.1089)

Records shall be the primary demonstration of compliance with the requirements of Part II.C. of this Permit and 40 CFR Part 264 Subpart CC. The Permittee shall maintain all records necessary to demonstrate compliance as required under 40 CFR §264.1089, and such records shall be accessible in the Facility operating record at the Facility for a period of not less than three (3) years.

II.C.8. Reporting Requirements
(40 CFR §264.1090)

The Permittee shall comply with the applicable requirements of 40 CFR §264.1090. All documentation of instances of noncompliance shall be maintained in the Facility operating record for a period of not less than three (3) years.

II.C.9. Notification of New Units

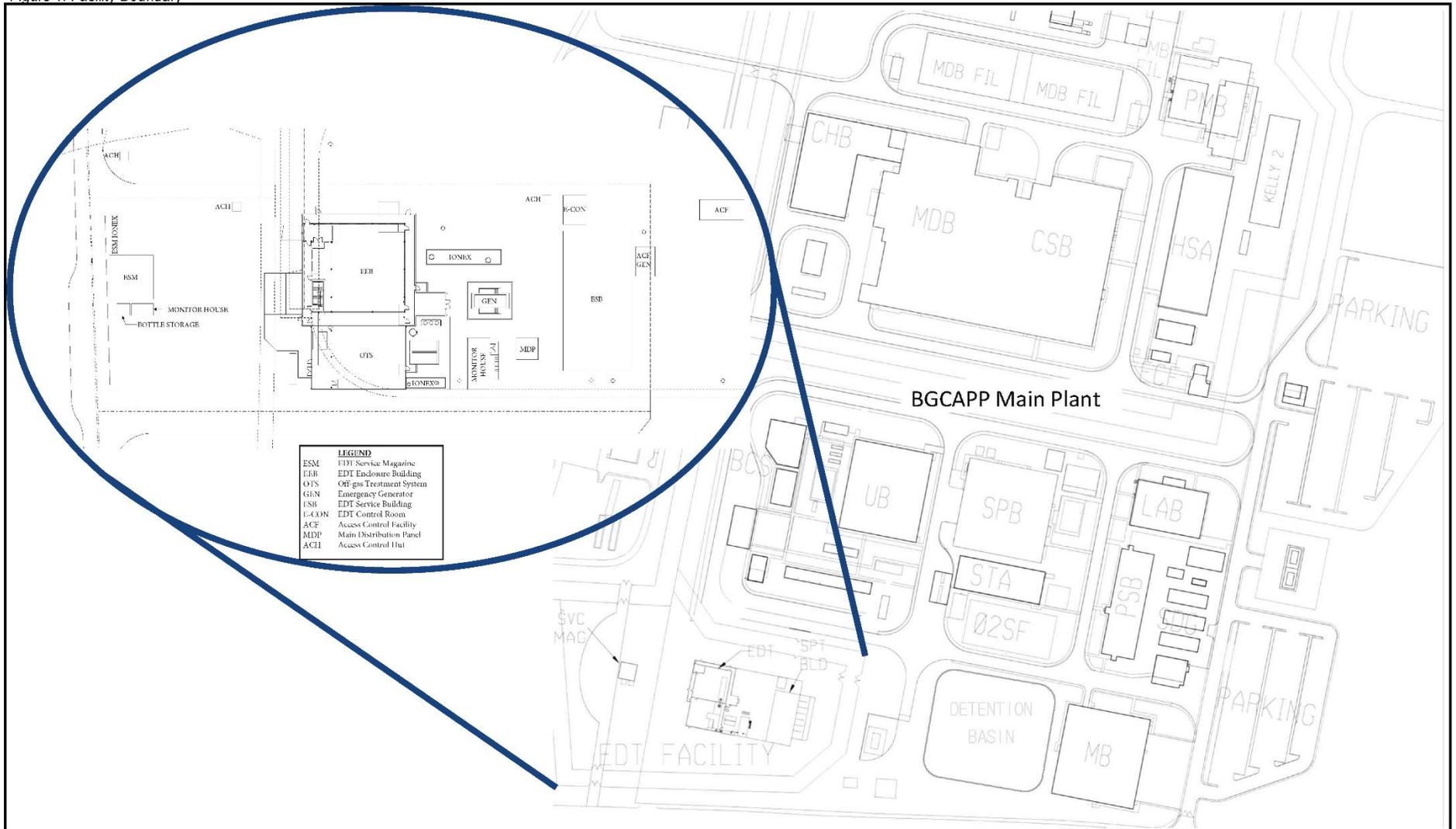
Prior to installing a tank, container, surface impoundment or miscellaneous unit subject to 40 CFR Part 264 Subpart CC, or modifying an existing process, waste handling or tank or container such that the unit(s) will become subject to 40 CFR Part 264 Subpart CC, the Permittee shall apply for a permit modification under 40 CFR §270.42, and provide specific Part B application information required under 40 CFR §§270.14-16, and 270.27, as applicable, with the modification request.

