

DRAFT HAZARDOUS WASTE FACILITY PERMIT

Mustard Agent (H) Sampling Operations Section  
Blue Grass Army Depot, KY8-213-820-105  
AI: 2805 Activity: APE20150009

**PART I  
LEGAL AUTHORITY**

See this Part in the Entire Facility Section

**PART II  
STANDARD CONDITIONS**

See this Part in the Entire Facility Section

**PART III  
SPECIFIC CONDITIONS**

**M.III.A. GENERAL STANDARDS**

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

M110, 155mm mustard (H) agent-filled projectiles and mustard (H) agent-filled DOT 3A bottles from the BGAD stockpile shall be the only wastes transported to and sampled in the Mustard Agent (H) Sampling (H-sampling) Facility.

The hazardous wastes generated at the H-sampling Facility are listed below. Each of these hazardous wastes shall be managed as specified within this Permit. "H-sampling Facility" includes the Environmental Enclosure (EE), Personnel Decontamination Station (PDS), Chemical Agent Filtration System (CAFS), the on-site laboratory, and any contiguous land, structure, or facility within the boundary shown in Figure D-2 of the Mustard Agent (H) Sampling Operations Permit Modification Request (Permit Application).

Waste Stream	Waste Codes	Waste Description
M1	N003	Agent contaminated debris
M2	D001, D002, D003, D004, D011, D018, D022, D035, D036, D037, D039, D040, D043, U002, U044, U103, U127, U154, U165, U131, U210, F001, F002, F003, F004, N703	Laboratory wastes
M3	D002, N003	Spent decontamination waste
M4	D007, N003	Agent contaminated carbon filters

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Any wastes that are generated at the H-sampling Facility and that may have come into contact with mustard (H) agent shall be managed as hazardous waste. All spent carbon and HEPA filters shall be managed as hazardous waste.

*[KRS 224.50-130, KRS 224.46-530, 401 KAR 31:040E]*

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

- The H-sampling Facility is considered a hazardous waste treatment unit.
- Movement and handling of mustard (H) agent-filled projectiles, overpacks, and DOT 3A bottles is regulated as treatment under Commonwealth of Kentucky statutes and regulations.

*[KRS 224.46-530, KRS 224.50-130(5)]*

M.III.A.(3) Listed N-Codes

The following compounds are listed hazardous wastes:

- N003 H (bis(2-chloroethyl) sulfide) and related compounds
- N703 Lab Wastes associated with treated H wastes

*[KRS 224.50-130(2), 401 KAR 31:040E]*

M.III.A.(4) Permitted Container Storage Areas

There shall be no permitted container storage areas at the H-sampling Facility. The Permittee shall comply with requirements in M.III.I. for containers at the H-sampling Facility.

*[401 KAR 32:030, 401 KAR 34:030, 401 KAR 34:180, KRS 224.46-530]*

M.III.A.(5) Certification Prior to Start of H-Sampling Operations

The Permittee shall not commence sampling operations at the H-sampling Facility until the Permittee has submitted to the Division a letter that certifies that the EE and the CAFS have been constructed in compliance with the Permit Application design and this Permit.

*[401 KAR 38:030 Section 1, KRS 224.46-530(1)(g)]*

M.III.B. GENERAL FACILITY STANDARDS

M.III.B.(1) Identification Number

KY8-213-820-105

M.III.B.(2) Required Notices

See Entire Facility Section

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1 M.III.B.(3) Waste Analysis

2 See Entire Facility Section

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5 M.III.B.(4) Security

6 See Entire Facility Section

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9 M.III.B.(5) General Inspection Requirements

10 See Entire Facility Section

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13 M.III.B.(6) Personnel Training

14 See Entire Facility Section

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16  
17 M.III.B.(7) General Requirements for Ignitable, Reactive, or Incompatible Wastes

18 See Entire Facility Section

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21 M.III.B.(8) Location Standards

22 See Entire Facility Section

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24  
25 M.III.B.(9) Land Disposal Restrictions (LDR)

26 See Entire Facility Section

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28  
29 M.III.B.(10) Compliance Schedule

30 Not Applicable

31  
32  
33 M.III.B.(11) Facility Construction Certification

34 Not Applicable

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36  
37 M.III.C. PREPAREDNESS AND PREVENTION

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39 M.III.C.(1) Design and Operation of Facility

40  
41 The Permittee shall construct, maintain and operate the facility in a manner to minimize the possibility  
42 of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents  
43 to air, soil, or surface water which could threaten human health or the environment.

