January 8, 2020

Colonel Joseph R. Kurz, Commander  
Blue Grass Army Depot  
431 Battlefield Memorial Highway  
Richmond, Kentucky 40475-5060

RE: Final Decision for Permit Modification  
Class 3 Modification: GB Conversion (Main Plant) Permit  
Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP)  
Blue Grass Army Depot (BGAD)  
Richmond, Madison County, Kentucky  
EPA ID: KY8-213-820-105, AI: 2805, Activity: APE20190015

Dear Colonel Kurz,

The Kentucky Division of Waste Management has approved the above-referenced application to modify the BGAD Hazardous Waste Management Permit.

Enclosed are the following documents:
- Final signed permit modification issuance page
- Final GB Conversion (BGCAPP Main Plant) Section of the Permit
- Final Entire Facility Section of the Permit
- Responses to comments received regarding the draft permit

If you have any questions regarding this correspondence, please contact April Webb at (502) 782-6470 or by email at april.webb@ky.gov.

Sincerely,

April J. Webb, P.E., Manager  
Hazardous Waste Branch  
Division of Waste Management

Attachments

EC: John McArthur, BPBG  
    Todd Williams, ACWA  
    Brian Osterman, KDEP

Joe Elliott, BGAD  
Terri Crosby-Vega, EPA Region 4
The Division of Waste Management hereby grants the above-named facility a permit to engage in activity specified below. This permit has been issued under the provision of KRS Chapter 224 and regulations promulgated pursuant thereto and is subject to all conditions and operating limitations contained herein. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet and/or other federal, state, and local agencies.

Part I - Legal Authority
Part II - Standard Conditions
Part III - Specific Conditions
- Land Disposal Restrictions
- RCRA Air Emission Standards
Part IV - Corrective Action
Part V - Referenced Attachments
Part VI - Waste Minimization

No deviation from the plans and specifications submitted with your application or the conditions specified herein is allowed, unless authorized in writing from the Division of Waste Management. Violation of the terms and conditions specified herein shall render this permit null and void. All rights of inspection by representatives of the Division of Waste Management are reserved. Conformance with all applicable Waste Management Regulations is the responsibility of the permittee. Receipt of the permit fee and financial assurance specified below is hereby acknowledged.

PERMIT TYPE: Operating
TYPE OF ACTIVITY: Storage and Treatment
PERMIT FEE: NA
CLOSURE AMOUNT: NA
POST-CLOSURE AMOUNT: NA
CLOSURE INSTRUMENT: Federal Facility
POST-CLOSURE INSTRUMENT: Federal Facility
SUDDEN LIABILITY INSURANCE: NA
HAZARDOUS WASTE MANAGEMENT UNITS: Container, Tank, and Miscellaneous Units (See Conditions A.III.I.(9), A.III.J.(8), and A.III.X.(4))
NON-SUDDEN LIABILITY INSURANCE: NA

Issued this 8th day of January, 2020

[Signature]
Director
Division of Waste Management
Kentucky Energy and Environment Cabinet
Department for Environmental Protection
Division of Waste Management

HAZARDOUS WASTE MANAGEMENT FACILITY PERMIT

PART I
LEGAL AUTHORITY

A.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).

BGCAPP includes the Container Handling Building (CHB), Munitions Demilitarization Building (MDB), Supercritical Water Oxidation (SCWO) Processing Building (SPB), Hydrolysate Storage Area (HSA), SCWO Tank Area (STA), Waste Transfer Station (WTS), Container Storage Facility (CSF), Rocket Motor Storage (RMS), and related facilities.

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)]

A.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.

Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) Section A (1/8/2020)
Blue Grass Army Depot, KY-213-820-105; AI: 2805: Activity: APE20190015
into this permit.

<table>
<thead>
<tr>
<th>Application</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research, Development and Demonstration Permit Application - Revision 6a</td>
<td>October 11, 2017</td>
</tr>
<tr>
<td>Research, Development and Demonstration Permit - Class 2 Permit Modification Request</td>
<td>October 11, 2017</td>
</tr>
<tr>
<td>Class 3 Hazardous Waste Storage &amp; Treatment Permit Modification Request,</td>
<td>October 12, 2017</td>
</tr>
<tr>
<td>Addition of Blue Grass Chemical Agent-Destruction Pilot Plant - Main Plant Organic Air Emissions</td>
<td>Supplemented July 10, 2018</td>
</tr>
<tr>
<td>Class 3 Hazardous Waste Permit Modification Request, Addition of a Container Storage Facility</td>
<td>May 10, 2019</td>
</tr>
<tr>
<td>Class 3 Hazardous Waste Permit Modification Request, Addition of Hazardous Waste Storage Units</td>
<td>June 13, 2019</td>
</tr>
<tr>
<td>All modifications of the RD&amp;D Permit for GB destruction that were issued prior to the effective date of this permit are included in this permit.</td>
<td>Various dates</td>
</tr>
<tr>
<td>Letter requesting Conversion of Resource Conservation and Recovery Act (RCRA) Research, Development &amp; Demonstration (RD&amp;D) Permit to RCRA Part B Permit</td>
<td>August 6, 2019</td>
</tr>
</tbody>
</table>

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)]

**A.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)]

**A.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]

**A.I.E. SECTIONS OF THE PERMIT**

Not Applicable

**A.I.F. REGULATIONS AND STATUTES**

Applicable regulations and statutes are those which are in effect on the date of issuance, modification, or
PART II
STANDARD CONDITIONS

A.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]

A.II.B. PERMIT ACTIONS

A.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]

A.II.B.(2) Severability: Modification, Suspension, and Revocation of a Permit
The Cabinet may modify, suspend, or revoke this permit for:

- Violation of any requirement of KRS Chapter 224 or the respective administrative regulations promulgated pursuant thereto
- Aiding, abetting, or permitting the violation of any provisions of 401 KAR Chapters 39 and 40
- 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
- Violation(s) of a condition(s) of this permit
- Misrepresentation or omission of a significant fact by the Permittee either in the application(s) for
A.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.

A.II.B.(4) Permit Renewal

This Permit may be renewed as specified in Permit Condition A.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.

A.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:

- Initiate enforcement action based upon the permit which has been continued
- 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.
- Issue a new permit with appropriate conditions
- Take other actions authorized by Kentucky regulations, 401 KAR Chapters 39 and 40

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

See Entire Facility Section

A.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.

A.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.
A.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.

A.II.C.(2) “Blister or Nerve Agent” means a compound listed below, or degradation byproducts of these compounds:

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

[KAR 39:060 Section 3]

A.II.C.(3) “Chemical Munitions” are assembled projectiles or rockets containing chemical warfare agent including GB, VX, or H.

[KRS 224.50-130(2)]

A.II.C.(4) “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.

A.II.C.(5) “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.

A.II.C.(6) “Chemical Related Hazardous Waste” means all hazardous waste received by and/or generated by Blue Grass Chemical Activity stockpile management operations and the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP).

A.II.C.(7) “Contamination” means the degradation of naturally occurring water, air, or soil quality either directly or indirectly as a result of human activities.

[KAR 39:005 Section 1]

A.II.C.(8) “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.

[KAR 39:090]

A.II.C.(9) “Director” is a reference to the Director of the Division of Waste Management. The terms “Cabinet”, “Division”, and “Manager” can be used interchangeably.

[KAR 39:005 Section 1]
A.II.C.(10) “DRE” means the destruction and removal efficiency of agent, calculated by: \[ \frac{(W_{in} - W_{out})}{W_{in}} \times 100\% \]. 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, 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]

A.II.C.(11) “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.

A.II.C.(12) “Facility”

(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.

[401 KAR 039:005 Section 1, 40 CFR 260.10]

A.II.C.(13) “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)]

A.II.C.(14) “Hazardous Waste Constituent” means a constituent that caused the cabinet or EPA to list the waste, or a constituent listed in 401 KAR 39:060, Section 3 and 40 CFR Part 261 Subpart D.

[401 KAR 39:005 Section 1]

A.II.C.(15) “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]
A.II.C.(16) “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]

A.II.C.(17) “Leak Detection and Repair Program (LDAR Program)” refers to the process and procedures contained in the Organic Air Permit Application, Attachment N.

A.II.C.(18) “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.

A.II.C.(19) “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.

A.II.C.(20) “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.

A.II.C.(21) “Off-site” Off-site means any site which is not on site.

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

A.II.C.(22) “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]

A.II.C.(23) “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]

A.II.C.(24) “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]

A.II.C.(25) “Pilot Demonstration Testing” (PDT) means any testing performed in accordance with the criteria set forth in the approved Pilot Test Demonstration Plan (PTDP).

A.II.C.(26) “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) & (4)]

A.II.C.(27) “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
A.II.C.(28) "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.

A.II.C.(29) "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.

A.II.D. DUTIES AND REQUIREMENTS

A.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.

A.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 sixty (60) 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.

A.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.
A.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.

A.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.

A.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.

A.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.

A.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:

- 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
- Have access to and copy, at reasonable times, any records that shall be kept under the conditions of this permit
- Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated as required under this permit
- 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
- Split samples of any non-surety materials, and copies of analysis shall be provided to the Permittee or Division upon request
A.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:

- 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)).

- 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

- 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.

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

A.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.

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

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

- records of all monitoring information required under the terms of this Permit, including all calibration and maintenance records
- records of all original strip chart recordings for continuous monitoring instrumentation or the modern equivalent
- copies of all reports and records required by this Permit and all data used to prepare them
- records of all data used to complete the application for this Permit
- certification required by 401 KAR 39:090 Section 1
- annual Waste Minimization Certifications
- land disposal certification
- records from all groundwater testing, for the active life of this facility, and for disposal facilities
A.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.

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

Records of monitoring information shall include:

- date(s), exact place(s), time(s), and individual(s) performing sampling or measurements
- date(s) analyses were performed and the individual(s) who performed the analyses
- analytical technique(s) or method(s) used
- results of such analyses, including the detection limits or quantitation limits
- monitoring results shall be reported at intervals specified elsewhere in the permit

A.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.

A.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.

A.II.D.(13) Reporting Noncompliance

A.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.

A.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 the following:

- 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
- 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 which requires immediate notification includes, but is not limited to:
- 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
- Any Environmental Release, including but not limited to, those defined by Condition A.III.A.(6).
- A confirmed exposure of an unprotected worker to agent.
- A failure of a permit compliance interlock to provide its protective function during processing on each respective system.

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

A.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 description of the occurrence and its cause shall include:
- Name, address, and telephone number of the owner or operator and the reporter
- Name, address, telephone number of the facility
- Date, time, and type of incident
- Name and quantity of material(s) involved
- The extent of injuries, if any
- An assessment of actual or potential hazard to the environment and human health outside the facility
- Estimated quantity and disposition of recovered material that resulted from the incident

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

A.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]
A.II.D.(15)  Manifest Discrepancy Report

If a significant discrepancy in a manifest is discovered, the Permittee shall attempt to reconcile the discrepancy. If not resolved within fifteen (15) days, the Permittee shall submit a letter report, including a copy of the manifest, to the Manager.

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


This report shall be submitted to the Manager within fifteen (15) days of receipt of unmanifested waste.

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

A.II.D.(17)  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 A.II.D.(13)(c).

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

A.II.D.(18)  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)]

A.II.D.(19)  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)]

A.II.D.(20)  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)]

A.II.D.(21)  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)]

A.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)]

A.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

A.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]

A.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

A.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]
PART III
SPECIFIC CONDITIONS

A.III.A. GENERAL STANDARDS

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

GB agent-filled munitions and secondary wastes, and waste from the BGAD stockpile (which may include H Mustard secondary waste) shall be the only wastes that are stored or treated at BGCAPP. 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 streams beginning with “A” are from the RD&D application. Waste streams beginning with “R” are from the Rocket Motor Storage application. Waste streams beginning with “S” are from the Container Storage Facility application.

<table>
<thead>
<tr>
<th>Waste Stream</th>
<th>Waste Codes</th>
<th>Waste Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>D004, D005, D006, D007, D008, D009, D010, D011, and/or N201</td>
<td>X03; MPT Residues &amp; Ash</td>
</tr>
<tr>
<td>A.2</td>
<td>D003, D004, D005, D006, D007, D008, D009, D010, D011, and/or N501</td>
<td>S01, S02, and X99; Aluminum Precipitate</td>
</tr>
<tr>
<td>A.3</td>
<td>D004, D005, D006, D007, D008, D009, D010, D011, and/or N601</td>
<td>S02 and X99; Reverse Osmosis (RO) Reject</td>
</tr>
<tr>
<td>A.4</td>
<td>D026, D037, and/or N001</td>
<td>S01 and X03; Agent Contaminated Munitions Dunnage</td>
</tr>
<tr>
<td>A.5</td>
<td>D026 and/or D037 (Cresol &amp; PCP)</td>
<td>S01 and X03; Munitions Dunnage</td>
</tr>
<tr>
<td>A.6</td>
<td>D001, D003, D008, N101, and/or N102</td>
<td>S01; Rocket Motors &amp; Shipping and Firing Tubes</td>
</tr>
<tr>
<td>A.7</td>
<td>D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D026, D027, D028, D029, D035, D037, D038, D039, F001-F005, P998, P106, U002, U003, U044, U080, U154, U188, U196, U213, and/or N001, N002, N003, N201, N203, N301, N302, N401, N402, N501, N601, N701, N702, N703</td>
<td>S01; Lab Wastes</td>
</tr>
<tr>
<td>A.8</td>
<td>D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, F001-F005, and/or N001, N002, N003, N101, N201, N301, N401, N501, N601, N601, N701</td>
<td>S01; Maintenance and Miscellaneous Wastes; Oils, Paints, Spent Solvents, Hydraulic Fluids.</td>
</tr>
<tr>
<td>A.9</td>
<td>D022, N001</td>
<td>S01; Agent Derived, Listed Secondary Wastes</td>
</tr>
<tr>
<td>A.10</td>
<td>D001, D003, D004, D005, D006, D007, D008, D009, D010, D011, N001</td>
<td>S01 and X02; GB Rockets and Projectiles</td>
</tr>
<tr>
<td>A.11</td>
<td>D002, D004, D005, D006, D007, D008, D009, D010, D011, N301</td>
<td>S02; Agent Hydrolysate</td>
</tr>
<tr>
<td>A.12</td>
<td>D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, N401</td>
<td>S02; Energetics Hydrolysate</td>
</tr>
<tr>
<td>Waste Stream</td>
<td>Waste Codes</td>
<td>Waste Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>A.13</td>
<td>D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, N001, N301, N401, N901</td>
<td>S02; Spent Decontamination Solution</td>
</tr>
<tr>
<td>A.14</td>
<td>D004, D005, D006, D007, D008, D009, D010, D011, N601</td>
<td>S02; SCWO Effluent</td>
</tr>
<tr>
<td>A.15</td>
<td>D004, D005, D006, D007, D008, D009, D010, D011, N601</td>
<td>S02; RO Permeate</td>
</tr>
<tr>
<td>A.16</td>
<td>N801</td>
<td>S02; OTM Condensate</td>
</tr>
<tr>
<td>A.17</td>
<td>N001</td>
<td>S02; OTE Condensate</td>
</tr>
<tr>
<td>A.18</td>
<td>D004, D005, D006, D007, D008, D009, D010, D011, N203</td>
<td>S01; Static Detonation Chamber residue</td>
</tr>
<tr>
<td>A.19</td>
<td>D001, D002, D004, D005, D006, D007, D008, D009, D010, D011, D022, D026, D027, D028, D029, D030, D037, D039, D040, F001, F002, F003, F004, F005, N003</td>
<td>S01; Agent-contaminated derived-from KY wastes</td>
</tr>
<tr>
<td>A.20</td>
<td>D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D022, D026, D027, D028, D029, D030, D037, D039, D040, F001, F002, F003, F004, F005, N003, N203, N703</td>
<td>S01; Laboratory wastes &amp; solvents</td>
</tr>
<tr>
<td>A.21</td>
<td>D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D022, D026, D027, D028, D030, D039, D040, F001, F002, F003, F004, F005, N003, N203, N703</td>
<td>S01; Miscellaneous wastes</td>
</tr>
<tr>
<td>A.22</td>
<td>D002, D004, D005, D006, D007, D008, D009, D010, D011, N203</td>
<td>S01; Liquid from Off-gas Treatment System (OTS) scrubbers</td>
</tr>
<tr>
<td>A.23</td>
<td>D004, D005, D006, D007, D008, D009, D010, D011, N003</td>
<td>S01; Solids from OTS buffer tank</td>
</tr>
<tr>
<td>A.24</td>
<td>D004, D005, D006, D007, D008, D009, D010, D011, N203</td>
<td>S01; Dry Salts and particulates from the OTS spray dryer</td>
</tr>
<tr>
<td>A.25</td>
<td>D001, D004, D005, D006, D007, D008, D009, D010, D011, N003, N203</td>
<td>S01; Particulates and adsorbed vapors in the IONEX carbon filter beds; HEPA filters, pre-filters</td>
</tr>
<tr>
<td>A.26</td>
<td>D004, D005, D006, D007, D008, D009, D010, D011, N203</td>
<td>S01; Dust, particulates, and metal oxides</td>
</tr>
<tr>
<td>R-1</td>
<td>D001, D003, D008, N101</td>
<td>S01; Rocket Motors and Shipping and Firing Tubes for GB Munitions</td>
</tr>
<tr>
<td>R-2</td>
<td>D001, D003, D008, N102</td>
<td>S01; Rocket Motors and Shipping and Firing Tubes for VX Munitions</td>
</tr>
<tr>
<td>S.1</td>
<td>D004, D005, D006, D007, D008, D009, D010, D011, N201 and/or N202</td>
<td>X03; MPT Residues &amp; Ash and solids from the cyclone</td>
</tr>
<tr>
<td>S.2</td>
<td>D026 and/or D037 (Cresol &amp; PCP) N001, N002 and/or N003</td>
<td>S01 and X03; Agent Contaminated Munitions Dunnage</td>
</tr>
<tr>
<td>Waste Stream</td>
<td>Waste Codes</td>
<td>Waste Description</td>
</tr>
<tr>
<td>--------------</td>
<td>------------------------------------------------------------------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>S.3</td>
<td>D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D026, D027, D028, D029, D030, D035, D037, D038, D039, D040, F001-F005, P098, P106, U002, U003, U044, U080, U154, U188, U196, U213, N001, N002, N003, N701, N702 and/or N703</td>
<td>S01; Lab Wastes</td>
</tr>
<tr>
<td>S.4</td>
<td>D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D022, D028, D030, D039, D040, F001-F005, and/or D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D022, D026, D027, D028, D029, D030, D035, D037, D038, D039, D040, F001-F005, P098, P106, U002, U003, U044, U080, U154, U188, U196, U213, N001, N002, N003, F001-F005, and/or</td>
<td>S01; Maintenance and Miscellaneous Wastes; Oils, Paints, Spent Solvents, Hydraulic Fluids, etc.</td>
</tr>
<tr>
<td>S.5</td>
<td>N001, N002, N003, D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D022, D028, D030, D039, D040, F001-F005, and/or</td>
<td>S01; Agent Derived, Listed Secondary Wastes</td>
</tr>
<tr>
<td>S.6</td>
<td>D002, D003, D004, D005, D006, D007, D008, D009, D010, D011 and/or N001, N002, N003</td>
<td>S02; Spent Decontamination Solution,</td>
</tr>
<tr>
<td>S.7</td>
<td>D001, D004-D011, D022, D002, D003, and/or N001, N002, and N003</td>
<td>Contaminated Carbon, HEPA, and pre filters from the filter banks from Main Plant, EDT, and CSF</td>
</tr>
<tr>
<td>S.8</td>
<td>D004-D011 and/or N203</td>
<td>Static Detonation Chamber residue including metallic munitions fragments and ash</td>
</tr>
<tr>
<td>S.9</td>
<td>D001, D002, D004-D011, D022, D027-D030, D039, D040, F001-F005, and/or N001, N002, N003</td>
<td>Agent contaminated waste, PPE, Trash, Rags, Operation &amp; Maintenance Wastes from Main Plant, EDT, and CSF</td>
</tr>
<tr>
<td>S.10</td>
<td>D002, D004-D011, N203, and/or N003, D001, D004-D011, D022, N001, N002, N003</td>
<td>Liquid from OTS (Off-gas Treatment System) Scrubbers</td>
</tr>
<tr>
<td>S.11</td>
<td>D004-D011, N203, N003, and/or, D001, D022, N001, N002</td>
<td>Solids from the OTS Buffer Tank,</td>
</tr>
<tr>
<td>S.12</td>
<td>D001, D002, D004-D011, D022, D027-D030, D039, D040, F001-F005, and/or N003</td>
<td>Dry Salts and Particulates from the OTS Spray Dryer</td>
</tr>
<tr>
<td>S.13</td>
<td>D002, D004-D011, N203, D001, D022, D027-D030, D039, D040, F001-F005, N003</td>
<td>Dust and Metal Oxides from the OTS Bag House Filters</td>
</tr>
</tbody>
</table>

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

A.III.A.2 Waste Codes

The following are listed hazardous wastes:

<table>
<thead>
<tr>
<th>Code</th>
<th>Hazardous Waste</th>
</tr>
</thead>
<tbody>
<tr>
<td>N001</td>
<td>GB (isopropyl methyl phosphonofluoridate) and related compounds (H)</td>
</tr>
<tr>
<td>N001</td>
<td>Maintenance/miscellaneous wastes associated with GB munitions</td>
</tr>
<tr>
<td>N001</td>
<td>Non-process wastes (PPE, filters, trash, concrete, rags, parts/tools, and related waste)</td>
</tr>
</tbody>
</table>

Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) Section A (1/8/2020)
Blue Grass Army Depot, KY8-213-820-105; AI: 2805: Activity: APE20190015
Page 17 of 95
<table>
<thead>
<tr>
<th>Code</th>
<th>Hazardous Waste</th>
</tr>
</thead>
<tbody>
<tr>
<td>N001</td>
<td>Spent carbon, pre filters, and HEPA filters associated with GB munitions</td>
</tr>
<tr>
<td>N001</td>
<td>Agent contaminated dunnage associated with GB munitions</td>
</tr>
<tr>
<td>N003</td>
<td>H (bis (2-chloroethyl) Sulfide and related compounds (H))</td>
</tr>
<tr>
<td>N003</td>
<td>Maintenance/miscellaneous wastes associated with H munitions</td>
</tr>
<tr>
<td>N003</td>
<td>Non-process wastes (PPE, filters, trash, concrete, rags, parts/tools, and related waste) associated with H munitions</td>
</tr>
<tr>
<td>N003</td>
<td>Spent carbon, pre-filters, and HEPA filters associated with H munitions</td>
</tr>
<tr>
<td>N003</td>
<td>Agent contaminated dunnage associated with H munitions</td>
</tr>
<tr>
<td>N101</td>
<td>Uncontaminated M67 rocket motor assembly, propellant component of the rocket motors, shipping firing tubes, and end-caps associated with GB munitions</td>
</tr>
<tr>
<td>N201</td>
<td>Metal parts treater residue associated with GB munitions or related waste</td>
</tr>
<tr>
<td>N301</td>
<td>Agent hydrolysate associated with GB munitions</td>
</tr>
<tr>
<td>N401</td>
<td>Energetics hydrolysate associated with GB munitions</td>
</tr>
<tr>
<td>N501</td>
<td>Aluminum precipitate associated with GB munitions</td>
</tr>
<tr>
<td>N601</td>
<td>Reverse osmosis reject or supercritical water oxidation effluent associated with treated GB waste</td>
</tr>
<tr>
<td>N701</td>
<td>Lab wastes associated with treated GB wastes and GB containing lab wastes treated to destroy agent with caustic</td>
</tr>
<tr>
<td>N702</td>
<td>Lab Wastes associated with treated VX wastes and VX containing lab wastes treated to destroy agent with caustic</td>
</tr>
<tr>
<td>N703</td>
<td>Lab wastes associated with treated H wastes and H-containing lab waste treated to destroy agent with caustic</td>
</tr>
<tr>
<td>N801</td>
<td>Off-gas Treatment (OTM) condensate associated with treated GB wastes</td>
</tr>
<tr>
<td>N901</td>
<td>Spent Decontamination Solution associated with treated GB wastes</td>
</tr>
</tbody>
</table>

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

**A.III.A.(3) Approval Prior to Start of Agent Destruction Operations**

The Permittee shall not commence operations to destroy agent-filled munitions under this permit until Kentucky Emergency Management and the Division have given written approval.

[KRS 224.46-530(1)(g), KRS 224.50-130(3)(c)]

**A.III.A.(4) 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:

- Confirmed agent detection equal to or greater than 0.3 VSL, during the GB rocket campaign, at either of the Munitions Demilitarization Building (MDB) HVAC stacks
- Confirmed agent detection equal to or greater than 1.0 VSL, during the GB projectile campaign, at either of the Munitions Demilitarization Building (MDB) HVAC stacks
- Confirmed agent detection of agent equal to or greater than GPL at a perimeter monitoring location
- Confirmed detection of agent in an area that is not under engineering controls or in an airlock that is opened to the environment
• The non-transient loss of engineering controls in an MDB agent contaminated area that results in category A, category B, category A/B, or category C pressures equal to or greater than the ambient pressure in category D areas.
• A release of agent outside of engineering controls

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

A.III.A.(5) Destruction and Removal Efficiency

A.III.A.(5)(a) Destruction and Removal Requirement

The Permittee shall assure destruction and removal efficiency (DRE) of ninety-nine and nine thousand, nine hundred, and ninety-nine thousandths percent (99.9999%) for the nerve agent GB. The compliance limits are upper concentrations for agent in the agent hydrolysate, energetics hydrolysate, and MDB HVAC stacks 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)]

A.III.A.(5)(b) Hydrolysate

For GB rockets, each batch of agent hydrolysate and energetics hydrolysate shall be analyzed for agent. For GB projectiles, each batch of agent hydrolysate shall be analyzed for agent. Each batch shall contain an agent concentration at or below the compliance limit so as to ensure 99.9999% destruction and removal efficiency.

• During the GB rocket campaign, the compliance limit shall be 38 µg/L for agent hydrolysate and for energetics hydrolysate.
• During the GB projectile campaign, the compliance limit shall be 52 µg/L for agent hydrolysate.

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

A.III.A.(5)(c) MDB HVAC Stacks

When agent is present in the Munitions Demilitarization Building (MDB), the MDB HVAC stack(s) shall be monitored for agent and shall contain an agent concentration at or below the compliance limit so as to ensure 99.9999% destruction and removal efficiency.

• During the GB rocket campaign, the MDB stack compliance limit shall be 0.3 VSL.
• During the GB projectile campaign, the MDB stack compliance limit shall be 1.0 VSL.

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

A.III.A.(5)(d) Repeat Destruction and Removal Demonstration

The Permittee shall repeat the demonstration of 99.9999% destruction and removal efficiency if the neutralization formula changes, or if any destruction process changes, or upon written request by the Hazardous Waste Branch Manager.

[KRS 224.46-530(1)(g), KRS 224.50-130(3)(a), 401 KAR 39:090 Section 6]

A.III.A.(6) Off-gas Treatment System

A.III.A.(6)(a) Pilot Demonstration Testing

During the pilot demonstration testing, Permittee shall demonstrate that under normal operating conditions and normal agent loading that the agent concentration in the OTM off-gases is less than 1.0 VSL. Until the Permittee has demonstrated that the OTM off-gases contain less than 1.0 VSL
of agent, OTM Condensate shall be tested for agent and cleared to less than 38 µg/L for the GB rocket campaign, and 52 µg/L for the GB projectile campaign, prior to being released from the MDB.

[KRS 224.46-530(1)(g), KRS 224.50-130]

A.III.A.(6)(b) OTM Condensate - Normal Operation

OTM condensate shall be treated in the SCWO or it shall be cleared to less than 38 µg/L for the GB rocket campaign, and 52 µg/L for the GB projectile campaign prior to shipment offsite.

[KRS 224.46-530(1)(g), KRS 224.50-130]

A.III.A.(6)(c) Thermal Oxidizer (TOX) Shutdown

During TOX unit shutdown, a deviation from the parameters in Appendix F – Critical RCRA Parameters, listed for the TOX/OTM system, or other off normal event affecting the TOX/OTM system, OTM condensate shall be directed to the SDS tanks. Agent waste feed shall be prohibited to the Agent Neutralization System (ANS) and the Metal Parts Treater (MPT).

[KRS 224.46-530(1)(g), KRS 224.50-130]

A.III.A.(7) MDB HVAC System

A.III.A.(7)(a) Cascade Pressure Control

The Munitions Demilitarization Building (MDB) HVAC system shall maintain “cascade pressure control” and shall:

- Maintain a negative pressure environment in Hazard Category A, Hazard Category B, and Hazard Category C areas of the MDB
- Maintain the flow of air from areas of low contamination probability to areas of higher contamination probability.
- Remove agent in the air flow from the MDB and its systems prior to discharge to the atmosphere after the air streams have passed through other air pollution control systems, including the off-gas treatment for the MPT (OTM) and the EBH (OTE) to ensure 99.9999% destruction and removal efficiency, as specified in Condition A.III.A.(5)(a).

[KRS 224.46-530(1)(g), KRS 224.50-130]

A.III.A.(7)(b) Operational Requirement

The MDB HVAC System shall be operating at all times when agent is present in the MDB. Waste feed to all MDB treatment units shall be stopped if the MDB HVAC does not meet the conditions of this section.

