Kentucky Energy and Environment Cabinet
Department for Environmental Protection
Division of Waste Management

HAZARDOUS WASTE MANAGEMENT FACILITY PERMIT

PART I
LEGAL AUTHORITY

S.I.A. PERMITTEE

Pursuant to the Kentucky Revised Statutes Chapter 224 and the Kentucky Administrative Regulations Title 401 adopted pursuant thereto by the Kentucky Energy and Environment Cabinet (hereinafter referred to as "the Cabinet"), a Hazardous Waste Permit is issued to the U.S. Department of the Army, Blue Grass Army Depot (BGAD), and to Bechtel Parsons Blue Grass Joint Venture (BPBG) (individually and collectively hereinafter referred to as "the Permittee"), for hazardous waste management activities at 431 Battlefield Memorial Highway, Richmond, Kentucky, latitude 37°42'00"N and longitude 84°12'30"W for the Blue Grass Chemical Agent Destruction Pilot Plant (BGCAPP), Explosive Destruction Technology - Static Detonation Chamber (SDC) 2000 Facility or SDC 2000 Facility.

The Owner and Operator are co-permittees.

The Facility Owner is: U.S. Department of the Army
431 Battlefield Memorial Highway
Richmond, Kentucky 40475-5001

The Facility Operator is: Bechtel Parsons Blue Grass Joint Venture (BPBG)
830 Eastern Bypass, Suite 106
Richmond, Kentucky 40475

[KRS 224.46.520, KRS 224.50-130, 401 KAR 39:005 Section 1, 401 KAR 39:060 Section 5, (40 CFR 270.10)]

S.I.B. APPLICATIONS

This permit is based on the assumption that the information in the permit applications listed in the table below, (herein referred to as the "permit application") is accurate and that the facility shall be operated as specified in the permit application and this permit. The permit application and modification requests are hereby incorporated into this permit.

Application	Date
Class 3 Hazardous Waste Storage & Treatment Permit Modification Request, Addition of Explosive Destruction Technology (SDC 2000), Revision 4	October 21, 2021
US EPA RCRA Subtitle C Site Identification Form and KYDWM Part A Application Addendum (Part A)	December 1, 2021

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Any inaccuracies found in the permit application could lead to the termination or modification of this permit and potential enforcement action. The Permittee shall inform the Kentucky Division of Waste Management (hereinafter referred to as "the Division") of any deviation from or changes in the information in the permit application which would affect the Permittee's ability to comply with the applicable regulations or permit conditions.

[401 KAR 39:060 Section 5 (40 CFR 270.30, 40 CFR 270.32, 40 CFR 270.42)]

S.I.C. EFFECTIVE DATE

This permit is effective and shall remain in effect as stated on the signature page of this permit, unless revoked and reissued, or terminated.

[401 KAR 39:060 Section 5 (40 CFR 270.41, 40 CFR 270.43, and 40 CFR 270.50)]

S.I.D. PARTS OF THE PERMIT

The Permittee shall comply with all terms and conditions of the permit. This permit consists of the conditions set forth in:

Part I Legal Authority
Part II Standard Conditions
Part III Specific Conditions
Part IV Corrective Action
Part V Referenced Attachments
Part VI Waste Minimization

[401 KAR 39:060 Section 5 (40 CFR 270.32), KRS 224.46-530]

S.I.E. SECTIONS OF THE PERMIT

Not Applicable

S.I.F. REGULATIONS AND STATUTES

Applicable regulations and statutes are those which are in effect on the date of issuance, modification, or reissuance of this permit.

[401 KAR 39:060 Section 5, KRS 224.46-530]

PART II

STANDARD CONDITIONS

S.II.A. EFFECT OF THE PERMIT

Compliance with the terms of this permit constitutes compliance for purposes of enforcement with KRS Chapter 224, except for those requirements not included in the permit which become effective by statute, are promulgated under 401 KAR 39:060 Section 4 (Land Disposal Restrictions) restricting the placement of hazardous wastes in or on the land.

This Permit is issued pursuant to KRS 224.46. 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), 3013, or 7003 of the Resource Conservation and Recovery Act (RCRA) of 1976; Sections 104, 106(a), or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (42 U.S.C. 9601 et seq.), the equivalent state statutes, or any other law governing protection of public health or the environment for any imminent and substantial endangerment to human health, welfare, or the environment.

The Permittee shall treat, store, and/or dispose of hazardous waste on-site; ship/receive hazardous waste; perform post-closure care; and/or perform corrective action in accordance with the Conditions of this Permit. Any storage, treatment, and/or disposal of hazardous waste not authorized in this Permit is prohibited, except as allowed by the

Kentucky Hazardous Waste Management Regulations, 401 KAR Chapter 39 and 401 KAR Chapter 40 (40 CFR 239-282).

[See list in condition]

S.II.B. PERMIT ACTIONS

S.II.B.(1) Permit Modification, Revocation and Reissuance, Termination

This permit may be modified, revoked and reissued, or terminated for cause as specified in 401 KAR 39:060 Section 5 [40 CFR 270.30, 40 CFR 270.40-43, 40 CFR 124.5(a), 40 CFR 270.10(b)-(d)], and 401 KAR 40:040 Section 1. 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.

[See list in condition]

S.II.B.(2) Severability: Modification, Suspension, and Revocation of a Permit

The Cabinet may modify, suspend, or revoke this permit for:

a. Violation of any requirement of KRS Chapter 224 or the respective administrative regulations promulgated pursuant thereto
b. Aiding, abetting, or permitting the violation of any provisions of 401 KAR Chapters 39 and 40
c. Any action or omission associated with maintenance and operation of the facility that could or does create a threat to public health or the environment
d. Violation(s) of a condition(s) of this permit
e. Misrepresentation or omission of a significant fact by the Permittee either in the application(s) for the permit or in information subsequently reported to the Cabinet
f. Failure to comply with an order issued by the Cabinet

[401 KAR 40:040 Section 1, KRS 224.10-100]

S.II.B.(3) Severability - Invalid Provision

The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected or diminished.

[401 KAR 39:060 Section 2]

S.II.B.(4) Permit Renewal

This Permit may be renewed as specified in Permit Condition S.II.B.(5). Review of any application for a Permit renewal shall also consider improvements in the state of control and measurement technology, as well as changes in applicable regulations.

[401 KAR 39:060 Section 5, 40 CFR 270.30]

S.II.B.(5) Permit Expiration and Continuation

This Permit and all Conditions herein shall remain in effect beyond the permit's expiration date, if the Permittee has submitted a timely, complete application in accordance with 401 KAR 39:060 Section 5, and through no fault of the Permittee, the Division has not issued a new permit. Permits continued under this section remain fully effective and enforceable. When the Permittee is not in compliance with the conditions of the expiring or expired permit, the Cabinet may choose to do any or all of the following:

a. Initiate enforcement action based upon the permit which has been continued
b. Issue a notice of intent to deny the new permit. If the permit is denied, the Permittee is required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit.

c. Issue a new permit with appropriate conditions
d. Take other actions authorized by Kentucky regulations, 401 KAR Chapters 39 and 40

[401 KAR 39:060 Section 2, 401 KAR 39:060 Section 5, 40 CFR 270.50, 40 CFR 270.51 as established in 401 KAR 39:060 Section 5]

S.II.B.(6) Permit Modification for Corrective Action Plan

See Entire Facility Section

S.II.B.(7) New Statutes, Standards, or Administrative Regulations

The Cabinet may modify this permit when the standards or administrative regulations on which this permit is based have been changed by statute, amended standards, administrative regulations, or by judicial decision after the permit was issued.

[401 KAR 39:060 Section 5, 40 CFR 270.41(a)(3)]

S.II.C. DEFINITIONS

For the purpose of this permit, terms used herein shall have the same meaning as those in Chapter 224 of the Kentucky Revised Statutes, and Title 401 of Kentucky Administrative Regulations and listed here. Where terms are not otherwise defined, the meaning associated with such terms shall be as defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

[KAR Title 401, KRS 224]

S.II.C.(1) **"Area of Concern" (AOC)** includes any area having evidence of a release or a probable release of a hazardous waste or hazardous waste constituent which is not from a Solid Waste Management Unit and is determined by the Permittee and/or the Manager to pose a current or potential threat to human health or the environment. Such AOCs may require investigations and remedial action as required in order to ensure adequate protection of human health and/or the environment.

S.II.C.(2) **"Blister or Nerve Agent"** means a compound listed below and related compounds:

- N001 GB (isopropyl methyl phosphonofluoridate)
- N002 VX (O-ethyl-S-(2-diisopropylaminoethyl) methyl phosphonothiolate)
- N003 H (bis(2-chloroethyl) sulfide), and related compounds

[401 KAR 39:060 Section 3]

S.II.C.(3) **"Canister"** means a container made of steel (or other compatible material) into which separated M56 warheads are sealed; the canisters are stored in permitted container storage units until subsequent treatment in a permitted Static Detonation Chamber unit.

S.II.C.(4) **"Chemical Munitions" or "Munition Items"** are assembled or disassembled rockets, rocket warheads, rocket motors, shipping and firing tubes, and any other part(s) of a M55 rocket containing chemical warfare agent including GB or VX.

[KRS 224.50-130(2)]

S.II.C.(5) **"Chemical Hazardous Waste Storage Units"** are the 47 (or less as these may be closed independently during the course of chemical munitions destruction activities) individual container storage areas (munitions igloos) approved in this permit for the storage of chemical munitions and/or Chemical Related Hazardous Waste. These units are located in the Chemical Limited Area. Within the Chemical Storage section of the permit, the terms Hazardous Waste Storage Units (HWSUs) and Chemical Hazardous Waste Storage Igloos are considered the same.

S.II.C.(6) **"Chemical Limited Area"** means that portion of the facility enclosed in a double fence which contains the Chemical Hazardous Waste Storage Units, and support structures, as well as the demilitarization facilities once they are included in the double fence.

S.II.C.(7) **"Chemical Related Hazardous Waste"** means all hazardous waste received by and/or generated by Blue Grass Chemical Activity stockpile management operations and/or the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP).

S.II.C.(8) **"Containerized Rocket Warhead or CRW"** means a M56 Rocket warhead containing GB that has been containerized by the Rocket Warhead Containerization System (RWCS).

S.II.C.(9) **"Contamination"** means the degradation of naturally occurring water, air, or soil quality either directly or indirectly as a result of human activities.

[401 KAR 39:005 Section 1]

S.II.C.(10) **"Corrective action"** means all corrective actions/measures necessary to protect human health and the environment from any releases of hazardous waste or hazardous waste constituents from a Solid Waste Management Unit at the facility, regardless of the time at which waste was placed in the unit. Corrective action may address releases to air, soils, surface water sediment, groundwater, or subsurface gas.

[401 KAR 39:090]

S.II.C.(11) **"Director"** is a reference to the Director of the Division of Waste Management. The terms "Cabinet", "Division", and "Manager" can be used interchangeably.

[401 KAR 39:005 Section 1]

S.II.C.(12) **"DRE"** means the destruction and removal efficiency of agent, calculated by: $[(W_{in} – W_{out}) / W_{in}] \times 100\%$. Where W_{in} is the mass of agent into the process and W_{out} is the emission rate of agent out of the process.

Treatment shall be sufficient to provide assurance of destruction or neutralization and removal efficiency of ninety-nine and nine thousand, nine hundred, and ninety-nine ten thousandths percent (99.9999%) for nerve agent, with the efficiency to be demonstrated as achievable under all operating conditions. During the occurrence of malfunctions, upsets, or unplanned shutdowns, all quantities of nerve agent shall be contained, reprocessed, or otherwise controlled so as to ensure that the required efficiency is attained prior to any release to the environment.

[KRS 224.50-130(3), 401 KAR 39:090 Section 6]

S.II.C.(13) **"Extent of contamination"** is the horizontal and vertical area in which the concentrations of hazardous constituents in the environmental media being investigated are above detection limits or background concentrations indicative of the region, whichever is appropriate as determined by the Cabinet.

S.II.C.(14) **"Facility"** means (1) All contiguous land and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste, or for managing hazardous secondary materials prior to reclamation. A facility may consist of several treatment, storage, or disposal operational units (for example: one or more landfills, surface impoundments, or combinations of them).

(2) For the purpose of implementing corrective action under 40 CFR 264.101 or 40 CFR 267.101, all contiguous property under the control of the owner or operator seeking a permit under Subtitle C of RCRA. This definition also applies to facilities implementing corrective action under RCRA Section 3008(h).

(3) Notwithstanding paragraph (2) of this definition, a remediation waste management site is not a facility that is subject to 40 CFR 264.101, but is subject to corrective action requirements if the site is located within such a facility.

"Facility" includes sites implementing corrective action pursuant to KRS 224.46-520 and KRS 224.46-530.

[401 KAR 39:005 Section 1(28), 40 CFR 260.10]

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S.II.C.(15) **"Hazardous Waste"** means any discarded material or material intended to be discarded or substance or combination of such substances intended to be discarded, in any form which because of its quantity, concentration or physical, chemical or infectious characteristics may cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

[401 KAR 39:005 Section 1, KRS 224.1-010(30)(b]

S.II.C.(16) **"Hazardous Waste Constituent"** means a constituent that caused the cabinet or EPA to list the waste, or a constituent listed in 40 CFR Part 261 Subpart D, as incorporated by 401 KAR 39:060, Section 3.

[401 KAR 39:005 Section 1]

S.II.C.(17) **"Land disposal"** includes but is not limited to any placement of hazardous waste in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, or underground mine or cave.

[KRS 224.1-010]

S.II.C.(18) **"Landfill"** includes any disposal facility or part of a facility where hazardous waste is placed in or on the land and which is not a pile, a land treatment facility, a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground mine, a cave, or a corrective action management unit.

[401 KAR 39:005 Section 1]

S.II.C.(19) **"Leak Detection and Repair Program (LDAR Program)"** refers to the process and procedures contained in the Organic Air Permit Application, Attachment N.

S.II.C.(20) **"Leaker"** means a munition or munition item that has released agent liquid, agent vapor, or exudate as determined by observation or monitoring equipment such as MINICAMS or Depot Area Air Monitoring System (DAAMS) prior to treatment in the SDC Unit.

S.II.C.(21) **"Manager"** is a reference to the Manager of the Hazardous Waste Branch, Division of Waste Management. The terms "Cabinet", "Director", and "Division" can be used interchangeably.

S.II.C.(22) **"MOA"** means any Memorandum of Agreement, Memorandum of Understanding, Coordination Agreement, or any other written document covering the terms, scope, conditions, or other arrangements for services to the facility with an off-site company, group, or government agency.

S.II.C.(23) **"Off-normal"** means an abnormal or unplanned event or condition that adversely affects, potentially affects, or is indicative of degradation in the safety, security, environmental or health protection performance or operations of a facility. Off-normal events include, but are not limited to, failure of a critical interlock activation, out of compliance critical parameter, non-transient loss of cascade ventilation, agent release to the environment, agent detected in a container storage area, fire which damages equipment, and similar events.

S.II.C.(24) **"Off-site"** Off-site means any site which is not on site.

[401 KAR 39:005 Section 1, 40 CFR 270.2]

S.II.C.(25) **"On-site"** means on the same or geographically contiguous property which may be divided by public or private right-of-way, provided the entrance and exit between the properties is at a crossroads intersection, and access is by crossing, as opposed to going along the right-of-way. A noncontiguous property owned by the same person but connected by a right-of-way which he controls and to which the public does not have access is also considered on-site property.

[401 KAR 39:005 Section 1]

S.II.C.(26) **"Operator"** Operator is defined by 40 CFR 260.10 and includes any operation of an on-site or off-site waste facility, including any private contractor conducting operational activities at a federal facility.

[401 KAR 39:005 Section 1(50)]

S.II.C.(27) **"Owner"** is defined by 40 CFR 260.10 and includes any person who owns an on-site or off-site facility, or any part of a facility.

[401 KAR 39:005 Section 1]

S.II.C.(28) **"Permit Compliance Demonstration Testing" (PCDT)** means any testing performed in accordance with the criteria set forth in the approved Demonstration Test Plan (DTP).

S.II.C.(29) **"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 waste constituents.

[KRS 224.1-400(1)(b) and (4)]

S.II.C.(30) **"Solid waste"** means any garbage, refuse, sludge, and other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining (excluding coal mining wastes, coal mining by-products, refuse, and overburden), agricultural operations, and from community activities, but does not include those materials including, but not limited to, sand, soil, rock, gravel, or bridge debris extracted as part of a public road construction project funded wholly or in part with state funds, recovered material, tire-derived fuel, special wastes as designated by KRS 224.50-760, solid or dissolved material in domestic sewage, manure, crops, crop residue, or a combination thereof which are placed on the soil for return to the soil as fertilizers or soil conditioners, or solid or dissolved material in irrigation return flows or industrial discharges which are point sources subject to permits under Section 402 of the Federal Water Pollution Control Act, as amended (86 Stat. 880), or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 923).

[KRS 224.1-010(31)(a)]

S.II.C.(31) **"Solid Waste Management Unit"** means any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. These units include any area at a facility at which solid wastes have been routinely and systematically released.

[401 KAR 39:005 Section 1]

S.II.C.(32) **"Treatment"** means any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological characteristic or composition of any waste so as to neutralize such waste or so as to render such waste nonhazardous, safer for transport, amenable for recovery, amenable for storage, or reduced in volume. Such term includes any activity or processing designed to change the physical form or chemical composition of hazardous waste so as to render it nonhazardous.

The term "treatment" also includes the movement of munitions and munition items, manual or mechanical handling of the chemical agent compounds and of any munitions containing the compounds during the processing of munitions to remove the compounds, to separate munitions components, and to otherwise prepare the components and compounds for destruction, neutralization, dismantling, or decommissioning.

[401 KAR 39:005 Section 1, KRS 224.1-010(29), KRS 224.50-130(5)]

S.II.D. DUTIES AND REQUIREMENTS

S.II.D.(1) Duty to Comply

The Permittee shall comply with all conditions of this permit except to the extent and for the duration that such noncompliance is authorized by an emergency permit. Any permit noncompliance, other than noncompliance authorized by an emergency permit, constitutes a violation of KRS Chapter 224 and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application.