44  
45 *[401 KAR 34:030 Section 2]*  
46

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1 M.III.C.(2) Required Equipment

2 The Permittee shall equip the H-sampling Facility with all of the following:

- 3
- 4 • An internal communications or alarm system capable of providing immediate emergency instruction
  - 5 (voice or signal) to facility personnel
  - 6 • A device, such as a telephone (immediately available at the scene of operations) or a hand-held two
  - 7 (2) way radio, capable of summoning emergency assistance from BGAD security force, BGAD fire
  - 8 department, emergency operations center (EOC), or state/local emergency response teams
  - 9 • Fire control equipment (including portable fire extinguishers and special extinguishing equipment,
  - 10 such as that using foam, inert gas, or dry chemicals)
  - 11 • Spill control equipment and material
  - 12 • Agent monitoring equipment, personal protective equipment, decontamination equipment and
  - 13 solution

14  
15 *[401 KAR 34:030 Section 3, KRS 224.46-530(1)(g)]*

16  
17 M.III.C.(3) Testing and Maintenance of Equipment

18 To assure proper operation of emergency equipment, the Permittee shall:

- 19
- 20 • Test all emergency equipment at the facility, including communication, alarm, fire, spill control, and
  - 21 decontamination equipment
  - 22 • Maintain all equipment at the facility in good working order, consistent with the inspection schedule in
  - 23 the Procedures to Prevent Hazards, Attachment F.

24  
25 *[401 KAR 34:030 Section 4]*

26  
27 M.III.C.(4) Access to Communications or Alarm Systems

28 Whenever hazardous waste is present in the H-sampling Facility, all personnel shall have immediate

29 access, either directly or through visual or voice contact with another employee, to a telephone or a

30 hand-held two (2) way radio that is capable of summoning emergency assistance.

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33 *[401 KAR 34:030 Section 5]*

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35 M.III.C.(5) Required Aisle Space

36 Not Applicable

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39 M.III.C.(6) Arrangements with Local Authorities

40 See Entire Facility Section

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42  
43

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## M.III.D. CONTINGENCY PLAN AND EMERGENCY PROCEDURES

### M.III.D.(1) Implementation of Plan

The Permittee shall immediately carry out the procedures in Contingency Plan, Attachment G, 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. The Permittee shall 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 the help of such agencies is needed.

*[401 KAR 34:040 Sections 2 and 7]*

### M.III.D.(2) Content of Plan

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

- Actions that facility personnel shall take in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility
- Arrangements agreed to by local emergency services
- All persons qualified to act as Emergency Coordinator. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates.
- At least 30 days prior to the start of sampling operations, the Permittee shall submit to the Division a list of persons qualified to act as Emergency Coordinator, including the name or title of the primary emergency coordinator, pursuant to 401 KAR 34:040 Section 3
- A list of all emergency equipment, including the location and a physical description of each item on the list and a brief outline of its capabilities
- Evacuation plan for facility personnel that describes signals, routes, and alternate routes.

*[401 KAR 34:040 Section 3]*

### M.III.D.(3) Copies of Plan

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

- Maintained at the H-sampling Command Post and the BGCAPP Main Plant 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 BGAD to provide assistance in an emergency
- Provided to the Hazardous Waste Branch Manager.

*[401 KAR 34:040 Section 4]*

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## M.III.D.(4) Amendment of Plan

The Contingency Plan, Attachment G, 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 or may not warrant a permit modification. These shall be submitted to the Hazardous Waste Branch Manager for determination.

*[401 KAR 34:040 Section 5]*

## M.III.D.(5) Emergency Coordinator

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

*[401 KAR 34:040 Section 6]*

## M.III.D.(6) Emergency Procedures

### M.III.D.(6)(a) Activate Alarms

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

*[401 KAR 34:040 Section 7]*

### M.III.D.(6)(b) Notify Off-Post Emergency Responders

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

- Immediately notify appropriate local authorities
- Be available to help appropriate officials decide whether local areas should be evacuated

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- Notify the Madison County Emergency Operations Center and Kentucky Emergency Management (KYEM).