[KRS 224.46-530(1)(g), KRS 224.50-130(3)]

A.III.A.(7)(c) Agent Breakthrough

Any confirmed detection of agent between beds of carbon will indicate agent breakthrough. If breakthrough is detected at the last mid-bed monitoring location, between beds 4 and 5, the carbon filter unit shall be taken offline immediately and carbon beds shall be replaced prior to the unit being placed back online.

[KRS 224.46-530(1)(g), KRS 224.50-130(3)]

A.III.A.(8) Pilot Test Demonstration Plan
A.III.A.(8)(a) Pilot Test Demonstration for GB Projectile Campaign

The Permittee shall conduct a Pilot Test Demonstration according to the approved PTDP and the following requirements:

- No more than 2,000 GB projectiles shall be treated prior to beginning Integrated Facility Demonstration.
- The PTDP shall ensure that all Environmental Performance Standards contained in A.III.X.(1) are met using the operating conditions specified in Appendix F and using the interlocks specified in Appendix G, treatment quantities, and waste feed rates specified in the PTDP.
- The Permittee shall test each operating condition in Appendix F and each interlock in Appendix G, treatment quantity, and waste feed rate specified in the PTDP at the condition specified or at a more limiting condition.
- The Permittee shall measure stack emissions for all Constituents of Potential Concern (COPCs) identified in the Multi-Pathway Human Health Risk Assessment (MPHHRA) (included in Attachment M) and all target analytes listed in the PTDP. All measurements and emission rates shall be included in the PTDP reports.
- Emissions testing shall include sampling and analysis of the MDB Stack gases for hydrogen cyanide.
- During testing, the Permittee shall operate and monitor emissions from the facility as specified in the approved PTDP.

[KRS 224.50-130(3), 401 KAR 39:060 Sections 1 and 5, 401 KAR 39:060 Section 5]

A.III.A.(8)(b) Demonstration Test Data Submittal for GB Projectile Campaign

- Test Reports shall contain a summary of all data collected during the Demonstration Test.
- All submissions shall be certified in accordance with 401 KAR 39:060 Section 5.
- If preliminary results and/or calculations show that performance standards for emissions and agent DRE testing are not being met during the Demonstration Test, the Permittee shall immediately stop waste feed.
- Should the demonstration test result in COPC emission concentrations greater than the Estimated Emissions Rates used in the MPHHRA, the Permittee shall either:
  - Revise the feed rate, treatment quantities, interlocks, or operating conditions to limit the emissions and conduct a revised Demonstration Test; or
  - Revise the MPHHRA and demonstrate that the higher emission values resulting from the demonstration test do not pose an unacceptable risk level to potential receptors.
- Permittee shall submit Preliminary and Final Test Reports for all Revised Demonstration Tests.
- Should testing demonstrate a more restrictive operating condition, interlock, treatment quantity, or waste feed rate is necessary to meet performance standards, the Permittee shall submit a permit modification to revise the value.

[KRS 224.50-130(3)(a), 401 KAR 39:060 Sections 1 and 5, 401 KAR 39:090 Section 6]

A.III.A.(9) Sumps and Secondary Containment

Sumps and secondary containment shall prevent any migration of wastes or accumulated liquid outside of secondary containment at any time during the use of the hazardous waste management unit.

- Spilled or leaked waste and accumulated precipitation shall be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system.
- The coatings system providing secondary containment in the MDB and SPB shall be:
  - Free of cracks and gaps
  - Adhered to the structure beneath the coating
  - Free of liquid beneath the coating
Inspected in accordance with the Inspection Plan
- Sumps and containment areas where coating repair is taking place shall be isolated or removed from service of providing secondary containment. The Permittee shall document repairs to coatings.
- The Permittee shall document areas that have been exposed to agent and clean-up activities.

[401 KAR 39:090 Section 1 (40 CFR 264.175, 40 CFR 264.193)]

A.III.A.(10) Spent Decontamination Solution
Contents of the spent decontamination collection system shall be treated in an ANR or tested for agent and cleared to less than 38 µg/L for the GB rocket campaign, and 52 µg/L for the GB projectile campaign prior to being released from the MDB. Spent decontamination solution shall not be sent off-site for treatment and/or disposal unless analyzed for agent and cleared to less than 38 µg/L for the GB rocket campaign, and 52 µg/L for the GB projectile campaign.

[KRS 224.46-530(1)(g), KRS 224.50-130(3)]

A.III.A.(11) SCWO Effluent
During the Pilot Demonstration Testing, SCWO effluent shall be tested for agent and the quantitative results shall be provided to the Hazardous Waste Branch Manager. SCWO effluent shall be tested for total organic carbon and cleared to 50 ppm prior to SCWO effluent or RO reject being shipped off-site.

[KRS 224.46-530(1)(g), KRS 224.50-130(3)]

A.III.A.(12) Leaker Munitions
Known leaker munitions are rockets or projectiles that have been discovered to leak agent vapor or liquid while stored in the CLA. They will have been over-packed prior to being transferred to BGCAPP.

Unknown leaker munitions are rockets or projectiles that have been discovered to leak agent vapor or liquid during transport or after being transferred to BGCAPP. Unknown leakers shall be over-packed and placed under engineering controls to prevent leaks to the environment.

The permittee shall give advance notice to the Manager before beginning treatment of leaker munitions.

[KRS 224.46-530(1)(g), KRS 224.50-130(3)]

A.III.A.(13) Worker Protection
All workers within 1,000 meters of the MDB 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]

A.III.A.(14) Reporting Requirements
The Permittee shall submit quarterly reports to the Hazardous Waste Branch, no later than 30 days after the end of each calendar quarter, that document the treatment activities for that calendar quarter. The report shall include:
- Type and number of munitions processed
- Quantity of agent processed
- Quantity of agent hydrolysate generated
- Documentation for each batch of agent hydrolysate that was rejected
- Quantity of energetics hydrolysate generated
- Documentation for each batch of energetics hydrolysate that was rejected
- Date, time and concentration of any confirmed agent detection at the MDB stack
- Quantity of agent hydrolysate processed by SCWO
- Quantity of energetics hydrolysate processed by SCWO
- Documentation of any off spec SCWO effluent
- Type and quantity of wastes shipped to TSD facilities
- Details of off normal conditions (as described in the Pilot Test Demonstration Plan “off normal” table) experienced and corrective measures taken

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

A.III.A.(15) Limitations of Permit

This Permit is for storage and treatment of munitions containing the nerve agent GB. Agent hydrolysate and energetics hydrolysate shall be treated by supercritical water oxidation, except that energetics hydrolysate that is generated during the rocket leak test campaign and is at or below the compliance limit may be shipped off-site. H-Mustard secondary waste, as specified in condition A.III.A.(1), generated at the EDT facility may also be stored at the Waste Transfer Station.

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

A.III.B. GENERAL FACILITY STANDARDS

A.III.B.(1) Identification Number

KY8-213-820-105

A.III.B.(2) Required Notices

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

A.III.B.(3) Waste Analysis

A.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:

- 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
- 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)]

A.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:
• When the Permittee is notified, or has reason to believe, that the process or operation generating the hazardous waste has changed; and/or
• 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))]

A.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)]

A.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)]

A.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)]

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

The Permittee shall have:

• 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
• An artificial barrier (fence in good repair), that completely surrounds the active portion of the facility
• 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)]

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

The Permittee shall have:

• 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.
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)]

A.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)))]

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

The Permittee shall follow the schedule in Procedures to Prevent Hazards, Attachment F, of the permit application, for inspecting 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.

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)))]

A.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))]

A.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))]

A.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:

- Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment
- Communications or alarm systems
- Response to fires or explosions
- Response to groundwater contamination incidents
- Shutdown of operations

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

A.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)]

A.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)]

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

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

- The job title for each position at the facility related to hazardous waste management, and the names of the employees filling each job
- A written job description for each job title, including the required skills, education, qualifications, and duties of employees assigned to each position
- A written description of the type and amount of both introductory and continuing training that will be given to each job title
- 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)]

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

A.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.

A.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.

A.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)]

A.III.B.(8) Location Standards
Not applicable

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

A waste, restricted by LDR, as identified in 401 KAR 39:060 Section 4, may not be placed in a land disposal unit without further treatment unless the requirements of 401 KAR 39:060 Section 4 are met.

[401 KAR 39:060 Section 4 (40 CFR 268 Subpart C)]

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

The storage of hazardous wastes restricted from land disposal under 401 KAR 39:060 Section 4 is prohibited, unless the following conditions are met:

- The Permittee stores such waste on site solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal.

- Each container of Hazardous Waste is clearly labeled with the words "Hazardous Waste," and marked to identify its contents and the date accumulation began in that container.

[401 KAR 39:060 Section 4 (40 CFR 268.50), KRS 224.46-520]

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

Munitions 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.

[401 KAR 39:060 Section 4 (40 CFR 268.50), KRS 224.46-520]

A.III.B.(9)(c) LDR - General Restrictions
401 KAR 39:060 Section 4 identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances in which an otherwise prohibited waste may continue to be placed on or in a land treatment, storage, or disposal unit. The Permittee shall maintain compliance with the requirements of 401 KAR 39:060 Section 4. Where the Permittee has applied for an extension, waiver, or variance under 401 KAR 39:060 Section 4, the Permittee shall comply with all restrictions on land disposal under this part once the effective date for the waste has been reached pending final approval of such application.

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

A.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 of the permit application.

Off-site shipments of secondary waste with headspace monitoring resulting in greater than 1 Vapor Screening Level (VSL), shall be 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]

A.III.C. PREPAREDNESS AND PREVENTION

A.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)]

A.III.C.(2) Required Equipment

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

- An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel
- 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
- Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment
- Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or water spray systems
- Monitoring equipment, personal protective equipment, decontamination solution
- Munitions over-packs to contain leaking munitions

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

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

The Permittee shall:

- Test all emergency equipment including; communication, alarm, fire, spill control, and decontamination equipment at the facility for quality
- 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 Attachment F, Procedures to Prevent Hazards

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

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

Whenever hazardous waste is present in the BGCAPP 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)]

A.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.

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

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

The Permittee shall attempt to make the following arrangements, as appropriate for the type of waste handled at this facility and the potential need for the services of these organizations:

- Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties, and associated hazards of hazardous waste handled at the facility and places where facility personnel would normally be working, entrances to any roads inside the facility, and possible evacuation routes
- Where more than one (1) police or fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority
- Agreements with state emergency response teams, emergency response contractors, and equipment suppliers
- Arrangements to familiarize local hospitals with the properties of the hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility
Where state or local authorities decline to enter into such arrangements, the Permittee shall document the refusal in the Operating Record.

The Permittee shall keep current copies of all Agreements with Local Authorities for hazardous waste emergency response assistance at an on-site location. If, at any time, the Permittee enters into an agreement with an off-post responder not listed in the Contingency Plan or does not renew an agreement with an off-post responder listed in the Contingency Plan, then the Permittee shall notify the Manager.

[401 KAR 39:090 Section 1 (40 CFR 264.37)]

A.III.D. CONTINGENCY PLAN AND EMERGENCY PROCEDURES

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

The Permittee shall comply with the Contingency Plan and Emergency Procedures, Attachment G, of the permit application and shall immediately carry out the procedures in the 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)]

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

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

- Actions 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
- Arrangements agreed to by local emergency services
- List of Emergency Coordinators
- List, description, and location of all emergency equipment
- Evacuation plan for facility personnel that describes signals, routes, and alternate routes

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

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

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

- Maintained at the BGCAPP Control Room
- 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
- 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
- Provided to the Hazardous Waste Branch Manager and the Field Operations Branch Manager

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

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

The Contingency Plan shall be reviewed, and immediately amended, if necessary, whenever:
- The facility permit is revised
- The plan fails in an emergency
- 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
- There is a change to the list of Emergency Coordinators
- 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 Manager for determination in accordance with 401 KAR 39:060 Section 5.

[A. III.D.(5) Emergency Coordinator (EC)]

At all times, there shall be an EC either at the facility or on call with the responsibility for coordinating all emergency response measures. The EC shall be thoroughly familiar with all aspects of the facility’s Contingency Plan, 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 EC shall have the authority to commit the resources needed to carry out the Contingency Plan.

[A. III.D.(6) Emergency Procedures]

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

Whenever there is an imminent or actual emergency situation, the EC (or designee) shall immediately activate internal facility alarms or communication systems, where applicable, to notify all facility personnel, and notify appropriate state and local agencies with designated response roles, as specified in the Contingency Plan.

[A. III.D.(6)(b) Evaluate Scope of Release]

Whenever there is a release, fire, or explosion, the EC shall immediately identify the character, exact source, amount, and areal extent of any released materials. This evaluation may be completed by observation or review of facility records or manifests, and, if necessary, by chemical analysis.

[A. III.D.(6)(c) Assess Possible Hazards to Human Health or the Environment]

The EC 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 chemical agents used to control fire and heat-induced explosions).

[A. III.D.(6)(d) Hazard to Human Health or the Environment Outside of the Facility]
If the EC determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, the findings shall be reported as follows:

- If the assessment indicates that evacuation of local areas may be advisable, appropriate local authorities shall be notified immediately. The EC shall be available to help appropriate officials decide whether local areas should be evacuated.
- The EC shall 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). The report shall include:
  - Name and telephone number of reporter
  - Name and address of facility
  - Time and type of incident
  - Name and quantity of material(s) involved, to the extent known
  - The extent of injuries, if any
  - The possible hazards to human health or the environment

[A.301 KAR 39:090 Section 1 (40 CFR 264.56)]

A.301.D.(6)(e) Preventive Measures

During an emergency, the EC shall take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures shall include, where applicable, stopping processes and operations, collecting and containing release waste, and removing or isolating containers.

[A.301 KAR 39:090 Section 1 (40 CFR 264.56)]

A.301.D.(6)(f) Monitoring During Halted Operations

If the facility stops operations in response to a fire, explosion, or confirmed release, the EC shall ensure monitoring occurs for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

[A.301 KAR 39:090 Section 1 (40 CFR 264.56)]

A.301.D.(6)(g) Secure Recovered Waste

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

[A.301 KAR 39:090 Section 1 (40 CFR 264.56)]

A.301.D.(6)(h) Recovery After Emergency

The EC shall ensure that, in the affected area(s) of the facility:

- No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed
- All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed

[A.301 KAR 39:090 Section 1 (40 CFR 264.56)]

The Permittee shall note in the Operating Record the time, date, and details of any release of hazardous waste. Within fifteen (15) calendar days of the later of the time of release, the conclusion of emergency operations, or completion of efforts to control or mitigate the release or threatened release, the Permittee shall submit a written report on the incident to the Manager and the Division Field Office. The report shall include:

- Name, address, and telephone number of the Permittee
- Name, address, and telephone number of the facility
- Name, address, and telephone number of persons having actual knowledge of the facts surrounding the release or threatened release
- Date, time, and type of incident (e.g., fire, explosion)
- Name, quantity, concentration of materials, pollutant, or contaminant involved
- Precise location, circumstances, and cause
- Extent of injuries, if any
- 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
- Estimated quantity and disposition of recovered material that resulted from the incident
- Changes in equipment, procedures, personnel, etc. to prevent similar incidents
- Any other pertinent or requested information

[401 KAR 39:090 Section 1 (40 CFR 264.56), KRS 224.1-400]

**A.III.D.(6)(j) Daily Notification During Environmental Emergency**

The Permittee shall notify the Division's 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:

- Summary of the previous day's operations
- Summary of planned operations for the day, including monitoring and movement/handling
- Results of any monitoring since the last daily notification
- Any other pertinent or requested information

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

**A.III.D.(6)(k) Memorandums of Agreements (MOAs)**

The Permittee shall keep current copies of all Memorandums of Agreement (MOAs) with off-post responders at an on-site location. If, at any time, the Permittee enters into an agreement with an off-post responder not listed in the Contingency Plan and Emergency Procedures, Attachment G, of the permit application, or does not renew an agreement with an off-post responder listed in the Contingency Plan, then the Permittee shall notify the Manager.

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

**A.III.E. MANIFEST SYSTEM, RECORDKEEPING, AND REPORTING**

**A.III.E.(1) Manifest System**

In addition to the record keeping and reporting requirements specified elsewhere in this Permit, the Permittee shall do the following:

**A.III.E.(1)(a) Receive No Chemical Related Hazardous Waste**

The Permittee shall not accept at this facility any chemical warfare agent or Chemical Related Hazardous Waste generated off site.
A.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.

A.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.

A.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.

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

The Permittee shall:

- Sign the manifest certification by hand
- Obtain the handwritten signature of the initial transporter and date of acceptance on the manifest
- Retain one (1) copy for a minimum of three years
- The Permittee shall give the transporter the remaining copies of the manifest
- 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.
- 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 262.20 as established in 401 KAR 39:080 Section 1]

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

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

[40 CFR 262.23 as established in 401 KAR 39:080 Section 1]
A.III.E.(1)(f) Use of Manifest System When Receiving
Not applicable

A.III.E.(1)(g) Receiving Hazardous Waste by Rail
Not applicable

A.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:

- For bulk waste, variations greater than ten (10) percent in weight
- 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.

[40 CFR 264.72 as established in 401 KAR 39:090 Section 1]

A.III.E.(3) 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 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)
- The location of each hazardous waste within the facility and the quantity at each location
- Records and results of waste analyses and waste determinations
- Summary reports and details of all incidents that require implementing Contingency Plans
- Records and results of facility and equipment inspections for three (3) years
- Monitoring, testing, analytical data, and corrective action
- 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
- 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)
- 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)
- Records of munitions processed
- Records of all operating/processing hours and days
- 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)]

A.III.E.(4) Records

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

The Permittee shall:

- 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.
- 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)
- 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
- 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]

A.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]

A.III.E.(5) Annual Report

Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) Section A (1/8/2020)
Blue Grass Army Depot, KY8-213-820-105; AI: 2805; Activity: APE20190015
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]


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:

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

[401 KAR 39:090 Section 1, 40 CFR 264.76]

A.III.E.(7) Other Reports

A.III.E.(7)(a) Immediate Notification

The Permittee shall report to the Division any non-compliance 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 or potential 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.

Non-compliance which requires immediate notification includes, but is not limited to:

- 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
- Any Environmental Release, including but not limited to, those defined by A.III.A.(4)
- A confirmed exposure of an unprotected worker chemical warfare agent exceeding the Short-Term Exposure Limit (STEL) defined in A.III.F.(2)
A determination that performance standards for emissions and agent Destruction and Removal Efficiency (DRE) are not being met
A malfunction or if any FPI is out of compliance

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

A.III.E.(7)(b) Follow-up Reporting

The Permittee shall provide the Division a written submission within five (5) days of the notification under Condition A.III.E.(7)(a).

The written submission shall contain:

- A description of the non-compliance and its cause, which shall include:
  - Name, address, and telephone number of the owner or operator and the reporter
  - Name, address, and telephone number of the facility
  - Date, time, and type of incident
  - Name and quantity of material(s) involved
  - The extent of injuries, if any
  - An assessment of actual or potential hazard to the environment and human health outside the facility, where this is applicable
  - Estimated quantity and disposition of recovered material that resulted from the incident
- Periods of non-compliance, including exact dates and times
- Whether the non-compliance has been corrected
- If the non-compliance has not been corrected, the anticipated time it is expected to continue
- Steps planned or taken to reduce, eliminate, and prevent reoccurrence of the non-compliance

[401 KAR 39:060 Section 5]

A.III.F. MONITORING REQUIREMENTS

A.III.F.(1) Groundwater Monitoring Requirements

Not applicable

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

When agent waste is present at BGCAPP, the permittee shall continuously monitor airborne concentrations 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.

The Permittee shall operate agent monitoring systems in accordance with the Permit Application, the Laboratory Analysis and Monitoring Plan (LAMP), the Perimeter Monitoring Plan (PMP), the Metal Parts Treater Monitoring Plan, and the MINICAMS/DAAMS Monitoring Table. The MINICAMS/DAAMS Monitoring Table is incorporated into this permit as Appendix E.

Monitoring at each of the Munitions Demilitarization Building (MDB) HVAC Stacks shall be configured with two NRT instruments. Only one MDB HVAC Stack NRT instrument shall be off-line at any given time per stack for daily challenge and/or maintenance, up to a maximum of 3 hours, when hazardous waste is being processed. Munitions and/or agent processing shall not be initiated if both MDB HVAC Stack NRT monitors at the same stack are offline at the same time.

Airborne and related exposure limits for GB agent are below:

<table>
<thead>
<tr>
<th>Level</th>
<th>GPL&lt;sub&gt;(a)&lt;/sub&gt;</th>
<th>WPL&lt;sub&gt;(b)&lt;/sub&gt;</th>
<th>STEL&lt;sub&gt;(c)&lt;/sub&gt;</th>
<th>VSL&lt;sub&gt;(d)&lt;/sub&gt;</th>
</tr>
</thead>
</table>

Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) Section A (1/8/2020)
Blue Grass Army Depot, KY8-213-820-105; AI: 2805; Activity: APE20190015
<table>
<thead>
<tr>
<th>Averaging Time</th>
<th>24 hrs.</th>
<th>12 hrs.</th>
<th>15 min</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limit (mg/m³)</td>
<td>1x10⁻⁶</td>
<td>2x10⁻⁵</td>
<td>1x10⁻⁴</td>
<td>1x10⁻⁴</td>
</tr>
<tr>
<td>Monitoring Method</td>
<td>Historic(e)</td>
<td>Historic(e)</td>
<td>NRT(f)</td>
<td>NRT(f)</td>
</tr>
</tbody>
</table>

(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 15 min (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.

[A I.C. 39:060 Section 5 (40 CFR 270.31)]

A.III.G. CLOSURE

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

[A I.C. 39:090 Section 1 (40 CFR 264.197)]

A.III.H. FINANCIAL REQUIREMENTS

Not Applicable

A.III.I. USE AND MANAGEMENT OF CONTAINERS

A.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.

Before transporting hazardous waste, the waste shall be packaged in accordance with the applicable Department of Transportation regulations on packaging under 49 CFR parts 173, 178, and 179.

[A I.C. 39:080 Section 1 (40 CFR 262.30), A I.C. 39:090 Section 1 (40 CFR 264.171)]
A.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.

[401 KAR 39:090 Section 1 (40 CFR 264.172)]

A.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.

Non-hazardous materials/waste may be stored in the container storage areas provided the Permittee:

- Conducts necessary testing and analysis in accordance with the Waste Analysis Plan, Attachment C, of the permit application, in order to ensure that materials stored in the container storage areas are compatible
- Ensures that any products or non-hazardous wastes stored in the container storage areas are counted toward the total permitted container storage volume
- Maintains inventories to ensure that permitted storage capacities are not exceeded
- Complies with all applicable requirements of this permit while storing containers of products or non-hazardous materials/waste in the container storage areas

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

A.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.

- Permittee shall conduct weekly inspections for leaking containers and deterioration of containers caused by corrosion or other factors in accordance with Attachment F, Inspection Schedule, Procedures to Prevent Hazards, of the permit application.
- 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, of the permit application.
- Permittee inspection procedures shall be based upon Attachment F, Procedures to Prevent Hazards, of the permit application.

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

A.III.I.(5) **Containment**

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

- 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
- 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
• 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
• 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
• 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
• Liquid in secondary containment shall be removed to the maximum extent possible within 24 hours of discovery
• 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]

A. 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)]

A. 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)]

A. III. I. (8) Closure
Closure shall be in accordance with Attachment I, Closure Plan.

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

A. III. I. (9) Permitted Container Storage
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)]
<table>
<thead>
<tr>
<th>Condition No.</th>
<th>Container Storage Area</th>
<th>Designation</th>
<th>Amount &amp; Type of Waste Permitted</th>
<th>Secondary Containment</th>
<th>Other Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.III.I.(9),(a)</td>
<td>Container Handling Building</td>
<td>CHB</td>
<td>Munitions (projectiles and rockets) inside Enhanced Onsite Containers (EONCs). Each EONC is permitted to hold a maximum of 36 GB projectiles (a total of 522 pounds of agent) or 30 GB rockets (a total of 321 pounds of agent). Rockets also have rocket motors and shipping and firing tubes which contain PCB. Rocket warheads contain bursters in addition to agent.</td>
<td>Secondary containment for munitions while they are in the CHB is provided by EONCs. EONCs are approximately 8.5 feet wide by 12 feet long by 8.5 feet high.</td>
<td>EONCs shall not be opened in the CHB. No more than 53 EONCs shall be stored. No more than 58 gallons of agent may be stored in each EONC. An EONC containing munitions that remains in the CHB for more than one week shall be monitored for agent at least once per week.</td>
</tr>
<tr>
<td>A.III.I.(9),(b)</td>
<td>Waste Transfer Station</td>
<td>WTS</td>
<td>WTS building shall store up to 24,000 gallons, tanker storage area shall store up to 120,000 gallons and bulk solids storage area shall store up to 32,500 gallons. The wastes are various secondary wastes that will be generated at the BGCAPP prior to shipment to treatment and disposal facilities.</td>
<td>In the container storage building, containers with liquids shall be stored on spill pallets. In the tanker storage area, tankers shall be stored in three secondary containment areas which shall provide not less than 39,778 gallons capacity each.</td>
<td>Roll-off containers shall not contain free liquids.</td>
</tr>
<tr>
<td>A.III.I.(9),(c)</td>
<td>Box Transfer Areas 1 &amp; 2</td>
<td>Room 07-165 Room 07-166</td>
<td>Separated rocket motors and SFTs. Each room shall store up to eight boxes containing thirty rocket motors per box.</td>
<td>Not applicable – no free liquids.</td>
<td>Storage shall be limited to the storage of separated rocket motors and empty shipping and firing tube segments.</td>
</tr>
<tr>
<td>A.III.I.(9),(d)</td>
<td>Agent Neutralization System (ANS) Storage Area</td>
<td>Room 07-123</td>
<td>Various secondary wastes and spent decontamination solution, not to exceed 2,750 gallons.</td>
<td>Liquid in sumps will be transferred to the Spent Decontamination System (SDS) tanks.</td>
<td>Storage shall be limited to the storage of miscellaneous secondary wastes and spent decontamination solution. No more than 2,750 gallons shall be permitted in this area.</td>
</tr>
<tr>
<td>A.III.I.(9),(e)</td>
<td>Tray/Container Transfer Room</td>
<td>Room 07-124</td>
<td>Thermally decontaminated metal parts, metal parts treater residue</td>
<td>Spill pallets for wastes with free liquids.</td>
<td>Storage shall not exceed 550 gallons</td>
</tr>
<tr>
<td>A.III.I.(9),(f)</td>
<td>Metal Parts Treater Cooling Conveyor Storage Area</td>
<td>Room 07-150</td>
<td>Thermally decontaminated metal parts, metal parts treater residue</td>
<td>Spill pallets for wastes with free liquids.</td>
<td>Storage shall not exceed 8,190 gallons</td>
</tr>
<tr>
<td>A.III.I.(9),(g)</td>
<td>Toxic Maintenance Area Storage Area</td>
<td>Room 07-125</td>
<td>Permitted storage shall be limited to the storage of miscellaneous waste in drums, contaminated equipment and leaking munitions.</td>
<td>Coated concrete floor with curb and sump.</td>
<td>Storage shall not exceed 5,500 gallons.</td>
</tr>
<tr>
<td>A.III.I.(9),(h)</td>
<td>Explosive Containment Vestibule Storage Areas 1 &amp; 2</td>
<td>Room 07-103 Room 07-106</td>
<td>Nerve agent GB in projectiles and rockets shall be stored prior to treatment.</td>
<td>Coated concrete floor, sumps and perimeter curbs and walls</td>
<td>Storage shall not exceed 275 gallons in each room.</td>
</tr>
<tr>
<td>Condition No.</td>
<td>Container Storage Area</td>
<td>Designation</td>
<td>Amount &amp; Type of Waste Permitted</td>
<td>Secondary Containment</td>
<td>Other Requirements</td>
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</tr>
<tr>
<td>A.III.I.(9),(i)</td>
<td>Unpack Areas 1 &amp; 2</td>
<td>Room 07-101 Room 07-128</td>
<td>Munitions and various secondary wastes.</td>
<td>Storage of containers shall be inside of an EONC or on a secondary containment pallet.</td>
<td>Storage shall not exceed 2,400 gallons for each unpack area.</td>
</tr>
<tr>
<td>A.III.I.(9),(j)</td>
<td>Motor Packing Room</td>
<td>Room 07-163</td>
<td>2 boxes of 30 rocket motors and 2 boxes of shipping and firing tubes.</td>
<td>Not applicable – no free liquids.</td>
<td>Storage shall be limited to the storage of separated rocket motors and empty shipping and firing tube segments. Storage shall not exceed 350 gallon capacity for storage of 2 boxes of 30 rocket motors per box and 2 boxes of empty shipping and firing tubes.</td>
</tr>
<tr>
<td>A.III.I.(9),(k)</td>
<td>Motor Shipping Room</td>
<td>Room 07-168</td>
<td>Two boxes of 30 rocket motors and 2 boxes of shipping and firing tubes.</td>
<td>Not applicable – no free liquids.</td>
<td>Storage shall be limited to the storage of separated rocket motors and empty shipping and firing tube segments. Storage shall not exceed 350 gallon capacity for storage of 2 boxes of 30 rocket motors per box and 2 boxes of empty shipping and firing tubes.</td>
</tr>
<tr>
<td>A.III.I.(9),(l)</td>
<td>Explosive Containment Room</td>
<td>Room 07-104 Room 07-105</td>
<td>Various secondary wastes.</td>
<td>Coated concrete floors, sumps, curbs, and walls.</td>
<td>Storage shall not exceed 55 gallons per room.</td>
</tr>
<tr>
<td>A.III.I.(9),(m)</td>
<td>Munitions Washout System Reject Table</td>
<td>Room 07-135</td>
<td>Chemical agent GB containing projectiles.</td>
<td>Coated concrete floor with drainage to sumps.</td>
<td>Limited to projectiles that cannot be processed. Storage shall not exceed 5 gallons.</td>
</tr>
<tr>
<td>A.III.I.(9),(n)</td>
<td>SCWO Processing Building Storage Area</td>
<td>SPB</td>
<td>Miscellaneous secondary waste, such as Aluminum Filtration System (AFS) filter cake.</td>
<td>Coated concrete floor with curbs, spill pallets.</td>
<td>Limited to the storage of AFS filter cake and various secondary wastes in roll-off containers and drums. Storage of no more than 6,550 gallons shall be permitted in this area.</td>
</tr>
<tr>
<td>A.III.I.(9),(o)</td>
<td>Container Storage Facility (CSF)</td>
<td>CSF</td>
<td>49,280 gallons maximum capacity of waste generated from EDT and Main Plant Operations.</td>
<td>No free liquids stored except on spill pallets or storage lockers providing containment as required by A.III.I.(5)</td>
<td>No recoverable liquid agent shall be allowed in the CSF. All containers shall be stored on pallets to provide protection from contact with moisture or accumulated liquids. Containers shall not be stacked more than two high. The Exhaust Ventilation System (EVS) shall be continuously operated when there is a confirmed detection of agent inside the CSF until the source of agent is identified and contained.</td>
</tr>
<tr>
<td>A.III.I.(9),(p)</td>
<td>Rocket Motor Storage</td>
<td>Igloo F1001</td>
<td>16,000 gallons maximum capacity of containerized uncontaminated rocket motors and shipping and firing tubes from either VX or GB rockets</td>
<td>No free liquids stored</td>
<td>This HWSU will accommodate a maximum of 100 boxes each containing up to 30 RM/SFTs; the boxes will be arranged in 10 double stacked rows of 10 boxes. Boxes shall be stored approximately 36 inches from headwall and back of igloo and approximately 45 inches from the side drains allowing unrestricted personnel access to the containers.</td>
</tr>
<tr>
<td>Condition No.</td>
<td>Container Storage Area</td>
<td>Designation</td>
<td>Amount &amp; Type of Waste Permitted</td>
<td>Secondary Containment</td>
<td>Other Requirements</td>
</tr>
<tr>
<td>--------------</td>
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<td>-------------------------------------------------------------------------------------------------</td>
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<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>A.III.I.(9),(q)</td>
<td>Rocket Motor Storage</td>
<td>Igloo F1002</td>
<td>16,000 gallons maximum capacity of containerized uncontaminated rocket motors and shipping and firing tubes from either VX or GB rockets</td>
<td>No free liquids stored</td>
<td>This HWSU will accommodate a maximum of 100 boxes each containing up to 30 RM/SFTs; the boxes will be arranged in 10 double stacked rows of 10 boxes. Boxes will be stored approximately 36 inches from headwall and back of igloo and approximately 45 inches from the side drains allowing unrestricted personnel access to the containers</td>
</tr>
</tbody>
</table>
A.III.J. TANK SYSTEMS

A.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)]

A.III.J.(2) General Operating Requirements
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. RCRA Tank levels defined in Appendix F shall not be exceeded.