[401 KAR 39:060 Section 5, 40 CFR 270.30]

S.II.D.(2) Duty to Reapply

If the Permittee intends to continue an activity allowed or required by this Permit after the expiration date of this Permit, the Permittee shall submit a formal request to renew the permit at least one hundred eighty (180) days prior to permit expiration. The Permittee shall comply with the public notice requirements of 401 KAR 39:060 Section 5. The Cabinet may require additional information to ensure protection of human health or the environment.

[401 KAR 39:060 Section 5, 40 CFR 270.30, 40 CFR 270.10(h), 40 CFR 270.10(l)]

S.II.D.(3) Obligation for Corrective Action

The Permittee is required to continue this Permit for any period necessary to comply with the corrective action requirements of this Permit.

[401 KAR 39:090 Section 1, 40 CFR 264.100(f)]

S.II.D.(4) Need to Halt or Reduce Activity Not a Defense

The Cabinet may order an immediate termination of all operations at the facility at any time it is determined that termination is necessary to protect human health or the environment.

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the Conditions of this Permit.

[401 KAR 39:060 Section 5, 40 CFR 270.30(c)]

S.II.D.(5) Duty to Mitigate

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

[401 KAR 39:060 Section 5, 40 CFR 270.30(d)]

S.II.D.(6) Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all hazardous waste 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, but is not limited to, effective performance, adequate funding, adequate operator staffing and training, adequate laboratory and process controls, including appropriate quality assurance procedures, and adequate agent monitoring. This condition requires the operation of backup or auxiliary facilities, equipment, or similar systems when necessary to achieve compliance with the conditions of the permit.

[401 KAR 39:060 Section 5, 40 CFR 270.30(e), 40 CFR 270.31]

S.II.D.(7) Duty to Provide Information

The Permittee shall furnish to the Manager, within a reasonable time, any information which the Division 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 Manager, upon request, copies of records required to be kept by this Permit.

[401 KAR 39:060 Section 5, 401 KAR 39:090 Section 1, 40 CFR 264.74, 40 CFR 270.30(h)]

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S.II.D.(8) Inspection and Entry

The Permittee shall allow an authorized representative of the Division, upon the presentation of credentials and other documents, as required by law to:

a. Enter at reasonable times upon the Permittee's premises where a regulated activity is located or conducted, or where records shall be kept under the conditions of this permit
b. Have access to and copy, at reasonable times, any records that shall be kept under the conditions of this permit
c. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated as required under this permit
d. Sample or monitor, at reasonable times, any non-surety material at any location, for the purpose of assuring permit compliance as authorized by the Kentucky Revised Statutes
e. Split samples of any non-surety materials, and copies of analysis shall be provided to the Permittee or Division upon request

[401 KAR 39:060 Section 5, 40 CFR 270.30(i)]

S.II.D.(9) Facility Construction Certification/New Units

The Permittee shall not begin treatment or storage of hazardous wastes in any new Hazardous Waste Management Unit, until the Permittee has complied with the following:

a) The Permittee has submitted to the Manager by certified mail or hand delivery, a letter signed by the Permittee and a professional engineer (PE) licensed in the Commonwealth of Kentucky stating that the Hazardous Waste Management Unit has been constructed in accordance with this permit. A licensed PE, employed by the government, does not have to be licensed in the Commonwealth of Kentucky (KRS 322.030(2)).
b) The Permittee has received confirmation that the appropriate Cabinet personnel has inspected the new Hazardous Waste Management Unit and has determined that the new unit is in compliance with the conditions of this permit; or
c) The Permittee has received confirmation that the Cabinet has either waived the inspection, or has within fifteen (15) days, notified the Permittee of the Cabinet's intent to not inspect.

[401 KAR 39:060 Section 5, 40 CFR 270.30(l)]

S.II.D.(10) Monitoring and Records

S.II.D.(10)(a) Sampling Methods

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample shall be the appropriate method from 401 KAR 39:060 Section 3, or an equivalent method if specified in the application, or otherwise approved by the Manager. Laboratory methods shall be those specified in the most recent edition of Test Methods for Evaluating Solid Waste: Physical/ Chemical Methods SW-846, Standard Methods of Wastewater Analysis, methods listed in the Waste Analysis Plan (WAP) or an equivalent method approved by the Manager and in compliance with applicable regulations. Changes to agent analytical methods that have been approved by Program Executive Office, Assembled Chemical Weapons Alternatives, (PEO ACWA) may be submitted as a Class 1 modification not requiring prior agency approval.

[401 KAR 39:060 Section 2, 401 KAR 39:060 Section 5, 40 CFR 270.30, 40 CFR 261 Appendix I, 40 CFR 260.21, 40 CFR 270.42 Appendix I]

S.II.D.(10)(b) Required Records

The Permittee shall retain the following at the facility, or at another location as approved by the Division:

a. records of all monitoring information required under the terms of this Permit, including all calibration and maintenance records
b. records of all original strip chart recordings for continuous monitoring instrumentation or the modern equivalent
c. copies of all reports and records required by this Permit and all data used to prepare them
d. records of all data used to complete the application for this Permit
e. certification required by 401 KAR 39:090 Section 1
f. annual Waste Minimization Certifications
g. land disposal certification
h. records from all groundwater testing, for the active life of this facility, and for disposal facilities for the post closure care period as well

[401 KAR 39:060 Section 5, 40 CFR 270.30, 40 CFR 264.73]

S.II.D.(10)(c) Record Retention

The Permittee shall retain these items for a period of at least three (3) years from the date of the sample, measurement, report, record, certification, or application, or until corrective action is completed, whichever date is later. This period may be extended by request of the Manager at any time and is automatically extended during the course of any unresolved enforcement action regarding this facility.

[401 KAR 39:060 Section 5, 40 CFR 270.30, 40 CFR 268.7]

S.II.D.(10)(d) Content of Records

Records of monitoring information shall include:
a. date(s), exact place(s), time(s), and individual(s) performing sampling or measurements
b. date(s) analyses were performed and the individual(s) who performed the analyses
c. analytical technique(s) or method(s) used
d. results of such analyses, including the detection limits or quantitation limits
e. monitoring results shall be reported at intervals specified elsewhere in the permit

[401 KAR 39:060 Section 5, 40 CFR 270.30]

S.II.D.(11) Advance Sampling Notification

The Permittee shall, at a minimum, provide one (1) week advance notification to the Manager and the Division's Field Office, of any environmental media sampling event required by this permit or its effects, in order to determine hazardous baseline, background, or contamination levels. During an environmental emergency, the Permittee is not required to provide advance notification.

[KRS 224.46-530]

S.II.D.(12) Reporting Planned Changes

The Permittee shall give notice to the Manager as soon as possible of any planned physical alterations or additions which may impact any Hazardous Waste Management Units (HWMUs), Solid Waste Management Units (SWMUs), Areas of Concern (AOCs), or the areas contaminated by them.

[401 KAR 39:060 Section 5, 40 CFR 270.30(l)(1)]

S.II.D.(13) Reporting Noncompliance

S.II.D.(13)(a) Anticipated Noncompliance

The Permittee shall give advance notice to the Manager of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

[401 KAR 39:060 Section 5, 40 CFR 270.30(l)(2)]

S.II.D.(13)(b) Immediate Notification

The Permittee shall report to the Manager any noncompliance with the permit which may endanger human health or the environment. Any information shall be provided orally within two (2) hours from the time the Permittee becomes aware of the circumstances (Kentucky twenty-four (24) hours reporting number (800) 928-2380). This oral report shall include information concerning release of any hazardous waste or hazardous constituents that may cause an endangerment to public drinking water supplies, including both surface water and groundwater used for public drinking water supply and any information of a release or discharge of hazardous waste or hazardous waste constituents, or of a fire or explosion from a hazardous waste site or facility, which may threaten the environment or human health outside the facility.

Noncompliance or an event which requires immediate notification includes, but is not limited to:

a. A determination by the Emergency Coordinator that there is an imminent or actual release, fire, or explosion which could threaten human health or the environment
b. Any Environmental Release, including but not limited to, those defined by Condition S.III.F.(3).
c. A confirmed exposure of an unprotected worker to chemical warfare agent exceeding the Short-Term Exposure Limit (STEL) defined in S.III.F.(2)
d. A determination that Performance Standards, including emissions or agent Destruction and Removal Efficiency (DRE), are not being met
e. An Off-Normal Event which leads to an unplanned shutdown, and/or an event which leads to an unplanned or extended processing pause
f. Any Critical Operating Parameter of this permit which is out of compliance and leads to an unplanned shutdown
g. A malfunction of or noncompliance with an FPI Parameter of Appendix E.
h. Any other unplanned shutdown which has the potential to affect compliance with this permit
i. Loss of the Off-gas Treatment System (OTS) Thermal Oxidizer (THO) controlled flame or THO "flame-out"
j. A fire at the SDC facility outside of the SDC Detonation Chamber or THO
k. Activation of a Contingency Plan

[401 KAR 39:060 Section 6, 40 CFR 270.30(l)(2), KRS 224.1-400(5), KRS 224.50-130(3)]

S.II.D.(13)(c) Follow-up Reporting

The Permittee shall also provide a written submission to the Manager within five (5) days of the time the Permittee becomes aware of the circumstances of the noncompliance. The written submission shall contain a description of the noncompliance and its cause; the periods of noncompliance (including exact dates and times); whether the noncompliance has been corrected; if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps planned or taken to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The written submission shall contain a description of the noncompliance and its cause, which shall include:

a. Name, address, and telephone number of the owner or operator and the reporter
b. Name, address, and telephone number of the facility
c. Date, time, and type of incident
d. Name and quantity of material(s) involved
e. The extent of injuries, if any
f. An assessment of actual or potential hazard to the environment and human health outside the facility, where this is applicable
g. Estimated quantity and disposition of recovered material that resulted from the incident

h. Periods of noncompliance, including exact dates and times
i. Whether the noncompliance has been corrected
j. If the noncompliance has not been corrected, the anticipated time it is expected to continue
k. Steps planned or taken to reduce, eliminate, and prevent reoccurrence of the noncompliance

[401 KAR 39:060 Section 5, 40 CFR 270.32]

S.II.D.(14) Transfer of Permit

This Permit may be transferred to a new owner or operator only if it is modified or revoked or a modification made in order to identify the new Permittee and incorporate such other requirements as may be necessary under KRS Chapter 224. Until the new owner or operator has demonstrated compliance with 401 KAR 39:060 Section 5, the old owner/operator shall continue to maintain financial assurance until released by the Manager in writing. Before transferring ownership or operation of the facility during its operating life, the Permittee shall notify the new owner/operator in writing of the requirements of 401 KAR 39 and 401 KAR 40 (40 CFR 239-282) and this permit.

[401 KAR 39:060 Section 5, 40 CFR 270.40, 401 KAR 39:090 Section 1, 40 CFR 264.12]

S.II.D.(15) Other Noncompliance

The Permittee shall report all instances of noncompliance not reported under the other conditions of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in Permit Condition S.II.D.(13)(c).

[401 KAR 39:060 Section 5, 40 CFR 270.30]

S.II.D.(16) Other Information

Whenever the Permittee becomes aware that any relevant facts were not submitted or were incorrect in a permit application or in any report to the Manager, the Permittee shall promptly submit such facts or information. In addition, upon request, the Permittee shall furnish to the Manager any information related to compliance with the permit.

[401 KAR 39:060 Section 5, 40 CFR 270.30 (l)(11)]

S.II.D.(17) New Additions or Alterations

The Cabinet may modify the permit when there is material and substantial alterations or additions to the permitted facility, or activity, which occurred after permit issuance and justify the application of permit conditions that are different or absent in this permit.

[401 KAR 39:060 Section 5, 40 CFR 270.41(a)(1)]

S.II.D.(18) New Information

The Cabinet may modify the permit when the Cabinet receives new information. Permits may be modified during their terms for this cause, if the information was not available at the time of permit issuance and justify the application of different permit conditions. *[401 KAR 39:060 Section 5, 40 CFR 270.41(a)(2)]*

S.II.D.(19) Information Repositories

The permittee shall establish, update, and maintain information repositories. The information repositories shall contain all documents, reports, data, and information deemed necessary by the Manager to fulfill the purposes for which the repositories are established. The Manager shall have the discretion to limit the contents of the repositories.

[401 KAR 39:060 Section 5, 40 CFR 270.42 (b)(3)]

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S.II.E. SIGNATORY REQUIREMENT

All applications, reports, or information submitted to the Cabinet shall be signed and certified by the Commander or by a duly authorized representative of the permittee(s). Certifications shall include the language: "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

[401 KAR 39:060 Section 5, 40 CFR 270.11 (d)(1)]

S.II.F. REPORTS, NOTIFICATIONS, AND SUBMISSIONS TO THE DIVISION

All reports, notifications, or other submissions which are required by this Permit to be sent or given to the Division should be sent by certified mail, overnight mail, or hand delivered to:

Kentucky Department for Environmental Protection
Hazardous Waste Branch
300 Sower Boulevard, Second Floor
Frankfort, Kentucky 40601

S.II.G. CONFIDENTIAL INFORMATION

The Permittee may claim as confidential any information required to be submitted by this permit in accordance with 401 KAR 39:060 Section 5 and the procedures in 400 KAR 1:060.

[400 KAR 1:060 Section 1(4), 400 KAR 1:060 Section 3), 401 KAR 39:060 Section 5, 40 CFR 270.12, KRS 224.10-210, KRS 224.10-212]

S.II.H. DOCUMENTS TO BE MAINTAINED AT THE FACILITY

The Permittee shall maintain at the facility the following documents and amendments, revisions, and modifications to these documents, as required by the specified regulation:

a. The approved Permit Application (401 KAR 39:060 Section 5)
b. The Waste Analysis Plan (401 KAR 39:090 Section 1)
c. Inspection schedules (401 KAR 39:090 Section 1)
d. Personnel training documents and records (401 KAR 39:090 Section 1)
e. The Contingency Plan (401 KAR 39:090 Section 1)
f. The Operating Record (401 KAR 39:090 Section 1)
g. The Closure Plan (401 KAR 39:090 Section 1)
h. Annual Reports (401 KAR 39:090 Section 1)
i. This permit, all permit modifications and any correspondence regarding this permit
j. Any other document required by permit conditions

S.II.I. SCHEDULE OF COMPLIANCE

This Permit includes a specified Compliance Schedule (Appendix A) leading to compliance with regulations. Any compliance schedule items shall require compliance as soon as possible, but no later than the timeline specified in the Schedule of Compliance.

[401 KAR 39:060 Section 5, 40 CFR 270.33]

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PART III

SPECIFIC CONDITIONS

S.III.A. GENERAL STANDARDS

S.III.A.(1) Permitted Waste Streams, Descriptions, and Codes

Chemical warfare agent-filled munitions, secondary wastes, and waste from the BGAD stockpile shall be the only wastes that are stored or treated under this Permit. No off-site wastes shall be stored or treated.

The permitted hazardous waste streams are listed below. Each of these hazardous wastes shall be managed as specified within this permit.

Waste Stream	Waste Codes	Process Codes and Waste Description
S.1	D001, D003-D011, N001	X99, S01, and T04; Separated GB M56 Rocket Warhead Sections in canisters or overpacks
S.2	D001, D003, D008, N001	X99; Agent contaminated GB M67 Rocket Motors with Shipping and Firing Tubes (SFTs) in overpack containers
S.3	D001, D003-D011, D026, D037, N001	X99, S01, and T04; GB Rockets and SFTs in overpack containers
S.4	D001, D003, N001	X99, S01, and T04; Agent and or Explosive Contaminated Secondary Waste to be Treated in the Static Detonation Chamber (SDC)
S.5	D004-D011, N201	S01; SDC Residue – Metal Munition Fragments and Ash
S.6	D004-D011, D022, N001	S01; Buffer Tank Solid Residues
S.7	D004-D011, D022, N001	S01; Cyclone Dust Residues and Filters
S.8	D002, D004-D011, N801	S01 and S02; Off-gas Treatment System (OTS) Scrubber Liquids
S.9	D001, D004-D011, N001	S01; Agent Derived, Listed Secondary Waste
S.10	D001-D011, D018, D019, D022, D027-D030, D039, D040, F001-F005, N001, N701, N901, N1001	S01; Miscellaneous Maintenance and Secondary Waste including but not limited to PPE, Oils, Hydraulic Fluids, Paints, Solvents, and Other Wastes Exhibiting Characteristics or Potentially Listed
S.11	D001-D011, D018, D019, D022, D027-D030, D035, D038, D039, D040, F001-F005, P098, P106, U002, U003, U044, U080, U154, U188, U196, U213, N001, N701, N901	S01; Lab Wastes and Solvents from Testing for GB Agent and by-product contamination
S.12	D002-D011, N001, N901	S01; Spent Decontamination Solutions
S.13	D004-D008, D010, D011, D022, N001	S01; Agent Contaminated Carbon Filters, HEPA Filters, and Prefilters determined to have been exposed to agent

[KRS 224.50-130, KRS 224.46-530, 401 KAR 39:060, Section 3]

S.III.A.(2) Hazardous Waste Treatment Units

Within the SDC 2000 Facility, the Static Detonation Chamber (SDC) System and appurtenances are considered a hazardous waste miscellaneous treatment unit. The Off-gas Treatment System (OTS) is considered a control device for the SDC System.

Movement of chemical warfare agent-filled items and over-packs are regulated as treatment under Commonwealth of Kentucky statutes and regulations.