APPENDIX A: FACILITY INFORMATION

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FIGURE 1-FACILITY BOUNDARY MAP

Figure 1: Facility Boundary



REFERENCE
 LAYOUT IS BASED ON THE VENDOR'S
 PROPOSAL PACKET

FIGURE 1
Facility Boundary

**APPENDIX B: LIST OF EQUIPMENT SUBJECT TO RCRA ORGANIC AIR EMISSIONS
STANDARDS**

SUMMARY OF EQUIPMENT SUBJECT TO RCRA SUBPART BB REQUIREMENTS Explosive Destruction Technology (EDT) Facility Blue Grass Chemical Agent-Destruction Pilot Plant EPA I.D. No. KY8-213-820-105						
Equip-ment Tag	Equipment Description	Area	Near	Equipment Type	Organic Type / Concentration	Monitoring Exemption
140V03	1" flange, check valve	Secondary Containment	SDC	F, V	Heavy Liquid (>10%) and Gas	40 CFR §264.1057(g), 40 CFR 264.1058(e)
114V01	1" flange, blind flange, check valve	Secondary Containment	SDC	F, V	Heavy Liquid (>10%) and Gas	40 CFR §264.1057(g), 40 CFR 264.1058(e)
120V07	Gate valve	Secondary Containment	SDC	V	Heavy Liquid (>10%) and Gas	40 CFR §264.1057(g)
114V03	Flange, gate valve	Secondary Containment	SDC	F, V	Heavy Liquid (>10%) and Gas	40 CFR §264.1057(g), 40 CFR 264.1058(e)
Loading Gate 2	Slide Gate to Loading Chamber 2	Secondary Containment	SDC	Slide Gate	Heavy Liquid (>10%) and Gas	40 CFR §264.1057(g)
TIA---11402	Temp indicator	Secondary Containment	SDC	F	Heavy Liquid (>10%) and Gas	40 CFR 264.1058(e)
114V11	Flange, valve	Secondary Containment	SDC	F, V	Heavy Liquid (>10%) and Gas	40 CFR §264.1057(g), 40 CFR 264.1058(e)
160	Buffer Tank	Secondary Containment	SDC	F, F, Expansion Joint, F	Gas	40 CFR 264.1058(e)
UV 16005	Ball valve	Secondary Containment	SDC	V	Gas	40 CFR §264.1057(g)
160V07	Gate valve	Secondary Containment	SDC	V	Gas	40 CFR §264.1057(g)
UV 16007	Pressure Control Valve, flange	Secondary Containment	SDC	V, F	Gas	40 CFR §264.1057(g), 40 CFR 264.1058(e)
162V01	Gate Valve	Secondary Containment	SDC	V	Gas	40 CFR §264.1057(g)
162V02	Gate Valve	Secondary Containment	SDC	V	Gas	40 CFR §264.1057(g)
N/A	Flanged Restriction Orifice	Secondary Containment	Buffer Tank	F	Gas	40 CFR 264.1058(e)
TI 31015	Flange to TI	Secondary Containment	TO	F	Gas	40 CFR 264.1058(e)
PI 31016	Flange, needle valve to PI	Secondary Containment	TO	F, V	Gas	40 CFR §264.1057(g), 40 CFR 264.1058(e)

NOTES: F – Flange; V – Valve; SDC-Static Detonation Chamber, TO-Thermal Oxidizer

**APPENDIX C: LIST OF EQUIPMENT SUBJECT TO RCRA ORGANIC AIR
EMISSIONS STANDARDS FOR SUBPART CC**

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TABLE 1: RCRA SUBPART CC EXEMPTED UNITS			
Area	Equipment Type	Container Design Capacity	Subpart CC Applicability
ESM, Storage Area that will store projectiles containing Mustard	Containers	<0.1 m ³	Not applicable per 40 CFR §264.1080(b)(2); Exempt due to capacity