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:

- Spill prevention controls (for example, check valves or dry disconnect couplings)
- Overfill prevention controls (for example, level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank)
- Maintenance of sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind action or by precipitation

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

A.III.J.(3) Inspections

A.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)]

A.III.J.(3)(b) Tanks
In addition, the Permittee shall inspect at least once each operating day:

- Above ground portions of the tank system, if any, to detect corrosion or releases of waste.
- 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)]

A.III.J.(3)(c) Coatings
The coatings system providing secondary containment in the MDB and SPB shall be:

- Free of cracks and gaps
- Adhered to the structure beneath the coating
- Inspected in accordance with the Inspection Plan

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

A.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)]

A.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)]

A.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:

- 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
- 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.
- If the material was released to a secondary containment system, all released materials must be removed within 24 hours or in as timely a manner as is possible to prevent harm to human health and the environment.
- Immediately conduct a visual inspection of the release and based upon that inspection shall:
  - Prevent further migration of the leak or spill to soils or surface water
  - Remove, and properly dispose of, any visible contamination of the soil or surface water
- Follow the reporting and notification procedures in this permit for a release
- Repair the failed component or close the tank system
- 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
- This certification shall be submitted to and approved by the Cabinet before returning the tank system to use
- 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)]

A.III.J.(5) Closure

Closure shall be in accordance with Attachment I, Closure Plan.
A. 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:
  - The resulting waste, mixture or dissolved material no longer meets the definition of ignitable or reactive waste;
  - 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
  - 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
  - The tank system is used solely for emergencies.

A. 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 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
- Through other like means threaten human health or the environment

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

The following tank systems 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 264.17(b), 40 CFR 264.198)]

[401 KAR 39:090 Section 1 (40 CFR 264 Subpart J), 401 KAR 39:060 Section 5 (40 CFR 270.16)]
<table>
<thead>
<tr>
<th>Condition No.</th>
<th>Permitted Tank System</th>
<th>Designation</th>
<th>Type of Waste</th>
<th>Secondary Containment Required</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.III.J.(8)(a)</td>
<td>Agent Hydrolysate Storage Tanks</td>
<td>MT-HSS-0105, MT-HSS-0206, MT-HSS-0104</td>
<td>Agent hydrolysate</td>
<td>Coated concrete containment basin</td>
<td>Three tanks for storage of agent hydrolysate are permitted. Volume stored in MT-HSS-0104 shall not exceed 103,195 gallons. Volume stored in MT-HSS-0206 and MT-HSS-0104 shall not exceed 336,943 gallons each. During GB campaign, MT-HSS-0104 may be used to store OTM condensate.</td>
</tr>
<tr>
<td>A.III.J.(8)(b)</td>
<td>Energetics Hydrolysate Storage Tanks</td>
<td>MT-HSS-0004, MT-HSS-00704</td>
<td>Energetics hydrolysate</td>
<td>Coated concrete containment basin</td>
<td>Two tanks for storage of energetics hydrolysate are permitted. Volume shall not exceed 316,192 gallons each.</td>
</tr>
<tr>
<td>A.III.J.(8)(c)</td>
<td>Agent Holding Tank</td>
<td>MT-ACS-0105</td>
<td>GB agent</td>
<td>Coated concrete floor with curbs and sumps</td>
<td>One agent holding tank is permitted for storing drained agent prior to treatment in the agent hydrolyzer. Volume shall not exceed 1,856 gallons.</td>
</tr>
<tr>
<td>A.III.J.(8)(d)</td>
<td>Agent Surge Tank</td>
<td>MT-ACS-0106</td>
<td>GB agent</td>
<td>Coated concrete floor with curbs and sumps</td>
<td>One agent surge tank is permitted for storage of drained agent or agent spilled from the spent decontamination system prior to treatment in the agent hydrolyzer. Volume shall not exceed 1,856 gallons.</td>
</tr>
<tr>
<td>A.III.J.(8)(e)</td>
<td>Agent Neutralization Reactors</td>
<td>MV-ANS-0101, MV-ANS-0201</td>
<td>GB agent and agent hydrolysate</td>
<td>Coated concrete with curbs and sumps</td>
<td>Two agent neutralization reactors are permitted for neutralizing agent before it is sent to the agent hydrolysate sampling tanks. Volume shall not exceed 2,251 gallons each.</td>
</tr>
<tr>
<td>A.III.J.(8)(f)</td>
<td>Agent Hydrolysate Sampling Tanks</td>
<td>MT-ANS-0103, MT-ANS-0203, MT-ANS-0303</td>
<td>Agent hydrolysate</td>
<td>Coated concrete with curbs and sumps</td>
<td>Three agent hydrolysate sampling tanks are permitted for storage of agent hydrolysate until sampling is performed. Cleared hydrolysate may be transferred to the agent hydrolysate storage tanks. Volume shall not exceed 5,865 gallons.</td>
</tr>
<tr>
<td>A.III.J.(8)(g)</td>
<td>Energetics Neutralization Reactors (ENR)</td>
<td>MV-ENS-0101, MV-ENS-0102, MV-ENS-0103</td>
<td>Energetics, primarily rocket boosters and rocket propulsion and energetics hydrolysate</td>
<td>Coated concrete with curb and sump</td>
<td>Three energetics neutralization reactors are permitted for ensuring destruction of agent, energetics and cyanide ion. The Pilot Demonstration Test must demonstrate decontamination and establish cyanide clearance criteria for energetics hydrolysate. Three reactors are permitted. Volume shall not exceed 4,007 gallons each.</td>
</tr>
<tr>
<td>A.III.J.(8)(h)</td>
<td>Spent Decontamination System (SDS) Tanks</td>
<td>MV-SDS-0101, MV-SDS-0201, MV-SDS-0301</td>
<td>Spent decontamination solution</td>
<td>Coated concrete floor with curb and sump</td>
<td>Three tanks are permitted for storing spent decontamination solution. Volume shall not exceed 9,769 gallons each.</td>
</tr>
<tr>
<td>A.III.J.(8)(i)</td>
<td>Hydrolysate Collection Tank</td>
<td>MT-EBH-1901</td>
<td>Energetics hydrolysate</td>
<td>Coated concrete floor with curb and sump</td>
<td>One tank is permitted for collecting and storing energetics hydrolysate. Volume shall not exceed 1,421 gallons.</td>
</tr>
<tr>
<td>A.III.J.(8)(j)</td>
<td>Aluminum Precipitation Reactor</td>
<td>MV-APS-0101, MV-APS-0102</td>
<td>Energetics hydrolysate</td>
<td>Coated concrete floor with curbs and sumps</td>
<td>Two tanks are permitted for precipitating aluminum out of the energetics hydrolysate. Volume shall not exceed 2,300 gallons each.</td>
</tr>
<tr>
<td>Condition No.</td>
<td>Permitted Tank System</td>
<td>Designation</td>
<td>Type of Waste</td>
<td>Secondary Containment Required</td>
<td>Conditions</td>
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</tr>
<tr>
<td>A.III.J.(8)(k)</td>
<td>Off-Spec Effluent Tank</td>
<td>MT-SCWO-0041</td>
<td>SCWO effluent</td>
<td>Coated concrete floor with curbs and sumps</td>
<td>One tank is permitted for storage of SCWO effluent that doesn’t meet specifications for release to the RO units. Volume shall not exceed 4,213 gallons.</td>
</tr>
<tr>
<td>A.III.J.(8)(l)</td>
<td>Emergency Relief Tank</td>
<td>MT-SCWO-0040</td>
<td>SCWO contents, consisting of blended agent and energetics hydrolysate</td>
<td>Coated concrete floor with curbs and sumps</td>
<td>One tank is permitted for storage of SCWO reactor contents in the event of an emergency shutdown. Volume shall not exceed 2,260 gallons.</td>
</tr>
<tr>
<td>A.III.J.(8)(m)</td>
<td>Hydrolysate Blend Tank</td>
<td>MT-SCWO-0030, MT-SCWO-0031</td>
<td>Agent hydrolysate, energetics hydrolysate</td>
<td>Coated concrete floor with curbs and sumps</td>
<td>Two tanks are permitted for blending of agent hydrolysate, energetics hydrolysate, and feed additives to feed the SCWO reactor. Volume shall not exceed 6,662 gallons each.</td>
</tr>
<tr>
<td>A.III.J.(8)(n)</td>
<td>Batch Hydrolysate Holding Tank</td>
<td>MT-SCWO-0032</td>
<td>Agent hydrolysate, energetics hydrolysate</td>
<td>Coated concrete floor with curbs and sumps</td>
<td>One tank is permitted for temporary storage of hydrolysate batches whose composition is unacceptable for processing in the SCWO reactors. Volume shall not exceed 6,662 gallons.</td>
</tr>
<tr>
<td>A.III.J.(8)(o)</td>
<td>Aluminum Filtration Feed Tank</td>
<td>MT-AFS-1010, MT-AFS-2010</td>
<td>Energetics hydrolysate</td>
<td>Coated concrete floor with curbs and sumps</td>
<td>Two tanks are permitted, with a volume of 1,644 gallons each.</td>
</tr>
<tr>
<td>A.III.J.(8)(p)</td>
<td>Aluminum Filtrate Tank</td>
<td>MT-AFS-1012</td>
<td>Energetics hydrolysate</td>
<td>Coated concrete floor with curbs and sumps</td>
<td>One tank is permitted for storage of filtered energetics hydrolysate from the Aluminum Filtration System prior to feeding SCWO Hydrolysate Blend tanks. Volume shall not exceed 4,233 gallons.</td>
</tr>
<tr>
<td>A.III.J.(8)(q)</td>
<td>RO Reject Tank</td>
<td>MT-RO-0106, MT-RO-0206</td>
<td>Reverse osmosis reject (SCWO effluent that contains much salt to use for plant service water)</td>
<td>Coated concrete floor with curbs and sumps</td>
<td>Two tanks are permitted for storing Reverse Osmosis Reject prior to shipment off site. Volume shall not exceed 80,302 gallons each.</td>
</tr>
<tr>
<td>A.III.J.(8)(r)</td>
<td>SCWO Effluent Tanks</td>
<td>MT-SCWO-0010, MT-SCWO-0020, MT-SCWO-0030</td>
<td>SCWO effluent</td>
<td>Coated concrete containment basin</td>
<td>Three tanks are permitted for storage of SCWO effluent prior to processing through the Reverse Osmosis System. Volume shall not exceed 47,089 gallons each.</td>
</tr>
<tr>
<td>A.III.J.(8)(s)</td>
<td>RO Permeate Tanks</td>
<td>MT-SWS-0010, MT-SWS-0020</td>
<td>RO permeate</td>
<td>Coated concrete containment basin</td>
<td>Two tanks are permitted for storage of RO permeate prior to use for makeup water. Volume shall not exceed 54,634 gallons each.</td>
</tr>
</tbody>
</table>
A.III.K. SURFACE IMPOUNDMENTS  
Not applicable

A.III.L. WASTE PILES  
Not applicable

A.III.M. LAND TREATMENT  
Not applicable

A.III.N. LANDFILLS POST CLOSURE REQUIREMENTS  
Not applicable

A.III.O. INCINERATORS/BIF  
Not applicable

A.III.P. RESERVED

A.III.Q. RESERVED

A.III.R. RESERVED

A.III.S. SPECIAL PROVISIONS FOR CLEANUP  
Not applicable

A.III.T. RESERVED

A.III.U. RESERVED

A.III.V. RESERVED

A.III.W. DRIP PADS  
Not applicable

A.III.X. MISCELLANEOUS UNITS

A.III.X.(1) Environmental Performance Standards

A.III.X.(1)(a) Destruction and Removal Efficiency
Facilities shall be operated and maintained to achieve a 99.9999 percent destruction or removal of each substance treated or destroyed, as required by condition A.III.A.(5)

[KRS 224.50-130(3), 401 KAR 39:090 Section 1 (40 CFR 264.601)]

A.III.X.(1)(b) Protection of Human Health and the Environment
Miscellaneous units shall be operated, maintained, and closed in a manner that shall ensure protection of human health and the environment.

[401 KAR 39:090 Section 1 (40 CFR 264.601)]

A.III.X.(1)(c) No Harmful Releases to Soil, Surface Water, or Groundwater
The Permittee shall prevent any releases from miscellaneous units that may have adverse effects on human health or the environment due to migration of waste constituents in surface water, or wetlands, or on the soil surface.

[401 KAR 39:090 Section 1 (40 CFR 264.601)]

A.III.X.(1)(d) No Harmful Releases to Atmosphere
The Permittee shall prevent any release from miscellaneous units that may have adverse effects on human health or the environment due to migration of waste constituents in the air.
A.III.X.(2) Monitoring, Analysis and Inspection

A.III.X.(2)(a) Monitoring and Analysis

Monitoring, testing, analytical data, inspections, response, and reporting procedures and frequencies must ensure compliance with 401 KAR 39:090 Section 1, as well as meet any additional requirements needed to protect human health and the environment. All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, shall be tested and maintained as necessary to assure its proper operation in time of emergency.

A.III.X.(2)(b) Inspection

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.

- 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.
- This schedule shall be kept at the facility.
- 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).
- 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.

A.III.X.(3) Closure

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

A.III.X.(4) Permitted Miscellaneous Units

The following miscellaneous units are permitted and shall be operated and maintained as described in the permit application and this permit, including Appendix F and the following table:
<table>
<thead>
<tr>
<th>Condition No.</th>
<th>Permitted Miscellaneous Unit</th>
<th>Designation</th>
<th>Amount and types of waste</th>
<th>Secondary containment</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.III.X.(4)(a)</td>
<td>Energetics Batch Hydrolyzers</td>
<td>MV-EBH-1101, MV-EBH-1201, MV-EBH-1301</td>
<td>Sheared rocket warheads containing bursters and residual agent. Entire rocket, including warhead, SFT, and motor during leaker campaign.</td>
<td>Coated concrete floor with curb and sump.</td>
<td>Three units are permitted for receiving sheared rocket warhead pieces and neutralizing energetics and residual agent. Permitted capacity is 1,150 gallons for each Energetics Batch Hydrolyzer.</td>
</tr>
<tr>
<td>A.III.X.(4)(b)</td>
<td>Nose Closure Removal System (NCRS)</td>
<td>MY-NCR-0101</td>
<td>Approximately 3,977 projectiles containing approximately 14.5 pounds of GB each.</td>
<td>Coated concrete floor with curb and sump.</td>
<td>One unit is permitted to remove nose closure/lifting plugs from GB projectiles. The permitted capacity is 350 pounds per hour.</td>
</tr>
<tr>
<td>A.III.X.(4)(c)</td>
<td>Rocket Cutting Machines (RCM)</td>
<td>MX-RHS-0113, MX-RHS-0114</td>
<td>Approximately 51,700 rockets containing 10.7 pounds of GB.</td>
<td>Coated concrete floor with curb and sump.</td>
<td>Two rocket cutting machines are permitted for separating rocket motors from rocket warheads. The permitted capacity is 1,200 pounds per hour each.</td>
</tr>
<tr>
<td>A.III.X.(4)(d)</td>
<td>Rocket Shear Machine (RSM)</td>
<td>MY-RHS-0101, MY-RHS-0102</td>
<td>Approximately 51,700 rockets containing 10.7 pounds of GB.</td>
<td>Coated concrete floor with curb and sump.</td>
<td>Two rocket shear machines are permitted for punching and draining the rocket warhead and shearing the warheads into segments. The permitted capacity is 1,200 pounds per hour each.</td>
</tr>
<tr>
<td>A.III.X.(4)(e)</td>
<td>Metal Parts Treaters (MPT)</td>
<td>ME-MPT-0101, ME-MPT-0201</td>
<td>Drained munitions, secondary wastes.</td>
<td>Coated concrete floor with curb and sump.</td>
<td>Two metal parts treaters are permitted for thermal decontamination of metal parts and various secondary wastes. The permitted capacity is 8,000 pounds per hour per unit. Qualitative assessment of agent feed to the MPT shall be limited to the maximum estimated mass per projectile and per tray successfully demonstrated as agent free during the Pilot Test. Higher estimated agent feed shall require re-demonstration of agent free items exiting the MPT and Division approval. All wastes treated in the Metal Parts Treater shall be treated to a minimum of 1,000 degrees Fahrenheit for a minimum of 15 minutes prior to discharge. All material and emissions exiting the MPT cooling chamber shall be monitored in accordance with the Metal Parts Treater Monitoring Plan. If there is a confirmed detection of agent the cooling chamber shall not be opened to the cooling conveyor corridor until further treatment and monitoring indicates agent is no longer present in the cooling chamber. Only the VSL monitoring plan is approved for implementation; if dilution air needs to be used, a permit modification will be needed. Any items treated in the MPT which will be released for unrestricted use, other than for scrap metal recycling, shall be headspace monitored to demonstrate that vapor concentrations do not exceed the screening level corresponding to the respective material classification level.</td>
</tr>
<tr>
<td>A.III.X.(4)(f)</td>
<td>Munitions Washout System (MWS)</td>
<td>MZ-MWS-0101D, MZ-MWS-0101E</td>
<td>Approximately 3,977 projectiles containing approximately 14.5 pounds of GB each.</td>
<td>Coated concrete floor with curb and sump.</td>
<td>Two munitions washout systems are permitted for accessing the projectile cavity and draining agent from the projectiles. The permitted capacity is 910 pounds per hour per unit. Any projectile containing energetic material shall be rejected and not processed through the Munitions Washout System.</td>
</tr>
</tbody>
</table>

Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) Section A (1/8/2020)
Blue Grass Army Depot, KY8-213-820-105; AI: 2805: Activity: APE20190015
| A.III.X.(4)(g) | Aluminum Filtration Units | ML-AFS-1040, ML-AFS-2040 | Energetics hydrolysate from rockets. | Coated concrete floor with curb and sump. | Two aluminum filtration units are permitted for receiving precipitated hydrolysate and filtering out the aluminum prior to processing the hydrolysate in the SCWO. The permitted capacity is 2,500 pounds per hour. |
| A.III.X.(4)(h) | Reverse Osmosis (RO) Units | ML-RO-0101, ML-RO-0201, ML-RO-0301 | Three units are provided to treat 77,760 gallons per day each. | Coated concrete floor with curb and sump. | Three reverse osmosis units are permitted for removing dissolved solids from SCWO effluent. The permitted capacity is 155,520 gallons per day. |
| A.III.X.(4)(i) | SCWO Reactors | MV-SCWO-1030, MV-SCWO-2030, MV-SCWO-3030 | Each unit can treat 1,440 pounds per hour of filtered and blended hydrolysate. | Coated concrete floor with curb and sump. | Three SCWO reactors are permitted for treating hydrolysates by supercritical water oxidation. The permitted capacity is 1,440 pounds per hour per unit. |
| A.III.X.(4)(j) | Handling of chemical agent compounds and chemical munitions | N/A | Chemical agent GB contained in approximately 51,682 rockets, 58 rocket warheads, and 3,977 8 inch projectiles. | N/A | Chemical agent compounds shall be transported in EONCs, during daylight hours only. EONCs shall be operated and maintained to meet requirements for secondary containment. Air monitoring of the munitions within an EONC shall be conducted prior to opening the EONC to determine if any of the munitions leaked during transportation. If air monitoring detects agent within the EONC, the EONC shall not be opened unless it is within engineering controls. |
| A.III.X.(4)(k) | Drum Compactor | N/A | Maximum 3,575 Gallons Per Day | Coated concrete floor with curb and sump. | This unit is located in the TMA and used for compaction of non-rigid material to reduce void spaces in containers. |

[KRS 224.50-130(5), 401 KAR 39:090 Section 1 (40 CFR 264 Subpart X)]
A.III.Y. RESERVED

A.III.Z. RESERVED

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

A.III.AA.(1) Applicability

Blue Grass Army Depot, through contract with the Bechtel Parsons Blue Grass Joint Venture, Operates several closed vent systems at the Main Plant 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)]

A.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]

A.III.AA.(3) Main Plant 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 Munitions Demilitarization Building (MDB) that have the potential to contact hazardous waste gas/vapor streams greater than or equal to 10 percent by weight (wt.%) organics in both the Chemical Agent GB and Chemical Agent VX campaigns are located within an area serviced by the MDB 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). The closed-vent system (MDB HVAC System) and control device (MDB HVAC System activated carbon) shall comply with the requirements of 40 CFR 264.1033 as specified in the Main Plant LDAR Program.

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

A.III.AA.(4) Main Plant Facility – Standards for Closed Vent Systems and Control Devices

A.III.AA.(4)(a)

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

- MDB HVAC System and associated activated carbon units
- OTM System and the associated Thermal Oxidizer Units
- SCWO HVAC System and SCWO HVAC activated carbon units
- Aluminum Precipitate Reactor (APR) Vent System and APR Vent activated carbon units

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

A.III.AA.(4)(b)

The MDB HVAC System activated carbon effluent shall be monitored for breakthrough of Chemical Agent GB during the GB campaign and for Chemical Agent VX during the VX campaign by MINICAMS units. Confirmed Chemical Agent levels that are greater than or equal to 1 VSL for GB or VX shall be the alternative monitoring criteria used to determine organic breakthrough requiring change out of the MDB HVAC System activated carbon.
A.III.AA.(4)(c)
The APR vent activated carbon shall be monitored daily using a total hydrocarbon (THC) analyzer installed with the adsorption units. Instrument readings greater than 20 ppmv shall result in carbon changeout.

A.III.AA.(4)(d)
The SCWO Building HVAC System activated carbon shall be monitored weekly using EPA Method 21 (Determination of Volatile Organic Compound Leaks) to determine breakthrough of volatile organics. Monitoring shall be performed daily whenever results are greater than the instrument detection limit until instrument readings are greater than or equal to 300 parts per million (ppmv), at which point the activated carbon shall be changed.

A.III.AA.(4)(e)
The TOX 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).

A.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.

A.III.AA.(6) Record Keeping Requirements
A.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 will contain, at a minimum, those requirements listed in 40 CFR 264.1035 and in this permit.

A.III.AA.(6)(b)
Records will 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)]

A.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)]

A.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)]

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

A.III.BB.(1) Applicability

Blue Grass Army Depot, operates equipment at the Main Plant 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 Main Plant Facility equipment identified in Appendix B of this Permit. Each piece of equipment is uniquely tagged for compliance with the requirements of this Permit and compliance with the Permitee’s approved LDAR Program.

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

A.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]

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

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

Equipment approved under this permit section are listed in Appendix B.

[401 KAR 39:090 Section 1 (40 CFR 264.105(d) and 264.1064(b))]

A.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.

[A.III.BB.(4) Excluded and Exempt Equipment]

Table A.1 below contains a list of equipment exempt from regulation under Subpart BB. In the event the equipment in Table A.1 no longer qualifies for the exemption the Permitee shall immediately notify the Director and 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(d) and 264.1064(c))]

Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) Section A (1/8/2020)
Blue Grass Army Depot, KY8-213-820-105; AI: 2805; Activity: APE20190015
<table>
<thead>
<tr>
<th>Systems Exempt from Subpart BB Monitoring</th>
<th>Brief Description</th>
<th>Exemption or Exclusion Claimed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure Relief Devices in Gas/Vapor Service</td>
<td>MDB Control Vents from ACS tanks and MPT systems</td>
<td>Exempt from Monitoring per 40 CFR. 264.1054(c)</td>
</tr>
<tr>
<td>Valves in Gas/Vapor Service</td>
<td>MWS, RHS, and OTM common systems in MDB</td>
<td>Exempt from Monitoring per 40 CFR. 264.1057(g)</td>
</tr>
<tr>
<td>Flanges and Other Connectors on Insulated Lines</td>
<td>Process lines associated with MDB, HSA, and SCWO building systems</td>
<td>Exempt from Monitoring per 40 CFR. 264.1058(e)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Systems Excluded from Subpart BB</th>
<th>Brief Description</th>
<th>Exclusion Claimed</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Subpart BB Regulated Systems</td>
<td>Plant Air System</td>
<td>Does Not Contact Hazardous Wastes – Excluded per 40 CFR 264.1050(b)</td>
</tr>
<tr>
<td>Plant Nitrogen System</td>
<td></td>
<td></td>
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<tr>
<td>Plant, Process, and Other Water Systems (Includes Boiler, Steam, Chiller, and Cooling Water)</td>
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<td></td>
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<tr>
<td>Chemical Storage and Delivery Systems</td>
<td></td>
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<tr>
<td>-Isopropyl Alcohol</td>
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<td>-Sodium Hydroxide</td>
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<td>-Sulfuric Acid</td>
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<td>-Hydrochloric Acid</td>
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<tr>
<td>-Ammonium Sulfate</td>
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<tr>
<td>-Sodium Chloride</td>
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</tr>
<tr>
<td>All Subpart BB Regulated Systems</td>
<td>ANS Vents (ANR Tank Vents and AHS Tank Vents)</td>
<td>Contains or Contacts &lt;10 wt.% Organic Concentrations – Excluded per 40 CFR 264.1050(b)</td>
</tr>
<tr>
<td>SDS Tank Vents</td>
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<tr>
<td>EBH and ENS Systems</td>
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<tr>
<td>OTE Off-Gas Treatment System</td>
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<tr>
<td>Energetics Hydrolysate HSA Tank Systems</td>
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<td>APS Systems</td>
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<td>AFS Systems</td>
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<tr>
<td>All Subpart BB Regulated Systems</td>
<td>TOX Units</td>
<td>Contacts &lt;10 wt.% Organic Concentrations – Excluded per 40 CFR 264.1050(b)</td>
</tr>
<tr>
<td>All Subpart BB Regulated Systems</td>
<td>OTM Systems</td>
<td>Contacts &lt;10 wt.% Organic Concentrations – Excluded per 40 CFR 264.1050(b)</td>
</tr>
<tr>
<td>All Subpart BB Regulated Systems</td>
<td>Equipment Downstream of SCWO: Gas Separators Systems</td>
<td>Contacts &lt;10 wt.% Organic Concentrations – Excluded per 40 CFR 264.1050(b)</td>
</tr>
<tr>
<td>Emergency Relief Tank System</td>
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<tr>
<td>Off-Spec Tank System</td>
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<tr>
<td>SCWO Effluent Storage Tank Systems</td>
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<tr>
<td>Multimedia and Cartridge Filtration Systems</td>
<td></td>
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<tr>
<td>RO Systems</td>
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<tr>
<td>RO Concentrate and Permeate Collection Tank Systems</td>
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<tr>
<td>Permeate Water Re-use Systems</td>
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<tr>
<td>Concentrate Tanker Loading Systems</td>
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</tr>
</tbody>
</table>
A.III.BB.(5) Equipment Standards

A.III.BB.(5)(a) Pressure Relief Devices in Gas/Vapor Service

(i) Pressure relief devices must be installed, operated, maintained and monitored in compliance with 40 CFR 264.1054. The P&IDs, provided in Attachment D of this permit, list pressure relief device settings, tank design pressure, and set point on all vents.