*[401 KAR 34:040 Section 7]*

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

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

*[401 KAR 34:040 Section 7]*

## M.III.D.(6)(d) Affected Areas

The Emergency Coordinator shall ensure that, in the affected area 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

*[401 KAR 34:040 Section 7]*

## M.III.D.(6)(e) Evaluate Release

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

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

*[401 KAR 34:040 Section 7]*

## M.III.D.(6)(f) Secure Recovered Waste

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

*[401 KAR 34:040 Section 7]*

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## M.III.D.(6)(g) Environmental Emergency Written Report

The Permittee shall note in the Operating Record the time, date, and details of any incident that requires implementation of the Contingency Plan. Within fifteen (15) days after the incident, the Permittee shall submit a written report on the incident to the Hazardous Waste Branch 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 (for example, fire or explosion)
- Name, quantity, and concentration of materials, pollutant, or contaminant involved
- Precise location, circumstances, and cause
- The extent of injuries, if any
- An assessment of actual or potential hazards to human health or the environment, and daily efforts taken by the Permittee to control or mitigate, including monitoring data
- 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 34:040 Section 7, KRS 224.1-400, KRS 224.46-530]*

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

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

- A summary of the previous day's operations
- A 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 38:030 Section 3, KRS 224.46-530(1)(g)]*

## M.III.D.(6)(i) Memorandums of Agreement (MOA)

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

*[401 KAR 34:040 Section 3]*

## M.III.D.(6)(j) Monitoring During Halted Operations

If the facility stops operations in response to a fire, explosion, or release, the Emergency

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Coordinator shall ensure that monitoring occurs for leaks, pressure buildup, gas generation, or ruptures in the H-sampling Facility.

*[401 KAR 34:040 Section 7]*

## M.III.E. MANIFEST SYSTEM, RECORDKEEPING, AND REPORTING

### M.III.E.(1) Manifest System

See Entire Facility Section

### M.III.E.(2) Manifest Discrepancies

See Entire Facility Section

### M.III.E.(3) Operating Record

The Permittee shall maintain at the H-sampling Facility an operating record that describes the hazardous waste activities. The record shall include information as it becomes available, as listed in F.III.E.(3), as well as the following information:

- A log of all operating/processing hours, including the quantities of projectiles and DOT bottles received, and for each projectile or DOT bottle, the date(s) and times it was received, sampled, and transported away from the H-sampling Facility
- Records associated with any 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)
- Records and results of waste analyses and waste determinations performed
- Records of all spills and all Ring-offs (three consecutive alarms from a NRT instrument)
- Summary reports and details of all incidents that require implementing the contingency plan
- Records and results of inspections
- Records of quantities and date of each shipment of hazardous waste placed in a land disposal unit pursuant to 401 KAR 34:050 Section 4
- 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
- The Permittee shall retain on-site a copy of all notices, certifications, waste analysis data, and other documentation produced pursuant to this section for at least three years from the date that the waste that is the subject of such documentation was last sent to on-site or off-site treatment, storage, or disposal
- Any instances in which agent was confirmed in an EONC at the H-sampling Facility
- A summary of any QA/QC reliability problems experienced with the CAFS or NRT instruments at the CAFS during operations. This summary shall include, but not be limited to:
  - Identification of the monitor or control device experiencing the problem
  - Identification of the type of problem
  - Date the problem was experienced
  - Frequency of the problem

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- 1 - Corrective action implemented to correct the problem, and whether or not or to what degree the  
2 corrective action was successful.  
3

4 *[401 KAR 31:010, 401 KAR 34:020, 401 KAR 34:040 Section 7, 401 KAR 34:050 Section 4, 401 KAR*  
5 *34:290, 401 KAR 37:010 Section 7, KRS 224.46-530(1)(g), KRS 224.50-130(5)]*  
6

7 **M.III.E.(4) Records**

8 See Entire Facility Section  
9

10 **M.III.E.(5) Annual Report**

11 See Entire Facility Section  
12

13 **M.III.E.(6) Unmanifested Waste Report**

14 See Entire Facility Section  
15

16 **M.III.E.(7) Additional Reports**

17 *(This condition is in addition to F.III.E.(7))*  
18

19 **M.III.E.(7)(a) Immediate Notification**

20 The Permittee shall report to the Division any non-compliance with the Permit which may endanger  
21 human health or the environment. Any information shall be provided orally within two (2) hours  
22 from the time the Permittee becomes aware of the circumstances (Kentucky twenty-four (24) hours  
23 reporting number (800) 928-2380). This oral report shall include the following:  
24