TABLE 2: RCRA SUBPART CC APPLICABLE UNITS			
Unit Identification	Equipment Type	Design Capacity	Subpart CC Applicability
Detonation Chamber	Subpart X Miscellaneous Unit - Detonation Chamber	Six (6) 155 mm M110 Projectiles per Hour	40 CFR §264.1084 (per 40 CFR §264.601)
Buffer Tank	Subpart X Miscellaneous Unit - Pressure Equalization Chamber	<300 Standard Cubic Feet per Minute	40 CFR §264.1084 (per 40 CFR §264.601)

APPENDIX D: ALTERNATE MONITORING

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Applicable monitoring of the DC and Buffer Tank, closed-vent system, and the THO control device shall be performed by use of near real-time (NRT) MINICAMS® units at the Facility that will detect the release of H mustard. Because H mustard is the highest concentration volatile organic compound in the wastes to be treated, detection of it shall serve as a detection of volatile organics (VOs) requiring investigation. The MINICAMS® field-deployed gas chromatograph-based monitoring instrument shall be configured to measure mustard concentrations with a detection limit of 0.003 mg/m³ with a total cycle time (sampling and analysis) of less than 15 minutes. Any detection of mustard agent vapor leakage at concentrations greater than 0.003 mg/m³ shall be investigated to ensure emissions of VOs do not exceed 500 parts per million volume (ppmv) above background. Monitors shall be located and operated as shown in the attached table, with continuous operation when waste (H mustard projectiles) is being fed to the SDC. Continuous operation shall be defined as obtaining at least one result per 15-minute period, except when the unit is being verified with a challenge sample or under maintenance. The MINICAMS® units shall serve as the alternative method for satisfying applicable monitoring requirements for the closed-vent system and THO control device allowed under 40 CFR §264.1084(1). Daily temperature monitoring for the THO shall be conducted using a monitoring device having an accuracy of ±1 percent of the temperature being monitored in °C or ±0.5 °C, whichever is greater, per 40 CFR §264.1033(f)(2).

Inspections of the DC, Buffer Tank, closed-vent system, and THO control device shall be performed prior to start of operations to identify visible cracks, holes, or gaps in materials of construction; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing closure devices. Inspections for the same shall be conducted annually during a period when the units are shut down, allowing safe entry into the EDT facility.

**EDT FACILITY MONITORING LOCATIONS
 (PARTIAL LIST APPLICABLE TO ALTERNATE VO MONITORING)**

Station Name ¹	MINICAMS Tag	Area Monitored	NRT Target Monitoring Level ²	NRT Alarm Level ³	Primary Purpose - MINICAMS
EDT 307	70-AMS-AIT5006	EEB - EDT Airlock Vestibule 100	VSL	0.70	NRT spooled monitoring line within the EEB Vestibule. Used to support worker safety during agent entries and egress from the EEB. Also used to support decontamination operations for a "leaker" EONC after it has been unloaded within the EEB. Also serves as an indicator of VO emissions.
EDT 308	70-AMS-AIT5007	EEB - Munitions Loading Area SDC Room 104	VSL	0.70	NRT monitoring of SDC munitions unloading area during munitions staging, handling, loading and processing. Also serves as an indicator of VO emissions.
EDT 309	70-AMS-AIT5008	EEB - Buffer Tank Enclosure SDC Room 104	VSL	0.70	NRT monitoring within the Buffer Tank (BT) secondary containment enclosure during normal EDT operations. Used to support safe access to the BT during BT residue drum change out. Also serves as an indicator of VO emissions.
EDT 310	70-AMS-AIT5009	EEB - Detonation Chamber Enclosure SDC Room 104	VSL	0.70	NRT monitoring within the Detonation Chamber's (DC) secondary containment enclosure during normal EDT operations. Used to support safe access to the DC Enclosure to perform operational or maintenance activities. Also serves as an indicator of VO emissions.
EDT 311	70-AMS-AIT5010	EEB - Scrap Exit Area SDC Room 104	VSL	0.70	NRT monitoring of the SDC munitions scrap inspection conveyor area during scrap processing, munitions deformation inspections and scrap removal and replacement operations. Also serves as an indicator of VO emissions.

Notes:

¹ When there is no agent hazard present, MINICAMS® can be off-line and not collecting data.

² VSL – vapor screening level - 0.003 mg/m3 (0.00046 ppmw at 25°C)

³ Fraction of the VSL.

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