(ii) Subpart BB applies to the Main Plant pressure relief devices in the MDB, ACS, and MPT systems identified in Appendix B of this Permit. Pursuant to 40 CFR 264.1054(c), the ACS and MPT pressure relief devices in gas/vapor service are exempt from the requirements of 40 CFR 264.1054(a) and (b) as long as the MDB HVAC System and MDB HVAC System activated carbon, which serve as the closed-vent system and control device for these pressure relief devices, are operating as required by Condition A.III.AA.(3) of this Permit.

[401 KAR 39:090 Section 1 (40 CFR 264.1054)]

A.III.BB.(5)(b) Sampling Connection Systems

Subpart BB applies to the Main Plant sampling connection systems in the MDB, ACS, SDS, and ANS systems, and the HSA tank systems identified in Appendix B of this Permit. Each sampling system shall meet the requirements of 40 CFR 264.1055.

[401 KAR 39:090 Section 1 (40 CFR 264.1055)]

A.III.BB.(5)(c) Open Ended Valves or Lines

Open-ended valves or lines in the Main Plant MDB, MWS, RHS, ACS, SDS, ANS, MPT, OTM common system, and HSA tank systems subject to regulation under 40 CFR 264 Subpart BB are identified in Appendix B of this Permit. Each open-ended valve or line shall meet the requirements of 40 CFR 264.1056.

[401 KAR 39:090 Section 1 (40 CFR 264.1056)]

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

(i) Valves in gas/vapor service in the Main Plant MWS, RHS, and OTM common system subject to regulation under 40 CFR 264 Subpart BB are identified in Appendix B of this Permit. These valves will be unsafe to monitor while the Main Plant 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 during safe-to-monitor times.

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

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

A.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 in the Main Plant MDB MWS, RHS, ACS, SDS, and ANS systems and agent hydrolysate HSA tank system subject to regulation under the requirements of 40 CF 264 Subpart BB are identified in Appendix B of this Permit.

(ii) In areas containing Chemical Agent within the MDB, monitoring of the equipment identified in Appendix B shall be performed as described in the Main Plant LDAR Program and the
alternative monitoring plan described in Appendix D 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 GB or VX levels potentially due to equipment leaks.

Pumps, valves, and pressure relief devices in heavy liquid service and flanges and other connectors identified in Appendix B 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 B 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.

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

A.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.

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

A.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 A.III.AA.(3) of this Permit.

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

A.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 in Main Plant shall be used.

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

A.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 the Main Plant valves in gas/vapor service or in light liquid service shall be used in accordance with 40 CFR 264.1062.

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

A.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 Main Plant 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)]

A.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 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)]

A.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)]

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

A.III.CC.(1) Applicability

Blue Grass Army Depot operates hazardous waste management units at the Main Plant 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)]

A.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.
A.III.CC.(3) Excluded Units

(a) Appendix C-1 contain lists of excluded units for Main Plant.

(b) The following containers stored in the Main Plant have a design of less than 0.1 m³ and are excluded from regulation under Subpart CC

(i) Containers in Appendix C-1 of this Permit with capacity less than 26.4 gallons (0.1 m³).

(ii) Projectiles (M426) containing approximately 1.6 gallons (0.0061 m³) of Chemical Agent GB

(iii) Projectiles (M121A1) containing approximately 0.7 gallons (0.0026 m³) of Chemical Agent VX.

(iv) Rockets and rocket warheads containing approximately 1.2 gallons (0.0045 m³) of Chemical Agent VX or Chemical Agent GB, 3.2 pounds (lbs.) of energetics, and 19.3 lbs. of propellant (with a total volume capacity of approximately 0.021 m³).

(v) Overpack containers designed to hold single leaking projectiles or leaking rockets.

(vi) Enhanced On-Site Containers (EONCs) used only for secondary containment of projectiles, rockets, overpacked projectiles, and overpacked rockets during transport or storage.

(c) 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.

A.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.

A.III.CC.(5) Equipment Standards

A.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). See Appendix C-2 for a listing of the Main Plant waste management units subject to Subpart CC.

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

(i) The tanks listed in Appendix C-2 must comply with the standards set forth in 40 CFR 264.1084. These tanks 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 tank 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 Subpart X miscellaneous units listed in Appendix C-2 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)]
A.III.CC. (5)(c) Containers

Containers in permitted container storage areas (see Appendix C-2) having a design capacity greater than 26.4 gallons (0.1 m³) 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)]

A.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 (TOX) 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 TOX control devices shall meet the requirements of 40 CFR 264.1087 and the requirements specified in Condition A.III.AA.(4). Performance testing of the TOX and associated OTM 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)]

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

The closed-vent systems and TOX/OTM 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.

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

A.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)]
A.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)]

A.III.DD. CONTAINMENT BUILDINGS
Not applicable

A.III.EE. HAZARDOUS WASTE MUNITIONS AND EXPLOSIVES STORAGE
Not applicable

PART IV
CORRECTIVE ACTION FOR SWMUs AND AOCs

See Entire Facility Section

PART V
REFERENCED ATTACHMENTS

A.V.A. Attachment A, Part A
1. Part A of the Research, Development and Demonstration Permit Application - Revision 6a (see condition A.I.B table), is incorporated as Attachment A-1 of this permit.
2. Part A of the Class 3 Hazardous Waste Permit Modification Request, Addition of a Container Storage Facility (see condition A.I.B table), is incorporated as Attachment A-2 of this permit.
3. Part A of the Class 3 Hazardous Waste Permit Modification Request, Addition of Hazardous Waste Storage Units (see condition A.I.B table), is incorporated as Attachment A-3 of this permit.

A.V.B. Attachment B, Facility Description
1. Part B of the Research, Development and Demonstration Permit Application - Revision 6a (see condition A.I.B table), is incorporated as Attachment B-1 of this permit.
2. Part B of the Class 3 Hazardous Waste Permit Modification Request, Addition of a Container Storage Facility (see condition A.I.B table), is incorporated as Attachment B-2 of this permit.
3. Part B of the Class 3 Hazardous Waste Permit Modification Request, Addition of Hazardous Waste Storage Units (see condition A.I.B table), is incorporated as Attachment B-3 of this permit.

A.V.C. Attachment C, Waste Analysis Plan
1. Part C of the Research, Development and Demonstration Permit Application - Revision 6a (see condition A.I.B table), is incorporated as Attachment C-1 of this permit.
2. Part C of the Class 3 Hazardous Waste Permit Modification Request, Addition of a Container Storage Facility (see condition A.I.B table), is incorporated as Attachment C-2 of this permit.
3. Part C of the Class 3 Hazardous Waste Permit Modification Request, Addition of Hazardous Waste Storage Units (see condition A.I.B table), is incorporated as Attachment C-3 of this permit.

A.V.D. Attachment D, Process Information
1. Part D of the Research, Development and Demonstration Permit Application - Revision 6a (see condition A.I.B table), is incorporated as Attachment D-1 of this permit.
2. Part D of the Class 3 Hazardous Waste Permit Modification Request, Addition of a Container Storage Facility (see condition A.I.B table), is incorporated as Attachment D-2 of this permit.
3. Part D of the Class 3 Hazardous Waste Permit Modification Request, Addition of Hazardous Waste Storage Units (see condition A.I.B table), is incorporated as Attachment D-3 of this permit.

**A.V.E. RESERVED**

**A.V.F. Attachment F, Procedures to Prevent Hazards**

1. Part F of the Research, Development and Demonstration Permit Application - Revision 6a (see condition A.I.B table), is incorporated as Attachment F-1 of this permit.
2. Part F of the Class 3 Hazardous Waste Permit Modification Request, Addition of a Container Storage Facility (see condition A.I.B table), is incorporated as Attachment F-2 of this permit.
3. Part F of the Class 3 Hazardous Waste Permit Modification Request, Addition of Hazardous Waste Storage Units (see condition A.I.B table), is incorporated as Attachment F-3 of this permit.

**A.V.G. Attachment G, Contingency Plan**

1. Part G of the Research, Development and Demonstration Permit Application - Revision 6a (see condition A.I.B table), is incorporated as Attachment G-1 of this permit.
2. Part G of the Class 3 Hazardous Waste Permit Modification Request, Addition of a Container Storage Facility (see condition A.I.B table), is incorporated as Attachment G-2 of this permit.
3. Part G of the Class 3 Hazardous Waste Permit Modification Request, Addition of Hazardous Waste Storage Units (see condition A.I.B table), is incorporated as Attachment G-3 of this permit.
4. The Chemical Accident or Incident Response and Assistance (CAIRA) Plan is incorporated as Attachment G-4 of this permit.

**A.V.H. Attachment H, Personnel Training**

1. Part H of the Research, Development and Demonstration Permit Application - Revision 6a (see condition A.I.B table), is incorporated as Attachment H-1 of this permit.
2. Part H of the Class 3 Hazardous Waste Permit Modification Request, Addition of a Container Storage Facility (see condition A.I.B table), is incorporated as Attachment H-2 of this permit.
3. Part B of the Class 3 Hazardous Waste Permit Modification Request, Addition of Hazardous Waste Storage Units (see condition A.I.B table), is incorporated as Attachment H-3 of this permit.

**A.V.I. Attachment I, Closure Plan**

1. Part I of the Research, Development and Demonstration Permit Application - Revision 6a (see condition A.I.B table), is incorporated as Attachment I-1 of this permit.
2. Part I of the Class 3 Hazardous Waste Permit Modification Request, Addition of a Container Storage Facility (see condition A.I.B table), is incorporated as Attachment I-2 of this permit.
3. Part I of the Class 3 Hazardous Waste Permit Modification Request, Addition of Hazardous Waste Storage Units (see condition A.I.B table), is incorporated as Attachment I-3 of this permit.

**A.V.J. Attachment J, Other Federal Laws**

1. Part J of the Research, Development and Demonstration Permit Application - Revision 6a (see condition A.I.B table), is incorporated as Attachment J-1 of this permit.
2. Part J of the Class 3 Hazardous Waste Permit Modification Request, Addition of a Container Storage Facility (see condition A.I.B table), is incorporated as Attachment J-2 of this permit.
3. Part J of the Class 3 Hazardous Waste Permit Modification Request, Addition of Hazardous Waste Storage Units (see condition A.I.B table), is incorporated as Attachment J-3 of this permit.
A.V.K. Attachment K, Waste Minimization

1. Part K of the Research, Development and Demonstration Permit Application - Revision 6a (see condition A.I.B table), is incorporated as Attachment K-1 of this permit.
2. Part K of the Class 3 Hazardous Waste Permit Modification Request, Addition of a Container Storage Facility (see condition A.I.B table), is incorporated as Attachment K-2 of this permit.
3. Part K of the Class 3 Hazardous Waste Permit Modification Request, Addition of Hazardous Waste Storage Units (see condition A.I.B table), is incorporated as Attachment K-3 of this permit.

A.V.L. Attachment L, Signatures

1. Part L of the Research, Development and Demonstration Permit Application - Revision 6a (see condition A.I.B table), is incorporated as Attachment L-1 of this permit.
2. Part L of the Class 3 Hazardous Waste Permit Modification Request, Addition of a Container Storage Facility (see condition A.I.B table), is incorporated as Attachment L-2 of this permit.
3. Part L of the Class 3 Hazardous Waste Permit Modification Request, Addition of Hazardous Waste Storage Units (see condition A.I.B table), is incorporated as Attachment L-3 of this permit.

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

1. Part M of the Research, Development and Demonstration Permit Application - Revision 6a (see condition A.I.B table), is incorporated as Attachment M-1 of this permit.
2. Part M of the Class 3 Hazardous Waste Permit Modification Request, Addition of a Container Storage Facility (see condition A.I.B table), is incorporated as Attachment M-2 of this permit.
3. Part M of the Class 3 Hazardous Waste Permit Modification Request, Addition of Hazardous Waste Storage Units (see condition A.I.B table), is incorporated as Attachment M-3 of this permit.

A.V.N. Attachment N, Organic Air Requirements


A.V.O. Attachment O, Laboratory Analysis and Monitoring Plan; Perimeter Monitoring Plan

The Laboratory Analysis and Monitoring Plan, Rev. 5, Chg. 1 dated June 27, 2019, and the Perimeter Monitoring Plan dated July 5, 2016 are incorporated as Attachment O of this permit.

A.V.P. Attachment P, RCRA Operations Plan

The Resource Conservation and Recovery Act (RCRA) Operations Plan, Rev. 2, Chg. 0, dated May 7, 2019 is incorporated as Attachment P of this permit. Future changes to operating parameters will be incorporated only by modification of this Permit.

A.V.Q. Attachment Q, Pilot Test Demonstration Plan

The Pilot Test Demonstration Plan, Volume 1, Rev. 5, Chg. 0, dated October 11, 2019 is incorporated as Attachment Q of this permit.

A.V.R. Attachment R, Metal Parts Treater Monitoring Plan

The Metal Parts Treater Monitoring Plan, Rev. 1, Chg. 1, dated April 24, 2019 is incorporated as Attachment R of this permit.

PART VI
WASTE MINIMIZATION
A.VI.A. PROGRAM

The Permittee shall implement a program to reduce the volume and toxicity of hazardous waste in accordance with the Waste Minimization Plan, Attachment K, and applicable regulations.

[40 CFR 262.27]
APPENDIX A. Compliance Schedule

1. Submit to the Division, Pilot Test Demonstration Plan.
   a. Submit a test plan for ramp-up that includes objectives, duration, and data to be collected
   b. Submit a test plan for each waste treatment system, off-gas treatment system, and air pollution control system
   c. Provide a test plan for demonstrating 99.9999% DRE
   d. Provide a schedule for conducting Pilot Testing activities
   e. Submit no later than 60 days prior to the receipt of hazardous waste in that waste or treatment system
   f. Submit revised Volume I regarding GB Projectile Campaign satisfying requirements a. through d.
   g. Submit revised Volume II regarding SCWO Operations Campaign satisfying requirements a., b., and d.
   h. Submit revised Volume III regarding GB Rockets & Leaker Campaign satisfying requirements a. through d.
   i. Approval required prior to receipt of hazardous waste in that waste or treatment system under each campaign.
      Volume I Completed; approved on November 8, 2019

   [KRS 224.50-130(3), 401 KAR 39:090 Section 1, 40 CFR 264.601]

2. Submit to the Division, Pilot Test Demonstration Reports.
   a. Submit a test report, including data collected during testing, for each campaign for:
      i. Each system as tests are completed
      ii. Air Emissions Testing and Integrated Facility Demonstration
      iii. Demonstrating DRE
   b. Submit preliminary report within 45 days and final report within 90 days of completion of test

   [KRS 224.50-130(3), 401 KAR 39:090 Section 1 (40 CFR 264.601)]

3. Submit to the Division, Hydrolysate Analysis.
   a. Identify any hazardous organic constituents listed in 40 CFR Part 261, Appendix VIII, which are present in hydrolysate, except that the permittee need not analyze for constituents listed in part 261, Appendix VIII, which would reasonably not be expected to be found in the waste. The constituents excluded from analysis shall be identified, and the basis for the exclusion stated. The analysis shall rely on appropriate analytical techniques.
   b. Submit no later than 3 months following the production of hydrolysate

   [401 KAR 39:090 Section 1 (40 CFR 264.13), 401 KAR 39:060 Section 5 (40 CFR 270.14)]

4. Submit to the Division, RCRA Operations Parameters.
   a. Submit modifications that specify the operating parameters of permitted waste treatment systems that are not already included in an approved RCRA Operations Plan or this permit.
   b. Submit no later than 3 months prior to treatment of hazardous waste in those systems
   c. Approval required prior to treatment of hazardous waste in those systems

   [401 KAR 39:090 Section 1 (40 CFR 264.601), 401 KAR 39:060 Section 5 (40 CFR 270.23(a)(2))]

5. Submit to the Division, Facility Construction Certification
   a. A letter signed by the Permittee and a licensed professional engineer stating that the Munitions Demilitarization Building (MDB), Hydrolysate Storage Area (HSA), and Waste Transfer Station (WTS) have been constructed or modified in compliance with the Permit and applicable regulations. The certification shall be submitted at least 3 months prior to receipt of hazardous waste at any of these facilities.
   b. A letter signed by the Permittee and a licensed professional engineer stating that the Supercritical Water Oxidation (SCWO) Processing Building (SPB) and related facilities, have been constructed or modified in compliance with the Permit and applicable regulations. The certification shall be submitted at least 30 days prior to receipt of hazardous waste at the SPB or related facilities.

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

6. Submit to the Division, System Shakedown Report for Supercritical Water Oxidation Units.

Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) Section A (1/8/2020)
Blue Grass Army Depot, KY-213-820-105; AI: 2805: Activity: APE20190015

Page 68 of 95
a. Submit report of SCWO System Shakedown including surrogate testing, including objectives, duration, and data collected
b. Submit prior to the receipt of agent hydrolysate at the SPB

[KRS 224.50-130(3), 401 KAR 39:090 Section 1, 40 CFR 264.601]

7. Submit to the Division, a Revised Closure Plan.
   a. The Closure Plan shall identify steps necessary to perform partial and final closure of the facility at any point during its active life. The Closure Plan shall comply with 401 KAR 39:090 Section 1 and 40 CFR 264 Subpart G.
   b. Submit no later than receipt of hazardous waste
   c. Approval required prior to beginning closure activities

[401 KAR 39:090 Section 1, 40 CFR 264 Subpart G, 401 KAR 39:060 Section 5]

8. Submit to the Division, Request for Approval Prior to Start of Agent Destruction Operations. Separate Division approval is required for GB Rocket campaign and for acceptance of hazardous waste for treatment at the SCWO.
   a. At least 15 days prior to receipt of hazardous waste
   b. Letter requesting approval for start of SCWO Operations shall document that all Compliance Schedule Items, with the exception of the Operational Readiness Review, Closure Plan, Pilot Test Demonstration Plan Volume III, and the Pilot Test Demonstration Reports, are completed.
   c. Letter requesting approval for start of GB Rocket Destruction Operations shall document that all Compliance Schedule Items, with the exception of the Operational Readiness Review, Closure Plan, and the Pilot Test Demonstration Reports, are completed.
   d. Division approval letter required prior to receipt of hazardous waste

[KRS 224.46-530(1)(g), KRS 224.50-130(3)]
## APPENDIX B. EQUIPMENT SUBJECT TO RCRA ORGANIC AIR EMISSIONS STANDARDS UNDER SUBPART BB

<table>
<thead>
<tr>
<th>Subpart BB Equipment</th>
<th>Equipment List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure Relief Devices in Gas/Vapor Service</td>
<td>See Table L-6 in Appendix L-4 of Attachment N</td>
</tr>
<tr>
<td>Sampling Connection Systems</td>
<td>See Table L-7 in Appendix L-4 of Attachment N</td>
</tr>
<tr>
<td>Open-Ended Valves or Lines</td>
<td>See Table L-8, Table L-10, Table L-12, and Table-13 in Appendix L-4 of Attachment N</td>
</tr>
<tr>
<td>Valves in Gas/Vapor Service or in Light Liquid Service</td>
<td>See Table L-8 in Appendix L-4 of Attachment N</td>
</tr>
<tr>
<td>Pumps in Heavy Liquid Service</td>
<td>See Table L-9 in Appendix L-4 of Attachment N</td>
</tr>
<tr>
<td>Valves in Heavy Liquid Service</td>
<td>See Table L-10 in Appendix L-4 of Attachment N</td>
</tr>
<tr>
<td>Pressure Relief Devices in Light Liquid or Heavy Liquid Service</td>
<td>See Table L-11 in Appendix L-4 of Attachment N</td>
</tr>
<tr>
<td>Flanges and Other Connectors</td>
<td>See Table L-12 and Table L-13 in Appendix L-4 of Attachment N</td>
</tr>
</tbody>
</table>
APPENDIX C. EQUIPMENT SUBJECT TO RCRA ORGANIC AIR EMISSIONS STANDARDS UNDER SUBPART CC

APPENDIX C-1: MAIN PLANT RCRA SUBPART CC EXEMPTED OR EXCLUDED UNITS

<table>
<thead>
<tr>
<th>Unit Identification</th>
<th>Unit Type</th>
<th>Design Capacity</th>
<th>Subpart CC Exclusion or Exemption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Plant Container Storage Areas</td>
<td>Containers</td>
<td>&lt;0.1 m$^3$</td>
<td>Not applicable per 40 CFR 264.1080(b)(2); Excluded due to capacity</td>
</tr>
<tr>
<td>Main Plant Container Storage Areas</td>
<td>Containers storing AFS filter cake, treated metal for recycling, and other treated solid secondary wastes</td>
<td>various</td>
<td>Treated to contain &lt;500 ppmw VO$s$; Exempted per 40 CFR 264.1082(c)(2)</td>
</tr>
<tr>
<td>Waste Transfer Station (WTS) Storage Area</td>
<td>Tanker</td>
<td>Various (typical 5,000 gallons)</td>
<td>Receives only wastes treated that meet VO destruction and removal requirements; Exempted per 40 CFR 264.1082(c)(2)</td>
</tr>
<tr>
<td>OTM Off-Gas Treatment Units</td>
<td>Tanks, Containers, Miscellaneous Units</td>
<td>Various</td>
<td>Receives effluent from TOX control device which provides &gt;95% organics destruction; Exempted per 40 C.F.R. §264.1082(c)(2)</td>
</tr>
</tbody>
</table>
| SCWO Tanks and Miscellaneous Units          | • SCWO Effluent Tanks – MT-SCWO-0101, MT-SCWO-0201, and MT-SCWO-0301  
   • Reverse Osmosis (RO) Unit – ML-RO-0101, ML-RO-0201, and ML-RO-0301  
   • RO Reject Tanks – MT-RO-0106 and MT-RO-0206  
   • RO Permeate Tanks – MT-SWS-0101 and MT-SWS-0201  
   • RO Multimedia Filters – MK-RO-0101A, MK-RO-0101B, MK-RO-0101C, MK-RO-0101D, MK-RO-0101E, MK-RO-0101F | Various        | Receives only wastes treated that meet VO destruction and removal requirements; Exempted per 40 C.F.R. §264.1082(c)(2) |

APPENDIX C-2. MAIN PLANT UNITS SUBJECT TO SUBPART CC

<table>
<thead>
<tr>
<th>Unit Identification</th>
<th>Unit Type</th>
<th>Design Capacity</th>
<th>Subpart CC Applicability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste Transfer Station (WTS)</td>
<td>Subpart I Container Storage</td>
<td>176,500 gallons</td>
<td>40 CFR 264.1086</td>
</tr>
<tr>
<td>Agent Neutralization System (ANS) Storage Area</td>
<td>Subpart I Container Storage</td>
<td>2,750 gallons</td>
<td>40 CFR 264.1086</td>
</tr>
<tr>
<td>Tray/Container Transfer Room</td>
<td>Subpart I Container Storage</td>
<td>550 gallons</td>
<td>40 CFR 264.1086</td>
</tr>
<tr>
<td>Toxic Maintenance Area (TMA) Storage Area</td>
<td>Subpart I Container Storage</td>
<td>5,500 gallons</td>
<td>40 CFR 264.1086</td>
</tr>
<tr>
<td>Explosive Containment Vestibule (ECV) Storage Area, ECV-1</td>
<td>Subpart I Container Storage</td>
<td>275 gallons</td>
<td>40 CFR 264.1086</td>
</tr>
<tr>
<td>Explosive Containment Vestibule (ECV) Storage Area, ECV-2</td>
<td>Subpart I Container Storage</td>
<td>275 gallons</td>
<td>40 CFR 264.1086</td>
</tr>
<tr>
<td>Explosive Containment Room (ECR) Storage Area No. 1, ECR-1</td>
<td>Subpart I Container Storage</td>
<td>55 gallons</td>
<td>40 CFR 264.1086</td>
</tr>
<tr>
<td>Explosive Containment Room (ECR) Storage Area No. 2, ECR-2</td>
<td>Subpart I Container Storage</td>
<td>55 gallons</td>
<td>40 CFR 264.1086</td>
</tr>
<tr>
<td>SCWO Building Storage Area</td>
<td>Subpart I Container Storage</td>
<td>8,550 gallons</td>
<td>40 CFR 264.1086</td>
</tr>
<tr>
<td>Container Storage Facility</td>
<td>Subpart I Container Storage</td>
<td>49,280 gallons</td>
<td>40 CFR 264.1086</td>
</tr>
<tr>
<td>Unit Identification</td>
<td>Unit Type</td>
<td>Design Capacity</td>
<td>Subpart CC Applicability</td>
</tr>
<tr>
<td>---------------------</td>
<td>----------------------------</td>
<td>----------------------------------------</td>
<td>--------------------------</td>
</tr>
</tbody>
</table>
| Agent Collection System (ACS) Tanks  
  - Agent Holding Tank – MT-ACS-0105  
  - Agent Surge Tank – MT-ACS-0106 | Subpart J Tank Unit | 1,856 gallons each | 40 CFR 264.1084 |
| Spent Decontamination System (SDS) Tanks  
  - MV-SDS-0101  
  - MV-SDS-0201  
  - MV-SDS-0301 | Subpart J Tank Unit | 9,769 gallons each | 40 CFR 264.1084 |
| Agent Neutralization Reactors (ANR) Tanks  
  - MV-ANS-0101  
  - MV-ANS-0201 | Subpart J Tank Unit | 2,251 gallons each | 40 CFR 264.1084 |
| Agent Hydrolysate Sampling (AHS) Tanks  
  - MT-ANS-0103  
  - MT-ANS-0203  
  - MT-ANS-0303 | Subpart J Tank Unit | 5,865 gallons each | 40 CFR 264.1084 |
| Hydrolysate Collection Tank  
  MT-EBH-1901 | Subpart J Tank Unit | 1,421 gallons each | 40 CFR 264.1084 |
| Energetics Neutralization Reactors (ENR) Tanks  
  - MV-ENS-0101  
  - MV-ENS-0102  
  - MV-ENS-0103 | Subpart J Tank Unit | 4,007 gallons each | 40 CFR 264.1084 |
| Agent Hydrolysate HSA Tanks  
  - MT-HSS-0104 (VX only)  
  - MT-HSS-0105 (GB only)  
  - MT-HSS-0205 (GB only) | Subpart J Tank Unit | 103,195 gallons - MT-HSS-0104 (VX only)  
336,943 gallons each - MT-HSS-0105 (GB only) and MT-HSS-0205 (GB only) | 40 CFR 264.1084 |
| Energetics Hydrolysate HSA Tanks  
  - MT-HSS-0604  
  - MT-HSS-0704 | Subpart J Tank Unit | 316,192 gallons each | 40 CFR 264.1084 |
| Aluminum Precipitation Reactors  
  - MV-APS-0101  
  - MV-APS-0102 | Subpart J Tank Unit | 1,523 gallons each | 40 CFR 264.1084 |
| Aluminum Filtration Feed Tanks  
  - MT-AFS-1010  
  - MT-AFS-2010 | Subpart J Tank Unit | 1,644 gallons each - MT-AFS-1010  
4,233 gallons - MT-AFS-1012 | 40 CFR 264.1084 |
| Aluminum Filtrate Tank  
  MT-AFS-1012 | Subpart J Tank Unit | 6,662 gallons each | 40 CFR 264.1084 |
| SCWO Hydrolysate Blend Tanks  
  - MT-SCWO-0030  
  - MT-SCWO-0031 | Subpart J Tank Unit | 6,662 gallons each | 40 CFR 264.1084 |
| SCWO Batch Hydrolysate Holding Tank  
  MT-SCWO-0032 | Subpart J Tank Unit | 6,662 gallons | 40 CFR 264.1084 |
| SCWO Off-Spec Effluent Tank  
  MT-SCWO-0041 | Subpart J Tank Unit | 4,213 gallons | 40 CFR 264.1084 |
| SCWO Emergency Relief Tank  
  MT-SCWO-0040 | Subpart J Tank Unit | 2,260 gallons | 40 CFR 264.1084 |
<table>
<thead>
<tr>
<th>Unit Identification</th>
<th>Unit Type</th>
<th>Design Capacity</th>
<th>Subpart CC Applicability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Munitions Washout System (MWS)</td>
<td>Subpart X Miscellaneous Unit</td>
<td>Fifteen (15) M426 Projectiles or Twenty (20) M121A1 Projectiles per hour</td>
<td>40 CFR 264.1084 (per 40 CFR 264.601)</td>
</tr>
<tr>
<td>Miscellaneous Units:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• MZ-MWS-0101A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• MZ-MWS-0101B</td>
<td></td>
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<tr>
<td>• MZ-MWS-0101C</td>
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</tr>
<tr>
<td>• MZ-MWS-0101D</td>
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<td></td>
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</tr>
<tr>
<td>• MZ-MWS-0101E</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rocket Handling System (RHS)</td>
<td>Subpart X Miscellaneous Unit</td>
<td>Twenty-four (24) M55 Rockets per hour</td>
<td>40 CFR 264.1084 (per 40 CFR 264.601)</td>
</tr>
<tr>
<td>Miscellaneous Units (nonleakers):</td>
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<td>Rocket Handling System (RHS)</td>
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<td>Energetics Batch Hydrolyzer (EBH)</td>
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<td>Metal Parts Treaters</td>
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<td>Aluminum Filtration Units</td>
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<td>SCWO Reactors</td>
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<td>• MV-SCWO-1030</td>
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<td>• MV-SCWO-3030</td>
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APPENDIX D. 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 MDB rooms potentially containing Chemical Agent, the TOX unit room, and the areas around the SCWO units during operation. The details of inspection during entry and by CCTV shall be included in the Main Plant LDAR Program.