- 25
- 26 • Information concerning release of any hazardous waste or hazardous constituents that may  
27 cause an endangerment to public drinking water supplies, including both surface water and  
28 groundwater used for public drinking water supply
  - 29 • Any information of a release or discharge of hazardous waste, or of a fire or explosion from the  
30 facility, that could threaten the environment or human health outside the facility
- 31

32 Non-compliance which requires immediate notification includes, but is not limited to:  
33

- 34 • A determination by the Emergency Coordinator that there is an imminent or actual release, fire,  
35 or explosion which could threaten human health or the environment
  - 36 • Any Environmental Release, including but not limited to, those defined by M.III.F.(3)
  - 37 • A confirmed exposure of an unprotected worker to mustard (H) agent exceeding the Short-Term  
38 Exposure Limit (STEL) defined in M.III.F.(2)
- 39

40 *[401 KAR 38:030 Section 1]*  
41

42 **M.III.E.(7)(b) Follow-up Reporting**

43 The Permittee shall provide the Division a written submission within five (5) days of the notification  
44 under Condition M.III.E.(7)(a).  
45  
46  
47

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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
- The period 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 38:030 Section 1]

M.III.F. MONITORING REQUIREMENTS

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

(RESERVED)

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

- When N003 waste is present at the H-sampling Facility, including periods of time when projectiles and DOT bottles are being loaded or removed, the Permittee shall continuously monitor airborne concentrations of agent to prevent an exposure exceeding Airborne Exposure Limits, to determine the appropriate level of PPE for workers, and to ensure that the general population is not at risk due to airborne agent concentrations.
- The Permittee shall operate agent monitoring systems in accordance with the H-sampling Permit Application, including the Site-Specific Air Monitoring Plan and Monitoring Location and Agent Category Table, Attachment N.
- The Permittee shall use a Near Real Time (NRT) actionable alert set point of 0.7 VSL for monitoring at the final NRT monitoring locations prior to discharge to the environment.
- Airborne and related exposure limits for mustard (H) agent are below.

Level	GPL <sub>(a)</sub>	WPL <sub>(b)</sub>	STEL <sub>(c)</sub>	VSL <sub>(d)</sub>	SEL/ASC <sub>(e)</sub>
Averaging Time	12 hrs.	12 hrs.	15 min	Variable	Variable
Limit (mg/m <sup>3</sup> )	0.00002	0.00027	0.003	0.003	0.03
Monitoring Method	Historic <sub>(f)</sub>	Historic	NRT <sub>(g)</sub>	NRT	NRT

(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

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- 1 (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  
2 an instrument using the shortest analytic cycle time practical to obtain accurate results. Since most NRT<sub>(b)</sub> cycle times are less than 15min  
3 (typically 5-6min), confirmed readings and durations are used to calculate whether the STEL has been reached or exceeded.
- 4 (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  
5 contamination for items, wastes, engineering controls systems (for example, filter beds and vestibules) and facilities under specific  
6 environmental conditions. VSL is the readout level of certain NRT monitors and the value is applied to process or operational monitoring as  
7 opposed to worker exposure.
- 8 (e) SEL is Source Emission Limit and ASC is Allowable Stack Concentration. These are vapor agent concentration values that are  
9 independent of time and are measured with NRT instruments.
- 10 (f) Historic monitoring is used when the sample analyzed represents an extended period of time and the results are not known until laboratory  
11 analysis is completed after the sampling event has been completed.
- 12 (g) NRT is Near Real-Time monitoring and is conducted with instruments that have the capability to collect, analyze, and report or display  
13 results within 15 minutes. They also provide audible and remote alarms when levels are detected at, or above, a specific alarm set point.

14  
15 *[401 KAR 34:250]*

## 16 M.III.F.(3) Environmental Releases

17  
18  
19 The Permittee shall operate the H-sampling Facility to prevent an environmental release of hazardous  
20 waste or hazardous waste constituents. The Permittee shall report an environmental release in  
21 accordance with Condition M.III.E.(7).

22  
23 An environmental release shall include but is not limited to the following:

- 24 • A confirmed mustard (H) agent detection equal to or greater than 0.7 VSL at the final NRT monitoring  
25 point of the glovebox CAFS, or any Ring-off at this monitoring location for which DAAMS confirmation  
26 is unavailable
- 27 • A confirmed mustard (H) agent detection equal to or greater than 0.7 VSL at the final NRT monitoring  
28 point of the EE CAFS, or any Ring-off at this monitoring location for which DAAMS confirmation is  
29 unavailable
- 30 • Otherwise releasing agent from the H-sampling Facility.