[KRS 224.46-530, KRS 224.50-130(5), 401 KAR 39:060, Section 5]

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S.III.A.(3) Waste Codes

The following are listed hazardous wastes:

Code	Hazardous Waste
N001	GB (isopropyl methyl phosphono-fluoridate) and related compounds (H)
N001	Process Waste (Agent and or Explosive Contaminated Secondary Waste, Buffer Tank Solid Residues, Cyclone Dust Residues and Filters, Agent Derived, Listed Secondary Waste) associated with GB munitions
N001	Non-process wastes (PPE, filters, trash, concrete, rags, parts/tools, and related waste) associated with GB munitions
N001	Spent carbon, pre filters, and HEPA filters associated with GB munitions
N001	Maintenance/miscellaneous wastes associated with GB munitions
N101	Uncontaminated M67 Rocket Motor Assembly, Propellant Component of the Rocket Motor, Shipping Firing Tubes, and End-Caps associated with GB munitions
N201	Metal Parts Treater Residue or Static Detonation Chamber Residues and Ash, and Post Thermal Oxidizer Solids and Sludges associated with GB munitions or related wastes
N701	Lab Wastes associated with treated GB wastes and GB containing lab wastes treated to destroy agent with caustic
N801	Off-gas Treatment (OTM) condensate associated with treated GB wastes, Off-gas Treatment System liquids including Quench Fluid, Scrubber Fluids, Electrostatic Precipitator Fluids, Process Fluid Bleed Water, Post-Thermal Oxidizer Condensates and related wastes associated with Static Detonation Chamber treatment of GB munitions
N901	Spent Decontamination Solution associated with treated GB wastes
N1001	GB contaminated waste equipment, tools, and construction materials that have been decontaminated in accordance with United States Army Guidelines and have been determined to be safe for storage or transport, and approved by the Cabinet as no longer acutely hazardous

[KRS 224.50-130, KRS 224.46-530, 401 KAR 39:060 Section 3]

S.III.A.(4) Required Approvals

a) The Permittee shall not receive agent munitions or munition items at the SDC 2000 Facility until the Division has giving written approval to conduct agent destruction operations.

b) A Class 2 or 3 Permit Modification for the treatment of non-leaker or problematic, full M55 rockets and/or separated uncontaminated rocket motors shall be submitted and approved by the Director prior to movement and treatment of these items at the SDC 2000 Facility. The plan(s) shall address movement, storage, treatment, and disposition of these items and their SFTs.

[KRS 224.46-530(1)(g)]

S.III.A.(5) Worker Protection

All workers within 1,000 meters of the SDC 2000 shall be provided with an adequate level of protection against exposure to nerve agents.

[KRS 224.50-130(3), 401 KAR 39:090 Section 6]

S.III.A.(6) Destruction and Removal Requirement

The Permittee shall assure destruction and removal efficiency (DRE) of ninety-nine and nine thousand, nine hundred, and ninety-nine ten thousandths percent (99.9999%) for chemical warfare agents. The compliance limits are a maximum concentration for agent that shall not be exceeded in order to continuously meet 99.9999% DRE.

[401 KAR 39:090 Section 6, KRS 224.50-130 (3)(a)]

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S.III.B. GENERAL FACILITY STANDARDS

S.III.B.(1) Identification Number

KY8-213-820-105

S.III.B.(2) Required Notices

The Permittee shall not receive hazardous waste from off-site sources

S.III.B.(3) Waste Analysis

S.III.B.(3)(a) Detailed Chemical and Physical Analysis

Before the Permittee stores or disposes of any hazardous waste, the Permittee shall obtain a detailed chemical and physical analysis of a representative sample of the waste in accordance with Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, EPA Publication SW-846, or equivalent methods approved by the Manager. At a minimum, this analysis shall contain all the information which will need to be known to treat, store, or dispose of the waste. The analysis may be based in whole or in part on:

a. Testing the waste according to the methods set forth in 401 KAR 39:060 Section 3 (Identification and Listing of Hazardous Waste), 40 CFR 261 Subpart C, or an equivalent method approved by the Cabinet; or
b. Applying generator knowledge of the waste based on existing published or documented data on the hazardous waste or on hazardous waste generated from a similar process.

[401 KAR 39:060 Section 3 (40 CFR 261 Subpart C), 401 KAR 39:090 Section 1 (40 CFR 264.13)]

S.III.B.(3)(b) Analysis Repeated as Necessary

The analysis shall be repeated as necessary to ensure that it is accurate and up to date. A review of the waste streams shall be conducted annually to determine if any changes have occurred that may require an analysis to be repeated. At a minimum, the analysis shall be repeated:

a. When the Permittee is notified, or has reason to believe, that the process or operation generating the hazardous waste has changed or if the Permittee has reason to believe that the composition of the waste has changed; and/or
b. If the owner or operator of an off-site facility that received hazardous waste from the Permittee determines that the waste does not match the waste specified on the accompanying shipping manifest.

[401 KAR 39:090 Section 1 (40 CFR 264.13 (a)(3))]

S.III.B.(3)(c) Comply with Waste Analysis Plan

The Permittee shall comply with the Waste Analysis Plan, Attachment C, of the permit application. At a minimum, the Permittee shall maintain properly functioning instruments, use approved sampling and analytical methods, verify the validity of sampling and analytical procedures, and perform correct laboratory calculations. If the Permittee uses a contract laboratory to perform analyses, then the Permittee shall inform the laboratory, in writing, that it shall operate under the waste analysis conditions set forth in this Permit.

[401 KAR 39:090 Section 1 (40 CFR 264.13)]

S.III.B.(4) Security

The Permittee shall comply with the security procedures outlined in the Procedures to Prevent Hazards, Attachment F, of the applicable Section of this permit.

[401 KAR 39:090 Section 1 (40 CFR 264.14)]

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S.III.B.(4)(a) Prevent Entry

The Permittee shall prevent the unknowing entry, and minimize the possibility for the unauthorized entry, of persons onto the active portion of the facility.

[401 KAR 39:090 Section 1 (40 CFR 264.14)]

S.III.B.(4)(b) Perimeter Fence

The Permittee shall have:

a. A twenty-four (24) hour surveillance system (for example, television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the active portion of the facility
b. An artificial barrier (fence in good repair), that completely surrounds the active portion of the facility
c. A means to control entry, at all times, through the gates or other entrances to the active portion of the facility (an attendant, television monitors, locked entrance, or controlled roadway access to the facility)

[401 KAR 39:090 Section 1 (40 CFR 264.14)]

S.III.B.(4)(c) Warning Signs

The Permittee shall have:

a. A sign with the legend, "Danger - Unauthorized Personnel Keep Out," posted at each entrance to the active portion of a facility, and at other locations, in sufficient number to be seen from any approach to this active portion. The legend shall be written in English and in any other language predominant in the area surrounding the facility and shall be legible from a distance of at least twenty-five (25) feet.
b. Existing signs with a legend other than "Danger - Unauthorized Personnel Keep Out" may be used if the legend on the sign indicates that only authorized personnel are allowed to enter the active portion, and that entry onto the active portion can be dangerous.

[401 KAR 39:090 Section 1 (40 CFR 264.14)]

S.III.B.(5) General Inspection Requirements

The Permittee shall inspect the facility for malfunctions and deterioration, operator errors, and discharge which may cause or lead to a release of hazardous waste constituents to the environment or a threat to human health. These inspections shall occur often enough to identify problems in time to correct them before they harm human health or the environment. The Permittee shall remedy any deterioration(s) or malfunction(s) discovered by an inspection and keep all records.

[401 KAR 39:090 Section 1 (40 CFR 264.15 (except 40 CFR 264.15(b)(5))]

S.III.B.(5)(a) Inspection Schedule

The Permittee shall inspect monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment that are important to preventing, detecting, or responding to environmental or human health hazards in accordance with Attachment F, Procedures to Prevent Hazards.

The Permittee shall keep this schedule at the facility, and it shall identify the types of problems (for example, malfunctions or deterioration) which are to be looked for during the inspection (for example, inoperative sump pump, leaking container, or eroding dike).

The frequency of inspection shall be based on the rate of deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, malfunction, or any operator error goes undetected between inspections. At a minimum, the inspection frequency for all

hazardous waste storage units shall be weekly.

[401 KAR 39:090 Section 1 (40 CFR 264.15 (b)(except 40 CFR 264.15(b)(5)))]

S.III.B.(5)(b) Remedy

The Permittee shall remedy any deterioration or malfunction of equipment or structures which the inspection reveals, on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action shall be taken immediately.

[401 KAR 39:090 Section 1 (40 CFR 264.15 (c))]

S.III.B.(5)(c) General Inspection Log

The Permittee shall record inspections in an inspection log or summary. These records shall be kept for at least three (3) years from the date of inspection. At a minimum, these records shall include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

[401 KAR 39:090 Section 1 (40 CFR 264.15 (d))]

S.III.B.(6) Personnel Training

The Permittee shall comply with the Personnel Training Plan, Attachment H, of the permit application. Facility personnel shall successfully complete a program of classroom instruction and on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with this permit. The Permittee shall ensure that this program includes all the elements described below in this condition. This program shall be directed by a person trained in hazardous waste management procedures and shall include instruction which teaches facility personnel hazardous waste management procedures (including Contingency Plan implementation) relevant to the position(s) in which they are employed. At a minimum, the training program shall be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including where applicable:

a. Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment
b. Communications or alarm systems
c. Response to fires or explosions
d. Response to groundwater contamination incidents
e. Shutdown of operations

[401 KAR 39:090 Section 1 (40 CFR 264.16)]

S.III.B.(6)(a) Initial Training

Facility personnel shall successfully complete the training programs in accordance with the Personnel Training Plan, Attachment H, of the permit application, within six (6) months after the date of their employment or assignment to this facility, or to a new position at this facility, whichever is later. Employees shall not work in unsupervised positions until they have completed training.

[401 KAR 39:090 Section 1 (40 CFR 264.16)]

S.III.B.(6)(b) Annual Training

Facility personnel shall be given an appropriate annual review of the initial training in accordance with the Personnel Training Plan, Attachment H, of the permit application.

[401 KAR 39:090 Section 1 (40 CFR 264.16)]

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S.III.B.(6)(c) Job Description and Training

The Permittee shall maintain the following training documents and records at the facility:

a. The job title for each position at the facility related to hazardous waste management, and the names of the employees filling each job
b. A written job description for each job title, including the required skills, education, qualifications, and duties of employees assigned to each position
c. A written description of the type and amount of both introductory and continuing training that will be given to each job title
d. Records that document that the training or job experience has been given to, and completed by, facility personnel

[401 KAR 39:090 Section 1 (40 CFR 264.16)]

S.III.B.(6)(d) Training Records

Training records on current personnel shall be kept until closure of the facility. Training records on former employees shall be kept for at least three (3) years from the date the employee last worked at the facility.

[401 KAR 39:090 Section 1 (40 CFR 264.16)]

S.III.B.(7) General Requirements for Ignitable, Reactive, or Incompatible Waste

S.III.B.(7)(a) The Permittee shall take precautions to prevent accidental ignition or reaction of ignitable **or** reactive waste. This waste shall be separated and protected from sources of ignition or reaction including but not limited to: open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (for example, from heat-producing chemical reactions), and radiant heat.

S.III.B.(7)(b) The Permittee shall take precautions to prevent uncontrolled reactions which generate extreme heat or pressure, fire or explosions, or violent reactions; produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment; produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosion; damage the structural integrity of the device or facility; or through other like means threaten human health or the environment.

S.III.B.(7)(c) The Permittee shall document compliance with this condition. This documentation may be based on references to published scientific or engineering literature, data from trial tests (for example, bench scale or pilot scale tests), waste analyses, or the results of the treatment of similar wastes by similar treatment processes and under similar conditions.

[401 KAR 39:090 Section 1 (40 CFR 264.17)]

S.III.B.(8) Location Standards

Not applicable

S.III.B.(9) Land Disposal Restrictions (LDR)

A waste, restricted by LDR, as identified in 401 KAR Chapter 39:060, may not be placed in a land disposal unit without further treatment unless the requirements of 401 KAR Chapter 39:060 are met.

[401 KAR Chapter 39:060, Section 4, 40 CFR 268]

S.III.B.(9)(a) LDR - Prohibitions on Storage of Restricted Waste

See Entire Facility Section

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S.III.B.(9)(b) LDR - Storage Time

Munition storage: The Permittee may store waste restricted from land disposal for up to one (1) year in a permitted hazardous waste storage unit. The Permittee may store waste restricted from land disposal beyond one (1) year, if such storage was solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.

Facility generated waste storage: The Permittee may store waste generated from the SDC 2000 Facility and restricted from land disposal for up to one (1) year in a permitted hazardous waste storage unit.

[401 KAR 39:060, Section 4, KRS 224.46-520, 40 CFR 268]

S.III.B.(9)(c) LDR - General Restrictions

See Entire Facility Section

S.III.B.(9)(d) Restrict Shipment

The Permittee shall determine if any hazardous waste generated needs to be treated before it can be land disposed. The Permittee shall provide certification with each hazardous waste shipment that the waste meets land disposal requirements or a written notice that the waste does not meet the treatment standard.

Chemical related hazardous waste shipped off-site for treatment or disposal shall comply with the Waste Analysis Plan, Attachment C.

Off-site shipments of secondary waste with headspace monitoring resulting in greater than 1 Vapor Screening Level (VSL), shall be treated or disposed of at an appropriately permitted TSDF with direct feed to the receiving facility's treatment unit.

The Permittee shall adhere to the requirements of the Bounding Transportation Risk Assessment as well as the DA Memorandum (Requirements for Implementation of the US Army Chemical Materials Agency Bounding Transportation Risk Analysis for Shipment of Greater Than 1 Vapor Screening Level Chemical Agent Contaminated Secondary Waste) dated 15 September 2008; however, for greater than 0.5 IDLH shipments, the Permittee shall notify the Division and request and obtain approval from the Division prior to shipment.

[401 KAR 39:060 Section 4 (40 CFR 268 Subpart C), KRS 224.46-530, KRS 224.50-130]

S.III.C. PREPAREDNESS AND PREVENTION

S.III.C.(1) Design and Operation of Facility

The Permittee shall construct, maintain and operate the facility in a manner to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

The Permittee shall construct all hazardous waste management units (HWMUs) in accordance with the approved Permit Application and the drawings incorporated into the application.

[401 KAR 39:090 Section 1 (40 CFR 264.31)]

S.III.C.(2) Required Equipment

The Permittee shall keep all equipment at the facility as specified in the Contingency Plan, Attachment G, including:

a) An internal communications or alarm system capable of providing immediate emergency instruction

(voice or signal) to facility personnel

b) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two (2) way radio, capable of summoning emergency assistance from BGAD security force, BGAD fire department, emergency operations center (EOC), or state/local emergency response teams
c) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment
d) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or water spray systems
e) Monitoring equipment, personal protective equipment, decontamination solution
f) Munition over-packs to contain leaking munitions and munition components

[401 KAR 39:090 Section 1 (40 CFR 264.32), KRS 224.46-530]

S.III.C.(3) Testing and Maintenance of Equipment

The Permittee shall:

a) Test all emergency equipment including communication, alarm, fire, spill control, and decontamination equipment at the facility for quality
b) Maintain all equipment at the facility in good working order, to ensure proper operation in time of emergency, consistent with the inspection schedule given in the Procedures to Prevent Hazards, Attachment F

[401 KAR 39:090 Section 1 (40 CFR 264.33)]

S.III.C.(4) Access to Communications or Alarm Systems

Whenever hazardous waste is present at the facility, all personnel shall have immediate access to a telephone or a hand-held two (2) way radio, capable of summoning emergency assistance, either directly or through visual or voice contact with another employee.

[401 KAR 39:090 Section 1 (40 CFR 264.34)]

S.III.C.(5) Required Aisle Space

The Permittee shall maintain adequate aisle space in the container storage areas to allow unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area, with a minimum of 30 inches of aisle space.

[401 KAR 39:090 Section 1 (40 CFR 264.35)]

S.III.C.(6) Arrangements with Local Authorities

See Entire Facility Section

S.III.D. CONTINGENCY PLAN AND EMERGENCY PROCEDURES

S.III.D.(1) Implementation of Plan

The Permittee shall immediately carry out the procedures in Contingency Plan whenever there is an imminent or actual emergency situation including a fire, explosion, or unplanned sudden or non-sudden release of any hazardous waste or hazardous waste constituents which could threaten human health or the environment, including: activate internal facility alarms or communication systems, where applicable, to notify all facility personnel and appropriate state or local agencies with designated response roles if their help is needed.

[401 KAR 39:090 Section 1 (40 CFR 264.51, 40 CFR 264.56)]

S.III.D.(2) Content of Plan

The Contingency Plan shall contain the following information and be kept up to date:

a) Actions that facility personnel shall take in response to fires, explosions, or any unplanned sudden or

non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility

b) Arrangements agreed to by local emergency services
c) List of Emergency Coordinators
d) List, description, and location of all emergency equipment
e) Evacuation plan for facility personnel that describes signals, routes, and alternate routes

[401 KAR 39:090 Section 1 (40 CFR 264.52)]

S.III.D.(3) Copies of Plan

A copy of the Contingency Plan and all revisions to the plan shall be:

a) Maintained at the SDC 2000 Control Room and the BGCAPP Main Plant Control Room
b) Provided to BGAD Emergency Operations Center (EOC), all local police departments, fire departments, hospitals, and state and local emergency response teams that may be called upon to provide emergency services
c) Provided to all outside agencies, contractors, and emergency response providers that have a Memorandum of Agreement (MOA) with the facility to provide assistance in an emergency
d) Provided to the Hazardous Waste Branch Manager

[401 KAR 39:090 Section 1 (40 CFR 264.53)]

S.III.D.(4) Amendment of Plan

The Contingency Plan shall be reviewed, and immediately amended, if necessary, whenever:

a) The facility permit is revised
b) The plan fails in an emergency
c) The facility changes (e.g., in its design, construction, operation, maintenance, or other circumstances) in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency
d) There is a change to the list of Emergency Coordinators
e) The list of emergency equipment changes

Administrative updates and/or changes as identified above to the Contingency Plan may not warrant a permit modification. These shall be submitted to the Hazardous Waste Branch Manager for determination in accordance with 40 CFR 264.54.

[401 KAR 39:090 Section 1 (40 CFR 264.54), 401 KAR 39:060 Section 5 (40 CFR 270.42)]

S.III.D.(5) Emergency Coordinator

At all times, there shall be an Emergency Coordinator either at the facility or on call with the responsibility for coordinating all emergency response measures. The Emergency Coordinator shall be thoroughly familiar with all aspects of the facility's Contingency Plans, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. The Emergency Coordinator shall have the authority to commit the resources needed to carry out the Contingency Plan.