Per Subpart BB requirements, BGCAPP Main Plant 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 MDB 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 MDB areas. This alternative monitoring by the MINICAMS® units rather than the methods specified in 40 CFR 264.1063(b) is suitable for the BGCAPP Main Plant 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 MDB 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 shall be included in the Main Plant 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 MDB, 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 MDB areas. 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 MDB 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). In the SCWO Building, the APR carbon adsorption units shall be monitored for breakthrough by an installed total hydrocarbon (THC) analyzer, and the SCWO Building HVAC system carbon units shall be monitored for VO breakthrough using a suitable hand-held detector (e.g., PID detector) at intervals consistent with 40 CFR 264.1033(h)(1).

The details of the monitoring plan using MINICAMS® units in the MDB and for the MDB HVAC system carbon adsorption units and SCWO Building HVAC system breakthrough monitoring method and interval shall be prepared prior to agent operations and included in the Main Plant LDAR Program. All monitoring results shall be kept as part of the Facility operating record.
### APPENDIX E. MINICAMS/DAAMS MONITORING TABLE

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<tr>
<th>Station Name</th>
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<th>MINICAMS Alarm Level</th>
<th>DAAMS Tag</th>
<th>DAAMS Mode</th>
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Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) Section A (1/8/2020)
Blue Grass Army Depot, KY-213-820-105; AI: 2805; Activity: APE20190015
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**NOTES:**
1. MINICAMS audible horn disabled (Not Used)
2. Station installed with Low Volume Sampler (LVS)
3. Station installed with two-port stream selector
4. Station installed with 12-port stream selector
5. Stations installed and only used during the VX campaign
6. Station installed with sample conditioning system when monitoring at the SEL in a wet stack condition.
7. Portable Cart
8. Stations sampling airlock wands, EONC's, waste bags/boxes, or items which don't sample rooms
9. Station not connected to FCS
10. Station installed with SEL MINICAMS/sampling condition system when monitoring wet filter condition or station installed with WPL DAAMS when monitoring dry filter condition
11. Hot spare
12. Process support area, WPL DAAMS analysis performed at least every 28 days
13. Work area, continuous WPL DAAMS analysis performed
14. Work area, WPL DAAMS analysis performed daily only when personnel are present
15. RCRA compliance Stations (highlighted in light gray), any changes to these stations must be approved by KDEP
16. Non-Baseline DAAMS sampling, only upon request
17. The filter mid-beds will be monitored between filter beds 1 and 2 and 2 and 3, sequentially. Between beds 4 and 5 is not monitored. Once agent breakthrough is detected between beds 1 and 2, the monitoring will be moved downstream between beds 4 and 5.
## APPENDIX F. CRITICAL RCRA PARAMETERS

<table>
<thead>
<tr>
<th>Item</th>
<th>System</th>
<th>Parameter Description</th>
<th>Instrument Tag</th>
<th>Units</th>
<th>Critical Point</th>
<th>Setpoint</th>
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<td>NCR</td>
<td>GB Projectile Throughput of MY-NCR-0101</td>
<td>Known Projectile Weight / Projectile Counter</td>
<td>lb/hr</td>
<td>350 (Maximum of 15 Projectiles per Hour)</td>
<td>≤350</td>
</tr>
<tr>
<td>62</td>
<td>RCM</td>
<td>GB Rocket Throughput of MX-RHS-0113/0114</td>
<td>Known Rocket Weight / Rocket Counter</td>
<td>lb/hr</td>
<td>1200 (Maximum of 20 Rockets per Hour)</td>
<td>≤1200</td>
</tr>
<tr>
<td>63</td>
<td>MPT</td>
<td>Munitions Throughput and Operating Conditions of ME-MPT-0101</td>
<td>Known Projectile Weight/Counter</td>
<td>lb/hr</td>
<td>8000</td>
<td>≤8000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Main Chamber Zone Time</td>
<td>min</td>
<td>65 min.</td>
<td>≥65 min.</td>
<td>min</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Main Chamber Zone 2 Time</td>
<td>Min.</td>
<td>65 min.</td>
<td>≥65 min.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Outlet Airlock Time</td>
<td>Min.</td>
<td>25 min.</td>
<td>≥25 min.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Main Chamber Temperature Monitored Sample Setpoint (TIC0285AA/-BA- for Zone 1 and TIC0285AB/-BB- for Zone 2)</td>
<td>°F</td>
<td>≥1250</td>
<td>1250 to 1500</td>
<td></td>
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<tr>
<td>64</td>
<td>MPT</td>
<td>Munitions Throughput and Operating Conditions of ME-MPT-0201</td>
<td>Known Projectile Weight/Counter</td>
<td>lb/hr</td>
<td>8000</td>
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<td></td>
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<td>Main Chamber Zone Time</td>
<td>min</td>
<td>65 min.</td>
<td>≥65 min.</td>
<td>min</td>
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<tr>
<td>Item</td>
<td>System</td>
<td>Parameter Description</td>
<td>Instrument Tag</td>
<td>Units</td>
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<td>Setpoint</td>
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<td>Main Chamber Zone 2 Time</td>
<td></td>
<td>Min.</td>
<td>65 min.</td>
<td>≥65 min.</td>
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<td></td>
<td>Outlet Airlock Time</td>
<td></td>
<td>Min.</td>
<td>25 min.</td>
<td>≥25 min.</td>
</tr>
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<td>Main Chamber Temperature Setpoint (TIC0285AA/-BA- for 15 Zone 1 and TIC0285AB/-BB- for Zone 2)</td>
<td>°F</td>
<td></td>
<td>≥1250</td>
<td>1250 to 1500</td>
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<tr>
<td>65</td>
<td>MWS</td>
<td>Agent Throughput of MZ-MWS-0101D/E</td>
<td>Known Agent Weight/Counter</td>
<td>lb/hr</td>
<td>910</td>
<td>≤910</td>
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<td>66</td>
<td>AFS</td>
<td>Total Filter Cake from ML-AFS-1040/2040</td>
<td>Scale</td>
<td>lb/hr</td>
<td>2500</td>
<td>≤2500</td>
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<td>67</td>
<td>RO</td>
<td>Throughput of ML-RO-0101/0201/0301</td>
<td>FIT3318---</td>
<td>gal/day</td>
<td>155520</td>
<td>≤155520</td>
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<tr>
<td>68</td>
<td>SCWO</td>
<td>Throughput of MV-SCWO-1030</td>
<td>FQI9109A-</td>
<td>lb/hr</td>
<td>1440</td>
<td>≤1440</td>
</tr>
<tr>
<td>69</td>
<td>SCWO</td>
<td>Throughput of MV-SCWO-2030</td>
<td>FQI9109B-</td>
<td>lb/hr</td>
<td>1440</td>
<td>≤1440</td>
</tr>
<tr>
<td>70</td>
<td>SCWO</td>
<td>Throughput of MV-SCWO-3030</td>
<td>FQI9109C-</td>
<td>lb/hr</td>
<td>1440</td>
<td>≤1440</td>
</tr>
<tr>
<td>71</td>
<td>HSS (OTM Condensate)</td>
<td>MT-HSS-0104</td>
<td>LSHH0012---</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading&lt;HH=30.3</td>
<td>&lt;30.3</td>
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<tr>
<td>72</td>
<td>HSS (Agent)</td>
<td>MT-HSS-0105</td>
<td>LSHH0071A-</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading&lt;HH=38.5</td>
<td>&lt;38.5</td>
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<tr>
<td>73</td>
<td>HSS (Agent)</td>
<td>MT-HSS-0205</td>
<td>LSHH0071B-</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading&lt;HH=38.5</td>
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<tr>
<td>74</td>
<td>HSS (OTM Condensate)</td>
<td>MT-HSS-0604</td>
<td>LSHH0121A-</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading&lt;HH=38.8</td>
<td>&lt;38.8</td>
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<tr>
<td>75</td>
<td>HSS (OTM Condensate)</td>
<td>MT-HSS-0704</td>
<td>LSHH0121B-</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading&lt;HH=38.8</td>
<td>&lt;38.8</td>
</tr>
<tr>
<td>76</td>
<td>ACS</td>
<td>MT-ACS-0105</td>
<td>LSHH1613---</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading&lt;HH=7.3</td>
<td>&lt;7.3</td>
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<tr>
<td>77</td>
<td>ACS</td>
<td>MT-ACS-0106</td>
<td>LSHH1567---</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading&lt;HH=7.3</td>
<td>&lt;7.3</td>
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<tr>
<td>78</td>
<td>ANS (ANR)</td>
<td>MV-ANS-0101</td>
<td>LSHH2132A-</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading&lt;HH=8.8</td>
<td>&lt;8.8</td>
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<tr>
<td>79</td>
<td>ANS (ANR)</td>
<td>MV-ANS-0201</td>
<td>LSHH2132B-</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading&lt;HH=8.8</td>
<td>&lt;8.8</td>
</tr>
<tr>
<td>Item</td>
<td>System</td>
<td>Parameter Description</td>
<td>Instrument Tag</td>
<td>Units</td>
<td>Critical Point</td>
<td>Setpoint</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------------</td>
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<td>------------------</td>
<td>------------------</td>
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</tr>
<tr>
<td>80</td>
<td>ANS (Sampling Tank)</td>
<td>MT-ANS-0103</td>
<td>LSHH2192A--</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading</td>
<td>&lt;8.7</td>
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<tr>
<td>81</td>
<td>ANS (Sampling Tank)</td>
<td>MT-ANS-0203</td>
<td>LSHH2192B--</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading</td>
<td>&lt;8.7</td>
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<tr>
<td>82</td>
<td>ANS (Sampling Tank)</td>
<td>MT-ANS-0303</td>
<td>LSHH2192C--</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading</td>
<td>&lt;8.7</td>
</tr>
<tr>
<td>83</td>
<td>ENS (ENR)</td>
<td>MV-ENS-0101</td>
<td>LSHH2361-A--</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading</td>
<td>&lt;9.5</td>
</tr>
<tr>
<td>84</td>
<td>ENS (ENR)</td>
<td>MV-ENS-0102</td>
<td>LSHH2361-B--</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading</td>
<td>&lt;9.5</td>
</tr>
<tr>
<td>85</td>
<td>ENS (ENR)</td>
<td>MV-ENS-0103</td>
<td>LSHH2361-C--</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading</td>
<td>&lt;9.5</td>
</tr>
<tr>
<td>86</td>
<td>SDS</td>
<td>MV-SDS-0101</td>
<td>LSHH1757-A--</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading</td>
<td>&lt;11.5</td>
</tr>
<tr>
<td>87</td>
<td>SDS</td>
<td>MV-SDS-0201</td>
<td>LSHH1757-B--</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading</td>
<td>&lt;11.5</td>
</tr>
<tr>
<td>88</td>
<td>SDS</td>
<td>MV-SDS-0301</td>
<td>LSHH1757-C--</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading</td>
<td>&lt;11.5</td>
</tr>
<tr>
<td>89</td>
<td>EBH (Collection Tank)</td>
<td>MT-EBH-1901</td>
<td>LSHH9202---</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading</td>
<td>&lt;5.5</td>
</tr>
<tr>
<td>90</td>
<td>APS (APR)</td>
<td>MV-APS-0101</td>
<td>LSHH2107A--</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading</td>
<td>&lt;7.3</td>
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<tr>
<td>91</td>
<td>APS (APR)</td>
<td>MV-APS-0102</td>
<td>LSHH2107B--</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading</td>
<td>&lt;7.3</td>
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<tr>
<td>92</td>
<td>SCWO</td>
<td>MT-SCWO-0041</td>
<td>LSHH9651---</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading</td>
<td>&lt;10.5</td>
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<tr>
<td>93</td>
<td>SCWO</td>
<td>MT-SCWO-0040</td>
<td>LSHH9610---</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading</td>
<td>&lt;2.1</td>
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<tr>
<td>94</td>
<td>SCWO</td>
<td>MT-SCWO-0030</td>
<td>LSHH9409---</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading</td>
<td>&lt;16.5</td>
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<tr>
<td>95</td>
<td>SCWO</td>
<td>MT-SCWO-0031</td>
<td>LSHH9338---</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading</td>
<td>&lt;16.5</td>
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<tr>
<td>Item</td>
<td>System</td>
<td>Parameter Description</td>
<td>Instrument Tag</td>
<td>Units</td>
<td>Critical Point</td>
<td>Setpoint</td>
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<tr>
<td>96</td>
<td>SCWO</td>
<td>MT-SCWO-0032</td>
<td>LSHH9403---</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading &lt;HH=16.5</td>
<td>&lt;16.5</td>
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<tr>
<td>97</td>
<td>AFS</td>
<td>MT-AFS-1010</td>
<td>LSHH9704A--</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading &lt;HH=5</td>
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<td>98</td>
<td>AFS</td>
<td>MT-AFS-2010</td>
<td>LSHH9704B--</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading &lt;HH=5</td>
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<td>99</td>
<td>AFS</td>
<td>MT-AFS-1012</td>
<td>LSHH9724---</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading &lt;HH=8.8</td>
<td>&lt;88</td>
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<td>100</td>
<td>RO</td>
<td>MT-RO-0106</td>
<td>LSHH0150-A-</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading &lt;HH=30.5</td>
<td>&lt;30.5</td>
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<td>101</td>
<td>RO</td>
<td>MT-RO-0206</td>
<td>LSHH0150-B-</td>
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<td>Level Switch Reading &lt;HH=30.5</td>
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<td>102</td>
<td>RO</td>
<td>MT-SCWO-0101</td>
<td>LSHH0401A--</td>
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<td>Level Switch Reading &lt;HH=24</td>
<td>&lt;24</td>
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<td>103</td>
<td>RO</td>
<td>MT-SCWO-0201</td>
<td>LSHH0401B--</td>
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<td>Level Switch Reading &lt;HH=24</td>
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<td>RO</td>
<td>MT-SCWO-0301</td>
<td>LSHH0401C--</td>
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<td>Level Switch Reading &lt;HH=24</td>
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<td>105</td>
<td>RO</td>
<td>MT-SWS-0101</td>
<td>LSHH0481-A-</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading &lt;HH=23</td>
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<td>106</td>
<td>RO</td>
<td>MT-SWS-0201</td>
<td>LSHH0481-B-</td>
<td>Max Tank Level, ft</td>
<td>Level Switch Reading &lt;HH=23</td>
<td>&lt;23</td>
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<td>107</td>
<td>UPA-2 Southwest (UPA106)</td>
<td>UPA-2 Monitoring</td>
<td>07-AMS-AIT5046</td>
<td>VSL</td>
<td>1.0 VSL</td>
<td>Less than 1.0 VSL GB as measured by MINICAMS at the 95% Confidence Level with DAAMS Confirmation</td>
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<td>108</td>
<td>UPA-2 East (UPA102)</td>
<td>UPA-2 Monitoring</td>
<td>07-AMS-AIT5047</td>
<td>VSL</td>
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<td>Less than 1.0 VSL GB as measured by MINICAMS at the 95% Confidence Level with DAAMS Confirmation</td>
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<td>UPA EONC Point Source (ONC101)</td>
<td>UPA EONC Monitoring</td>
<td>07-AMS-AIT5087</td>
<td>VSL</td>
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<td>Less than 1.0 VSL GB as measured by MINICAMS at the 95% Confidence Level with DAAMS Confirmation</td>
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<tr>
<td>Item</td>
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<td>Parameter Description</td>
<td>Instrument Tag</td>
<td>Units</td>
<td>Critical Point</td>
<td>Setpoint</td>
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<td>110</td>
<td>EONC Hot Spare (ONC211)</td>
<td>UPA EONC Monitoring</td>
<td>07-AMS-AIT5086</td>
<td>VSL</td>
<td>1.0 VSL</td>
<td>Less than 1.0 VSL GB as measured by MINICAMS at the 95% Confidence Level with DAAMS Confirmation</td>
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<td>111</td>
<td>MWS</td>
<td>Projectile Weight</td>
<td>07-MWS-WI-3131 (Scale)</td>
<td>lbs</td>
<td>Mass will vary – required drain efficiency TBD</td>
<td>Nominal 200</td>
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<td>112</td>
<td>TOX/OTM</td>
<td>TOX-1 Exhaust Flow for Residence Time Determination</td>
<td>07-OTM-FIT-1871A</td>
<td>SCFM</td>
<td>Not applicable</td>
<td>1480-2130</td>
</tr>
<tr>
<td>113</td>
<td>TOX/OTM</td>
<td>TOX-2 Exhaust Flow for Residence Time Determination</td>
<td>07-OTM-FIT-1871B</td>
<td>SCFM</td>
<td>Not applicable</td>
<td>1480-2130</td>
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<tr>
<td>114</td>
<td>TOX/OTM</td>
<td>TOX-1 Operating Temperature</td>
<td>07-OTM-TIC-3207A-</td>
<td>°F</td>
<td>1700-2250</td>
<td>1700-2250</td>
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<td>115</td>
<td>TOX/OTM</td>
<td>TOX-2 Operating Temperature</td>
<td>07-OTM-TIC-3207B-</td>
<td>°F</td>
<td>1700-2250</td>
<td>1700-2250</td>
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<td>116</td>
<td>TOX/OTM</td>
<td>OTM off-gas agent level</td>
<td>07-AMS-AIT1938</td>
<td>mg/m3</td>
<td>1.0 VSL</td>
<td>Less than 1.0 VSL GB as measured by MINICAMS at the 95% Confidence Level with DAAMS Confirmation</td>
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<td>117</td>
<td>TOX/OTM/HVAC</td>
<td>MDB Filter Stacks Agent Emission Level</td>
<td>08-AMS-AIT5015/08-AMS-AIT5016/08-AMS-AIT5017/08-AMS-AIT5018</td>
<td>mg/m3</td>
<td>1.0 VSL</td>
<td>Less than 1.0 VSL GB as measured by MINICAMS at the 95% Confidence Level with DAAMS Confirmation</td>
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<tr>
<td>118</td>
<td>HVAC</td>
<td>Filter Flow</td>
<td>M08-FILTFIT-7219 AB/C/D/E/F/G/H/J/KL/NP</td>
<td>ACFM</td>
<td>16,000</td>
<td>≤ 16,000</td>
</tr>
<tr>
<td>119</td>
<td>MWS</td>
<td>Burster Detector</td>
<td>07-MWS-XI-3024</td>
<td>in</td>
<td>≤ 20</td>
<td>NA</td>
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</table>
### APPENDIX G. MAIN PLANT INTERLOCKS

<table>
<thead>
<tr>
<th>System</th>
<th>Interlock Activation</th>
<th>Interlock Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBH System</td>
<td>H or HH hydrogen level in EBH Room</td>
<td>High hydrogen level (50% of the lower flammability limit [LFL]) results in a control room alarm and feeding of sheared rocket pieces is stopped. High-high hydrogen signal (75% of the LFL) results in closure of the vent damper to the OTE system, opening of the vent valve to EBH room, discontinuation of steam jacket heating, and an automatic nitrogen purge of the two EBH drums in use to displace oxygen and prevent the formation of an explosive atmosphere of oxygen and hydrogen in the drums.</td>
</tr>
<tr>
<td>OTM System</td>
<td>Start-up, shut-down, or off-normal TOX conditions (&lt;1800°F or TOX flame-out) or &gt;1 VSL agent in OTM off-gas</td>
<td>Diversion of OTM Condensate to SDS System</td>
</tr>
<tr>
<td>SCWO System</td>
<td>Online TOC analyzer result greater than 50 ppm for SCWO effluent</td>
<td>Diversion of SCWO effluent to SCWO Off-Spec Tanks</td>
</tr>
<tr>
<td>AFS System</td>
<td>pH drops below setpoint in APRs during acid addition</td>
<td>Acid feed pumps cutoff</td>
</tr>
<tr>
<td>Hydrolysate Collection Tank</td>
<td>HH liquid level</td>
<td>High-high level in the hydrolysate collection tank stops rotation of the EBH drum during liquid unloading to prevent over-filling of the hydrolysate collection tank</td>
</tr>
<tr>
<td>RCM</td>
<td>Shear blade cooling spray system low flow</td>
<td>Shear blade does not cut if inadequate flow detected</td>
</tr>
<tr>
<td></td>
<td>HH current for chuck motor</td>
<td>Stop on high current</td>
</tr>
<tr>
<td></td>
<td>SFT separation motor over torque</td>
<td>Stop on over torque and open SFT gripper</td>
</tr>
<tr>
<td>EBH System</td>
<td>HH temperature alarm during caustic addition</td>
<td>Steam supply is closed</td>
</tr>
<tr>
<td></td>
<td>Caustic temperature below LL setpoint</td>
<td>Sheared rocket loading stops</td>
</tr>
<tr>
<td>MPT System</td>
<td>Cooling water interruption or cooling water HH temperature</td>
<td>MPT shutdown</td>
</tr>
<tr>
<td></td>
<td>Oxygen content in MPT chamber greater than HH</td>
<td>Inlet and outlet gates do not open</td>
</tr>
<tr>
<td>SCWO System</td>
<td>HH liquid level emergency relief tank</td>
<td>SCWO reactor shutdown</td>
</tr>
<tr>
<td></td>
<td>HH temperatures at effluent heat exchangers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HH fuel/blended hydrolysate ratio</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fuel leak or ventilation loss detection</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HH temperatures in SCWO reactors</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HH pressures in SCWO reactors</td>
<td></td>
</tr>
<tr>
<td>RO System</td>
<td>HH pressure drop across components</td>
<td>RO System shutdown</td>
</tr>
<tr>
<td></td>
<td>LL RO feed pressure or flow rate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HH conductivity in permeate</td>
<td></td>
</tr>
<tr>
<td>Each Tank System</td>
<td>Fluid level reaches HH or HHH in the tank</td>
<td>Feed pump cutoff</td>
</tr>
</tbody>
</table>
F.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 permit is issued to Blue Grass Army Depot (BGAD), and the persons as specified below (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.

The table below specifies the owner and operator for each permitted hazardous waste activity specified in this Hazardous Waste Permit. The owner and operator are co-permittees.

<table>
<thead>
<tr>
<th>Permit Section</th>
<th>Owner</th>
<th>Operator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire Facility Section (F)</td>
<td>U.S. Department of the Army</td>
<td>All persons, as listed below</td>
</tr>
<tr>
<td>Conventional Storage Section (N)</td>
<td>U.S. Department of the Army</td>
<td>U.S. Department of the Army--Blue Grass Army Depot (BGAD)</td>
</tr>
<tr>
<td>Chemical Storage Section (C)</td>
<td>U.S. Department of the Army</td>
<td>U.S. Department of the Army--Blue Grass Chemical Activity (BGCA)</td>
</tr>
<tr>
<td>EDT Section (E)</td>
<td>U.S. Department of the Army</td>
<td>Bechtel Parsons Blue Grass Joint Venture (BPBG)</td>
</tr>
<tr>
<td>Mustard Agent (H) Sampling Operations Section (M)</td>
<td>U.S. Department of the Army</td>
<td>U.S. Department of the Army--Program Executive Office, Assembled Chemical Weapons Alternatives (ACWA)</td>
</tr>
<tr>
<td>GB Sample Extraction Operation Section (G)</td>
<td>U.S. Department of the Army</td>
<td>U.S. Department of the Army--Program Executive Office, Assembled Chemical Weapons Alternatives (ACWA)</td>
</tr>
<tr>
<td>Open Burn, Open/Buried Detonation Section (P)</td>
<td>U.S. Department of the Army</td>
<td>U.S. Department of the Army--Blue Grass Army Depot (BGAD)</td>
</tr>
<tr>
<td>Part B Permit for GB Operations (A)</td>
<td>U.S. Department of the Army</td>
<td>Bechtel Parsons Blue Grass Joint Venture (BPBG)</td>
</tr>
<tr>
<td>D-100 Controlled Destruction Chamber Section (D)</td>
<td>U.S. Department of the Army</td>
<td>U.S. Department of the Army--Blue Grass Army Depot (BGAD)</td>
</tr>
</tbody>
</table>

[KRS 224.46.520, KRS 224.50-130, 401 KAR 39:090 Section 1, 401 KAR 39:060 Section 5, 40 CFR 270.10 as established in 401 KAR 39:060 Section 5]
F.I.B.  APPLICATION(S)

This permit is based on the assumption that the information in each permit application submittal (herein referred to as the “application”) is accurate and that the facility shall be operated as specified in each application and this permit. The original application and its revisions, listed in the table below, are hereby incorporated into this permit. Any inaccuracies found in the applications, dates listed below, 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 application, which would affect the Permittee’s ability to comply with the applicable regulations or permit conditions.

<table>
<thead>
<tr>
<th>Permit Section / Module</th>
<th>Application Submittal Date(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire Facility Section (F)</td>
<td>March 27, 2014; November 6, 2014; May 26, 2015; and October 21, 2015</td>
</tr>
<tr>
<td>Conventional Storage Section (N)</td>
<td>March 27, 2014; November 6, 2014; May 26, 2015; and October 21, 2015</td>
</tr>
<tr>
<td>Chemical Storage Section (C)</td>
<td>March 27, 2014; November 6, 2014; May 26, 2015; and October 21, 2015</td>
</tr>
<tr>
<td>EDT Section (E)</td>
<td>March 3, 2014; November 20, 2014; October 19, 2015; and May 19, 2016</td>
</tr>
<tr>
<td>Mustard Agent (H) Sampling Operations Section (M)</td>
<td>November 2, 2015; April 7, 2016; and July 11, 2016</td>
</tr>
<tr>
<td>GB Sample Extraction Operation Section (G)</td>
<td>June 20, 2017; November 7, 2017</td>
</tr>
<tr>
<td>Open Burn, Open/Buried Detonation Section (P)</td>
<td>November 1988; June 19, 2017; February 26, 2018; June 7, 2018</td>
</tr>
<tr>
<td>Part B Permit for GB Operations (A)</td>
<td>See the GB Operations Permit, Part I, A.I.B Applications, for a complete list of applications used for the GB Operations Permit.</td>
</tr>
<tr>
<td>D-100 Controlled Destruction Chamber Section (D)</td>
<td>July 30, 2018; August 12, 2019; October 24, 2019</td>
</tr>
</tbody>
</table>

1 Although multiple revisions to the application have been submitted throughout the permitting process, the only application deemed complete was dated June 19, 2017, with supplemental material submitted subsequently. The permit section is based upon the complete application.

[40 CFR 270 as established in 401 KAR 39:060 Section 5]

F.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.

[40 CFR 270 as established in 401 KAR 39:060 Section 5]
F.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, KRS 224.46-530]

F.I.E.  SECTIONS OF THE PERMIT

The conditions in this permit are divided into sections:
(1) Conditions applicable to the entire facility (Blue Grass Army Depot and all tenants/operators)
(2) Conditions applicable to conventional munitions hazardous waste (other than chemical munitions storage)
(3) Conditions applicable to chemical weapons storage related hazardous waste
(4) Conditions applicable to mustard agent (H) chemical weapons related hazardous waste storage, treatment, or disposal using the static detonation chamber/explosive destruction technology (SDC/EDT)
(5) Conditions applicable to mustard agent (H) sampling operations
(6) Conditions applicable to GB sample operation
(7) Conditions applicable to OB/OD operations
(8) Conditions applicable to GB Operations
(9) Conditions applicable to D-100 Controlled Destruction Chamber operations

Throughout this Entire Facility Section, the phrase “See Specific Sections” means to go to the sections noted above for the particular permit condition/information referenced. Conversely, throughout the other sections, the phrase “See Entire Facility Section” means to see this document for the particular permit condition/information referenced. Each condition has a unique label. This label contains the following items, in the order listed:

• The first letter denotes which section the condition can be found in:
  – F for the entire facility section
  – N for the conventional section
  – C for the chemical section
  – E for the explosive destruction technology section
  – M for the mustard agent (H) sampling operations
  – G is for the GB sample extraction operation
  – P is for the OBOD permit
  – A is for the Part B Permit for GB Operations
  – D is for the Part B Permit for D-100 Controlled Destruction Chamber operations

• The second letter denotes which part the condition can be found in. See above in Condition F.I.D.
• The third letter denotes the alphabetical listing of the conditions
• If there is a number it denotes the numerical listing of the sub-conditions

Example: N.III.C.(2) – This permit condition is in the Conventional Storage Section (N); in Part III – Specific Conditions; alphabetically listed, is the 3rd in the list (C); and is the 2nd sub-condition
F.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.