31  
32 The confirmed detection of an "environmental release" that may threaten human health or the  
33 environment shall require activation of the Contingency Plan contained in the H-sampling Permit  
34 Application.

35  
36 *[401 KAR 34:040, KRS 224.1-400(1)(b), KRS 224.1-400(4), KRS 224.50-130]*

## 37 M.III.F.(4) Inspection of Monitoring Equipment

38  
39  
40 The Permittee shall conduct daily inspections of monitoring equipment to ensure that the equipment is  
41 working properly. Inspections and maintenance shall ensure monitoring systems are meeting  
42 requirements of the Site-Specific Air Monitoring Plan. These inspection records shall be maintained as  
43 part of the facility Operating Record and made available for inspection by the Division.

44  
45 *[401 KAR 34:250 Section 3]*

## 46 M.III.G. CLOSURE & POST-CLOSURE

47  
48  
49 See Entire Facility Section

50  
51

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1 **M.III.H. FINANCIAL REQUIREMENTS**

2  
3 Not Applicable

4  
5 **M.III.I. USE AND MANAGEMENT OF CONTAINERS**

6  
7 **M.III.I.(1) Condition of Containers**

8  
9 If a container holding (non-munition) hazardous waste is not in good condition, including but not limited  
10 to severe rusting or apparent structural defects, or if it begins to leak, the Permittee shall transfer the  
11 hazardous waste from this container to a container that is in good condition.

12  
13 *[401 KAR 34:180 Section 2]*

14  
15 **M.III.I.(2) Compatibility of Waste with Containers**

16  
17 The Permittee shall use containers made of, or lined with, materials which do not react with, and are  
18 otherwise compatible with, the hazardous waste to be stored so that the ability of the container to  
19 contain the waste is not impaired.

20  
21 *[401 KAR 34:180 Section 3]*

22  
23 **M.III.I.(3) Management of Containers**

24  
25 **M.III.I.(3)(a) Container Storage Area**

26  
27 Any container storage area within the H-sampling Facility shall be maintained and operated in  
28 accordance with 401 KAR 32:030, Section 5, and to allow compliance with the inspection and  
29 container management requirements described in Procedures to Prevent Hazards, Attachment F.

30  
31 *[401 KAR 32:030 Section 5, 401 KAR 34:030, 401 KAR 34:180]*

32  
33 **M.III.I.(3)(b) Container Total Volume**

34  
35 Not Applicable

36  
37 **M.III.I.(3)(c) Permitted Container Storage Unit and Volume**

38  
39 Not Applicable

40  
41 **M.III.I.(3)(d) Container Waste Restriction**

42  
43 The Permittee shall provide secondary containment for any hazardous waste container that  
44 contains free liquids while in a less than 90 day accumulation area. *[KRS 224.46-530(1)(g)]*

45

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1 M.III.I.(3)(e) Performance Oriented Packaging (POP)

2  
3 The Permittee shall maintain non-munition, hazardous waste only in containers that meet  
4 Department of Transportation (DOT) Performance Oriented Packaging (POP) standards. Any  
5 waste transported off-site shall be packaged according to POP standards.  
6

7 *[401 KAR 32:030 Section 1]*

8  
9 M.III.I.(3)(f) Storage of Non-Hazardous Materials

10 Not Applicable

11  
12 M.III.I.(3)(g) Container Closed

13  
14 A container holding any hazardous waste shall always be closed during storage except when it is  
15 necessary to add or remove waste.  
16

17  
18 *[401 KAR 34:180 Section 4]*

19  
20 M.III.I.(3)(h) Container Handling

21  
22 A container holding hazardous waste shall not be opened, handled, or stored in a manner which  
23 may rupture the container or cause it to leak. Mustard (H) Agent Projectiles and DOT Bottles  
24 located anywhere within the H-sampling Facility shall be moved only in emergencies or as  
25 identified in Process Information, Attachment D.  
26

27 *[401 KAR 34:180 Section 4, KRS 224.50-130(5)]*

28  
29 M.III.I.(3)(i) Container Labeling

- 30  
31
- 32 • Non-munition containers shall be labeled in accordance with applicable regulations.
  - 33 • Overpacks in which hazardous waste are placed shall be labeled "Hazardous Waste" and  
34 labeled with the date that hazardous waste is added. Additional labeling shall clearly identify the  
35 content of the overpack. Hazardous waste containers shall be positioned so that labels are  
36 visible and easy to inspect.