[40 CFR 264.55, 401 KAR 39:090]

S.III.D.(6) Emergency Procedures

S.III.D.(6)(a) Activate Alarms

Whenever there is an imminent or actual emergency situation, the Emergency Coordinator shall immediately activate internal facility alarms or communication systems, where applicable, to notify all facility personnel, and notify appropriate state and local agencies as specified in the Contingency Plan.

[40 CFR 264.56, 401 KAR 39:090]

S.III.D.(6)(b) Notify Off Post Emergency Responders

If the SDC 2000 Emergency Coordinator and BGAD EOC determine that the facility has had a release, fire, or explosion which could threaten human health or the environment outside the facility, findings shall be reported as follows:

(i) Immediately notify appropriate local authorities
(ii) Immediately notify either the government official designated as the on-scene coordinator for that geographical area, or the National Response Center (using their 24-hour toll free number 800-424-8802)
(iii) Be available to help appropriate officials decide whether local areas should be evacuated
(iv) Notify the Madison County Emergency Operations Center and Kentucky Emergency Management (KYEM).

[40 CFR 264.56, 401 KAR 39:090]

S.III.D.(6)(c) Release, Fire, or Explosion

The Emergency Coordinator and the BGAD EOC shall assess possible hazards to human health or the environment that may result from a release, fire, or explosion. This assessment shall consider both direct and indirect effects of the release, fire, or explosion (for example: the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or firefighting chemicals used to control fire and heat-induced explosions).

[40 CFR 264.56, 401 KAR 39:090]

S.III.D.(6)(d) Affected Areas

The Emergency Coordinator shall ensure that, in the affected area of the facility:

(i) No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed.
(ii) All emergency equipment listed in the Contingency Plan is cleaned and fit for its intended use before operations are resumed.

[40 CFR 264.56, 401 KAR 39:090]

S.III.D.(6)(e) Evaluate Release

Whenever there is a release, fire, or explosion, the Emergency Coordinator shall communicate the details of the emergency to the SDC 2000 Control Room Operator (CRO), which in coordination with the Main Plant Control Room and BGAD EOC, shall immediately identify the character, exact source, amount, and aerial extent of any released materials.

During the emergency, the Emergency Coordinator shall take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread. These measures shall include stopping processes and operations, collecting and containing release waste, and removing or isolating containers.

[40 CFR 264.56, 401 KAR 39:090]

S.III.D.(6)(f) Secure Recovered Waste

Immediately after an emergency, the Emergency Coordinator shall provide for treating, storing, or disposing of recovered waste; contaminated soil, surface, or ground water; or other material that may result from a release, fire, or explosion at the facility.

[40 CFR 264.56, 401 KAR 39:090]

S.III.D.(6)(g) Environmental Emergency Written Report

The Permittee shall note in the Operating Record the time, date, and details of any incident that requires implementing the Contingency Plan. Within fifteen (15) days after the incident, the

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Permittee shall submit a written report on the incident to the Hazardous Waste Branch Manager and the Division Field Office. The report shall include:

(i) Name, address, and telephone number of the Permittee
(ii) Name, address, and telephone number of the facility
(iii) Name, address, and telephone number of persons having actual knowledge of the facts surrounding the release or threatened release
(iv) Date, time, and type of incident (for example, fire or explosion)
(v) Name, quantity, concentration of materials, pollutant, or contaminant involved
(vi) Precise location, circumstances, and cause
(vii) The extent of injuries, if any
(viii) An assessment of actual or potential hazards to human health or the environment, and daily efforts taken by the Permittee to control or mitigate, including monitoring data
(ix) Estimated quantity and disposition of recovered material that resulted from the incident.
(x) Changes in equipment, procedures, personnel, etc. to prevent similar incidents
(xi) Any other pertinent or requested information

[40 CFR 264.56, 401 KAR 39:090, KRS 224.1-400, KRS 224.46-530]

S.III.D.(6)(h) Daily Notification During Environmental Emergencies

The Permittee shall notify the Division Field Office and Hazardous Waste Branch daily during an environmental emergency operation by telephone, e-mail, or fax. The following information, at a minimum, shall be provided:

(i) A summary of the previous day's operations
(ii) A summary of planned operations for the day, including monitoring and movement/handling
(iii) Results of any monitoring since the last daily notification
(iv) Any other pertinent or requested information

[40 CFR 264.56, 401 KAR 39:090, KRS 224.46-530]

S.III.D.(6)(i) Memorandums of Agreement (MOA)

The Permittee shall keep current copies of all MOAs with off-post emergency responders at an on-site location. If, at any time, the Permittee enters into an agreement with an off-post emergency responder not listed in the Contingency Plan, Attachment G of the application, or chooses not to renew an agreement with an off-post emergency responder listed in the Contingency Plan, then the Permittee shall notify the Hazardous Waste Branch Manager.

[40 CFR 264.52, 401 KAR 39:090]

S.III.D.(6)(j) Monitoring During Halted Operations

If the facility stops operations in response to a fire, explosion, or release, the Emergency Coordinator shall ensure that monitoring occurs for leaks, pressure buildup, gas generation, or ruptures in the SDC 2000 Facility.

[40 CFR 264.56, 401 KAR 39:090]

S.III.E. MANIFEST SYSTEM, RECORDKEEPING, AND REPORTING

S.III.E.(1) Manifest System

The Permittee shall comply with the manifest requirements for generators of hazardous waste, including:

S.III.E.(1)(a) Receive No Off-Site Chemical Related Hazardous Waste

The Permittee shall not accept at this facility any chemical warfare agent or chemical related hazardous waste generated off site.

[KRS 224.46-530]

S.III.E.(1)(b) General Requirements

If the Permittee transports, or offers for transportation, hazardous waste for off-site treatment, storage, or disposal, the Permittee shall prepare a manifest, and if necessary, the continuation sheet, incorporated by reference in 401 KAR 39:080 Section 1 (Appendix on Hazardous Waste Manifest and Instructions). The Permittee shall designate on the manifest, the facility which is permitted to handle the waste described on the manifest. The Permittee may also designate on the manifest, one (1) alternate facility which is permitted to handle the waste in the event an emergency prevents delivery of the waste to the primary facility. If the transporter is unable to deliver the hazardous waste to the primary facility or the alternate facility, the Permittee shall either designate another facility or instruct the transporter to return the waste.

[40 CFR 262.20 as established in 401 KAR 39:080 Section 1]

S.III.E.(1)(c) Acquisition of Manifests

If the state to which the shipment is manifested (consignment state) supplies the manifest and requires its use, then the Permittee shall use that manifest and include all information required. If the consignment state does not require and supply the manifest, then the Permittee shall use the Commonwealth of Kentucky's manifest and include all information required.

[40 CFR 262.21 as established in 401 KAR 39:080 Section 1]

S.III.E.(1)(d) Manifest Number of Copies

The manifest consists of at least the number of copies which will provide the Permittee, each transporter, and the owner or operator of the designated facility with one copy each for their records and another copy to be returned, by the operator of the designated facility, to the Permittee.

[40 CFR 262.22 as established in 401 KAR 39:080 Section 1]

S.III.E.(1)(e) Use of the Manifest When Shipping

The Permittee shall:

a. Sign the manifest certification by hand
b. Obtain the handwritten signature of the initial transporter and date of acceptance on the manifest
c. Retain one (1) copy for a minimum of three years
d. The Permittee shall give the transporter the remaining copies of the manifest
e. For rail shipments of hazardous waste within the United States which originate at the facility, the Permittee shall send at least three (3) copies of the manifest dated and signed in accordance with this section to the next non-rail transporter, if any; or the designated facility if transported solely by rail; or the last rail transporter to handle the waste in the United States, if exported by rail.
f. For shipments of hazardous waste to a designated facility in a state which has not yet obtained authorization to regulate that particular waste as hazardous, the Permittee shall assure that the designated facility agrees to sign and return the manifest to the Permittee, and that any out-of-state transporter signs and forwards the manifest to the designated facility with the shipment.

[40 CFR 262.23 as established in 401 KAR 39:080 Section 1]

S.III.E.(1)(f) Use of Manifest System When Receiving

Not applicable

S.III.E.(1)(g) Receiving Hazardous Waste by Rail

Not applicable

S.III.E.(2) Manifest Discrepancies

Manifest discrepancies are differences between the quantity or type of hazardous waste designated on the manifest or shipping paper, and the quantity or type of hazardous waste a facility actually receives. Significant discrepancies in quantity are:

a. For bulk waste, variations greater than ten (10) percent in weight
b. For batch waste, any variation in piece count, such as a discrepancy of one (1) drum in a truckload

Significant discrepancies in type are obvious differences which can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid, or toxic constituents not reported on the manifest or shipping paper.

Upon discovering a significant discrepancy, the Permittee shall attempt to reconcile the discrepancy with the waste generator or transporter (for example, by telephone or email). If the discrepancy is not resolved within fifteen (15) days after receiving the waste, the Permittee shall immediately submit to the Hazardous Waste Branch Manager a letter describing the discrepancy, a description of all attempts to reconcile it, and a copy of the manifest or shipping paper at issue.

[401 KAR 39:060 Section 5, 40 CFR 270.30 (l)(7), 401 KAR 39:090 Section 1, 40 CFR 264.72(c)]

S.III.E.(3) Unmanifested Waste Report

If the Permittee accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest, or without an accompanying shipping paper, and if the waste is not excluded from the manifest requirement by 401 KAR 39:060 Section 3 and 40 CFR 261.5 (Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators), then the Permittee shall prepare and submit a single copy of a report to the Manager within fifteen (15) days after receiving the waste. The unmanifested waste report shall be submitted on an approved form. The report shall be designated "Unmanifested Waste Report" and include the following information:

a. EPA identification number, name, and address of the facility
b. Date the facility received the waste
c. EPA identification number, name, and address of the generator and the transporter, if available
d. Description and quantity of each unmanifested hazardous waste received
e. Method of treatment, storage, or disposal for each hazardous waste
f. Certification signed by the Permittee
g. Brief explanation of why the waste was unmanifested, if known

[401 KAR 39:060 Section 5, 40 CFR 270.30 (l)(8), 401 KAR 39:090 Section 1, 40 CFR 264.76]

S.III.E.(4) Operating Record

The Permittee shall keep a written Operating Record. At a minimum, the following information shall be recorded, as it becomes available, and maintained in the Operating Record until closure of the facility:

a. A description and the quantity of each hazardous waste received, and the method and date of its treatment, storage, or disposal at the facility as described in 401 KAR 39:090 Section 1 (Appendix I to 40 CFR 264 on Recordkeeping Instructions)

b. The location of each hazardous waste within the facility and the quantity at each location

c. Records and results of waste analyses and waste determinations

d. Summary reports and details of all incidents that require implementing Contingency Plans

e. Records and results of facility and equipment inspections for three (3) years

f. Monitoring, testing, analytical data, and corrective action

g. Notice to off-site generator of hazardous waste informing them in writing that the Permittee has the appropriate permit(s) for, and shall accept, the waste the generator is shipping

h. For an off-site treatment facility, a copy of the notice, and the certification and demonstration, if applicable, required of a generator under 401 KAR 39:060 Section 4 (Land Disposal Restrictions)

i. For an on-site treatment facility, the information contained in the notice (except the manifest number), and the certification and demonstration if applicable, required of the generator under 401 KAR 39:060 Section 4 (Land Disposal Restrictions, 40 CFR 268.7 and 268.9)

j. Records of munitions processed

k. Records of all operating/processing hours and days

l. Copies of all documents showing the quantity and disposition of metal scrap and residues shipped with the bill of lading or manifest number (if applicable)

m. Records associated with off-site shipments of hazardous wastes generated at the facility, the types and locations of destination facilities, and how the wastes were managed at the destination facilities (for example: recycling, treatment, storage, or disposal)

n. Records of quantities and date of each shipment of hazardous waste placed in a land disposal unit pursuant to 401 KAR 39:090 Section 1, 40 CFR 264.73

o. The Permittee shall also ensure that the facility that receives, treats, and/or disposes of hazardous waste generated at the permitted facility has the appropriate permits to treat and/or dispose of the waste. The Permittee shall retain documentation of treatment from the treatment or disposal facility

p. The date and time of all permit compliance interlock activations to include the cause, corrective action, and corrective measures taken to prevent recurrence of the incident

q. The Permittee shall record all incidents of the interlock function failures including the corrective measures taken to correct the condition that caused the failure and all equipment monitoring and inspection records for monitoring equipment compiled under the conditions of this permit

r. Daily Limiting Conditions of Operations checklist and any necessary mitigation measures

s. Any agent leak prior to treatment shall be documented and steps taken in response to the leak shall be documented each day until agent is no longer detected

t. A record of all shipments of greater than 0.5 IDLH wastes.

[401 KAR 39:080 (40 CFR 262.40, 40 CFR 262.41, 40 CFR 262.42, 40 CFR 262.43)]

S.III.E.(4)(a) Records Retention

The Permittee shall:

(i) Keep a copy of each signed shipping manifest, in addition to the signed copy returned from the designated facility which received the waste. Both copies shall be retained on record for at least three (3) years from the date the waste was accepted by the initial transporter.

(ii) Keep a copy of each annual report and exception report for a period of at least three (3) years from the due date of the report (March 1)

(iii) Keep records of any test results, waste analyses, or other waste determinations for at least three (3) years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal

(iv) Keep a log showing all facility and equipment inspections

The periods of retention referred to in this section are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Cabinet.

[40 CFR 262.23 as established in 401 KAR 39:080 Section 1, 40 CFR 264.74 as established in 401 KAR 39:090 Section 1]

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S.III.E.(4)(b) Availability, Retention, and Disposition of Records

All records, including plans, shall be furnished upon request, and made available at all reasonable times for inspection by any officer, employee, or representative of the Cabinet who is duly designated by the Secretary of the Cabinet. The retention period for all records required under this chapter is extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by the Cabinet.

[40 CFR 264.74 as established in 401 KAR 39:090 Section 1]

S.III.E.(5) Annual Report

The Permittee shall prepare and submit a Hazardous Waste Annual Report, DEP Form 7072. The Hazardous Waste Annual Report shall be submitted to the Cabinet no later than March 1 of each year. The Hazardous Waste Annual Report shall cover facility activities for the preceding calendar year. The Permittee shall provide a duplicate copy of the Hazardous Waste Annual Report to the Madison County Judge Executive and Emergency Management Agency so that he/she may make the report available to the county law enforcement and emergency services for emergency planning purposes.

The following document is hereby incorporated by reference: "Hazardous Waste Annual Report", DEP Form 7072.

[401 KAR 39:060 Section 5 (18), 401 KAR 39:080 Section 6]

S.III.E.(6) Quarterly Report

The Permittee shall submit quarterly reports to the Hazardous Waste Branch, no later than 45 days after the end of each calendar quarter, that document the treatment activities for that calendar quarter. The report shall include:

a. Type and number of munitions and/or items processed
b. Type and quantity of wastes shipped to TSD facilities, itemized by agent contaminated waste (including generator knowledge or results of headspace monitoring) and uncontaminated waste
c. Details of off-normal conditions experienced, including but not limited to Appendix G, and corrective measures taken
d. Number of CRWs that have been destroyed
e. Number of unpunched and/or undrained rocket warheads that have been destroyed
f. Number of overpacked full rockets destroyed
g. Type and quantity of secondary waste thermally treated
h. Records of any confirmed agent detection at any carbon mid-bed or at the stack
i. Records of any agent detections above the reporting limit in the ECM, SDC EB, and SDC Vestibules
j. Results of the analysis of IONEX 4000 mid-bed DAAMS tube (either analysis due to QA/QC or MINICAMS confirmation)
k. Results of any extractive analysis for agent performed on carbon filter material

[KRS 224.50-130(3), KRS 224.46-530(1)(g), 401 KAR 39:060 Section 5]

S.III.F. MONITORING REQUIREMENTS

S.III.F.(1) Groundwater Monitoring Requirements (RESERVED)

S.III.F.(2) Air Monitoring Requirements

When agent waste or agent derived secondary waste or an agent hazard is present at the SDC 2000 Facility, the permittee shall continuously monitor airborne concentrations of agent to prevent an exposure exceeding Airborne Exposure Limits, to determine the appropriate level of PPE for workers, and to ensure the general population is not at risk due to airborne agent concentrations.

MINICAMS shall be provided with an uninterrupted backup power supply and shall remain in continuous operation in the event of an interruption of power from the primary source

The Permittee shall operate agent monitoring systems in accordance with the Permit Application, the Laboratory Analysis and Monitoring Plan (LAMP) and Perimeter Monitoring Plan (PMP), Attachment O, and the MINICAMS/DAAMS Monitoring Table, Appendix B.

Monitoring at the OTS stack shall be configured with two NRT instruments for continuous monitoring. Only one OTS Stack NRT instrument shall be off-line at any given time for daily challenge and/or maintenance, up to a maximum of 3 hours, when hazardous waste is being processed.

Waste feed shall be immediately prohibited if both OTS Stack NRT monitors are offline at the same time.

At campaign changeover or completion, the Permittee shall not suspend agent air monitoring in agent storage and treatment areas until government (ACWA) approval of meeting the <1 VSL standard is provided to the Division and the Director approves monitoring suspension. In no case shall stack monitoring be suspended.