[KRS 224.46-530]
F.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, or are promulgated under 401 KAR 39:090 Section 1, 40 CFR 264 Subpart AA, 40 CFR 264 Subpart BB, 40 CFR 264 Subpart CC, (Air Emission Standards).

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).

F.II.B. PERMIT ACTIONS

F.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 270.41, 40 CFR 270.43, 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]

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

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

- Violation of any requirement of KRS Chapter 224 or the respective administrative regulations promulgated pursuant thereto
- Aiding, abetting, or permitting the violation of any provisions of 401 KAR Chapter 39 and 401 KAR Chapter 40 (Hazardous Waste)
- 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
- Violation(s) of a condition(s) of this permit
F.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.

[F 401 KAR 39:060 Section 5, 40 CFR 124.16(a)]

F.II.B.(4) Permit Renewal

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

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

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

This Permit shall be effective for a fixed term not to exceed ten years. 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:

- Initiate enforcement action based upon the permit which has been continued
- 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.
- Issue a new permit with appropriate conditions
- Take other actions authorized by Kentucky regulations, 401 KAR Chapters 39 and 40

[F 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]

F.II.B.(6) Permit Modification

The Permittee shall modify the permit to incorporate the corrective action plans, if necessary, developed as specified in Part IV of the Entire Facility Section of this permit.

[40 CFR 264.101 as established in 401 KAR 39:090 Section 1, 401 KAR 39:090 Section 8, 401 KAR 40:040 Section 1, 40 CFR 270 Subpart D as established in 401 KAR 39:060 Section 5]
F.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.

[40 CFR 270.41 as established in 401 KAR 39:060 Section 5]

F.II.C. DEFINITIONS

For the purpose of this permit, terms used herein shall have the same meaning as those in 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]

F.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.

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

F.II.C.(2) "Blister or Nerve Agent" means a compound listed below, or degradation byproducts of these 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 1, KRS 224.50-130(2)]

F.II.C.(3) "Chemical Munitions" are assembled projectiles or rockets containing chemical warfare agent including GB, VX, or H.

[KRS 224.50-130(2)]

F.II.C.(4) "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.

[KRS 224.46-530(1)(g)]
F.II.C.(5) "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.

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

F.II.C.(6) "Chemical Related Hazardous Waste" means all hazardous waste generated by Blue Grass Chemical Activity stockpile management operations.

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

F.II.C.(7) “Contamination” means the degradation of naturally occurring water, air, or soil quality either directly or indirectly as a result of human activities.

[401 KAR 39:090 Section 1]

F.II.C.(8) “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]

F.II.C.(9) “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]

F.II.C.(10) “DRE” means the destruction and removal efficiency of agent, calculated by: 
\[
\frac{(W_{in} - W_{out})}{W_{in}} \times 100\%
\]

Where \(W_{in}\) is the mass of agent into the process and \(W_{out}\) is the emission rate of agent out of the process.

[KRS 224.50-130(3)]

F.II.C.(11) “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.

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

F.II.C.(12) “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 (e.g., one or more landfills, surface impoundments, or combinations of them).
(2) For the purpose of implementing corrective action under 40 CFR 264.101 or 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.

[F 40 CFR 260.10]

F.II.C.(13) “Hazardous Waste” or “Hazardous Waste Constituent” are those substances referenced in 401 KAR 39:090 Section 1, and 401 KAR 39:060 Section 3 (Appendix on Hazardous Waste Constituents), and include hazardous constituents released from solid waste, and hazardous constituents that are reaction by-products.
- Constituents conforming to the requirements of Resource Conservation and Recovery Act (RCRA), as amended
- Blister or nerve agents, or their derivatives, used for chemical warfare; this includes GB (sarin), VX, and H (mustard)

[F 401 KAR 39:060 Section 3, 401 KAR 39:090 Section 1, KRS 224.46-530(1)(g), KRS 224.50-130(2)]

F.II.C.(14) “Interim Measures” are actions necessary to minimize or prevent the further migration of contaminants and limit actual or potential human and environmental exposure to contaminants while long-term corrective action remedies are evaluated and, if necessary, implemented.

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

F.II.C.(15) "Land Disposal" means placement in or on the land and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, underground mine or cave, or concrete vault or bunker intended for disposal. The temporary storage of hazardous waste in munitions igloos at BGAD, as specified in this permit, is excluded from the definition of concrete vault or bunker.

[KRS 224.01-010(43)]

F.II.C.(16) “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]

F.II.C.(17) “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.

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

F.II.C.(18) “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.

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

F.II.C.(19) "Off-site" means properties noncontiguous to the site or facility.

[401 KAR 39:090 Section 1]

F.II.C.(20) "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]

F.II.C.(21) “Operator” is defined by 40 CFR 260.10 and includes any operation of a facility.

[401 KAR 39:005 Section 1]

F.II.C.(22) “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]

F.II.C.(23) “Regulated units” are any hazardous waste land disposal sites or facilities, or portions of existing hazardous waste land disposal sites or units which received hazardous waste after January 26, 1983 and are thereby subject to groundwater protection as defined in 401 KAR Chapter 39.

[401 KAR 39:090 Section 1]

F.II.C.(24) "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)&(4)]

F.II.C.(25) "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)]

F.II.C.(26) "Solid Waste Management Unit" includes any unit which has been used for the treatment, storage, or disposal of solid waste or hazardous waste at any time, irrespective of whether the unit is or ever was intended for the management of solid waste or hazardous waste. RCRA regulated hazardous waste management units are also solid waste management units. Such units include any area at a facility at which solid wastes have been routinely and systematically released.

[401 KAR 39:090 Section 1]

F.II.C.(27) "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.

[KRS 224.1-010(30)]

In addition to the definition of the term as defined in this chapter, the term "treatment", as used in this section, shall have the definition within KRS 224.50-130(5).

F.II.C.(28) "Unit" includes, but is not limited to, any area in which waste has been placed on or in the ground, any landfill, surface impoundment, waste pile, land treatment unit, incinerator, injection well, tank, container storage area, septic tank, drain field, wastewater treatment unit, elementary neutralization unit, transfer facility, or recycling equipment.

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

F.II.D. DUTIES AND REQUIREMENTS

F.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 non-compliance 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.

[40 CFR 270.30 as established in 401 KAR 39:060 Section 5]

F.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 complete application for a new 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 be included in the application to ensure protection of human health or the environment.
HAZARDOUS WASTE PERMIT
Entire Facility Section
Blue Grass Army Depot
KY8-213-820-105
AI: 2805    Activity: APE20140010 (1/9/2020)

[F 270.30 as established in 401 KAR 39:060 Section 5]

F.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.

[F 39:060 Section 5, 401 KAR 39:090 Section 1]

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

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.

[F 270.30 as established in 401 KAR 39:060 Section 5]

F.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.

[F 270.30 as established in 401 KAR 39:060 Section 5]

F.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, and 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.

[F 270.30 as established in 401 KAR 39:060 Section 5]

F.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.

[F 270.30 as established in 401 KAR 39:060 Section 5]

F.II.D.(8)  Entry and Inspection
F.II.D.(9) Inspect New Units

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

- 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)).
- 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
- 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.

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

F.II.D.(10)(a) 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 2, 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, or an equivalent method approved by the Manager, 401 KAR 39:060 Section 2 and 401 KAR 39:060 Section 5.

F.II.D.(10)(b) The Permittee shall retain the following at the facility, or at another location as approved by the Division:
F.II.D.(10)(c) 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.

[F.II.D.(10)(c) as established in 401 KAR 39:060 Section 5]

F.II.D.(10)(d) Records of monitoring information shall include:
- date(s), exact place(s), time(s), and individual(s) performing sampling or measurements
- date(s) analyses were performed and the individual(s) who performed the analyses
- analytical technique(s) or method(s) used
- results of such analyses, including the detection limits
- monitoring results shall be reported at intervals specified elsewhere in the permit

[F.II.D.(10)(d) as established in 401 KAR 39:060 Section 5]

F.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 corrective action 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(1)(g)]

F.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.

[F.II.D.(12) as established in 401 KAR 39:060 Section 5]
F.II.D.(13) Reporting 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.

[40 CFR 270.30 as established in 401 KAR 39:060 Section 5]

F.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 Chapters 39 and 40 and this permit.

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

F.II.D.(15) Immediate Notification and Follow-up Reporting

The Permittee shall report to the Manager any non-compliance 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 the following:

- 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
- 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 could threaten the environment or human health outside the facility
- 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. The written submission shall contain a description of the non-compliance and its cause; the periods of non-compliance (including exact dates and times); whether the non-compliance has been corrected; and if the non-compliance 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 non-compliance. The description of the occurrence and its cause shall include:
  - Name, address, and telephone number of the owner or operator and the reporter
  - Name, address, telephone number of the facility
  - Date, time, and type of incident
  - Name and quantity of material(s) involved
  - The extent of injuries, if any
  - An assessment of actual or potential hazard to the environment and human health outside the facility, where this is applicable
  - Estimated quantity and disposition of recovered material that resulted from the incident

[401 KAR 39:060 Section 5]
F.II.D.(16) Manifest Discrepancy Report

If a significant discrepancy in a manifest is discovered, the Permittee shall attempt to reconcile the discrepancy. If not resolved within fifteen (15) days, the Permittee shall submit a letter report, including a copy of the manifest, to the Manager.

[40 CFR 270.30 as established in 401 KAR 39:060 Section 5]

F.II.D.(17) Unmanifested Waste Report

This report shall be submitted to the Manager within fifteen (15) days of receipt of unmanifested waste.

[40 CFR 270.30 as established in 401 KAR 39:060 Section 5]

F.II.D.(18) 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 F.II.D.(15).

[40 CFR 270.30 as established in 401 KAR 39:060 Section 5]

F.II.D.(19) 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.

[40 CFR 270.30 as established in 401 KAR 39:060 Section 5]

F.II.D.(20) 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, which justify the application of permit conditions that are different or absent in this permit.

[40 CFR 270.41(a)] as established in 401 KAR 39:060 Section 5]

F.II.D.(21) 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.

[40 CFR 270.41(a) as established in 401 KAR 39:060 Section 5]
F.II.E. SIGNATORY REQUIREMENT

All applications, reports, or information submitted to the Cabinet shall be signed and certified by the Blue Grass Army Depot Commander, or by a duly authorized representative of that person. 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."

[40 CFR 270.11 as established in 401 KAR 39:060 Section 5]

F.II.F. 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.

F.II.F.(1) Confidential Information Claims

Any information submitted to the Cabinet can be claimed as confidential by the submittor. Any such claim shall be asserted at the time of submission by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, the Cabinet may make the information available to the public without further notice. If a claim is asserted, the information shall be treated in accordance with the procedures of the Cabinet, relating to confidentiality of information.

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

F.II.F.(2) "Confidential Business Information" (CBI)

Any record or other information relating to hazardous waste, which is not of public knowledge or general knowledge, the disclosure of which would be likely to have the following effects:

- will impair the Cabinet's ability to obtain the necessary information in the future; or
- will create an unfair advantage in the competitors of the person from which the information was obtained

[400 KAR 1:060 Section 1(4)]

F.II.F.(3) Statement of Basis for Claim

When a claim is made that a record or other information is entitled to confidential treatment, the Permittee shall submit a statement to the Hazardous Waste Branch Manager in support of the claim. The statement shall contain:

- The name and address of the Permittee
- The reason for submitting the record or other information, including whether the submittal is voluntary or required by law
- Whether there has been a previous determination by a court, an Environmental Protection Agency legal office acting under 40 CFR Part 2, Subpart B, or other governmental agency that
the record or other information is, or is not, entitled to confidential treatment
• The measures taken by the Permittee to protect the confidentiality of the record or other
information, and whether it intends to continue to take such measures
• Whether the information is not, and has not been, reasonably obtainable without the Permittee's
consent by other persons, other than governmental bodies, by use of legitimate means (other
than discovery based upon a showing of special need in a judicial or quasi-judicial hearing)
• Whether the record or other information is customarily held in confidence by the Permittee and
persons like them
• The manner in which disclosure of the information is likely to create an unfair advantage for
competitors of the Permittee
• The basis for asserting that disclosure is likely to impair the Cabinet's ability to obtain necessary
information in the future

[400 KAR 1:060 Section 3]

F.II.G. 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:

F.II.G.(1) Permit Application

The approved permit application required by 401 KAR 39:060 Section 5

F.II.G.(2) Waste Analysis Plan

As required by 401 KAR 39:090 Section 1

F.II.G.(3) Inspection Schedules

As required by 401 KAR 39:090 Section 1

F.II.G.(4) Personnel Training Documents and Records

As required by 401 KAR 39:090 Section 1

F.II.G.(5) Contingency Plan

As required by 401 KAR 39:090 Section 1

F.II.G.(6) Operating Record

As required by 401 KAR 39:090 Section 1

F.II.G.(7) Closure Plan

As required by 401 KAR 39:090 Section 1
F.II.G.(8)  All Other Documents:

- As required by other permit conditions
- This permit and any correspondence regarding this permit
- Annual Reports as required by 401 KAR 39:090 Section 1
PART III
SPECIFIC CONDITIONS

F.III.A. GENERAL

See Specific Sections

F.III.B. GENERAL FACILITY STANDARDS

F.III.B.(1) Identification Number

KY8-213-820-105

F.III.B.(2) Required Notices

F.III.B.(2)(a) Hazardous Waste Imports

The Permittee shall notify the Manager in writing at least four weeks in advance of the date the Permittee expects to receive hazardous waste from a foreign source. Notice of subsequent shipments of the same waste from the same foreign source in the same calendar year is not required.

[40 CFR 264.12 as established in 401 KAR 39:090 Section 1]

F.III.B.(2)(b) Hazardous Waste From Off-Site Sources

When the Permittee is to receive hazardous waste from an off-site source (except where the Permittee is also the generator), he/she shall inform the generator in writing that he/she has the appropriate Permits, and will accept the waste the generator is shipping. The Permittee shall keep a copy of this written notice as part of the operating record. Only waste from other military sites/locations may be received.

[40 CFR 264.12 as established in 401 KAR 39:090 Section 1]

F.III.B.(3) Waste Analysis

F.III.B.(3)(a) Before the Permittee stores or disposes of any hazardous waste, he 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:
  • Testing the waste according to the methods set forth in 401 KAR 39:060 Section 3 (Identification and Listing of Hazardous Waste), or an equivalent method approved by the Cabinet; or
  • 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.

F.III.B.(3)(b) 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:

- When the Permittee is notified, or has reason to believe, that the process or operation generating the hazardous waste has changed; and/or
- 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.

F.III.B.(3)(c) The Permittee shall comply with the Waste Analysis Plan, Attachment C of the application. At a minimum, the Permittee shall maintain proper functional 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.

[40 CFR 264.13 as established in 401 KAR 39:090 Section 1]

F.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, as specified in F.I.E. The Permittee shall maintain security at the facility during the post closure care period, in accordance with Part I of the application.

[40 CFR 264.14 as established in 401 KAR 39:090 Section 1]

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

The Permittee shall inspect his facility for malfunctions and deterioration, operator error, 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.

[40 CFR 264.15 as established in 401 KAR 39:090 Section 1]

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

The Permittee shall follow the schedule in Procedures to Prevent Hazards, Attachment F of this permit, as specified in F.I.E., for inspecting 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.

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 schedule for all hazardous waste storage units shall be weekly.

[40 CFR 264.15 as established in 401 KAR 39:090 Section 1]

F.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.

[40 CFR 264.15 as established in 401 KAR 39:090 Section 1]

F.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.

[40 CFR 264.15 as established in 401 KAR 39:090 Section 1]

F.III.B.(6) Personnel Training

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:

- Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment
- Communications or alarm systems
- Response to fires or explosions
- Response to groundwater contamination incidents
- Shutdown of operations

[40 CFR 264.16(a) as established in 401 KAR 39:090 Section 1]

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

Facility personnel shall successfully complete the written training programs (Attachment H, of the applicable Section of this permit, as specified in F.I.E.), 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.

[40 CFR 264.16(b) as established in 401 KAR 39:090 Section 1]

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

All employees involved in hazardous waste management at the facility shall be given an appropriate annual review of the initial training.

[40 CFR 264.16(c) as established in 401 KAR 39:090 Section 1]

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

The Permittee shall maintain the following training documents and records at the facility:
- The job title for each position at the facility related to hazardous waste management, and the names of the employees filling each job
- A written job description for each job title, including the required skills, education, qualifications, and duties of employees assigned to each position
- A written description of the type and amount of both introductory and continuing training that will be given to each job title
- Records that document that the training or job experience has been given to, and completed by, facility personnel

[40 CFR 264.16(d) as established in 401 KAR 39:090 Section 1]

F.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. Personnel training records may accompany personnel transferred, within the U.S. Army, or an approved government contractor working at the facility.

[40 CFR 264.16(e) as established in 401 KAR 39:090 Section 1]

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

F.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.

[40 CFR 264.17 as established in 401 KAR 39:090 Section 1]

F.III.B.(7)(b) Controlled entrances to Ammo Storage and Chemical Limited Area shall provide the necessary alert/restrictions to workers and visiting personnel of the restriction of smoking and the control of ignitable items.
F.III.B.(7)(c) 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.

F.III.B.(7)(d) 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.

F.III.B.(8) Location Standards

The Permittee shall comply with the requirements of 40 CFR 264.18 as established in 401 KAR 39:090 Section 1 and with the requirements of 401 KAR 39:090 Section 5, as applicable.

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

A waste restricted by LDR, as identified in 401 KAR 39:060 Section 4, may not be placed in a land disposal unit without further treatment unless the requirements of 401 KAR 39:060 Section 4 are met.

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

The storage of hazardous wastes restricted from land disposal under 401 KAR 39:060 Section 4 is prohibited, unless the following conditions are met:

- The Permittee stores such waste on site solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal.
- Each container of Hazardous Waste is clearly labeled with the words "Hazardous Waste," and marked to identify its contents and the date accumulation began in that container.

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

The Permittee may store waste restricted from land disposal for up to one (1) year. 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.
F.III.B.(9)(c) LDR - General Restrictions

401 KAR 39:060 Section 4 identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances in which an otherwise prohibited waste may continue to be placed on or in a land treatment, storage, or disposal unit. The Permittee shall maintain compliance with the requirements of 401 KAR 39:060 Section 4. Where the Permittee has applied for an extension, waiver, or variance under 401 KAR 39:060 Section 4, the Permittee shall comply with all restrictions on land disposal under this part once the effective date for the waste has been reached pending final approval of such application.

F.III.B.(9)(d) LDR - Restrict Shipment to 3X

If a Chemical Related Hazardous Waste carries the waste code N001, N002, or N003 for a nerve or blister agent, the Permittee shall not ship chemical related hazardous waste off-site for disposal unless it is decontaminated to meet the military definition of 3X and if land disposed in Kentucky, agent waste shall be treated either by neutralization, incineration, or an alternate method approved by the Cabinet on a case-by-case basis.

F.III.C. PREPAREDNESS AND PREVENTION

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

The Permittee shall construct, maintain, and operate the entire 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.

F.III.C.(2) Required Equipment

See Specific Sections

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

See Specific Sections

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

See Specific Sections

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

See Specific Sections
F.III.C.(6) Arrangements with Local Authorities

The Permittee shall attempt to make the following arrangements, as appropriate for the type of waste handled at this facility and the potential need for the services of these organizations:

- Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties, and associated hazards of hazardous waste handled at the facility and places where facility personnel would normally be working, entrances to any roads inside the facility, and possible evacuation routes
- Where more than one (1) police or fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority
- Agreements with state emergency response teams, emergency response contractors, and equipment suppliers
- Arrangements to familiarize local hospitals with the properties of the hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility
- Where state or local authorities decline to enter into such arrangements, the Permittee shall document the refusal in the Operating Record.

The Permittee shall keep current copies of all Agreements with Local Authorities for hazardous waste emergency response assistance at an on-site location. If, at any time, the Permittee enters into an agreement with an off-post responder not listed in the Contingency Plan, Attachment G of the applicable Section of this permit, as specified in F.I.E., or chooses not to renew an agreement with an off-post responder listed in the Contingency Plan, then the Permittee shall notify the Hazardous Waste Branch Manager.

[40 CFR 264.37 as established in 401 KAR 39:090 Section 1]

F.III.D. CONTINGENCY PLAN AND EMERGENCY PROCEDURES

See Specific Sections

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

In addition to the record keeping and reporting requirements specified elsewhere in this Permit, the Permittee shall do the following:

F.III.E.(1) Manifest System

F.III.E.(1)(a) Receive No 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]

F.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]

F.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]

F.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]

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

The Permittee shall:
- Sign the manifest certification by hand
- Obtain the handwritten signature of the initial transporter and date of acceptance on the manifest
- Retain one (1) copy for a minimum of three years
- The Permittee shall give the transporter the remaining copies of the manifest
- 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.
- 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.
F.III.E.(1)(f) Use of Manifest System When Receiving

If the Permittee receives hazardous waste accompanied by a manifest, he shall:
- Sign and date each copy of the manifest to certify that the hazardous waste covered by the manifest was received
- Note any significant discrepancies in the manifest on each copy of the manifest
- Immediately give the transporter at least one (1) copy of the signed manifest
- Within thirty (30) days after the delivery, send a copy of the manifest to the generator
- Retain at the facility a copy of each manifest for at least three (3) years after the date of delivery

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

If the Permittee receives, from a rail transporter, hazardous waste which is accompanied by a shipping paper containing all the information required on the manifest (excluding the EPA identification numbers, generator's certification, and signatures), the Permittee, or his agent, shall:
- Sign and date each copy of the manifest or shipping paper (if the manifest has not been received) to certify that the hazardous waste covered by the manifest or shipping paper was received
- Note any significant discrepancies (as defined in 40 CFR 264.72) in the manifest or shipping paper (if the manifest has not been received) on each copy of the manifest or shipping paper
- Immediately give the rail transporter at least one (1) copy of the manifest (or shipping paper if the manifest has not been received)
- Within thirty (30) days after the delivery, send a copy of the signed and dated manifest to the generator; however, if the manifest has not been received within thirty (30) days after delivery, the Permittee, or his agent, shall send a copy of the shipping paper signed and dated to the generator
- Retain at the facility a copy of the manifest and shipping paper (if signed in lieu of the manifest at the time of delivery) for at least three (3) years from the date of delivery

F.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:
- For bulk waste, variations greater than ten (10) percent in weight
- 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.

[40 CFR 264.72 as established in 401 KAR 39:090 Section 1]

F.III.E.(3) Operating Record

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

- 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 40 CFR Part 264 Appendix I (Appendix on Recordkeeping Instructions)
- The location of each hazardous waste within the facility and the quantity at each location
- Records and results of waste analyses and waste determinations
- Summary reports and details of all incidents that require implementing Contingency Plans
- Records and results of facility and equipment inspections for three (3) years
- Monitoring, testing, analytical data, and corrective action
- 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
- 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)
- 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)
- For an off-site storage facility, a copy of the notice, and the certification and demonstration if applicable, required of the generator or the owner or operator under 401 KAR 39:060 Section 4
- For an on-site storage facility, the information contained in the notice (except the manifest number), and the certification and demonstration if applicable, required of the generator or the owner or operator under 401 KAR 39:060 Section 4

[40 CFR 264.73 as established in 401 KAR 39:090 Section 1]

F.III.E.(4) Records

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

The Permittee shall:

- 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.
- 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)
- 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
- 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]

F.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. A copy of records of waste disposal locations and quantities shall be sent to the Cabinet and local land authority upon closure of the facility.

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

F.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 39:090 Section 9, 401 KAR 39:080 Section 1]

F.III.E.(6) 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 2 (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 Hazardous Waste Branch 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:
- EPA identification number, name, and address of the facility
- Date the facility received the waste
- EPA identification number, name, and address of the generator and the transporter, if available
- Description and quantity of each unmanifested hazardous waste received
- Method of treatment, storage, or disposal for each hazardous waste
- Certification signed by the Permittee
- Brief explanation of why the waste was unmanifested, if known

[40 CFR 264.76 as established in 401 KAR 39:090 Section 1]

F.III.E.(7)  Additional Reports

In addition to submitting the annual report and unmanifested waste reports, the Permittee shall also report to the Cabinet:
- Any releases of hazardous waste at or above the Reportable Quantity (RQ)
- Fires or explosions
- Facility closure
- Any other report required by a condition of this permit

[40 CFR 264.77 as established in 401 KAR 39:090 Section 1, KRS 224.1-400]

F.III.F.  GROUNDWATER MONITORING REQUIREMENTS

See specific section

F.III.G.  CLOSURE & POSTCLOSURE

F.III.G.(1)  Closure Performance Standards

The Permittee shall close the facility in a manner that minimizes the need for further maintenance and that controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, postclosure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere.

[40 CFR 264.111 as established in 401 KAR 39:090 Section 1]

F.III.G.(2)  Update Closure Plan

F.III.G.(2)(a) In anticipation of closure or partial closure, the Permittee shall submit an updated and site specific closure plan to the Hazardous Waste Branch Manager for each unit or units planned for upcoming closure. The Closure Plan shall include the results of an historic records review and a detailed sampling and analysis plan for all hazardous wastes and hazardous waste constituents managed in each unit proposed for closure, based upon the results of the records review.

[40 CFR 264.118 as established in 401 KAR 39:090 Section 1]
F.III.G.(2)(b) The Cabinet may request modifications to the plan and the Permittee shall submit the modified plan within sixty (60) days of the Cabinet's request.

[40 CFR 264.118 as established in 401 KAR 39:090 Section 1]

F.III.G.(3) Closure Plan and Amendment

F.III.G.(3)(a) The Permittee shall submit a written request for a permit modification to the Hazardous Waste Branch Manager to authorize a change in the Closure Plan whenever changes in operating plans or facility design affect the Closure Plan; there is a change in the expected year of closure; in conducting partial or final closure activities, unexpected events require a modification of the Closure Plan.

F.III.G.(3)(b) The written request shall include a copy of the amended Closure Plan for approval by the Cabinet.

[40 CFR 264.118 as established in 401 KAR 39:090 Section 1]

F.III.G.(3)(c) The written request including a copy of the amended closure plan for approval, shall be submitted at least sixty (60) days prior to the proposed change in facility design.

[40 CFR 264.118 as established in 401 KAR 39:090 Section 1]

F.III.G.(3)(d) If an unexpected event occurs during the partial or final closure period, the Permittee shall request a permit modification no later than thirty (30) days after the unexpected event.

[40 CFR 264.118 as established in 401 KAR 39:090 Section 1]

F.III.G.(3)(e) The Cabinet may request modifications to the plan and the Permittee shall submit the modified plan within sixty (60) days of the Cabinet's request or within thirty (30) days if the change in facility conditions occurs during partial or final closure.

[40 CFR 264.118 as established in 401 KAR 39:090 Section 1]

F.III.G.(4) Closure Schedule and Notification

F.III.G.(4)(a) Within ninety (90) days after receiving the final volume of hazardous waste in a hazardous waste storage unit, the Permittee shall remove all hazardous wastes in that hazardous waste storage unit in accordance with the Closure Plan applicable to that section of the permit.

[40 CFR 264.113 as established in 401 KAR 39:090 Section 1]

F.III.G.(4)(b) All closure activities shall be completed as described in the Closure Plan; and within 180 days after receiving the final volume of waste, unless a longer period is approved by the Hazardous Waste Branch Manager.

[40 CFR 264.113 as established in 401 KAR 39:090 Section 1]

F.III.G.(4)(c) All equipment and the facility shall be decontaminated and washing residues removed.
F.III.G.(4)(d) The Permittee shall notify the Division in writing at least forty-five (45) days prior to the date on which he/she expects to begin closure of a hazardous waste management unit or final closure of the facility.

[40 CFR 264.112 as established in 401 KAR 39:090 Section 1]

F.III.G.(5) Disposal or Decontamination of Equipment, Structures, and Soils

During the partial and final closure periods, all contaminated equipment, structures, and soils shall be properly disposed of or decontaminated.

[40 CFR 264.114 as established in 401 KAR 39:090 Section 1]

F.III.G.(6) Certification of Closure

The Permittee shall certify that the unit(s) has been closed in accordance with the specifications in the approved Closure Plan.

[40 CFR 264.115 as established in 401 KAR 39:090 Section 1]

F.III.G.(7) Survey Plat

The Permittee shall submit a survey plat no later than the submission of certification of closure of each hazardous waste disposal unit.

[40 CFR 264.116 as established in 401 KAR 39:090 Section 1]

F.III.G.(8) Postclosure Care and Use of Property

F.III.G.(8)(a) Postclosure Care Period

The Permittee shall conduct postclosure care for any hazardous waste management units which cannot achieve clean closure performance standards. Postclosure care shall be conducted for thirty (30) years after the completion of closure, except that the thirty (30) year postclosure care period may be shortened upon application and demonstration, approved by the Division, that the facility is secure, or may be extended if the Division finds this is necessary to protect human health and the environment.