37  
38 *[401 KAR 32:030 Sections 2 and 5, KRS 224.46-530(1)(g)]*

39  
40 M.III.I.(3)(j) Maximum Free Liquid

41 Not Applicable

42  
43  
44 M.III.I.(4) Container Inspections

- 45
- 46 • Permittee shall conduct weekly inspections for leaking containers and deterioration of containers  
47 caused by corrosion or other factors
  - 48 • Permittee shall conduct daily inspections of the EE and PDS for deterioration.

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

*[401 KAR 34:180 Section 5]*

**M.III.I.(5) Containment System**

Not Applicable

**M.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 34:180 Section 7]*

**M.III.I.(7) Special Requirements for Incompatible Wastes**

Incompatible wastes, or incompatible wastes and materials, shall not be placed in the same container. Hazardous waste shall not be placed in an unwashed container that previously held an incompatible waste or material. A storage container holding a 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 34:180 Section 8]*

**M.III.I.(8) Removal at Closure**

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

*[401 KAR 34:180 Section 9]*

M.III.J. TANK SYSTEMS	(RESERVED)
M.III.K. SURFACE IMPOUNDMENTS	(RESERVED)
M.III.L. WASTE PILES	(RESERVED)
M.III.M. LAND TREATMENT	(RESERVED)
M.III.N. LANDFILLS POST CLOSURE REQUIREMENTS	(RESERVED)
M.III.O. INCINERATORS/BIF	(RESERVED)
M.III.P.	(RESERVED)
M.III.Q.	(RESERVED)
M.III.R.	(RESERVED)
M.III.S. SPECIAL PROVISIONS FOR CLEANUP	(RESERVED)
M.III.T.	(RESERVED)
M.III.U.	(RESERVED)
M.III.V.	(RESERVED)

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(RESERVED)

1 M.III.W. DRIP PADS

2  
3 M.III.XA. MISCELLANEOUS UNIT "A": MUSTARD AGENT (H) SAMPLING OPERATIONS

4  
5 M.III.XA.(1) General Requirements

6  
7 The Permittee shall construct, operate, maintain, and inspect the H-sampling Facility as specified in  
8 Process Information, Attachment D, and Procedures to Prevent Hazards, Attachment F.

9  
10 *[401 KAR 34:250, 401 KAR 34:350]*

11  
12 M.III.XA.(2) Vapor Containment Requirements

- 13  
14 • The EE shall provide vapor containment to prevent the uncontrolled release of agent to the  
15 environment.  
16 • When N003 waste is present in the EE or PDS, a carbon filtration unit with multiple carbon banks  
17 shall be provided in continuous operation to maintain the interior of the EE and PDS at a negative  
18 pressure and prevent the uncontrolled release of the mustard (H) agent vapors to the environment.

19  
20 *[401 KAR 34:250]*

21  
22 M.III.XA.(3) Operating Requirements

23  
24 M.III.XA.(3)(a) Hours of Operation

25  
26 Not Applicable

27  
28 M.III.XA.(3)(b) Waste Feed Limits

29  
30 Not Applicable

31  
32 M.III.XA.(3)(c) Operating Conditions

- 33  
34 • Sampling of mustard (H) agent-filled projectiles and DOT bottles shall occur in accordance  
35 with the Permit Application.  
36 • No more than one mustard (H) agent-filled item (projectile or DOT bottle) shall be present in  
37 the glovebox at one time.  
38 • Except in emergencies, once a mustard (H) agent-filled item has been unloaded from an  
39 EONC, sampling operations shall continue until the item has been placed in an overpack.  
40 • After a mustard (H) agent-filled projectile or DOT bottle has been sampled, it shall not be  
41 removed from the EE except in an overpack and during daylight hours.  
42 • No more than four mustard (H) agent-filled items shall be present in the H-sampling Facility at  
43 one time.  
44 • A mustard (H) agent sample that has been extracted from a projectile or DOT bottle shall be  
45 carried only in a container that is closed and monitored to the WPL before the container is  
46 removed from the EE.  
47 • Loading and unloading of EONCs shall occur only during daylight hours.  
48

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[401 KAR 34:030, 401 KAR 34:250, KRS 224.46-530(1)(g)]

M.III.XA.(3)(d) Performance Standards

- Agent emissions shall comply with the requirements in M.III.F.(3), Environmental Release.
- Flooring of the EE and PDS shall be free of cracks and gaps and be sufficiently impervious to contain leaks and spills until the collected material is removed.
- The operation of the H-sampling Facility shall continuously ensure protection of human health and the environment.