Airborne exposure limits for chemical warfare agents are below:

Level	GPL(a)	WPL(b)	STEL(c)	VSL(d)
Averaging Time	24 hrs.	8 hrs.	15 min	NA
GB (mg/m3)	$1x10^{-6}$	$3x10^{-5}$	$1x10^{-4}$	$1x10^{-4}$
Monitoring Method	Historic(e)	Historic(e)	NRT(f)	NRT(f)

(a) GPL is the General Population Limit and is an airborne agent exposure limit for the general population
(b) WPL is Worker Population Limit and is an airborne agent exposure limit for the worker population
(c) STEL is Short Term Exposure Limit and is a concentration based on a 15-minute exposure for an unprotected worker but is evaluated with an instrument using the shortest analytic cycle time practical to obtain accurate results. Since most NRT cycle times are less than 15min (typically 5-6 min), confirmed readings and durations are used to calculate whether the STEL has been reached or exceeded.
(d) VSL is Vapor Screening Level and is an agent vapor concentration-only value independent of time. As such, it is used to define a level of contamination for items, wastes, engineering controls systems (for example, filter beds and vestibules) and facilities under specific environmental conditions. VSL is the readout level of certain NRT monitors and the value is applied to process or operational monitoring as opposed to worker exposure.
(e) Historic monitoring is used when the sample analyzed represents an extended period of time and the results are not known until laboratory analysis is completed after the sampling event has been completed.
(f) NRT is Near Real-Time monitoring and is conducted with instruments that have the capability to collect, analyze, and report or display results within 15 minutes. They also provide audible and remote alarms when levels are detected at, or above, a specific alarm set point.

[401 KAR 39:060 Section 5 (40 CFR 270.31)]

S.III.F.(3) Environmental Releases

The Permittee shall operate the facility to prevent an environmental release of hazardous waste or hazardous waste constituents. An environmental release shall include but is not limited to the following:

a. Confirmed agent detection equal to or greater than 0.25 VSL at the ECM Ventilation Stack, or otherwise releasing agent from the ECM
b. Confirmed agent detection equal to or greater than 0.25 VSL at any EB Ventilation Stack, or otherwise releasing agent from the SDC EB
c. Confirmed agent detection equal to or greater than 1.0 VSL at the OTS stack
d. Confirmed agent detection of agent equal to or greater than general population limit (GPL) at a perimeter monitoring location
e. Confirmed detection of agent in an area that is not under engineering controls or in an airlock that is opened to the environment
f. Confirmed detections during movement of containers in accordance with S.III.I.(14)

g. The non-transient loss of engineering controls in an agent contaminated area that results in category A, category B, category A/B, or category C air pressures equal to or greater than the ambient air pressure in category D areas
h. A release of agent outside of engineering controls.

The listed criteria represent the concentration of agent prior to any sample dilution.

[401 KAR 39:090 Section 6, KRS 224.1-400(1)(b), KRS 224.1-400(4), KRS 224.50-130]

S.III.F.(4) Inspection of Monitoring Equipment

The Permittee shall conduct daily inspections of monitoring equipment in accordance with the Procedures to Prevent Hazards, Attachment F, when agent is present, to ensure proper working order. Inspections and maintenance shall ensure monitoring systems are meeting requirements of the LAMP. These inspection records shall be maintained as part of the facility Operating Record and made available for inspection by the Division.

[40 CFR 264.600 – 40 CFR 264.603, 401 KAR 39:090]

S.III.G. CLOSURE & POST-CLOSURE

See Entire Facility Section

S.III.H. FINANCIAL REQUIREMENTS

Not Applicable

S.III.I. USE AND MANAGEMENT OF CONTAINERS

S.III.I.(1) Condition of Containers

If a container holding non-munition hazardous waste is not in good condition, including but not limited to severe rusting, apparent structural defects, or if it begins to leak, the Permittee shall transfer the hazardous waste from this container to a container that is in good condition, or use over-packs as appropriate to handle the size of the container.

Leaking chemical agent rockets, rocket warheads, or containerized rocket warheads shall be placed in approved over-packs described in Process Information, Attachment D. The leaking chemical agent items shall be handled as described in Procedures to Prevent Hazards, Attachment F.

Leakers, rejects, and agent-contaminated items that are monitored above the action/alarm level (>0.25 VSL) and/or with visually observed liquid agent present must be placed into single round containers (SRCs) pending transfer to the SDC Enclosure Building (EB) and SDC unit.

[40 CFR 264.171, 401 KAR 39:090]

S.III.I.(2) Compatibility of Waste with Containers

The Permittee shall use containers made of, or lined with, materials which do not react with, and are otherwise compatible with, the hazardous waste to be stored so that the ability of the container to contain the waste is not impaired.

[40 CFR 264.172, 401 KAR 39:090]

S.III.I.(3) Management of Containers

A container holding hazardous waste shall always be closed during storage except when it is necessary to add or remove waste.

A container holding hazardous waste shall not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

Containers shall be labeled in accordance with 401 KAR 39:080 Section 1. Hazardous waste containers shall be positioned so that labels are visible and easy to inspect.

[401 KAR 39:090 Section 1 (40 CFR 264 Subpart I)]

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S.III.I.(4) Inspections

The container storage areas shall be maintained and operated to allow compliance with the inspection and container management requirements described in Attachment F, Procedures to Prevent Hazards.

a. Permittee shall conduct weekly inspections for leaking containers and deterioration of containers caused by corrosion or other factors in accordance with Attachment F, Procedures to Prevent Hazards, Inspection Schedule.
b. Permittee shall conduct weekly inspections of secondary containment system in the container storage areas for deterioration in accordance with Attachment F, Procedures to Prevent Hazards and the Inspection Schedule.

Permittee inspection procedures shall be based upon Attachment F, Procedures to Prevent Hazards and the Inspection Schedule.

[401 KAR 39:090 Section 1 (40 CFR 264.174)]

S.III.I.(5) Containment

The container storage areas shall be designed and operated as follows:

a. The Permittee shall provide secondary containment for any hazardous waste container that contains free liquids while in the permitted storage area and while in a less than 90-day accumulation area.
b. Monitoring and inspection procedures for the container storage areas shall assure the controls and containment systems are working as designed and agent is not escaping
c. A base which underlies the containers shall be free of cracks/gaps and be sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is removed
d. The base shall be sloped, or the containment system shall be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation
e. The containment system shall have sufficient capacity to contain ten (10) percent of the volume of containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination
f. Run-on into the containment system shall be prevented unless the collection system has sufficient excess capacity to contain any run-on which might enter the system
g. Liquid in secondary containment shall be removed to the maximum extent possible within 24 hours of discovery
h. Permittee shall ensure that any products or non-hazardous wastes stored in the container storage areas are counted toward the total permitted container storage volume

[401 KAR 39:090 Section 1 (40 CFR 264.174, 40 CFR 264.175), KRS 224.50-130]

S.III.I.(6) Special Requirements for Ignitable or Reactive Waste

Containers holding ignitable or reactive waste shall be located at least fifteen (15) meters from the facility's property line.

[401 KAR 39:090 Section 1 (40 CFR 264.176)]

S.III.I.(7) Special Requirements for Incompatible Wastes

Incompatible chemical related hazardous wastes and materials shall not be placed in the same container. Chemical related hazardous wastes shall not be placed in an unwashed container that previously held an incompatible waste or material. A storage container holding a chemical related hazardous waste that is incompatible with any waste or materials stored nearby in other containers, shall be separated from the incompatible materials, or protected from them by means of a dike, berm, wall, or engineering controls.

[401 KAR 39:090 Section 1 (40 CFR 264.177)]

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S.III.I.(8) Closure

Closure shall be in accordance with an approved Closure Plan, Attachment I.

At closure the Permittee shall remove all hazardous waste residues from the containment system and remaining containers, liners, bases, and soil containing or contaminated with hazardous waste or hazardous waste residues shall be decontaminated or removed from the facility in accordance with an approved Closure Plan, Attachment I.

[401 KAR 39:090 Section 1 (40 CFR 264 Subpart G)]]

S.III.I.(9) Permitted Container Storage

The locations of the storage areas shall be as indicated in Facility Layout and the Storage Location Figure, Appendix I.

Storage of hazardous waste in permitted container storage areas shall not exceed the capacity limits of S.III.I.(9)(a) through S.III.I.(9)(d).

The following container storage units are permitted and shall be operated and maintained as described in the permit application and this permit:

[401 KAR 39:090 Section 1 (40 CFR 264 Subpart I)]

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Condition	Container Storage Area	Description of Hazardous Wastes	Waste Code	Capacity Limits and Storage Requirements	Secondary Containment
S.III.I.(9)(a)	Earthen Covered Magazine (ECM)	Chemical agent (GB) filled M55 rockets with M441 shipping and firing tubes (SFTs) in a single-round container overpack, chemical agent filled (GB) containerized M56 rocket warheads (CRWs), and containerized M56 rocket warheads in overpacks. Waste streams S.1-S.3 specified in S.III.A.(1).	D001, D003- D011, D026, D037, and N001	16,000 gallons; 2,550 M56 warheads in Canisters; 500,000 lbs. Net Explosive Weight (NEW) maximum When storing both overpacked M55 Rockets and pallets of M56 warheads in canisters, the maximum number of warheads shall be reduced accordingly to allow required aisle space, inspections and movement operations Pallets and skids shall be stacked no more than two high and ensure safe storage of containers and munition items While N001 waste is present, the ECM door shall remain closed when the ECM is not being accessed	Spill pallets; portable secondary containment units
S.III.I.(9)(b)	SDC Storage Area	Munitions Items to be treated and various process wastes, and secondary wastes that will be generated at the SDC-2000. Waste streams S.1 – S.13 specified in S.III.A.(1).	D001-D011, D018, D019, D022, D027-D030, D035, D038, D039, D040, F001-F005, P098, P106, U002, U003, U044, U080, U154, U188, U196, U213, N001, N201 N701, N901, and N1001	3,000 gallons, Storage shall not exceed 100 M56 Warheads in canisters (323 lbs. NEW), 16 M56 Warheads in retrofit Single Round Containers (SRC) (51.68 lbs. NEW), 15 M55 Rockets in SRCs (337.95 lbs. NEW), or 16 M55 Rockets in Package In-transit Gas (PIG) Shipping Container (360.48 lbs. NEW)	Spill pallets; portable secondary containment units.
S.III.I.(9)(c)	OTS Storage Area A	Secondary wastes including waste streams S.6 – S.13 specified in S.III.A.(1).	D001-D011, D018, D019, D022, D027-D030, D035, D038, D039, D040, F001-F005, P098, P106, U002, U003, U044, U080, U154, U188, U196, U213, N001, N201, N701, N801, N901, N1001	2,500 gallons; Greater than 1 VSL waste shall not be stored in this area	Spill pallets; portable secondary containment units
S.III.I.(9)(d)	OTS Storage Area B	Off Gas-Treatment System liquid waste; S.6 – S.13 specified in S.III.A.(1).	D001, D004-D011, N801	40,000 gallons; Two (2) 18,000-gallon portable containers	Secondary containment integral to the containers; spill pallets; portable secondary containment units

[40 CFR 264.175, 401 KAR 39:090, KRS 224.46-530(1)(g)]

S.III.I.(10) Performance Oriented Packaging (POP)

The Permittee shall store non-munition, hazardous waste in containers that meet Department of Transportation (DOT) Performance Oriented Packaging standards.

[40 CFR 264.30, 401 KAR 39:090]

S.III.I.(11) Storage of Non-Hazardous Materials

The Permittee may store non-hazardous materials/waste in a permitted storage area provided the Permittee meets the following requirements:

a. Conducts necessary testing and analysis in accordance with the Waste Analysis Plan, Attachment C, in order to ensure that materials stored in the same permitted storage area are compatible
b. Ensure that any products or non-hazardous wastes stored in permitted storage areas are counted toward the total permitted container storage volume
c. Maintain inventories to ensure that permitted storage capacities are not exceeded
d. Comply with all applicable requirements of this permit while storing containers of products or non-hazardous materials/waste in the ECM, SDC EB, and OTS Storage Areas.

[KRS 224.46-530]

S.III.I.(12) Labeling

Each pallet or skid of containerized rocket warheads and over-packed rockets in permitted storage shall be labeled with the words "Hazardous Waste". Over-packs in which hazardous waste are placed, shall be labeled "Hazardous Waste" and labeled with the date that hazardous waste is added. Additional labeling shall clearly identify the content of the over-pack in accordance with Department of the Army Pamphlet 742-1. Hazardous waste containers shall be positioned so that labels are visible and easy to inspect.

[40 CFR 262.31, 40 CFR 262.34, 401 KAR 39:090, KRS 224.46-530(1)(g)]

S.III.I.(13) Agent Waste Storage

When agent waste is present or when there is an agent hazard, the permittee shall continuously monitor the storage area atmosphere for agent and shall provide vapor containment to prevent the uncontrolled release of agent to the environment.

a. Earthen Covered Magazine (ECM)
    i. The permittee shall maintain a carbon filtration unit with dual banks of carbon and induced draft (ID) fan. Continuous monitoring inside the ECM will be performed and the filter units shall be operated if agent is detected when storing agent waste.
    ii. The storage area shall be continuously maintained at an air pressure below the ambient air pressure while monitoring detects agent at or above the monitoring alarm level.
    iii. The stack shall be continuously monitored for agent when operating the carbon filter unit. Prior to taking primary monitoring equipment offline for calibration and maintenance, monitoring equipment in the approved MINICMAS/DAAMS Monitoring Table shall be placed in operation.
    iv. Agent emissions from the filter stack shall not exceed the compliance criteria of S.III.F.(3)(a)

b. SDC Enclosure Building (EB)
    i. The permittee shall provide continuous operation of the following components to maintain the SDC EB at a negative pressure:
        a. Cascading ventilation (i.e., air moves from Category C to Category B to Category A/B)
        b. Three carbon filtration units, each with dual carbon banks
        c. ID fans capable of the required air exchanges
    ii. The atmosphere of the EB shall be continuously monitored for agent once agent operations begin and only be terminated in accordance with S.III.F.(2). Calibration and maintenance shall be sequenced so that all EB MINICAMS are not offline at once.

iii. The permittee shall continuously monitor each EB carbon-filter stack for agent with dual MINICAMs. Prior to taking primary monitoring equipment offline for calibration and maintenance, redundant monitoring equipment shall be placed in operation.

iv. Each EB carbon-filter stack exhaust shall not exceed the compliance criteria of S.III.F.(3)(b) for agent emissions

c. Confirmed detection of 1 VSL of agent or greater between beds of carbon shall indicate agent breakthrough. If breakthrough is detected the carbon filter unit shall be taken offline and contaminated carbon beds shall be replaced prior to the unit being placed back online. This shall be done immediately when a redundant filter unit is available and as soon as possible for a single filter unit.

d. Carbon filter units shall be operated by backup power and shall remain in continuous operation in the event of an interruption of power from the primary source.

e. The permittee shall provide notification to the Director prior to performing carbon filter changeout in accordance with S.II.F. The notification shall include information explaining the necessity of the changeout.

[401 KAR 39:090, KRS 224.1-010(29), KRS 224.46-530(1)(g), KRS 224.50-130, 40 CFR 264.1201]

S.III.I.(14) Movement of Chemical Agent Items

Munition items shall only be transported from Blue Grass Chemical Activity (BGCA) storage igloos, ACWA storage igloos, or the Main Plant to the SDC Facility during daylight hours.

If monitoring indicates the presence of agent, movement of waste shall not occur until any leaking or contaminated item(s) or waste has been overpacked, containerized, or decontaminated and the item(s) has been monitored for agent and cleared below the 0.25 VSL alarm level. Movement may continue when the area agent monitoring indicates no alarm.

The SDC Personnel Vestibule and Forklift Vestibule shall be continuously monitored for agent during movement of munitions and munition items into or out of the SDC EB.

If air monitoring detects agent in a storage area or vestibule during movement operations, including a cycle following the movement, an environmental release is considered to have occurred during the movement and the munition items shall be immediately placed under engineering controls.

Flatbed trucks transporting munitions and munition items shall not stack palletized items or skids. The maximum capacity shall be 200 CRWs or 8 skids.

A flatbed truck shall not transport leaking or agent contaminated munitions, munition items, secondary waste, or skids unless it is sealed in an airtight container or overpack.

[401 KAR 39:005 Section 1, KRS 224.1-010(29), KRS 224.50-130(5)]

S.III.J. TANK SYSTEMS

S.III.J.(1) Records

The Permittee shall obtain and keep on file at the facility the Tank Assessment Reports and other written statements by those persons required to certify the design of the tank system and supervise the installation of the tank system that attest that the tank system was properly designed, installed, and that repairs, if necessary, were performed.

[401 KAR 39:090 Section 1 (40 CFR 264.192)]

S.III.J.(2) General Operating Requirements

Accumulated precipitation must be removed from the secondary containment system within 24 hours, or in as timely a manner as is possible to prevent harm to human health and the environment.

For all waste storage tanks, operating volume (defined as the volume contained within the tank from the bottom elevation of the tank to the HHLL elevation) is the equivalent of maximum capacity for RCRA purposes and shall not be exceeded. The permittee shall comply with the tank level ranges and limits in accordance with Appendix F, RCRA Operating Parameters.

Hazardous wastes or treatment reagents shall not be placed in a tank system if they may cause the tank, its ancillary equipment, or the secondary containment system to rupture, leak, or otherwise fail.

The Permittee shall use appropriate controls and practices to prevent spills and overflows from tank or secondary containment systems. These include at a minimum

a. Spill prevention controls (for example, check valves or dry disconnect couplings)

b. Overfill prevention controls (for example, level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank).

[401 KAR 39:090 Section 1 (40 CFR 264.194)]

S.III.J.(3) Inspections

S.III.J.(3)(a) Controls

The Permittee shall develop and follow a schedule and procedures for inspecting overfill controls.

The Permittee shall inspect at least once each operating day data gathered from monitoring and leak detection equipment to ensure that the tank system is being operated according to its design.

[401 KAR 39:090 Section 1 (40 CFR 264.195)]

S.III.J.(3)(b) Tanks

In addition, the Permittee shall inspect at least once each operating day:

a. Above ground portions of the tank system, if any, to detect corrosion or releases of waste.
b. The construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system, to detect erosion or signs of releases of hazardous waste.

[401 KAR 39:090 Section 1 (40 CFR 264.195)]

S.III.J.(3)(c) Coatings

The coatings system for the bleed water tank secondary containment pan and the coatings provided on the OTS Room floor shall be:

a. Free of cracks and gaps
b. Adhered to the structure beneath the coating
c. Inspected in accordance with the Inspection Plan

[401 KAR 39:090 Section 1 (40 CFR 264.195)]

S.III.J.(3)(d) Leak Detection

Leak detection systems to alert facility personnel to leaks shall be inspected at least weekly. Use of the alternate inspection schedule shall be documented in the facility's Operating Record. This documentation shall include a description of the established workplace practices at the facility.