[40 CFR 264.117 as established in 401 KAR 39:090 Section 1]

F.III.G.(8)(b) Use of Units

The Permittee shall not allow any use of the units which will disturb the integrity of the final cover, liners, any components of the containment system, or the function of the facility’s monitoring systems during the postclosure care period.
F.III.G.(9) Postclosure Plan

F.III.G.(9)(a) Components, Structures, and Equipment Inspections

The Permittee shall inspect the components, structures, and equipment at the site in accordance with the inspection schedule in the approved Postclosure Plan.

F.III.G.(9)(b) Cover System Inspections

The Permittee shall inspect the cover system(s) for uniformity, drainage, and imperfections. Soil based covers shall be inspected for imperfections including lenses, cracks, channels, root holes, or other structural non-uniformities that may cause an increase in the permeability of the cover.

F.III.G.(9)(c) Amendments to Postclosure Plan

The Permittee shall request a permit modification to authorize a change in the approved postclosure plan. This request shall be in accordance with applicable requirements and shall include a copy of the proposed amendments to the application for approval by the Division. The Permittee shall request a permit modification whenever changes in operating plans or facility design affect the postclosure plan, or other events occur during the active life of the facility that also affect the postclosure plan. The Permittee shall submit a written request for a permit modification at least sixty (60) days prior to the proposed change in facility design or operation, or no later than sixty (60) days after an unexpected event has occurred which has affected the postclosure plan.

F.III.G.(9)(d) Removal Request

If the Permittee or any subsequent owner or operator of the land upon which the hazardous waste disposal unit is located wishes to remove hazardous wastes and hazardous waste residues, the liner, if any, or contaminated soils, then he shall request a modification to this postclosure permit in accordance with applicable requirements. The Permittee or any subsequent owner or operator of the land shall demonstrate that the removal of hazardous wastes will satisfy the criteria of 401 KAR 39:090 Section 1.

F.III.G.(10) Postclosure

No later than sixty (60) days after certification of closure of each hazardous waste disposal unit, the Permittee shall submit records of the type, location, and quantity of hazardous waste disposed...
within each cell or disposal unit. Within sixty (60) days of certification of closure of the first hazardous waste disposal unit and the last hazardous waste disposal unit, the Permittee shall do the following:

- Record a notation on the deed to the facility property, in accordance with 401 KAR 39:090 Section 1
- Submit a certification that a notation, in accordance with 401 KAR 39:090 Section 1, has been recorded.

The certification shall be signed by the Permittee and by an independent PE licensed in the Commonwealth of Kentucky. Documentation supporting the independent licensed PE’s certification shall be furnished to the Hazardous Waste Branch Manager upon request. Documentation supporting the PE’s certification shall be furnished to the Hazardous Waste Branch Manager upon request.

[[40 CFR 264.119 as established in 401 KAR 39:090 Section 1, KRS 322.020, KRS 322.030]]

F.III.G.(11) Certification of Completion of Postclosure Care

No later than sixty (60) days after completion of the established postclosure care period for each hazardous waste disposal unit, the Permittee shall submit to the Manager, by registered mail, a certification that the postclosure care for the hazardous waste disposal unit was performed in accordance with the specifications in the approved Postclosure Plan. The certification shall be signed by the Permittee and an independent licensed PE in the Commonwealth of Kentucky. Documentation supporting the independent licensed PE’s certification shall be furnished to the Manager upon request until the Manager releases the Permittee from the financial assurance requirements for postclosure care.

[[40 CFR 264.120 as established in 401 KAR 39:090 Section 1]]

F.III.H. FINANCIAL REQUIREMENTS

Not Applicable

F.III.I. USE AND MANAGEMENT OF CONTAINERS

See Specific Sections

F.III.J. TANK SYSTEMS

See Specific Sections

F.III.K. SURFACE IMPOUNDMENTS (RESERVED)
F.III.L. WASTE PINES (RESERVED)
F.III.M. LAND TREATMENT (RESERVED)
F.III.N. LANDFILLS POST CLOSURE REQUIREMENTS (RESERVED)
F.III.O. INCINERATORS/BIF (RESERVED)
F.III.P. (RESERVED)
F.III.Q. (RESERVED)
F.III.R. (RESERVED)
F.III.S. SPECIAL PROVISIONS FOR CLEANUP (RESERVED)
F.III.T. (RESERVED)
HAZARDOUS WASTE PERMIT
Entire Facility Section
Blue Grass Army Depot
KY8-213-820-105
AI: 2805 Activity: APE20140010 (1/9/2020)

F.III.U. (RESERVED)
F.III.V. (RESERVED)
F.III.W. DRIP PADS (RESERVED)
F.III.X. MISCELLANEOUS UNITS

See Specific Sections

F.III.Y. (RESERVED)
F.III.Z. (RESERVED)

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

See Specific Sections

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

See Specific Sections

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

See Specific Sections

F.III.DD. CONTAINMENT BUILDINGS (RESERVED)
F.III.EE. HAZARDOUS WASTE MUNITIONS AND EXPLOSIVES STORAGE (RESERVED)
F.IV.A. APPLICABILITY

The Conditions of this Part apply to:

F.IV.A.(1) Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) identified in Appendix A
F.IV.A.(2) SWMUs and AOCs identified in Appendix A-1 which require a RCRA Facility Investigation
F.IV.A.(3) SWMUs and AOCs identified in Appendix A-2, which require no further action under this permit at this time
F.IV.A.(4) SWMUs and AOCs identified in Appendix A-3, which require Confirmatory Sampling
F.IV.A.(5) SWMUs and AOCs identified in Appendix A-4, which require Corrective Measures
F.IV.A.(6) Appendix D, Schedule of Compliance
F.IV.A.(7) Appendix A, Part A
F.IV.A.(8) Additional SWMUs and AOCs

Any additional SWMUs or AOCs discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means. As used in this part of the permit, the terms "discover", "discovery", or "discovered" refer to the date on which the Permittee either (1) visually observes evidence of a new SWMU or AOC, (2) visually observes evidence of a previously unidentified release of hazardous constituents to the environment, or (3) receives information which suggests the presence of a new release of hazardous waste or hazardous constituents to the environment.

[F40 CFR 264.101 as established in 401 KAR 39:090 Section 1, 401 KAR 39:090 Section 8, 401 KAR 100:030, KRS 224.46-530]

F.IV.A.(9) Contamination Beyond the Facility Boundary

The Permittee shall implement corrective actions beyond the facility boundary, where necessary to protect human health and the environment, unless the Permittee demonstrates to the satisfaction of the Manager, that despite the Permittee's best effort, as determined by the Manager, the Permittee was unable to obtain the necessary permission to undertake such actions. The Permittee is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. Measures to address such releases shall be determined on a case-by-case basis. Assurances of financial responsibility for completion of such off-site corrective action shall be required.

[F40 CFR 264.101 as established in 401 KAR 39:090 Section 1, 401 KAR 39:090 Section 8, 401 KAR 100:030, KRS 224.46-530]
F.IV.B. NOTIFICATION AND ASSESSMENT REQUIREMENTS FOR NEWLY IDENTIFIED SWMUs AND AOCs

F.IV.B.(1) Notification

The Permittee shall notify the Manager, in writing, within fifteen (15) calendar days of discovery, of any additional AOCs and/or SWMUs as discovered under any conditions. The notification shall include, at a minimum, the location of the SWMU or AOC and all available information pertaining to the nature of the release (e.g., media affected, hazardous constituents released, magnitude of release, etc.). If the Manager determines that further investigation of a SWMU or AOC is required, the permittee shall be required to prepare a plan for such investigations as outlined in this permit.

[40 CFR 264.101 as established in 401 KAR 39:090 Section 1, 401 KAR 39:090 Section 8, 401 KAR 100:030, KRS 224.46-530]

F.IV.B.(2) Assessment Report

The Permittee shall prepare and submit to the Manager, within ninety (90) calendar days of notification, an Assessment Report (AR) for each newly identified SWMU or AOC at the facility. At a minimum, the AR shall provide the following information:

- Location of unit(s) on a topographic map of appropriate scale
- Designation of type and function of unit(s)
- General dimensions, capacities, and structural description of unit(s) (supply any available plans/drawings)
- Date(s) that the unit(s) operated
- Specification of all wastes or products that have been managed at/in the unit(s) to the extent available, include any available data
- All available information pertaining to any release of hazardous waste or hazardous constituents from such unit(s) (to include groundwater data, soil analyses, air, and/or surface water data)
- The unique sequential identification for the SWMU or AOC

[40 CFR 264.101 as established in 401 KAR 39:090 Section 1, 401 KAR 39:090 Section 8, 401 KAR 100:030, KRS 224.46-530]

F.IV.B.(3) Further Investigation

Based on the results of the AR, the Manager shall determine the need for further investigations at the SWMU(s) or AOC(s) covered in the AR. If the Manager determines that such investigations are needed, the Permittee shall be required to prepare a plan for such investigations.

[40 CFR 264.101 as established in 401 KAR 39:090 Section 1, 401 KAR 39:090 Section 8, 401 KAR 100:030, KRS 224.46-530]

F.IV.C. NOTIFICATION REQUIREMENTS FOR NEWLY DISCOVERED RELEASES AT PREVIOUSLY IDENTIFIED SWMUs or AOCs

The Permittee shall notify the Manager in writing of any newly discovered release(s) of hazardous waste or hazardous waste constituents discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means, within fifteen (15) calendar days of discovery. Such newly discovered releases may be from SWMUs or AOCs identified or for which further investigation was not required. If the
Manager determines that further investigation of the SWMUs or AOCs is needed, the Permittee shall be required to prepare a plan for such investigations.

[40 CFR 264.101 as established in 401 KAR 39:090 Section 1, 401 KAR 39:090 Section 8, 401 KAR 100:030, KRS 224.46-530]

F.IV.D. CONFIRMATORY SAMPLING (CS)

F.IV.D.(1) CS Work Plan

The Permittee shall prepare and submit a CS Work Plan to the Manager, within forty-five (45) calendar days of notification by the Manager that a CS Work Plan is required for any newly discovered release at an existing SWMU or AOC or for a newly-identified SWMU or AOC. The CS Work Plan shall include schedules of implementation and completion of specific actions necessary to determine whether or not a release has occurred. It shall also address applicable requirements and affected media.

[40 CFR 264.101 as established in 401 KAR 39:090 Section 1, 401 KAR 39:090 Section 8, 401 KAR 100:030, KRS 224.46-530]

F.IV.D.(2) Approval/Disapproval

The CS Work Plan shall be approved by the Manager, in writing, prior to implementation. The Manager shall specify the start date of the CS Work Plan schedule in the letter approving the CS Work Plan. If a start date is not specified, work shall begin within 60 days of approval. If the Manager disapproves the CS Work Plan, the Manager shall either (1) notify the Permittee in writing of the CS Work Plan's deficiencies and specify a due date for submission of a revised CS Work Plan, (2) revise the CS Work Plan and notify the Permittee of the revisions, or (3) conditionally approve the CS Work Plan and notify the Permittee of the conditions.

[40 CFR 264.101 as established in 401 KAR 39:090 Section 1, 401 KAR 39:090 Section 8, 401 KAR 100:030, KRS 224.46-530]

F.IV.D.(3) Implementation

The Permittee shall implement the CS in accordance with the approved CS Work Plan.

[40 CFR 264.101 as established in 401 KAR 39:090 Section 1, 401 KAR 39:090 Section 8, 401 KAR 100:030, KRS 224.46-530]

F.IV.D.(4) Submitting CS Reports

The Permittee shall prepare and submit to the Manager, in accordance with the schedule in the approved CS Work Plan, a CS Report. The CS Report shall include all data, including raw data, and a summary and analysis of the data that supports all determinations.

[40 CFR 264.101 as established in 401 KAR 39:090 Section 1, 401 KAR 39:090 Section 8, 401 KAR 100:030, KRS 224.46-530]
F.IV.D.(5) Further Investigation

Based on the results of the CS Report, the Manager shall determine the need for further investigations at the SWMUs or AOCs covered in the CS Report. If the Manager determines that such investigations are needed, the Permittee shall be required to prepare a plan for such investigations as outlined in Condition IV.E. The Manager shall notify the permittee of any no further action decision.

[40 CFR 264.101 as established in 401 KAR 39:090 Section 1, 401 KAR 39:090 Section 8, 401 KAR 100:030, KRS 224.46-530]

F.IV.E. RCRA FACILITY INVESTIGATION (RFI)

F.IV.E.(1) RFI Work Plan(s)

The Permittee shall prepare and submit to the Manager, within ninety (90) calendar days of notification from the Division, or the time frame established in the CS Report or the Manager’s response to the report, that a RFI Work Plan(s) is required for any unit(s) that require further investigation. This Work Plan shall be developed to meet the requirements of the Conditions in F.IV.E.

[40 CFR 264.101 as established in 401 KAR 39:090 Section 1, 401 KAR 39:090 Section 8, 401 KAR 100:030, KRS 224.46-530]

F.IV.E.(2) RFI Work Plan Content

An RFI Work Plan shall meet the requirements of the RFI Guidance, as described in Appendix B, the RFI Work Plan Outline, that is hereby incorporated into this permit by reference, EPA-530/SW-89-031.(1). The RFI Work Plan(s) shall include schedules of implementation and completion of specific actions necessary to determine the nature and extent of releases and the potential pathways of contaminant releases to the air, land, surface water, or groundwater. The Permittee shall provide sufficient justification and/or documentation that a release is not probable, or a pathway is not complete, if a unit or a media/pathway associated with a unit (groundwater, surface water, soil, subsurface gas, or air) is not included in the RFI Work Plan(s). Such deletions of a unit, media, or pathway from the RFI(s) are subject to the approval of the Manager. The Permittee shall provide sufficient written justification for any omissions or deviations from the minimum requirements of Appendix B. Such omissions or deviations are subject to the approval of the Manager. In addition, a schedule for submitting RFI Progress Reports shall be included.

[40 CFR 264.101 as established in 401 KAR 39:090 Section 1, 401 KAR 39:090 Section 8, 401 KAR 100:030, KRS 224.46-530]

F.IV.E.(3) RFI Approval/Disapproval

The RFI Work Plan(s) shall be approved by the Manager, in writing, prior to implementation. The Manager shall specify the start date of the RFI Work Plan schedule in the letter approving the RFI Work Plan(s). If the Manager disapproves the RFI Work Plan(s), the Manager shall either (1) notify the Permittee in writing of the RFI Work Plan's deficiencies and specify a due date for submission of a revised RFI Work Plan, or (2) revise the RFI Work Plan and notify the Permittee of the
revisions and the start date of the schedule within the approved RFI Work Plan, or (3) conditionally approve the RFI Work Plan and notify the Permittee of the conditions.

[40 CFR 264.101 as established in 401 KAR 39:090 Section 1, 401 KAR 39:090 Section 8, 401 KAR 100:030, KRS 224.46-530]

F.IV.E.(4) RFI Implementation

The Permittee shall implement the RFI(s) in accordance with the approved RFI Work Plan(s). The Permittee shall notify the Manager at least two weeks prior to any sampling activity.

[40 CFR 264.101 as established in 401 KAR 39:090 Section 1, 401 KAR 39:090 Section 8, 401 KAR 100:030, KRS 224.46-530]

F.IV.E.(5) RFI Progress Reports

If the time required to conduct/complete the RFI(s) is greater than one hundred eighty (180) calendar days, the Permittee shall provide the Manager with quarterly RFI Progress Reports (90 day intervals) beginning ninety (90) calendar days from the start date specified by the Manager in the RFI Work Plan approval letter. The Progress Reports shall contain the following information at a minimum:

- Description of the portion of the RFI completed
- Summaries of findings
- Summaries of any deviations from the approved RFI Work Plan during the reporting period
- Summaries of all contacts with local community public interest groups or State government
- Summaries of any problems or potential problems encountered during the reporting period
- Actions taken to rectify problems
- Changes in relevant personnel
- Projected work for the next reporting period
- Summaries of laboratory/monitoring data, etc
- Any presence of high levels of hazardous wastes and hazardous waste constituents in soils and groundwater

[40 CFR 264.101 as established in 401 KAR 39:090 Section 1, 401 KAR 39:090 Section 8, 401 KAR 100:030, KRS 224.46-530]

F.IV.E.(6) RFI Draft and Final Reports

The Permittee shall prepare and submit to the Manager draft and final RFI Report(s) for the investigations conducted pursuant to the RFI Work Plan(s). The RFI Report(s) shall be submitted to the Manager for review in accordance with the schedule in the approved RFI Work Plan(s).

[40 CFR 264.101 as established in 401 KAR 39:090 Section 1, 401 KAR 39:090 Section 8, 401 KAR 100:030, KRS 224.46-530]

F.IV.E.(7) RFI Report Content

The RFI Report(s) shall include at a minimum:

- An analysis of all required investigations of SWMUs and AOCs and their results
- Type and extent of contamination at the facility, including sources and migration pathways
- All hazardous constituents present in all media
- Description of actual or potential receptors
- Description of the extent of contamination (qualitative/quantitative) in relation to background levels indicative of the area. The objective of this task shall be to ensure that the investigation data are sufficient in quality (e.g., quality assurance procedures have been followed) and quantity to describe the nature and extent of contamination, potential threat to human health and/or the environment, and to support a Corrective Measures Study, if necessary.
- Proposal for a groundwater monitoring and reporting schedule for those SWMUs and/or AOCs at which groundwater contamination has been detected. Monitoring shall be continued until a remedy selection is made by the Division.

[40 CFR 264.101 as established in 401 KAR 39:090 Section 1, 401 KAR 39:090 Section 8, 401 KAR 100:030, KRS 224.46-530]

F.IV.E.(8) RFI Report Approval/Disapproval

The Manager shall review the Final RFI Report(s) and notify the Permittee of the need for further investigative action and/or the need for a Corrective Measures Study. The Manager shall notify the Permittee of any no further action decision. Any further investigative action required by the Manager shall be prepared and submitted in accordance with a schedule specified by the Manager and approved in accordance with this permit.

[40 CFR 264.101 as established in 401 KAR 39:090 Section 1, 401 KAR 39:090 Section 8, 401 KAR 100:030, KRS 224.46-530]

F.IV.F. INTERIM MEASURES (IM)

F.IV.F.(1) IM Work Plan

Upon notification by the Manager, the Permittee shall prepare and submit an IM Work Plan for any SWMU or AOC which the Manager determines is necessary. IMs shall be designed to minimize or prevent the further migration of contaminants and limit human and environmental exposure to contaminants while long-term corrective action remedies are evaluated and, if necessary, implemented. The IM Work Plan shall be submitted within the specified time identified by the Manager in such notification. Such IM shall be conducted concurrently with investigations required under the terms of this permit. The Permittee may initiate IMs by submitting an IM Work Plan for approval to the Manager.

[40 CFR 264.101 as established in 401 KAR 39:090 Section 1, 401 KAR 39:090 Section 8, 401 KAR 100:030, KRS 224.46-530]

F.IV.F.(2) IM Work Plan Content

The IM Work Plan shall ensure that the interim measures are designed to mitigate any current or potential threat(s) to human health or the environment and is consistent with and integrated into any long-term solution at the facility. The IM Work Plan shall include: the interim measures objectives, procedures for implementation (including any designs, plans, or specifications), and schedules for implementation.
F.IV.F.(3) IM Work Plan Approval/Disapproval

The IM Work Plan shall be approved by the Manager, in writing, prior to implementation. The Manager shall specify the start date of the IM Work Plan schedule in the letter approving the IM Work Plan. If the Manager disapproves the IM Work Plan, the Manager shall either (1) notify the Permittee in writing of the IM Work Plan's deficiencies and specify a due date for submission of a revised IM Work Plan, or (2) revise the IM Work Plan and notify the Permittee of the revisions and the start date of the schedule within the approved IM Work Plan, or (3) conditionally approve the IM Work Plan and notify the Permittee of the conditions.

F.IV.F.(4) IM Implementation

The Permittee shall implement the interim measures in accordance with the approved IM Work Plan. The Permittee shall give notice to the Manager as soon as possible of any planned changes, reductions, or additions to the IM Work Plan. Final approval of corrective action which is achieved through interim measures shall be in accordance with 401 KAR 39:060 Section 5 and Condition F.IV.H. as a permit modification.

If the time required for completion of interim measures is greater than one year, the Permittee shall provide the Manager with progress reports at intervals specified in the approved Work Plan. The Progress Reports shall contain the following information at a minimum:
- Description of the portion of the interim measures completed
- Summaries of findings
- Summaries of all deviations from the IM Work Plan during the reporting period
- Summaries of all problems encountered during the reporting period
- Projected work for the next reporting period
- Copies of laboratory/monitoring data

F.IV.F.(5) IM Progress Reports

If the time required for completion of interim measures is greater than one year, the Permittee shall provide the Manager with progress reports at intervals specified in the approved Work Plan. The Progress Reports shall contain the following information at a minimum:
- Description of the portion of the interim measures completed
- Summaries of findings
- Summaries of all deviations from the IM Work Plan during the reporting period
- Summaries of all problems encountered during the reporting period
- Projected work for the next reporting period
- Copies of laboratory/monitoring data
F.IV.F.(6) Notice of IM Work Plan Changes

The Permittee shall give notice to the Manager within forty-five (45) calendar days prior to any planned changes, reductions, or additions to the IM Work Plan.

F.IV.F.(7) Final IM Report

The Permittee shall prepare and submit to the Manager, within ninety (90) calendar days of completion of IM, an IM Report. The IM Report shall contain the following information at a minimum:

- Description of interim measures implemented
- Summaries of results
- Summaries of all problems encountered
- Summaries of accomplishments and/or effectiveness of interim measures
- Copies of all relevant laboratory/monitoring data, etc

F.IV.G. CORRECTIVE MEASURES STUDY (CMS)

F.IV.G.(1) CMS Work Plan

The Permittee shall prepare and submit a CMS Work Plan for those units requiring a CMS within ninety (90) calendar days of notification by the Manager that a CMS is required or in accordance with the schedule in the final RFI Report. A time extension may be requested for units that are actively operating and a CMS Work Plan is not readily available until after the units are no longer active. This CMS Work Plan shall be developed to meet the requirements of the Conditions in F.IV.G. The CMS may be performed concurrent with the RFI if the Division determines that sufficient investigative details are available to allow concurrent action.

F.IV.G.(2) CMS Work Plan Content

The CMS Work Plan shall meet the requirements of the Corrective Measures Outline, Appendix C. The CMS Work Plan shall include schedules of implementation and completion of specific actions necessary to complete a CMS. The Permittee shall provide sufficient justification and/or documentation for any unit deleted from the CMS Work Plan. Such deletion of a unit is subject to the approval of the Manager. The scope of the CMS Work Plan shall include all measures necessary to ensure compliance with regulatory and statutory requirements. The Permittee shall
implement corrective actions beyond the facility boundary, if necessary, as set forth in Condition F.IV.A.(9).

[40 CFR 264.101 as established in 401 KAR 39:090 Section 1, 401 KAR 39:090 Section 8, 401 KAR 100:030, KRS 224.46-530]

F.IV.G.(3) CMS Approval/Disapproval

The Manager shall either approve or disapprove, in writing, the CMS Work Plan. If the Manager disapproves the CMS Work Plan, the Manager shall either (1) notify the Permittee in writing of the CMS Work Plan’s deficiencies and specify a due date for submittal of a revised CMS Work Plan, or (2) revise the CMS Work Plan and notify the Permittee of the revisions, or (3) conditionally approve the CMS Work Plan and notify the Permittee of the conditions.

[40 CFR 264.101 as established in 401 KAR 39:090 Section 1, 401 KAR 39:090 Section 8, 401 KAR 100:030, KRS 224.46-530]

F.IV.H. CORRECTIVE MEASURES IMPLEMENTATION (CMI)

F.IV.H.(1) CMI Work Plan

Within thirty (30) days of the approval date of the remedy selection, unless otherwise agreed by the Manager, the Permittee shall prepare and submit a Corrective Measures Implementation (CMI) work plan for the SWMUs or AOCs requiring corrective measures implementation. This work plan shall include, at a minimum:

- Description of the conceptual design, technical features (e.g. plans and specifications), and construction plan for the selected remedy(ies) to achieve media cleanup standards protective of human health and the environment, controlling the source(s) of release, and complying with standards for the management of wastes and any remedial residues
- Proposed schedule that takes into account all phases of the CMI and the submittal of documents to support the CMI (e.g. operation and maintenance plan, construction completion report, etc.) as described in this Permit
- Requirements for removal and decontamination of units, equipment, devices, or structures that will be used to implement the remedy(ies)

F.IV.H.(2) Operation and Maintenance Plan

If required under the CMI Work Plan, an Operation and Maintenance Plan (O&MP) shall be submitted to the Manager in accordance with the schedule. The O&MP shall include, at a minimum:

- System description
- Startup procedures
- Operation and maintenance procedures
- Schedule of inspection and maintenance
- Waste management practices
- Sampling and analysis required for operation and contingency procedures
- Description of the Corrective Measure(s) completion criteria and the method to be used to show when the criteria are met
• For remedies with Land Use Controls, the Operation and Maintenance Plan shall include the requirements of Permit Condition F.IV.H.(5)

**F.IV.H.(3) Manager Approval**

All Plans required for the CMI phase shall be approved, in writing, by the Manager prior to implementation.

**F.IV.H.(4) Construction Completion Report**

If required under the CMI work plan, a Construction Completion Report (CCR) shall be submitted to the Manager, in accordance with the schedule required by this permit that demonstrates the completion of the remedy construction in accordance with approved plans and specifications. The CCR shall be submitted when all operational tests have been completed. Any necessary documentation required by the Division shall be included in this report.

**F.IV.H.(5) Remedy with Land Use Controls**

Any final remedy that incorporates land use controls shall be in accordance with KRS 224.80. The SWMUs and AOCs for which land use controls are selected as an integral part of the final remedy are listed in Appendix A-7 - SWMUs and AOCs Requiring Land Use Controls. When corrective measures incorporate land use controls as part of the selected remedy, the following information shall be provided:

- Name, address, and phone number of the person to contact about the SWMU or AOC
- Any necessary security provisions consistent with 401 KAR 39:090 Section 1 to prevent unauthorized entry and/or use of the waste unit
- Description of measures to protect the integrity of any installed engineering control(s) and associated features considered as part of the selected remedy for the period that has to be maintained
- Planned maintenance and monitoring activities and frequencies to ensure the security provisions are maintained
- An inspection checklist describing the land use control elements to be inspected, the frequency of inspection, and the potential problems that could be encountered. The checklist shall contain an area where the inspector may enter his/her name, the date of inspection, and the date upon which any problems encountered are remediated.
- Procedure(s) to follow when a determination is made that the land use control(s) are not effective and require modification
- Mechanism by which a notification shall be recorded on the deed for the facility property, or some other instrument which is normally examined during title search, that shall in perpetuity notify any potential future purchaser of the property, that the property had been used for waste management and disposal activities and that restrictions exist precluding a residential use of the land. The need for a deed restriction may be reevaluated upon the transfer of ownership or control.
- Mechanism by which other pertinent agencies (State or Federal) shall be given notice of restrictions placed on the use of the property that is affecting or may affect in the future, areas under the control of other State or Federal agencies
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F.IV.H.(6) CMI Progress Reports

If the time frame required to complete corrective measures implementation is greater than one hundred and eighty (180) days, the Permittee shall provide the Division with semi-annual Corrective Measures Implementation Progress Reports (180 day intervals) beginning from the date the CMI work plan is approved by the Division, until the Remedy Completion Report is approved by the Division. The time frame stated is effective unless otherwise agreed to by the Division. The CMI Progress Reports shall contain, at a minimum:

- Description of the portion of the CMI work plan completed (e.g. sampling events, operations, volumes removed/treated, wastes generated, etc)
- Summary of system performance/compliance and progress toward achieving cleanup goals
- Summary of any deviations from the approved CMI work plans during the reporting period
- Summary of all contacts with local community and public interest groups or State and Federal Government
- Summary of any problems or potential problems encountered during the reporting period
- Summary of actions taken to rectify the problems
- Any changes in relevant personnel
- Projected work for the next reporting period

F.IV.H.(7) Remedy Completion Report

Within ninety (90) days of completion of the CMI, unless otherwise agreed by the Division, the Permittee shall submit a CMI Report, including certification of completion of the corrective measures activities. The CMI Report shall summarize the activities and results from the entire period of Corrective Measures Implementation. The CMI Report shall also demonstrate compliance with all media cleanup goals and meet the corrective measures completion criteria in accordance with this permit. Approval by the Division of the final CMI Report constitutes remedy completion. For corrective measures involving the cleanup of groundwater, the Permittee shall demonstrate that the concentrations of the constituents of concern remain at or below cleanup levels for three (3) consecutive years after the corrective measures have been terminated. The time frame stated is effective unless otherwise agreed to by the Manager.

F.IV. REMEDY APPROVAL

F.IV.(1) Remedy Selection

The Manager shall select a remedy from the remedial alternatives evaluated in the CMS. The selection shall be based at a minimum on protection of human health and the environment, as per specific site conditions, existing regulations, and guidance. The selected remedy may include any interim measures implemented to date.