[401 KAR 34:250]

M.III.XA.(4) Systemization

Not Applicable

M.III.XA.(5) Test Plan

Not Applicable

M.III.XA.(6) Agent Operations Ramp-up Period

Not Applicable

M.III.XA.(7) Demonstration Test Plan

Not Applicable

M.III.XA.(8) Demonstration Test Data Submittal

Not Applicable

M.III.XA.(9) Inspections

- Inspections of the H-sampling Facility shall be conducted in accordance with Procedures to Prevent Hazards, Attachment F.
- Equipment or structure deterioration or malfunction identified during inspection shall be promptly remedied to ensure the non-compliance does not cause an environmental or human health hazard.

[401 KAR 34:020 Section 6, 401 KAR 34:250 Section 3]

M.III.XA.(10) Maintenance

Not Applicable

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1 M.III.XB. MISCELLANEOUS UNIT "B": MOVEMENT AS TREATMENT

2  
3 M.III.XB.(1) Definition

4  
5 *The Commonwealth of Kentucky has promulgated a revised environmental statute, which states the*  
6 *following: "In addition to the definition of the term as defined in this chapter, the term "treatment", as*  
7 *used in this section, shall include the manual or mechanical handling of the chemical compounds listed*  
8 *in subsection (2) of this section and of any munitions containing the compounds during the processing*  
9 *of munitions to remove the compounds, to separate munitions components, and to otherwise prepare*  
10 *the components and compounds for destruction, neutralization, dismantling, or decommissioning. The*  
11 *term "treatment" shall not include the handling, movement, or overpacking of containers or munitions*  
12 *containing a compound listed in subsection (2) of this section within the fenced boundaries of an area*  
13 *used for the storage of those munitions if:*

14 *A plan for the handling, movement, or overpacking is submitted and approved by the cabinet, after*  
15 *public notice and opportunity to be heard, before the handling, movement, or overpacking occurs;*

16 *or*

17 *An emergency has occurred and the handling, movement, or overpacking is necessary to protect*  
18 *human health, safety, or the environment, if a report describing the handling, movement, or*  
19 *overpacking is submitted to the cabinet as soon as possible after the emergency is abated."*

20  
21 Based upon the Kentucky Revised Statutes, transportation of mustard (H) agent-filled items (i.e.,  
22 projectiles, overpacks, and DOT 3A bottles) is regulated as treatment under existing Commonwealth of  
23 Kentucky environmental regulations [KRS 224.50-130(5)] and shall comply with applicable Kentucky  
24 and Federal hazardous waste treatment regulations.

25  
26 *[KRS Chapter 224.50-130(5)]*

27  
28 M.III.XB.(2) Movement Requirements

- 29  
30 • Movement of mustard (H) agent-filled projectiles and DOT bottles from the chemical HWSU into  
31 EONCs in the chemical storage area is addressed under Condition C.III.X.(2) in the Chemical  
32 Storage Section of this Permit.
- 33 • Movement of mustard (H) agent-filled projectiles and DOT bottles in enhanced onsite containers  
34 (EONCs) from the chemical HWSU aprons in the chemical storage area or from the Explosive  
35 Destruction Technology (EDT) Service Magazine (ESM) to the H-sampling Facility, and from the H-  
36 sampling Facility to the EDT Facility, is addressed under Condition E.III.XB.(2) in the Explosive  
37 Destruction Technology Section of this Permit.
- 38 • Movement of mustard (H) agent-filled projectiles and DOT bottles within the H-sampling Facility shall  
39 be conducted in accordance with the Permit Application.

40  
41 *[KRS 224.50-130(5)]*

42  
43 M.III.XB.(2)(a) Use of Enhanced Onsite Containers (EONCs)

44  
45 Not Applicable

46

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1 M.III.XB.(2)(b) Monitoring of the EONCs

2  
3 Air monitoring of the stockpiled projectiles and DOT bottles within an EONC shall be conducted  
4 prior to opening the EONC at the H-sampling Facility. Monitoring is to determine if any of the  
5 projectiles or DOT bottles leaked during transportation. If air monitoring detects mustard (H)  
6 agent within the EONC, the EONC shall not be opened until it is within engineering controls.