[401 KAR 39:090 Section 1 (40 CFR 264.195)]

S.III.J.(3)(e) Ancillary Equipment

Ancillary equipment that is not provided with secondary containment shall be inspected at least once each operating day. The Permittee shall document each inspection in the Operating Record.

[401 KAR 39:090 Section 1 (40 CFR 264.195)]

S.III.J.(4) Response to Leaks or Spills and Disposition of Leaking or Unfit-for-Use Tank Systems

A tank system or secondary containment system from which there has been a leak or spill, or which is unfit for use, shall be removed from service immediately, and the Permittee shall satisfy the following requirements:

a. Immediately stop the flow of hazardous waste into the tank system or secondary containment system and inspect the system to determine the cause of the release
b. If the release was from the tank system, within 24 hours after detection of the leak, or if the Permittee demonstrates that it is not possible, at the earliest practicable time, remove as much of the waste as is necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the tank system to be performed.
c. Spilled or leaked waste must be removed from the secondary containment system within 24 hours, or in as timely a manner as is possible to prevent harm to human health and the environment.
d. Immediately conduct a visual inspection of the release and based upon that inspection shall:
   (i) Prevent further migration of the leak or spill to soils or surface water
   (ii) Remove, and properly dispose of, any visible contamination of the soil or surface water
e. Follow the reporting and notification procedures in this permit for a release
f. Repair the failed component or close the tank system
g. If the Permittee has repaired a tank system, and the repair was extensive (for example, installation of an internal liner, repair of a ruptured primary containment or secondary containment vessel), the tank system shall not be returned to service until the Permittee has obtained a certification by a professional engineer licensed in the Commonwealth of Kentucky, that the repaired system is capable of handling hazardous wastes without release for the intended life of the system
h. This certification shall be submitted to and approved by the Cabinet before returning the tank system to use
i. This certification shall be placed in the operating record and maintained until closure of the facility

[401 KAR 39:060 Section 5, 401 KAR 39:090 Section 1 (40 CFR 264.196)]

S.III.J.(5) Closure

Closure shall be in accordance with Attachment I, Closure Plan.

[401 KAR 39:090 Section 1 (40 CFR 264.197)]

S.III.J.(6) Special Requirements for Ignitable or Reactive Wastes

Ignitable or reactive waste shall not be placed in a tank unless:

The waste is treated, rendered, or mixed before or immediately after placement in the tank so that:

a. The resulting waste, mixture or dissolved material no longer meets the definition of ignitable or reactive waste;
b. 401 KAR 39:090 Section 1, as governed by 40 CFR 264.17(b) (General Requirements for Ignitable, Reactive, or Incompatible Wastes) is complied with; or
c. The waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to ignite or react; or
d. The tank system is used solely for emergencies.

[401 KAR 39:090 Section 1 (40 CFR 264.198)]

S.III.J.(7) Special Requirements for Incompatible Wastes

Incompatible wastes, or incompatible wastes and materials shall not be placed in the same tank, and hazardous waste shall not be placed in a tank system that has not been decontaminated and that previously held an incompatible waste or material; unless the Permittee takes precautions to prevent

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reactions which:

a. Generate extreme heat or pressure, fire or explosions, or violent reactions
b. Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment
c. Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosion
d. Damage the structural integrity of the device or facility
e. Through other like means threaten human health or the environment

[401 KAR 39:090 Section 1 (40 CFR 264.17(b), 40 CFR 264.198)]

S.III.J.(8) Permitted Tank Systems

One (1) Bleed Water Tank (BWT) is a permitted tank system and shall be operated and maintained as described in the permit application and this permit. The BWT stores spent OTS Scrubber Fluid and volume of its contents shall not exceed 476 gallons. Secondary Containment for the BWT shall be provided by the OTS Room concrete floor, curbs, and coatings.

[401 KAR 39:090 Section 1 (40 CFR 264 Subpart J), 401 KAR 39:060 Section 5 (40 CFR 270.16)]

S.III.K. SURFACE IMPOUNDMENTS (RESERVED)

S.III.L. WASTE PILES (RESERVED)

S.III.M. LAND TREATMENT (RESERVED)

S.III.N. LANDFILLS POST CLOSURE REQUIREMENTS (RESERVED)

S.III.O. INCINERATORS/BIF (RESERVED)

S.III.P. (RESERVED)

S.III.Q. (RESERVED)

S.III.R. (RESERVED)

S.III.S. SPECIAL PROVISIONS FOR CLEANUP (RESERVED)

S.III.T. (RESERVED)

S.III.U. (RESERVED)

S.III.V. (RESERVED)

S.III.W. DRIP PADS (RESERVED)

S.III.X. MISCELLANEOUS UNIT: STATIC DETONATION CHAMBER 2000 (SDC 2000)

S.III.X.(1) General Requirements

The Miscellaneous Unit consists of the loading system, detonation chamber, buffer tank, scrap conveyor, and associated equipment prior to the OTS Thermal Oxidizer. The Miscellaneous Unit shall be operated and maintained in accordance with the permit application and this permit.

[40 CFR 264.600 – 40 CFR 264.603, 401 KAR 39:090, Section 6]

S.III.X.(2) Off-gas Treatment

Prior to initiating a feed event and while agent waste is being treated in the SDC 2000 the permittee shall:

a. Continuously operate the Thermal Oxidizer (THO) in accordance with Attachment D, Process Information and S.III.X.(8) Operating Parameters

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b. Continuously operate an induced draft (ID) fan to maintain the THO and OTS at a pressure which is equal to or below the ambient air pressure
c. Maintain a redundant ID fan and place it into service immediately in the event of a failure of the primary fan
d. Maintain a backup power supply to continuously operate the OTS and implement its use in the event of an interruption in the primary power source
e. Continuously operate a carbon filtration unit with dual banks of carbon to filter the OTS process stream prior to releasing the stream to the atmosphere,
   i. If agent is detected between banks of carbon waste feed shall be stopped, the carbon filter unit shall be taken offline once any items in the DC are fully treated, and the carbon beds shall be replaced prior to feeding waste to the SDC.
   ii. The permittee shall provide notification to the Director prior to performing carbon filter changeout in accordance with S.II.F. The notification shall include information explaining the necessity of the changeout.
f. OTS liquid shall not be released from the EB unless it is cleared to less than 52 µg/L GB.

[KRS 224.46-530(1)(g), KRS 224.50-130(3), 401 KAR 39:090 (40 CFR 264.600 – 40 CFR 264.603)]

S.III.X.(3) Systemization

Prior to treating hazardous waste at the SDC 2000 facility, the Permittee shall install and test all process monitoring and control instrumentation to ensure the system meets the requirements of applicable regulations and the permit application. The Feed Prohibitive Interlocks (FPIs) shall be tested as part of systemization and in accordance with Appendix E.

[KRS 224.50-130(3), 40 CFR 264.601, 40 CFR 264.602, 401 KAR 39:090]

S.III.X.(4) Demonstration Test Plans

a. The Permittee shall not feed test munitions (ACWA Test Equipment or ATE) to the DC or conduct surrogate testing before the Division has approved a Test Munition and Surrogate Test Plan for the SDC 2000 Facility, in accordance with the Compliance Schedule, Appendix A.

b. The DTP shall include a ramp-up plan and schedule that details planned feed rates, items to be treated, and duration for each step in the ramp-up.

c. The DTP shall include objectives to test the operating conditions specified in S.III.X.(8) and Appendix F and to validate compliance with the performance standards specified in S.III.X.(9) for all waste feed rates.

d. The DTP shall specify Clean Burn Times and include an objective to test and verify scrap has no detectable agent for all items listed in S.III.X.(5)(f).

e. The DTP shall test each RCRA Operating Condition and FPI, except agent emission FPIs, within the range or at the limit specified In Appendices E and F. A parameter's value shall be revised if:
   (i) It fails to demonstrate compliance with the range or limit specified
   (ii) It fails to demonstrate compliance with a performance standard specified in S.III.X.(9)

f. Prior approval from the Division is required for any deviation from or change to the approved DTP or the approved Test Munition and Surrogate Test Plan.

[KRS 224.50-130(3), 40 CFR 264.601, 40 CFR 264.602, 40 CFR 270.11, 401 KAR 39:060, 401 KAR 39:090]

S.III.X.(5) Ramp-up and Demonstration Testing

a. Tests conducted using ATE and/or surrogates shall be in accordance with an approved Test Munition and Surrogate Test Plan.

b. The Demonstration Testing, including ramp-up, shall be in accordance with an approved DTP, Attachment Q.

c. Waste feed rates shall initiate and proceed in accordance with the Ramp-up Plan and Schedule included with the DTP. Waste feed shall not exceed the rates targeted for demonstrating DRE and emissions sampling in accordance with the DTP.

d. Clean burn times specified in an approved DTP shall be verified for each item listed in S.III.X.(5)(f).

e. The Permittee shall not exceed 720 hours for treatment of hazardous waste, treatment of 4,320 munition items, or treatment of 25 overpacked M55 rockets prior to conducting a test to demonstrate agent destruction and removal efficiency and emissions testing.

   i. The time treating hazardous waste shall be measured using a destruction timer specified in the approved Process Description, Attachment D, Process Information.

   ii. Time actively treating hazardous waste shall be counted and totalized beginning with the first feed event. The timer shall stop only once the SDC/OTS system pressure, temperatures, off-gas flow rates, and emissions have reached equilibrium following the detonation and/or deflagration of all items in the DC. The timer shall count and totalize time elapsed during each clean-burn sequence.

f. A test to demonstrate agent DRE as specified by S.III.X.(9)(a) and a test to demonstrate compliance with the performance standard for emissions as specified by S.III.X.(9)(c), shall be conducted for each munition type, including:
   i. containerized rocket warheads in canisters
   ii. overpacked CRWs
   iii. overpacked, undrained rocket warheads
   iv. overpacked, full M55 Rockets

g. For each munition item listed in S.III.X.(5)(f), the Permittee shall measure the OTS stack emission rates for all Constituents of Potential Concern (COPCs) identified in the Multi-Pathway Human Health Risk Assessment (MPHHRA), Attachment N.

h. The Permittee shall measure stack emission rates and establish emission limits from the SDC for the following:

   i. Volatile, semi-volatile, and total organics
   ii. Carbon monoxide
   iii. Metals
   iv. PCBs
   v. Dioxin/furans
   vi. Particulate material

[KRS 224.50-130(3), 40 CFR 264.344, 40 CFR 264.601, 40 CFR 264.602, 40 CFR 270.11, 401 KAR 39:060, 401 KAR 39:090]

S.III.X.(6) Demonstration Test Reports and Results

a. A Final Demonstration Test Report shall be submitted to the Division in accordance with Appendix A, including:
   i. A certification in accordance with 401 KAR 39:060 Section 5.
   ii. Results of the DRE and emission tests including:
      a. Number of munition items for each waste feed event
      b. Duration of treatment time for each waste feed event
      c. Waste feed events per hour of the test
      d. Data collected for S.III.X.(5)(d) – S.III.X.(5)(h)
   iii. A summary of all data collected during the Demonstration Test

iv. Information related to any off-normal events experienced during the test or any event leading to an unplanned processing pause and corrective actions taken
v. Monitoring data for any confirmed MINICAMS agent detection in the SDC EB during ramp-up and testing, including information on the suspected or identified source of agent
vi. Results of any OTS carbon filter mid-bed DAAMS tube analysis conducted during the ramp-up and testing period including graphical and/or tabular data from the analysis.
vii. The number of processing hours, measured in accordance with S.III.X.(5), elapsed from the start of the agent campaign till the end of the Demonstration Test and the number of munitions itemized by munition type processed cumulatively for ramp-up and testing.

b. Should the demonstration test result in COPC emission concentrations greater than the estimated emissions rates in the MPHHRA, the Permittee shall either:
   i. Lower the munition feed rate, revise the FPIs, and/or the operating conditions and conduct a revised Demonstration Test; or
   ii. Revise the MPHHRA and demonstrate that the higher emission values resulting from the demonstration test do not pose an unacceptable risk level to human health and the environment.

c. If preliminary results indicate a COPC emission concentration greater than the estimated emission rate in the MPHHRA and this results in an unacceptable risk to human health or the environment, or if the DRE is not achieved, the Permittee shall:
   i. Immediately stop waste feed to the SDC
   ii. Notify the Division in accordance with S.II.D.(13)(b)
   iii. Submit a revised DTP for Division approval
   iv. Repeat the Demonstration Test

d. The Permittee shall include a Table of Demonstrated Feed Rates and Clean Burn Times with the Final Test Report.

[KRS 224.50-130(3)(a), 40 CFR 264.601, 40 CFR 264.602, 40 CFR 270.11, 401 KAR 39:060, 401 KAR 39:090]

S.III.X.(7) Operations Following Demonstration Test Completion

a. The Demonstrated Munition Feed Rate and Clean Burn Times, itemized by munition type, shall be submitted for Division approval.

b. Following the successful completion of the Demonstration Test, the Permittee shall be authorized to commence hazardous waste feed to the SDC at rates up to 75 percent of the maximum feed rates achieved during demonstration testing for each munition type.

c. The Permittee shall be authorized to commence hazardous waste feed to the SDC at rates up to 100 percent of the maximum feed rates achieved during demonstration testing upon submittal and Division approval of the Final Demonstration Test Report.

[40 CFR 264.600 – 40 CFR 264.603, 401 KAR 39:090]

S.III.X.(8) Operating Conditions

a. Treatment of hazardous waste is occurring once waste is fed to the DC and ends after the final destruction event and the OTS system has reached equilibrium (i.e., off-gas flow rates, temperatures, emissions). Treatment of hazardous waste includes Clean Burn sequences.

b. Prior to initiating a feed event and during treatment of waste, the Permittee shall monitor and continuously operate in compliance with the RCRA Critical Operating Parameters and Feed Prohibitive Interlocks (FPI), Appendix E and F.

c. Waste feed shall be prohibited and corrective measures taken during an imminent or actual emergency situation or any off-normal condition or any occurrence of a violation of a RCRA Critical Operating Parameter, FPI, or Performance Standard. Waste feed shall not resume until the malfunction has been identified and corrected and all parameters are in compliance as specified by Appendix E and Appendix F.

d. Feed rates for agent and energetics (NEW) shall be established by using munitions specific data available from Munitions Items Disposition Action System (MIDAS) reports generated by the Defense Ammunition Center (DAC).

e. The permittee shall not exceed Demonstrated Waste Feed Rates, Appendix H.

f. Feed determinations for the SDC shall be made for new or unique feed events. One determination shall be sufficient for identical feed trays.

g. Individual feed events shall include only items that are the same munition type (i.e., containerized drained warheads, overpacked undrained warheads, or overpacked M55 rocket).

h. Secondary waste to be treated in the SDC shall be free of occluded spaces and shall consist primarily of metal.

i. Prior to releasing the treated waste from the SDC, the contents of the SDC shall be treated for at least the Demonstrated Clean Burn Time, Appendix H, following the last detonation or deflagration.

j. Waste feed to the SDC shall only be initiated if the DC seals and locking clamps are operating and configured to maintain steady state pressure in the SDC before and after deflagration/detonation events and agent is not detected by MINICAMS in the SDC EB.

k. At no time shall the feed to the DC contain greater than 8.0 kg (or 17.65 lbs.) Explosive Bare Charge TNT equivalent of energetics and/or explosive materials.

[40 CFR 264.15, 40 CFR 264.73, 40 CFR 264.600 – 40 CFR 264.603, 401 KAR 39:090]

S.III.X.(9) Performance Standards

a. The Static Detonation Chamber (SDC), buffer tank, and the thermal oxidizer together shall provide at least 99.9999% nerve agent DRE. MINICAMs monitoring of the OTS stack exhaust shall continuously demonstrate DRE for all operating conditions and feed rates.

b. Agent emissions shall not exceed the limits specified in Condition S.III.F.(3), Environmental Release.

c. Emissions of the Constituents of Potential Concern, listed in the Multi-Pathway Human Health Risk Assessment (MPHHRA), shall be less than or equal to emission rates use as the basis for the MPHHRA.

d. The protective standards for the rates of emissions shall be met by limiting the overall feed rate into the SDC according Appendix H, Demonstrated Waste Feed Rates, and compliance with S.III.X.(8) Operating Conditions.

e. During testing and waste treatment, the operation of the SDC 2000 Facility shall continuously ensure protection of human health and the environment.

f. Treatment of SFTs and PCB waste shall comply with the EPA Approval for the Storage and Treatment of PCB Waste, Attachment R.

[KRS 224.50-130, 40 CFR 264.600 – 40 CFR 264.603, 401 KAR 39:090, Section 6]

S.III.X.(10) Inspections

The Permittee shall inspect his facility for malfunctions and deterioration, operator errors, and discharges which may be causing—or may lead to— (1) release of hazardous waste constituents to the environment

or (2) a threat to human health. The Permittee shall conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment.

a. The Permittee shall develop and follow a written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting, or responding to environmental or human health hazards.
b. This schedule shall be kept at the facility.
c. The schedule shall identify the types of problems (for example: malfunctions or deterioration) which are to be looked for during the inspection (for example: inoperative sump pump, leaking fitting, eroding dike).
d. The frequency of inspection may vary for the items on the schedule. However, the frequency should be based on the rate of deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, malfunction, or operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, shall be inspected daily when in use.

[401 KAR 39:090 Section 1 (40 CFR 264.602)]

S.III.X.(11) Maintenance

The Permittee shall maintain the facility, SDC and OTS equipment, monitoring and engineering controls in accordance with this permit and the permit application.

The SDC 2000 Facility shall be maintained to provide continuous compliance with all Operational Requirements and Performance Standards.

[401 KAR 36:060, Section 5, 401 KAR 39:090 Section 6, 40 CFR 264.600 – 40 CFR 264.603]

S.III.X.(12) Closure

Closure shall be in accordance with an approved Closure Plan, Attachment I.