[40 CFR 264.101 as established in 401 KAR 39:090 Section 1, 401 KAR 39:090 Section 8, 401 KAR 100:030, KRS 224.46-530]

F.IV.(2) Statement of Basis

Upon approval of the CMS Report or other Manager decision (for example, NFA), the Permittee shall prepare a draft Statement of Basis that provides a summary and justification of the selected
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remedy. The Statement of Basis shall be written following EPA guidance "Guidance on RCRA Corrective Action Decision Documents: The Statement of Basis, Final Decision, and Response to Comments," February 1991, EPA/540/G-91/011, (or most recent version) or other Manager approved guidance, and shall include information on the proposed remedy, facility background, exposure pathways, cleanup goals, the scope of the corrective action, the remedial alternatives considered, an evaluation of those alternatives, and public participation. The Statement of Basis shall be submitted to the Manager in draft form within the time frame specified in the letter from the Manager that notifies the Permittee that the CMS Report is approved or within thirty (30) days if a time frame is not provided. The Manager shall notify the Permittee of deficiencies and specify a due date for submittal of a revised Statement of Basis.

F.IV.I.(3) Amended Plan and Reports

If the Permittee or the Cabinet at any time determine that the SWMU Assessment Report (SAR) information, the Confirmatory Sampling (CS) Work Plan, or RCRA Facility Investigation (RFI) Work Plan no longer satisfy the requirements of this permit for prior or continuing releases of hazardous waste or hazardous constituents from Solid Waste Management Units and/or Areas of Concern, the Permittee shall submit an amended SAR, CS Work Plan, or RFI Work Plan. The amended plan or report shall be submitted to the Hazardous Waste Branch Manager within ninety (90) calendar days of such determination or from receiving notification from the Cabinet.

[F40 CFR 264.101 as established in 401 KAR 39:090 Section 1, 401 KAR 39:090 Section 8, 401 KAR 100:030, KRS 224.46-530]

F.IV.J. MODIFICATION OF THE CORRECTIVE ACTION SCHEDULE OF COMPLIANCE

Modifications to the corrective action schedule of compliance shall not constitute a reissuance of the Permit. The Manager may grant extensions at his/her sole discretion, subject to adequate justification by the Permittee. If at any time, the Manager determines that modification of the corrective action schedule is necessary, the Manager may initiate a modification to the schedule.

F.IV.K. IMMEDIATE HAZARDS

The Permittee shall report to the Manager, any imminent or existing hazard to public health or the environment from any release of hazardous waste or hazardous constituents from SWMUs and or Areas of Concern consistent with requirements specified in this permit.

F.IV.L. WORK PLAN AND REPORT REQUIREMENTS

All work plans and schedules shall be subject to approval by the Manager, prior to implementation to assure that such work plans and schedules are consistent with the requirements of this Permit and with applicable regulations and guidance. The Permittee shall revise all submittals and schedules as specified by the Manager. The Permittee shall implement all work plans and schedules as approved by the Manager.

All work plans and reports shall be submitted in accordance with the approved schedule. Extensions of the due date for submittals may be granted by the Division based on the Permittee's demonstration that sufficient justification for the extension exists.

If the Permittee at any time determines that the AR, CS Work Plan, or RFI Work Plan(s) required no longer
satisfy the requirements of 401 KAR 39:090 Section 8 or this permit for prior or continuing releases of hazardous waste or hazardous constituents from SWMUs and/or AOCs, the Permittee shall submit an amended document to the Manager within ninety (90) calendar days of such determination.

All reports shall be signed and certified in accordance with 401 KAR 39:060 Section 5.

One (1) hard copy and one (1) electronic copy of all reports and work plans shall be provided by the Permittee to the Division of Waste Management at the following address:

Manager, Hazardous Waste Branch
Division of Waste Management
300 Sower Boulevard
Frankfort, Kentucky 40601

[40 CFR 264.101 as established in 401 KAR 39:090 Section 1, 401 KAR 39:090 Section 8, 401 KAR 100:030, KRS 224.46-530]

F.IV.M. APPROVAL/DISAPPROVAL OF SUBMITTALS

The Manager shall review the work plans, reports, schedules, and other documents ("submittals") which require the Manager's approval in accordance with the conditions of this permit. The Manager shall notify the Permittee in writing of any submittal that is disapproved, and the basis therefore. In the event the Permittee disagrees, in whole or in part, with the Manager's decision of a submittal or disapproval of any revised submittal required by the permit, the Permittee has the right to seek a hearing under KRS 224.10-420(2).
PART V
REFERENCED ATTACHMENTS

F.V.A. REFERENCED ATTACHMENTS

F.V.A.(1) Appendix A, List of SWMUs and AOCs

Lists of Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) at this facility are in Appendix A of this permit. All lists in Appendix A are current as of the issuance date of this permit.

F.V.A.(2) Appendix A-1, RCRA Facility Investigation (RFI)

A list of SWMUs and AOCs requiring an RFI at this facility under this permit at this time is included in Appendix A-1.

F.V.A.(3) Appendix A-2, No Further Action (NFA)

A list of SWMUs requiring NFA at this facility under this permit at this time is included in Appendix A-2.

F.V.A.(4) Appendix A-3, Confirmatory Sampling (CS)

A list of SWMUs and AOCs requiring CS at this facility under this permit at this time is included in Appendix A-3.

F.V.A.(5) Appendix B, RFI Work Plan

An RFI Work Plan Outline is incorporated as Appendix B of this permit.

F.V.A.(6) Appendix C, CMS Outline

A CMS Plan Outline is incorporated as Appendix C of this permit.

F.V.A.(7) Appendix D, Schedule of Compliance

A Corrective Action Schedule of Compliance is incorporated as Appendix D of this permit, as needed.

F.V.A.(8) Attachment A, Part A

The facility Part A Permit Application is incorporated as Attachment A of this permit.
PART VI
WASTE MINIMIZATION

F.VI.A.  Program

The Permittee shall include in the Operating Record a certification by the Permittee no less often than annually, that the Permittee has a program in place to reduce the volume and toxicity of hazardous waste that he generates to the degree determined by the Permittee to be economically practicable. The proposed method of treatment, storage, or disposal is that practicable method currently available to the permittee which minimizes the present and future threat to human health or environment.

[40 CFR 262.25 as established in 401 KAR 39:080 Section 1, KRS 224.46-530]

F.VI.A.(1)  Waste Streams

The Permittee shall identify and document types, amounts, and hazardous constituents of waste streams with the source and date of generation.

[40 CFR 262.25 as established in 401 KAR 39:080 Section 1, KRS 224.46-530]

F.VI.A.(2)  Assessment

The Permittee shall conduct a periodic waste minimization assessment that includes:
• Identify and document all points in a process where materials can be prevented from becoming a waste or can be recycled
• Identify the potential for waste reduction and recycling techniques applicable to each waste generated at the facility with a cost estimate for capital investment and implementation
• Update and maintain a description of technically and economically practical waste reduction/recycling options to be implemented at the facility and a planned schedule for implementation
• Prepare and maintain an adequate assessment for specific performance goals, preferably quantitative, for the source reduction of waste by stream. Whenever possible, goals should be stated as weight of waste generated per standard unit of production, as defined by the Permittee.

[40 CFR 262.25 as established in 401 KAR 39:080 Section 1, KRS 224.46-530]

F.VI.A.(3)  Required Documents

The Permittee shall maintain and update the following documents:
• Policy dated and signed, by management, describing management support for waste minimization and for implementation of a waste minimization plan
• Description of employee awareness and training programs designed to involve employees in waste minimization planning and implementation to the maximum extent feasible
• Description specifying how a waste minimization plan has been incorporated into management practices so as to ensure ongoing efforts with respect to product design, capital planning, production operations, and maintenance

[40 CFR 262.25 as established in 401 KAR 39:080 Section 1, KRS 224.46-530]
F.VI.A.(4) Annual Cost Allocation Review

The Permittee, on an annual basis, shall update a Waste Minimization Cost Allocation Review specific to the operation of the facility which includes:

- Identification of waste management costs for each waste, factoring in liability, transportation, recordkeeping, personnel, pollution control, treatment, disposal, compliance, and oversight costs to the extent feasible
- Description of how each department at the facility is held accountable for the wastes they generate
- Comparison of waste management costs with costs of potential reduction and recycling techniques applicable to each waste at the facility

[40 CFR 262.25 as established in 401 KAR 39:080 Section 1, KRS 224.46-530]

F.VI.A.(5) Seek and Exchange Information

The Permittee shall update and maintain at the facility a description of efforts to seek and exchange technical information on waste minimization from other parts of the company, other firms, trade associations, technical assistance programs, and professional consultants.

[40 CFR 262.25 as established in 401 KAR 39:080 Section 1, KRS 224.46-530]

F.VI.A.(6) Annual Review

The Permittee, on an annual basis, shall evaluate the Waste Minimization Program. The evaluation shall contain, at a minimum:

- Description of types and amounts of hazardous waste reduced or recycled
- Analysis and quantification of progress made relative to each performance goal established and each reduction technique to be implemented
- Amendments to waste minimization plan and explanation
- Explanation and documentation of reduction efforts completed or in progress before development of the waste minimization plan
- Explanation and documentation regarding impediments to hazardous waste reduction specific to the individual facility

[40 CFR 262.25 as established in 401 KAR 39:080 Section 1, KRS 224.46-530]
The Division received comments from three sources:

1. Kentucky Environmental Foundation (KEF)
2. Bechtel Parsons Blue Grass Joint Venture (BPBG)
3. Blue Grass Army Depot (BGAD)

Comment items are numbered; the Division’s responses are in italics.

**Comments from Kentucky Environmental Foundation (KEF):**

**Permit Action No. 1:**

Conversion of the existing hazardous waste Research, Development and Demonstration (RD&D) Permit into a standard hazardous waste Part B Permit for destruction of GB nerve agent munitions at the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP). The permittees are BGAD (owner) and BPBG (operator).

**KEF Comment**

KEF concurs with this permit action

**KDEP Response**

*Comment noted. Thank you for your comment.*

**Permit Action No. 2:**

The addition of a Container Storage Facility for storage of secondary wastes from the BGCAPP Main Plant and Explosive Destruction Technology (EDT) facilities prior to transportation to an offsite facility for final disposal. An existing steel framed, metal clad structure on the BGAD installation will be modified and used for this purpose. The permittees are BGAD (owner) and BPBG (operator).

**KEF Comment**

KEF points out that the final decision regarding the shipment of certain categories of secondary waste have not yet been reached. Therefore, KEF requests clarification on which secondary wastes would be stored under this permit condition. And furthermore wishes to be assured, in writing, that this MOD does not prohibit the treatment of any such wastes on site, should that option become the preferred one.

**KDEP Response**

*The Permit prohibits recoverable liquid agent, which is considered surety material, to be stored in the Container Storage Facility. A complete list of the secondary wastes that can be stored in the CSF is included in Part A, section 11.*

*The Permit does not prohibit treatment of secondary wastes on site.*

**Permit Action No. 3**

The repurposing of two structures (igloos) to store uncontaminated rocket motors generated during BGCAPP operations. The rocket motors will be stored until they are transported to a permitted unit for final destruction. The permittees are BGAD (owner) and BPBG (operator).
KEF Comment
Same comment as #2 above as shipment of rocket motors off site has yet to be finalized.

KDEP Response
The Permit requires that the rocket motors must be uncontaminated, based on headspace monitoring. The Division understands that the rocket motors will be destroyed either at BGAD or another permitted facility. The Permit does not prohibit treatment of secondary wastes (including rocket motors) on site.

Permit Action No. 4
The addition of Resource Conservation and Recovery Act (RCRA) organic air emission requirements to the hazardous waste permits. Kentucky has been authorized to implement the RCRA Organic Air Emissions Standards and is now adding these requirements to the BGCAPP Part B Hazardous Waste Permit. The EPA Region 4 had previously implemented these requirements through a permit issued to BGCAPP. The permittees are BGAD (owner) and BPBG (operator).

KEF Comment
KEF concurs with this permit action

KDEP Response
Comment noted. Thank you for your comment.

Permit Action No. 5
Approval of a modification to add the D-100 Controlled Destruction Chamber (CDC) to BGAD’s Part B Permit. Previously authorized to operate under “interim status” as an existing unit, BGAD is still required to obtain a hazardous waste operating permit for the CDC. The CDC is an armor plated detonation chamber permitted only for the treatment of conventional (non-chemical agent) munitions and is unrelated to the operations at BGCAPP. The CDC is owned and operated by BGAD.

KEF Comment
KEF concurs with this permit action

KDEP Response
Comment noted. Thank you for your comment.

Comments from Blue Grass Army Depot (Re: Permit Action No. 5 - CDC):
BGAD Comment No. 1.
Permit condition D.III.A.(1), 1st Table: In the row titled, "Demolition Material", please add "detonation cord" after "time fuzes" for consistency with the permit application.

KDEP Response
The permit condition as drafted contained “detonating cord.” This has been changed to “detonation cord” and moved to the requested location.

Permit Changed: Detonation cord has been added to the Table in the location requested.
BGAD Comment No. 2.
Permit Condition D.III.A.(1): In the text between the two tables, change "The only wastes transported to and treated at the OB Units or OD Unit shall be those listed below" to "The only wastes transported to and treated at the CDC shall be those listed below."

KDEP Response
This comment appeared to be based on an earlier draft of the permit. The draft as issued cites the D-100 CDC. No changes were made as a result of this comment.

BGAD Comment No. 3.
Permit Condition D.III.A.(3): In the list of prohibited wastes, the following items conflict with the table of authorized items identified in the 1st Table of Section D.III.A.(1): Flechettes and rounds containing submunitions. Please delete both items from the list of prohibited wastes.

KDEP Response
Permit Changed: Both items were mistakenly included and have been removed from the list.

BGAD Comment No. 4.
Permit Condition D.III.E.(3)(b): The Permit requires the operating record to document "The location of each hazardous waste within the facility and the quantity in each location." It is unclear how this requirement is to be applied to hazardous waste that is only temporarily placed into the chamber for treatment.

KDEP Response
The cited language addresses only the requirement to keep information on wastes staged or stored within the facility. The operating record is otherwise required to include records on waste treatment events in D.III.E.(3)(c).

BGAD Comment No. 5.
Permit Condition D.III.X.(1): The CDC is no longer known as the "Donovan Chamber", please delete the later portion of this sentence.

KDEP Response
Permit Changed: The phrase has been changed to “also previously known as the Donovan Chamber”.

BGAD Comment No. 6.
Permit Condition D.III.X.(2)(b): "The D-100 CDC shall be operated, maintained, and closed in a manner that shall ensure protection of human health and the environment and in accordance with Section." The sentence is incomplete.

KDEP Response
The sentence appears to be based on an earlier version of the draft which was not complete. The statement is complete in the draft and final permit. No changes were made as a result of this comment.
BGAD Comment No. 7.

Permit Condition D.III.X.(3)(a): "No hazardous waste may remain staged at the D-100 CDC for more than five hours." Please delete the sentence. Please see the explanations associated with Comments 8-10 below.

KDEP Response

Permit Changed: The sentence has been changed to read “No waste military munitions may remain staged at the D-100 CDC for more than five hours.”

BGAD Comment No. 8.

Permit Condition D.III.X.(3)(a): "No more than 1,000 lbs. net explosive weight in WMM/energetics and donor charges shall be staged at Building 280." Please change the sentence to read, "The net explosive weight of all energetic material staged at Building 280 shall not exceed the limits per the Department of Defense Explosives Safety Board (DDESB) approved site plan." Note that the 1,000 NEW limit identified on Page D-9, line 37 of the permit application (i.e., "but not to exceed 1,000 lb. NEW") was taken from Standard Operating Procedures specific to use of the CDC when it was in use for a specific work-load and in a detonation configuration. Page D-9, lines 37 and 38 of the permit application are proposed to be revised as follows, "One-half day's production of energetic material (but not to exceed the DDESB approved siting limits) is delivered to Building 280 in the morning and again in the afternoon." The determination of the net explosive weight is based on the combination of energetic material staged and DDESB Regulations.

KDEP Response

Response: The changes proposed to the permit application are not changes that can be made as part of the Public Comment process. These changes will have to be addressed through a permit modification request. No changes were made as a result of this comment.

BGAD Comment No. 9.

Permit Condition D.III.X.(3)(a): "No hazardous waste shall remain staged at Building 280 overnight. Any unused hazardous waste remaining at the end of the operating day will be repacked and returned to a permitted storage area." Please delete these two sentences. Bay 1 of Building 280 is, at times, used for temporary accumulation (i.e., up to 90 days) of hazardous waste and BGAD requests to retain this option. Any unused WMM/energetics that is prepared for treatment in the chamber, but remains untreated at the end of the operating day will be repacked and placed into appropriate hazardous waste storage. This storage could include an established central accumulation area (i.e., 90 day accumulation area) within Building 280. Propose new permit language to read, "Any WMM/energetics that is prepared for treatment in the chamber, but remains untreated at the end of the operating day will be repacked and placed into appropriate hazardous waste storage." Page D-9, lines 40-43 of the permit application are proposed to be revised as follows, "If WMM/energetic waste is delivered to Building 280, is prepared for treatment (i.e., removed from packaging and configured for treatment) but is not treated on that day, it is repacked, a hazardous waste label is applied to each container, and the WMM/energetic waste is placed into appropriate hazardous waste storage." The last sentence on page D-9 (i.e., "WMM/energetic waste is not stored at Building 280 overnight.") will be removed from the application. This language too was taken from a specific Standard Operating Procedure.
applicable to a specific past workload and is not generally applicable to all operations. As previously noted, Bay 1 of Building 280 is, at times, used as a central accumulation area for hazardous waste and may also be used for staging of energetic material for disassembly/unpacking/reconfiguration. This temporary storage may include overnight storage.

KDEP Response

Response: Some of these changes will have to be addressed as part of a permit modification request. The Division understands that Building 280 Bay 1 is used as a less than 90 day storage area for hazardous waste generated on site. However, the application makes it clear that munitions brought to the building for treatment will not remain there overnight and it is not appropriate to change the application as part of the public comment process. The language has been changed to allow for 90-day storage of newly generated hazardous waste, while still retaining what is presented in the permit application as the manner in which the building is used for staging waste military munitions.

Permit changed: The sentences now read, “No waste military munitions shall remain staged at Building 280 overnight. Any untreated waste military munitions remaining at the end of the operating day will be repacked and returned to an appropriate hazardous waste storage area.”

BGAD Comment No. 10.

Permit Condition D.III.X.(3)(a): "In the event that a shutdown of the D-100 CDC is required during the operating day, all WMM/energetic waste will be immediately repacked and returned to a permitted storage area." Please delete this sentence. Note firstly that a shutdown could be temporary in nature, in this case, operation of the chamber could cease, no repacking would occur, and operations continue with the temporary shutdown is ended. Note secondly the comment above which takes into account the potential for using a central accumulation area (vs. permitted storage) for temporary storage of WMM/energetic waste.

KDEP Response

Permit Changed: This sentence has been deleted. Please note that in accordance with other requirements of the Permit, WMM/energetic wastes must still be removed from the building at the end of the operating day.

Other Corrections:

In addition to the changes discussed in comments above, the Division found a small number of clerical errors involving regulation citations. Several citations were made to KRS 224.50-130, which governs treatment and disposal of chemical munitions waste. As chemical munitions are prohibited from treatment in the D-100 CDC, KRS 224.50-130 is not applicable. These citations were replaced with references to KRS 224.46-530 which grants the cabinet authority over management of hazardous wastes.

One citation to 40 CFR 270.65 was removed, which contains the regulations governing issuance of Research, Development, and Demonstration permit and is therefore not applicable. This reference was removed and replaced with a reference to 40 CFR 264, “Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.”
Comments from Bechtel Parsons Blue Grass Joint Venture (BPBG):

BPBG Comment No. 1
Whole Permit. Propose incorporation of all existing approved RD&D permit modifications to date.

KDEP Response

The Division concurs with this comment. All permit modifications to the RD&D Permit that were issued up to the time of the issuance of the Conversion Permit have been incorporated into the Conversion Permit. This includes permit modification no. 58 dated November 8, 2019 through permit modification no. 74 dated December 20, 2019.

BPBG Comment No. 2
Page 20, Para A.III.A.(6)(a) & (b). Propose changing value to 52 µg/L for OTM Condensate for the projectile campaign based on prior discussions with KDEP to be consistent with the agent hydrolysate clearance criteria. This will minimize opportunities for confusion and errors in both the laboratory and in determining compliance.

KDEP Response

The Division has approved a permit modification request (RD&D Permit Modification #72) to make this modification to the RD&D Permit. The modification has been incorporated into the Conversion Permit.

BPBG Comment No. 3

KDEP Response

The Division concurs. The Permit has been modified to refer to the relevant tables in the Permit, rather than the RCRA Operations Plan.

BPBG Comment No. 4
Page 22, Para A.III.A.(8)(a). Pilot Test Demonstration for GB Projectile Campaign. Propose changing first bullet to “•No more than 2,000 GB projectiles shall be treated prior to beginning Integrated Facility Demonstration, unless approval is requested by the Permittee and approved by the Director.”

KDEP Response

If it becomes necessary to extend the ramp-up period, the Permittee can request a permit modification. No change has been made to the Permit.

BPBG Comment No. 5
The PTDP shall ensure that all Environmental Performance Standards contained in A.III.X.(1) are met using the operating conditions specified in Appendix F and using the interlocks specified in Appendix H, treatment quantities, and waste feed rates specified in the PTDP.
The Permittee shall test each operating condition in Appendix F and each interlock in Appendix H, treatment quantity, and waste feed rate specified in the PTDP at the condition specified or at a more limiting condition.

**KDEP Response**

_The Division concurs. The Permit has been revised to remove the Appendix of Critical Parameters of the Pilot Test Demonstration Plan._

**BPBG Comment No. 6**

Page 23, Para A.III.A.(10). Propose changing value to 52 µg/L for Spent Decontamination Solution for the projectile campaign to be consistent with the agent hydrolysate clearance criteria. This will minimize opportunities for confusion and errors in both the laboratory and in determining compliance.

**KDEP Response**

_The Division has approved a permit modification request (RD&D permit modification #72) to make this modification to the RD&D Permit. The modification has been incorporated into the Conversion Permit._

**BPBG Comment No. 7**

Page 40. Para A.III.F.(2). Since the MINICAMS/DAAMS Monitoring Table has been incorporated into the permit, the Laboratory Analysis and Monitoring Plan (LAMP) should be dropped as a compliance document to avoid duplicate update effort with potential for conflicting content.

**KDEP Response**

_The MINICAMS/DAAMS Monitoring Table is not included in the Laboratory Analysis and Monitoring Plan (LAMP), the documents contain different information, and the two documents tend to be modified on different schedules. Therefore, the Permit has not been modified in response to this comment._

**BPBG Comment No. 8**

Page 44. Propose changes shown in _strikeout_ and _red_.

| A.III.I.(9).(b) | Waste Transfer Station | WTS Building | WTS building shall store up to 24,000 gallons, tanker storage area shall store up to 120,000 gallons and bulk solids storage area shall store up to 32,500 gallons. The wastes are various secondary wastes that will be generated at the BGCAPP prior to shipment to treatment and disposal facilities. In the container storage building, containers with liquids shall be stored on spill pallets. In the tanker storage area, tankers shall be stored in three secondary containment areas which shall provide not less than 40,000 39,778 gallons capacity each. Roll-off containers shall not contain free liquids. |
KDEP Response

The Division concurs.

BPBG Comment No. 9

Page 51. Propose changes shown in strikeout and red.

| A.III.J.(8)(l) | Emergency Relief Tank | MT-SCWO-0040 | SCWO contents, consisting of blended agent and energetics hydrolysate | Coated concrete floor with curbs and sumps | One tank is permitted for storage of SCWO reactor contents in the event of an emergency shutdown. Volume shall not exceed 2,260 2,350 gallons of SCWO effluent.

KDEP Response

The original volume in the table matches the Part A. To make this change, the permittee should submit a permit modification request with a revised Part A.

BPBG Comment No. 10

Page 59. A.III.BB.(3)(b) Equipment Tagging. Propose addition of the following bullet:

Flanges and other miscellaneous connectors do not require tags as long as these are uniquely identifiable for specific purposes of tracking, monitoring, inspecting, and repairing each.

KDEP Response

The language of the condition has been changed. In considering the appropriate manner in which to alter the wording, the Division consulted the equivalent condition from the United States EPA Permit which currently regulates the organic air emissions at Main Plant. The text of the requirement has been modified to include the following statement: “Flanges and similar connectors only require tagging and marking to identify leaks and potential leaks.”

BPBG Comment No. 11

Page 69. Appendix A 1.g. This item requires the Supercritical Water Oxidation (SCWO) Pilot Test Demonstration Plan (PTDP) to satisfy requirements of a – d above. 1.c. requires a test plan for demonstrating 99.9999% Destruction and Removal Efficiency (DRE). There is no DRE to be demonstrated for the SCWO, as SCWO effluent is only required to meet TOC of 50 ppm. Propose item be revised to “Submit revised Volume II regarding GB Projectile Campaign satisfying requirements a., b., and d.”

KDEP Response

The Division concurs. The Permit has been revised as requested.

BPBG Comment No. 12

Page 69. Appendix A .4. Since the contents of the RCRA Operations Plan have been incorporated into the RCRA Permit, to avoid duplicate update efforts and potential for multiple reference documents with differing values, it is proposed that incorporation of the...
RCRA Operations Plan by reference be removed as well as references to it modified in the 
permit. These references are located at: Page 20 A.III.A.(6)(c) Thermal Oxidizer (TOX) 
Shutdown; Page 68 A.V.P. Attachment P, RCRA Operations Plan; Page 69 Appendix A – 
Compliance Schedule Item 4. Proposed changes are:

-Page 20 A.III.A.(6)(c) Thermal Oxidizer (TOX) Shutdown: “During TOX unit shutdown, 
a deviation from the parameters in Appendix F listed for the TOX/OTM system, or other 
off normal event affecting the TOX/OTM system, OTM condensate shall be directed to 
the SDS tanks.”

and Recovery Act (RCRA) Operations Plan, Rev. 2, Chg. 0, dated May 7, 2019 is 
incorporated as Attachment P of this Permit. Future operating parameter changes will 
be incorporated by modification only into this RCRA Permit. "Page 69 Appendix A – 
Compliance Schedule:

“4. Submit to the Division, RCRA operations parameters.
Submit modifications that specify the operating parameters of permitted waste treatment 
systems that are not already included in an approved RCRA Operations Plan or this 
permit.
Submit no later than 3 months prior to treatment of hazardous waste in those systems 
Approval required prior to treatment of hazardous waste in those systems”

**KDEP Response**

*The Division concurs. The Permit has been revised as requested.*

**BPBG Comment No. 13**

Page 74. Appendix C-2. MAIN PLANT UNITS SUBJECT TO SUBPART CC. Propose 
changes shown in strikeout and red.

<table>
<thead>
<tr>
<th>SCWO Emergency Relief Tank</th>
<th>Subpart J Tank Unit</th>
<th>2,260 2,350 gallons (SCWO Effluent)</th>
<th>40 CFR 264.1084</th>
</tr>
</thead>
<tbody>
<tr>
<td>MT-SCWO-0040</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SCWO Reactors</th>
<th>Subpart X Miscellaneous Unit</th>
<th>1,200 1,440 pounds per hour each</th>
<th>40 CFR 264.1084 (per 40 CFR 264.601)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• MV-SCWO-1030</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• MV-SCWO-2030</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• MV-SCWO-3030</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**KDEP Response**

*For the SCWO Emergency Relief Tank, the volume in the table matches the current Part A. 
To make this change, the permittee should submit a permit modification request with a 
revised Part A.*

*For the SCWO Reactors, the Permit has been revised as requested.*

**BPBG Comment No. 14**
Page 79. Appendix E. Propose removal of LAMP as a compliance document. Alternatively, remove Appendix E and refer to LAMP.

**KDEP Response**

*See the response to comment no. 7.*

**BPBG Comment No. 15**

Page 94. Appendix F. Propose update of table to remove RCRA parameters that should not be considered critical, shown as strikeouts on the attached table. Adjust values and category of selected critical parameters, shown in **strikeout** or **red** on the attached table (see original BPBG comments for table).

**KDEP Response**

*The Division concurs. The Permit has been revised as requested.*

**BPBG Comment No. 16**

Page 101. Footnote 1. Propose clarification of modification required for each category of parameter: “1. Category 1 parameters require a Class 1 Permit Modification Requiring Approval; a category 2 parameter change can be made as a Class 1 Permit Modification Not Requiring Approval.”

**KDEP Response**

*The Division believes that it would be best to determine the category of permit modifications on a case by case basis and in accordance with regulatory requirements. In addition, none of the items appear to require urgent resolution. Therefore, the column showing the type of modification has been deleted. The Division recognizes that greater flexibility in modifying the parameters will likely be required during the initial operations.*

**BPBG Comment No. 17**

Page 102. Appendix G. Propose removal of Appendix G, as these parameters have been incorporated into Appendix F as necessary.

**KDEP Response**

*The Division concurs. See response to comment no. 5.*

**BPBG Comment No. 18**

Proposed changes shown in **strikeout** or **red** on the attached table. (See original BPBG comments for table.)

**KDEP Response**

*The Division concurs with the changes. However, the Division has deleted the column which indicated the class of the modification and the footnotes. See response to comment no. 16.*