[401 KAR 39:090 Section 1 (40 CFR 264 Subpart G)]

S.III.Y. (RESERVED)

S.III.Z. (RESERVED)

S.III.AA. AIR EMISSION STANDARDS FOR PROCESS VENTS

S.III.AA.(1) Applicability

Blue Grass Army Depot, through contract with the Bechtel Parsons Blue Grass Joint Venture, operates a closed vent system at the SDC 2000 Facility which are subject to requirements of 40 CFR Subpart AA as dictated by 40 CFR Subparts BB and CC.

[401 KAR 39:090 Section 1 (40 CFR 264 Subparts AA, BB, CC)]

S.III.AA.(2) Notification of New Units

Prior to installing or operating any new process vents, closed-vent systems, or control devices subject to 40 CFR Part 264 Subpart AA, or modifying any existing equipment, procedure, or process such that the process vents, closed-vent systems, or control devices will become subject to 40 CFR Part 264 Subpart AA, the Permittee shall notify the Director and apply for a permit modification.

[401 KAR 39:060 Section 5, 401 KAR 39:120]

S.III.AA.(3) SDC 2000 Facility – Standards for Pressure Relief Devices in Gas/Vapor Service

Pressure safety valves (PSVs) and pressure safety elements (PSEs) in gas/vapor service within the SDC 2000 facility that have the potential to contact hazardous waste gas/vapor streams greater than or equal

to 10 percent by weight (wt.%) organics in the chemical agent GB campaign are located within an area serviced by the SDC 2000 Enclosure Building HVAC System, which serves as a closed-vent system capable of capturing and transporting leakage from the pressure relief devices to a control device as described in 40 CFR 264.1060; therefore, these are exempted from monitoring requirements per 40 CFR 264.1054(c).

[401 KAR 39:090 Section 1 (40 CFR 264 Subpart BB)]

S.III.AA.(4) Standards for Closed Vent Systems and Control Devices

S.III.AA.(4)(a)

The SDC 2000 closed-vent systems and control devices subject to the requirements of 40 CFR 264.1033, as specified in the SDC 2000 Leak Detection and Reporting (LDAR) Program:

- SDC 2000 Enclosure Building HVAC System and associated activated carbon units
- Thermal Oxidizer Units (THO)

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 401 KAR 39:090 as defined by 40 CFR 264.1087. Performance testing of the THO and associated OTS shall be conducted according to emission testing requirements specified in the SDC 2000 Facility's Title V Permit No. V-10-023.

[401 KAR 39:090 Section 1 (40 CFR 264 Subpart CC)]

S.III.AA.(4)(b)

The activated carbon filter systems shall be monitored for breakthrough of agent. Confirmed chemical agent greater than or equal to 1 VSL shall be the alternative monitoring criteria used to determine organic breakthrough requiring change out of the activated carbon.

[401 KAR 39:090 Section 1 (40 CFR 264 Subpart CC)]

S.III.AA.(4)(c)

The THO control devices shall have a continuous temperature monitor that shall have an accuracy of ±1 percent of the temperature being monitored in °C or ±0.5 °C, whichever is greater, installed at a location in the combustion chamber downstream of the combustion zone, and shall have readings inspected at least once each operating day to check for control device operation. Operating temperatures will be equivalent to (no less than) 100 °C below the temperatures demonstrated to provide at least 95% organic removal using performance tests as specified in 40 CFR 264.1087(c)(5)(iii).

[401 KAR 39:090 Section 1 (40 CFR 264 Subpart BB and Subpart CC)]

S.III.AA.(5) Test Methods and Procedures

The Permittee shall comply with the test methods and procedures of 40 CFR 264.1034 for all process vents, closed-vent systems, and control devices subject to 40 C.F.R. Part 264 – Subpart AA.

[401 KAR 39:090 Section 1 (40 CFR 264 Subpart AA)]

S.III.AA.(6) Record Keeping Requirements

S.III.AA.(6)(a)

Records demonstrating compliance with 40 CFR 264 Subpart AA shall be maintained at the Facility for no less than three (3) years. Records shall contain, at a minimum, those requirements listed in 40 CFR 264.1035 and in this permit.

[401 KAR 39:090 Section 1 (40 CFR 264 Subpart AA)]

S.III.AA.(6)(b)

Records shall contain, at a minimum:

(i) The current list of process vents, closed vent systems and control devices, as well as their physical locations at the Facility (by map or P&ID);

(ii) All associated engineering calculations, waste determinations, design analysis, operating information, specifications, drawings, schematics, P&IDs and standards for each process vent, closed-vent system, or control device;

(iii) All maintenance, inspection, monitoring, leak detection, repair, and delay of repair records associated with each process vent, closed-vent system, or control device; and

(iv) Training documentation for persons conducting inspections or monitoring.

[401 KAR 39:090 Section 1 (40 CFR 264 Subpart AA)]

S.III.AA.(6)(c)

Records for components which are designated as unsafe to monitor shall be kept available at the Facility available for inspection and must demonstrate compliance with 40 CFR 264.1033(o) and 264.1035(c)

[401 KAR 39:090 Section 1 (40 CFR 264 Subpart AA)]

S.III.AA.(7) Reporting Requirements

A semiannual report, to be submitted by January 31 and July 31 of each calendar year, shall be submitted to the Director documenting all information required by 40 CFR 264.1036. A copy of this report shall be maintained at the Facility in the operating record.

[401 KAR 39:090 Section 1 (40 CFR 264 Subpart AA)]

S.III.BB. AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

S.III.BB.(1) Applicability

The permittee operates equipment at the SDC 2000 facility which is subject to requirements of 40 CFR Subpart BB, which applies to equipment that contacts hazardous wastes with organic concentrations of at least 10% by weight.

The requirements of 40 CFR Subpart BB are applicable to all SDC 2000 Facility equipment identified in Appendix D-1 of this Permit. Each piece of equipment is uniquely tagged for compliance with the requirements of this Permit and compliance with the Permittee's approved LDAR Program.

[401 KAR 39:090 Section 1 (40 CFR 264 Subpart BB)]

S.III.BB.(2) Notifications of Modifications, Additions, and New Units

Prior to installing or operating any new equipment which contacts hazardous waste containing or contacting hazardous waste with organic content of at least 10 percent by weight or modifying any existing equipment, or operation thereof, such that it will otherwise become subject to 40 CFR Part 264 Subpart BB, the Permittee shall notify the Director and apply for a permit modification.

[401 KAR 39:060 Section 5, 401 KAR 39:120]

S.III.BB.(3) Marking and Tagging Equipment

S.III.BB.(3)(a) Equipment Identification List

Equipment approved under this permit section are listed in Appendix D-1.

[401 KAR 39:090 Section 1 (40 CFR 264.1050(d) and 264.1064(b))]

S.III.BB.(3)(b) Equipment Tagging

The Permittee shall ensure that all subject equipment is uniquely marked and tagged for the specific purposes of tracking, monitoring, inspecting, and repairing each piece of equipment. Flanges and similar connectors only require tagging and marking to identify leaks and potential leaks. The tags must meet the following requirements:

- Tags display the identifier used on the Equipment Identification list and P&IDs
- Tags must be of a permanent nature,
- Tags must be constructed of or coated in a material that is not degraded by the hazardous waste streams, weather, or UV light.
- Tags must be regularly maintained to ensure it is clearly visible at all times of operation.

[401 KAR 39:090 Section 1 (40 CFR 264.1050(d) and 264.1064(c))]

S.III.BB.(4) Excluded and Exempt Equipment

Systems and equipment downstream of the SDC 2000 Thermal Oxidizer (THO) including the Off-gas Treatment System (OTS) are not subject to regulation under Subpart BB. In the event the equipment no longer qualifies for exclusion from Subpart BB, the Permittee shall immediately notify the Director, amend the Equipment Identification List, and comply with all applicable provisions of 40 CFR 264 Subpart BB.

[401 KAR 39:090 Section 1 (40 CFR 264.1050(b) and 264.1054(c))]

S.III.BB.(5) Equipment Standards

S.III.BB.(5)(a) [RESERVED]

S.III.BB.(5)(b) [RESERVED]

S.III.BB.(5)(c) [RESERVED]

S.III.BB.(5)(d) Valves in Gas/Vapor Service or in Light Liquid Service

(i) Valves in gas/vapor service subject to regulation under 40 CFR 264 Subpart BB are identified in Appendix D-1 of this Permit. These valves will be unsafe-to-monitor while the SDC 2000 is in operation and are 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.

(ii) Repairs to equipment listed in Appendix D-1 shall comply with the requirements of 40 CFR 264.1057, as applicable.

[401 KAR 39:090 Section 1 (40 CFR 264.1057)]

S.III.BB.(5)(e) Pumps and Valves in Heavy Liquid Service, Pressure Relief Devices in Light Liquid or Heavy Liquid Service, and Flanges and Other Connectors

(i) Pumps, valves, and pressure relief devices in heavy liquid service and flanges and other connectors subject to regulation under the requirements of 40 CF 264 Subpart BB are identified in Appendix D-1 of this Permit.

(ii) In areas containing Chemical Agent within the SDC 2000, monitoring of the equipment identified in Appendix D-1 shall be performed as described in the SDC 2000 LDAR Program and the alternative monitoring plan described in Appendix D-2 of this Permit in order to prevent unnecessary exposure of personnel to Chemical Agent; the plan shall include the use of CCTV for inspection to visually identify leaks and Near Real Time air monitoring MINICAMS® devices to identify elevated chemical agent potentially due to equipment leaks.

Pumps, valves, and pressure relief devices in heavy liquid service and flanges and other connectors identified in Appendix D-1 not in chemical agent processing areas shall be visually

or otherwise monitored for leaks as required by 40 CFR 264.1058.

(iii) Flanges and other connectors identified in Appendix D-1 of this Permit that are on insulated lines or tanks are exempt from the monitoring and recordkeeping requirements per 40 CFR 264.1058(e)

(iv) If a leak or potential leak is found during an inspection, the leak or potential leak shall be noted on the inspection record, be tagged in accordance with 40 CFR 264.1064(c), and a "Leak Detection and Repair Record" shall be completed. The repair shall be completed in compliance with, and within the timeframes required by, 40 CFR 264.1058.

[401 KAR 39:090 Section 1 (40 CFR 264.1058)]

S.III.BB.(6) Delay of Repair

Delays of repair shall be in accordance with the requirements of 40 CFR 264.1059. A written description of the circumstances associated with the delay of repair addressing the requirements of 40 CFR 264.1059 shall be maintained in the Facility's operating record.

[401 KAR 39:090 Section 1 (40 CFR 264.1059)]

S.III.BB.(7) Closed Vent Systems and Control Devices

Closed-vent systems and control devices subject to Subpart BB requirements shall comply with 40 CFR 264.1033 and Condition S.III.AA.(3) of this Permit.

[401 KAR 39:090 Section 1 (40 CFR 264.1060)]

S.III.BB.(8) Alternative Standards for Valves in Gas/Vapor Service or in Light Liquid Service: Percentage of Valves Allowed to Leak

No alternative standards specifying the percentage of valves in gas/vapor service or in light liquid allowed to leak shall be used.

[401 KAR 39:090 Section 1 (40 CFR 264.1061)]

S.III.BB.(9) Alternative Standards for Valves in Gas/Vapor Service or in Light Liquid Service: Skip Period Leak Detection and Repair

Extended skip periods for leak detection and repair for valves in gas/vapor service or in light liquid service shall be used in accordance with 40 CFR 264.1062.

[401 KAR 39:090 Section 1 (40 CFR 264.1062)]

S.III.BB.(10) Test Methods and Procedures

(a) The Permittee shall comply with the test methods and procedures identified in Attachment L of this Permit, and 40 CFR 264.1063.
(b) The Permittee shall comply with the test methods and procedures of 40 CFR 264.1063 and the LDAR Program, for all equipment subject to 40 CFR 264 – Subpart BB.
(c) All testing, monitoring and confirmatory sampling must be conducted by persons trained in the proper implementation of the test methods and procedures required by 40 CFR 264.1063, including, but not limited to, Reference Method 21.

[401 KAR 39:090 Section 1 (40 CFR 264.1063)]

S.III.BB.(11) Record Keeping

(a) Records demonstrating compliance with 40 CFR 264 Subpart BB shall be maintained, accessible at the Facility, for a period of not less than three (3) years. All records necessary for demonstrating compliance shall include, at a minimum, the required recordkeeping information in 40 CFR 264.1064

and this Permit.

(b) These records shall include, but are not limited to: (1) the current list of regulated equipment and its physical location at the Facility, as illustrated on a Facility map and P&ID; (2) a running log of time, by calendar year, each piece of equipment used to manage hazardous waste with organic concentrations of at least ten (10) percent by weight; (3) all associated operating information, specifications, and standards for each unique piece of equipment; (4) all maintenance, inspection, leak detection, repair, and delay of repair records associated with each unique piece of equipment; and (5) training documentation for persons conducting inspections or monitoring.

(c) Records justifying valves in light liquid service designated as difficult or unsafe to monitor shall comply with 40 CFR 264.1057(g) and (h), be kept at the Facility or other appropriate location approved by the Director, be available for inspection at reasonable times, and demonstrate compliance with the requirements of 40 CFR 264.1064(h).

(d) 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 Director outlining the specific equipment and the applicable provisions of 40 CFR Parts 60, 61, or 63 with which the equipment must comply.

[401 KAR 39:090 Section 1 (40 CFR 264.1064)]

S.III.BB.(12) Reporting Requirements

In accordance with 40 CFR 264.1065, the Permittee shall prepare and submit a report semiannually, due on January 31st and July 31st of each calendar year, to the Director documenting all information required by 40 CFR 264.1065 for each month during that semiannual reporting period. A copy of the report shall be kept in the Facility's Operating Record.

[401 KAR 39:090 Section 1 (40 CFR 264.1065)]

S.III.CC. AIR EMISSION STANDARDS FOR TANKS, SURFACE IMPOUNDMENTS, CONTAINERS

S.III.CC.(1) Applicability

The Permittee operates hazardous waste management units at the Facility which are subject to requirements of 40 CFR Subpart CC, which applies to equipment that contacts hazardous wastes with organic concentrations of 500 parts per million by weight (ppmw) or more.

[401 KAR 39:090 Section 1 (40 CFR 264.1080 and 264.1082)]

S.III.CC.(2) Notification of Modifications, Additions, or New Units

Prior to installing or operating any new tanks, containers, surface impoundments, or associated control device systems subject to 40 CFR 264 Subpart CC existing equipment, and operation thereof, such that it will otherwise become subject to 40 CFR Part 264 Subpart CC, the Permittee shall notify the Director and apply for a permit modification.

[401 KAR 39:060 Section 5 (401 KAR 39:120)]

S.III.CC.(3) Excluded Units

(a) The following containers are excluded from regulation under Subpart CC:
- (i) Containers with a capacity less than 26.4 gallons (0.1 m^3).
- (ii) Rockets and rocket warheads containing approximately 1.2 gallons (0.0045 m^3) of Chemical Agent GB, 3.2 pounds (lbs.) of energetics, and 19.3 lbs. of propellant (with a total volume capacity of approximately 0.021 m^3).
- (iii) Overpack containers designed to hold a single leaking rocket.

(b) Should conditions change such that the Permittee is no longer able to claim the exclusions or exemptions identified in Appendix C-1, the Permittee shall immediately notify the Director and shall comply with the requirements of 40 CFR 264 – Subpart CC.

S.III.CC.(4) Waste Determinations

The Permittee must follow the waste determination procedures of 40 CFR 264.1083 and the most current approved Waste Analysis Plan for each facility.

S.III.CC.(5) Equipment Standards

S.III.CC.(5)(a) General

The Permittee shall control air pollutant emissions associated with the containers, tanks, and miscellaneous units in accordance with the standards specified in 40 CFR 264.1086 (containers), 264.1084 (tanks), and 264.1087 (closed-vent systems and control devices).

S.III.CC.(5)(b) Tanks / Miscellaneous Units

(i) The SDC DC and Buffer Tank must comply with the standards set forth in 40 CFR 264.1084. This miscellaneous unit shall provide a continuous barrier around the waste to be treated and shall be vented to a Level 2 control device of activated carbon or thermal oxidizer. Any openings not vented to a Level 2 control device shall be equipped with a closure device designed to operate with no detectable emissions.

(ii) The miscellaneous unit must comply with the standards set forth in 40 CFR 264.1084 and shall be vented to a Level 2 control device of activated carbon or thermal oxidizer.

[401 KAR 39:090 Section 1 (40 CFR 264.1084)]

S.III.CC.(5)(c) Containers

Containers in permitted container storage areas having a design capacity greater than 26.4 gallons (0.1 m^3) managing hazardous waste with an organic concentration of more than 500 ppmw must comply with the standards set forth in 40 CFR 264.1086.

[401 KAR 39:090 Section 1 (40 CFR 264.1086)]

S.III.CC.(5)(d) Closed Vent Systems and Control Devices

Closed-vent systems shall route gases and vapors from tanks and Subpart X miscellaneous units to either the thermal oxidizer (THO) units or activated carbon control devices. The closed-vent systems shall be designed to operate with no detectable emissions. The closed-vent systems shall not contain bypass devices that divert gas or vapor to the atmosphere before entering the control devices. The THO control devices shall meet the requirements of 40 CFR 264.1087 and the requirements specified in Condition S.III.AA.(4). Performance testing of the THO and associated OTS system shall be conducted according to emission testing requirements specified in the Facility's Title V Permit No. V-16-019 and this permit.

[401 KAR 39:090 Section 1 (40 CFR 264.1087)]

S.III.CC.(6) Inspection and Monitoring Requirements

The closed-vent systems and THO/OTS and activated carbon control devices shall be inspected and monitored to ensure no detectable emissions in accordance with 40 CFR 264.1088. Some of the waste management units and the control devices are considered unsafe-to-monitor due to Chemical Agent exposure and operating hazards of entry into the area during operation, and alternate monitoring and inspection methods shall be used in accordance with 40 CFR 264.1084(l) for these units. Alternative monitoring and inspections shall be performed in accordance with the alternate monitoring methods set forth in Appendix D-2.

[401 KAR 39:090 Section 1 (40 CFR 264.1084)]

S.III.CC.(7) Record Keeping Requirements

(a) Records demonstrating compliance with 40 CFR 264 Subpart CC, including any third party's records, shall be maintained, accessible at the Facility for a period of not less than three (3) years. All records necessary for demonstrating compliance shall include, at a minimum, the required recordkeeping information in 40 CFR 264.1089 and this Permit.

(b) These records shall include but are not limited to the :(1) current list of regulated hazardous waste management units and their unique identification number, covers, closure and control devices and their physical location at the Facility as illustrated on a P&ID and/or Facility Map; (2) all associated operating information, specifications, and standards for each hazardous waste management unit; (3) annual waste determinations; (4) all maintenance, inspection, leak detection and repair records associated with each hazardous waste management unit; and (5) training documentation for persons conducting inspections or monitoring.

(c) Records justifying covers designated as unsafe to inspect or monitor shall comply with 40 CFR 264.1084(l) or 264.1085(g), be kept at the Facility or other appropriate location approved by the Director, be available for inspection at reasonable times, and demonstrate compliance with the requirements of 40 CFR 264.1089(g).

[401 KAR 39:090 Section 1 (40 CFR 264.1089)]

S.III.CC.(8) Reporting Requirements

(a) In accordance with 40 CFR 264.1090(a) and (b), the Permittee shall prepare and submit a report within fifteen (15) calendar days to the Director documenting each occurrence of noncompliance.

(b) In accordance with 40 CFR 264.1090(c), the Permittee shall submit a report semiannually to the Director documenting, for control devices operating in accordance with 40 CFR 264.1087, each instance where the control device could not be returned to compliance within twenty-four (24) hours and the actions taken to correct the noncompliance.

(c) The semiannual report shall be submitted by January 31st and July 31st of each calendar year.

[401 KAR 39:090 Section 1 (40 CFR 264.1090)]

S.III.DD. CONTAINMENT BUILDINGS (RESERVED)

S.III.EE. HAZARDOUS WASTE MUNITIONS AND EXPLOSIVES STORAGE (RESERVED)

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PART IV
CORRECTIVE ACTION FOR SWMUS AND AOCS

See Entire Facility Section

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PART V
REFERENCED ATTACHMENTS

S.V.A. REFERENCED ATTACHMENTS

S.V.A.(1) Attachment A, Part A (SDC 2000)

Part A of the Permit Application is incorporated as Attachment A of this permit.

[KRS 224.46:530]

S.V.A.(2) Attachment B, Facility Description, (SDC 2000)

Part B of the Permit Application, Facility Description, is incorporated as Attachment B of this permit.

[KRS 224.46-530]

S.V.A.(3) Attachment C, Waste Analysis Plan, (SDC 2000)

Part C of the Permit Application, Waste Analysis Plan, is incorporated as Attachment C of this permit.

[KRS 224.46-530]

S.V.A.(4) Attachment D, Process Information, (SDC 2000)

Part D of the Permit Application, Process Information, is incorporated as Attachment D of this permit.

[KRS 224.46-530]

S.V.A.(5) Referenced Attachments (RESERVED)

S.V.A.(6) Attachment F, Procedures to Prevent Hazards, (SDC 2000)

Part F of the Permit Application, Procedure to Prevent Hazards, including the Inspection Schedule is incorporated as Attachment F of this permit.

[KRS 224.46-530]

S.V.A.(7) Attachment G, Contingency Plan, (SDC 2000)

Part G of the Permit Application, Facility Contingency Plan, is incorporated as Attachment G of this permit.

[KRS 224.46-530]

S.V.A.(8) Attachment H, Personnel Training, (SDC 2000)

Part H of the Permit Application, Facility Personnel Training, is incorporated as Attachment H of this permit.

[KRS 224.46-530]

S.V.A.(9) Attachment I, Closure Plan, (SDC 2000)

Part I of the Permit Application, Facility Closure Plan, is incorporated as Attachment I of this permit.

[KRS 224.46-530]

S.V.A.(10) Attachment J, Other Federal Laws, (SDC 2000)

Part J of the Permit Application, Other Federal Laws, is incorporated as Attachment J of this permit.

[KRS 224.46-530]

S.V.A.(11) Attachment K, Waste Minimization, (SDC 2000)

Part K of the Permit Application, Facility Waste Minimization Program, is incorporated as Attachment K of this permit.

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[KRS 224.46-530]

S.V.A.(12) Attachment L, Organic Air Emissions, (SDC 2000)

Part L of the Permit Application, Organic Air Emissions, is incorporated as Attachment L of this permit.

[KRS 224.46-530]

S.V.A.(13) Attachment M, Signatures, (SDC 2000)

Part M of the Permit Application, Permittee Signatures, is incorporated as Attachment M of this permit.

[KRS 224.46-530]

S.V.A.(14) Attachment N, Multi-Pathway Human Health Risk Assessment (MPHHRA) Report for Blue Grass Chemical Agent – Destruction Pilot Plant

The Human Health Risk Assessment Report for the Bluegrass Chemical Agent-Destruction Pilot Plant SDC 1200 and 2000, dated December 2020, and revised August 2021 is incorporated as Attachment M of this permit.

S.V.A.(15) Attachment O, Laboratory Analysis and Monitoring Plan; Perimeter Monitoring Plan

The Laboratory Analysis and Monitoring Plan and Perimeter Monitoring Plan required by the Compliance Schedule, Appendix A, will be incorporated as Attachment O of this permit upon submission and approval by the Director.

S.V.A.(16) RESERVED

S.V.A.(17) Attachment Q, Demonstration Test Plan (SDC 2000)

The Demonstration Test Plan required by the Compliance Schedule, Appendix A, will be incorporated as Attachment Q of this permit once it is submitted and approved by the Director.

S.V.A.(18) Attachment R, EPA Approval of Storage and Treatment of PCB Waste at the SDC 2000

The Approval of Storage and Treatment of PCB Waste at the SDC 2000 Facility will be incorporated as Attachment R of this permit once it is authorized by the EPA and submitted as a Permit Modification.

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PART VI
WASTE MINIMIZATION

See Entire Facility Section

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Appendix A – Compliance Schedule for SDC 2000 Permit

1. Submit to the Division for approval **Feed Prohibitive Interlocks** at least 90 days prior to receipt of hazardous waste.

2. Submit to the Division for approval **Operating Conditions** at least 90 days prior to receipt of hazardous waste.

3. Submit to the Division for approval remaining **PE stamped drawings** at least 90 days prior to receipt of hazardous waste.

4. Submit to the Division for approval **Manufacturer Information, Studies, and Previous Demilitarization Information** to support the proposed feed rate of full M55 Rockets at least 90 days prior to receipt of hazardous waste.

5. Submit to the Division **Location of Container Storage Areas within the SDC and OTS Rooms** at least 45 days prior to receipt of hazardous waste.

6. Notify **KY Emergency Management and Madison County Emergency Management** of agent operations within 45 days prior to the receipt of hazardous waste. Submit a record of the notice to the Division prior to receipt of hazardous waste.

7. Submit to the Division for approval **Facility Construction Certification** at least 45 days prior to receipt of hazardous waste.

8. Submit to the Division **Secondary Waste Certification** at least 30 days prior to the receipt of hazardous waste.

9. Submit to the Division for approval **Waste Control Limits** at least 45 days prior to the receipt of hazardous waste.

10. Submit to the Division for approval a revised **Laboratory Analysis and Monitoring Plan** at least 90 days prior to receipt of hazardous waste.

11. Submit to the Division for approval a revised **MINICAMS/DAAMS Monitoring Table** at least 90 days prior to receipt of hazardous waste.

12. Submit to the Division for approval **Test Munition and Surrogate Test Plan** at least 90 days prior to initiating the test, including:
    1. Details of the surrogates and the configurations to be used
    2. Feed rates, test schedule, test objectives.

13. Submit to the Division **Agent Drainage Data for Containerized Rocket Warheads**, including:
    1. Data from Main Plant instrument(s) quantifying the amount of agent drained from rocket warheads (i.e., drained agent tank level indicators, drained warhead weight, punch and drain totalizing instruments)
    2. Provide data demonstrating the range of drainage efficiencies to-date
    3. At least 30 days prior to receipt of hazardous waste

14. Submit to the Division for approval a **Demonstration Test Plan and Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP) for GB Rocket Warhead Canisters and Overpacks and Overpacked M55 GB Rockets** including:
    1. Test plan in accordance with 401 KAR 39:090 Section 1 and 6,
    2. Munitions specific waste analysis data, from MIDAS or other sources, in accordance with 401 KAR 39:090 Section 1 and 401 KAR 39:060 Section 5,
    3. Test plan in accordance with the requirements of S.III.X.(5)
    4. At least 180 days prior to receipt of hazardous waste.

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15. Submit to the Division for approval **Request for Approval Prior to Start of Agent Destruction Operations**, including documenting that Compliance Schedule Items 1 through 14 are completed, at least 15 days prior to the receipt of hazardous waste. Division approval letter required prior to the receipt of hazardous waste.

16. Submit to the Division notice of successful completion of **Operational Readiness Review** prior to the receipt of hazardous waste.

17. Submit to the Division for approval a **Test Munition and Surrogate Test Report** within 30 days of test completion, including:
    1. Test munition and surrogate configuration information and feed rates
    2. Test results and supporting data for each objective in accordance with the approved test plan.

18. Submit to the Division a **Demonstration Test Report:**
    1. Within 60 days following the completion of the test
    2. In accordance with the requirements of S.III.X.(6)
    3. Including information in accordance with the approved DTP
    4. Division approval required before increasing waste feed rates to 100% of the feed rate successfully demonstrated.

19. Submit to the Division for approval an **Updated Closure Plan** at least 180 days prior to initiation of closure.

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APPENDIX B. MINICAMS/DAAMS MONITORING TABLE [RESERVED]

APPENDIX C. SDC 2000 LAYOUT [RESERVED]

APPENDIX D. ORGANIC AIR INFORMATION

APPENDIX D-1. SUBPART BB VALVES, FLANGES, AND OTHER CONNECTIONS

Equipment Tag	Equipment Description	Near	Equipment Type	Drawing No.	Fluid	Monitoring Exemption
UV11417	flanges, valve	SDC	F, V	PID-2	Heavy Liquid (>10%) and Gas	40 CFR §264.1057(g) / 40 CFR §264.1058(e)
Camera 5	Flange for Cooling Air	SDC	F	PID-2	Heavy Liquid (>10%) and Gas	40 CFR §264.1058(e)
UV11406	2 Hydraulic Seals to LC 2	SDC	Hydraulic seals	PID-2	Heavy Liquid (>10%) and Gas	40 CFR §264.1058(e)
TIA 11402	Temp indicator	SDC	F	PID-2	Heavy Liquid (>10%) and Gas	40 CFR §264.1058(e)
Loading Gate 2	Slide Gate to Loading Chamber 2	SDC	Slide Gate	PID-2	Heavy Liquid (>10%) and Gas	40 CFR §264.1058(e)
UV11403 UV11404 UV11412	6 Hydraulic Seals to LC 2	SDC	Hydraulic seals	PID-2	Heavy Liquid (>10%) and Gas	40 CFR §264.1058(e)
114V03	Flange, valve	SDC	F, V	PID-2	Heavy Liquid (>10%) and Gas	40 CFR §264.1057(g) / 40 CFR §264.1058(e)
114V07	Flange, valve	SDC	F, V	PID-2	Heavy Liquid (>10%) and Gas	40 CFR §264.1057(g) / 40 CFR §264.1058(e)
PI 12005	Flange	SDC	F	PID-2	Gas	40 CFR §264.1058(e)
120V07	Flange, valve	SDC	F, V	PID-2	Gas	40 CFR §264.1057(g) / 40 CFR §264.1058(e)
TI 12006	Flange	SDC	F	PID-2	Gas	40 CFR §264.1058(e)
120V25	Flange, valve	SDC	F, V	PID-2	Gas	40 CFR §264.1057(g) / 40 CFR §264.1058(e)
GI 120001-12	Flange for Air Fan 120	SDC	F	PID-2	Gas	40 CFR §264.1058(e)
120V26	Flange, valve	SDC	F, V	PID-2	Gas	40 CFR §264.1057(g) / 40 CFR §264.1058(e)
140V03	Flange, valve	SDC	F, V	PID-2	Gas	40 CFR §264.1057(g) / 40 CFR §264.1058(e)
114V02	Flange, valve	SDC	F, V	PID-2	Gas	40 CFR §264.1057(g) / 40 CFR §264.1058(e)
112V02	Flange, valve	SDC	F, V	PID-2	Gas	40 CFR §264.1057(g) / 40 CFR §264.1058(e)
GS+ 12001, 12002, 12003	Connector/ flange	SDC	C, F	PID-2	Gas	40 CFR §264.1058(e)
160	Buffer Tank	SDC	F, F, Expansion Joint, F	PID-3	Gas	40 CFR §264.1058(e)
114V01	Flange, valve	Buffer Tank	F, V	PID-3	Gas	40 CFR §264.1057(g) / 40 CFR §264.1058(e)
160V01	Flange, valve	Buffer Tank	F, V	PID-3	Gas	40 CFR §264.1057(g) / 40 CFR §264.1058(e)
UV16005	Flange, valve	Buffer Tank	F, V	PID-3	Gas	40 CFR §264.1057(g) / 40 CFR §264.1058(e)
162V01	Flange, valve	Buffer Tank	F, V	PID-3	Gas	40 CFR §264.1057(g) / 40 CFR §264.1058(e)
TI 16004	Connector/ flange	Buffer Tank	C, F	PID-3	Gas	40 CFR §264.1058(e)
310V16	Flange, valve	THO	F, V	PID-10	Gas	40 CFR §264.1057(g) / 40 CFR §264.1058(e)
TIC31015	Flange	THO	F	PID-10	Gas	40 CFR §264.1058(e)
N11A, N18	Flanges at Circular Pipeline	THO	F, F	PID-10	Gas	40 CFR 264.1058(e)
Coupler (reducer)	Flange	THO	F	PID-10	Gas	40 CFR §264.1058(e)

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APPENDIX D-2. ALTERNATIVE MONITORING

Inspections of equipment, tanks, tank closures, control vents, and control units shall be performed prior to operation to identify leaks (e.g., during systemization activities prior to introduction of hazardous waste), 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. In addition, subsequent visual inspections shall be performed as required by Subpart BB and Subpart CC, except for areas that are unsafe to enter, in which case inspections shall be performed as soon as possible based on when entries into the areas are safe or be performed to the extent possible by CCTV. These unsafe areas will include the SDC room(s) potentially containing Chemical Agent, and the THO unit room during operation. The details of inspection during entry and by CCTV shall be included in the LDAR Program.

Per Subpart BB requirements, equipment that is not exempt must be monitored using methods described in 40 CFR 264.1063(b) if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method. Due to the environment within the SDC rooms under HVAC system ventilation control that potentially contain Chemical Agent, the methods specified in 40 CFR 264.1063(b) cannot be safely implemented. Monitoring shall be performed by near-real-time MINICAMS® devices, which are field-deployed gas chromatograph-based monitoring instruments designed to measure GB or VX vapor concentrations, as an alternative for identifying gross equipment leaks that would result in emissions regulated under Subpart BB within these areas. This alternative monitoring by the MINICAMS® units rather than the methods specified in 40 CFR 264.1063(b) is suitable for the SDC 2000 Subpart BB equipment since either GB or VX will be the highest concentration organic compound in the wastes to be treated, and the MINICAMS® units will reliably indicate whether GB or VX is present in concentrations equal to or greater than 10,000 ppmv (as specified in 40 CFR 264.1058(b)). If these concentrations are detected, inspections shall be performed to identify any equipment leak sources, and if any are found, these shall be repaired. The fixed MINICAMS® units shall be placed throughout the SDC 2000 Facility and shall be configured to measure GB or VX with a total cycle time (sampling and analysis) of less than 15 minutes, with continuous operation when waste is being processed. Continuous operation is 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 details of the monitoring plan (as part of the inspection plan) using MINICAMS® units shall be included in the LDAR Program. All monitoring results shall be kept as part of the Facility operating record.

Per Subpart CC requirements, procedures such as those specified in 40 CFR 264.1084(d) or those in 40 CFR 264.1034(b) are required to demonstrate no detectable emissions (defined as instrument readings less than 500 ppmv above background). As with Subpart BB monitoring, due to the environment within the SDC 2000 Facility, the methods (e.g., FID or PID detector) specified cannot be safely implemented. Monitoring by near-real-time MINICAMS® devices shall be used as an alternative for identifying unexpected elevated organic levels that may represent leaks from tanks or miscellaneous units within the monitored area. Alternative monitoring by the MINICAMS® units rather than the methods specified is suitable for Subpart CC since either GB or VX will be the highest concentration organic compound in the wastes to be treated, and the MINICAMS® units will reliably indicate whether GB or VX is present in concentrations equal to or greater than 500 ppmv above background, prompting investigation of potential sources of leaks in the control vents and control devices.

The SDC 2000 HVAC system carbon adsorption unit control device shall also be monitored with MINICAMS® units; any confirmed detection of GB or VX by MINICAMS® shall serve as the indicator of impending breakthrough of organics through the carbon adsorption units in accordance with 40 CFR 264.1033(h)(1).

A plan for MINICAMS® carbon filter breakthrough monitoring with details of the method and interval shall be prepared prior to agent operations and be included in the LDAR Program. All monitoring results shall be kept as part of the Facility operating record.

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APPENDIX E. FEED PROHIBITIVE INTERLOCKS (FPIs)	**[RESERVED]**
APPENDIX F. RCRA CRITICAL OPERATING PARAMETERS	**[RESERVED]**
APPENDIX G. OFF NORMAL EVENTS	**[RESERVED]**
APPENDIX H. DEMONSTRATED WASTE FEED RATES AND CLEAN BURN TIMES	**[RESERVED]**
APPENDIX I. SDC ENCLOSURE BUILDING AND OTS CONTAINER STORAGE AREA LOCATIONS	**[RESERVED]**

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