7  
8 *[KRS 224.50-130(5), 401 KAR 34:250 Sections 2 and 3]*

9  
10 M.III.Y.

(RESERVED)

11 M.III.Z.

(RESERVED)

12  
13 M.III.AA. AIR EMISSION STANDARDS FOR PROCESS VENTS

14 See Entire Facility Section

15  
16  
17 M.III.BB. AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

18 See Entire Facility Section

19  
20  
21 M.III.CC. AIR EMISSION STANDARDS FOR TANKS, SURFACE IMPOUNDMENTS AND CONTAINERS

22 See Entire Facility Section

23  
24  
25 M.III.DD. CONTAINMENT BUILDINGS

(RESERVED)

26 M.III.EE. HAZARDOUS WASTE MUNITIONS AND EXPLOSIVES STORAGE

(RESERVED)

27  
28  
29 PART IV  
30 CORRECTIVE ACTION FOR SWMUS AND AOCS

31 See Entire Facility Section

32  
33  
34  
35 PART V  
36 REFERENCED ATTACHMENTS

37  
38  
39 M.V.A. REFERENCED ATTACHMENTS

40  
41 M.V.A.(1) Attachment A, Part A (Mustard Agent (H) Sampling Operations)

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

43  
44 *[KRS 224.46.530]*

45  
46

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1 M.V.A.(2) Attachment B, Facility Description (Mustard Agent (H) Sampling Operations)

2  
3 Part B of the Permit Application, Facility Description, is incorporated as Attachment B of this permit.

4  
5 *[KRS 224.46-530]*

6  
7 M.V.A.(3) Attachment C, Waste Analysis Plan (Mustard Agent (H) Sampling Operations)

8  
9 Part C of the Permit Application, Waste Analysis Plan, is incorporated as Attachment C of this permit.

10  
11 *[KRS 224.46-530]*

12  
13 M.V.A.(4) Attachment D, Process Information (Mustard Agent (H) Sampling Operations)

14  
15 Part D of the Permit Application, Process Information, is incorporated as Attachment D of this permit.

16  
17 *[KRS 224.46-530]*

18  
19 M.V.A.(5) Referenced Attachments

(RESERVED)

20  
21 M.V.A.(6) Attachment F, Procedures to Prevent Hazards (Mustard Agent (H) Sampling Operations)

22  
23 Part F of the Permit Application, Procedure to Prevent Hazards, is incorporated as Attachment F of this  
24 permit.

25  
26 *[KRS 224.46-530]*

27  
28 M.V.A.(7) Attachment G, Contingency Plan (Mustard Agent (H) Sampling Operations)

29  
30 Part G of the Permit Application, Facility Contingency Plan, is incorporated as Attachment G of this  
31 permit.

32  
33 *[KRS 224.46-530]*

34  
35 M.V.A.(8) Attachment H, Personnel Training (Mustard Agent (H) Sampling Operations)

36  
37 Part H of the Permit Application, Facility Personnel Training, is incorporated as Attachment H of this  
38 permit.

39  
40 *[KRS 224.46-530]*

41  
42 M.V.A.(9) Attachment I, Closure Plans, Post Closure Plans, and Financial Requirements (Mustard Agent  
43 (H) Sampling Operations)

44  
45 Part I of the Permit Application, Closure Plans, Post Closure Plans, and Financial Requirements, is  
46 incorporated as Attachment I of this permit.

47  
48 *[KRS 224.46-530]*

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**M.V.A.(10) Attachment J, Other Federal Laws (Mustard Agent (H) Sampling Operations)**

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

*[KRS 224.46-530]*

**M.V.A.(11) Attachment K, Waste Minimization (Mustard Agent (H) Sampling Operations)**

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

*[KRS 224.46-530]*

**M.V.A.(12) Attachment L, Signatures (Mustard Agent (H) Sampling Operations)**

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

*[KRS 224.46-530]*

**M.V.A.(13) Attachment M, Multi-Pathway Human Health Risk Assessment (MPHHRA) (RESERVED)**

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**M.V.A.(14) Attachment N, H-Sampling Facility Monitoring Locations**

Monitoring Location	NRT Location No.	Location Description	MINICAMS Unit Present?	Function of DAAMS Unit	Reason for Monitoring	Compliance Point?
1	1	Glove box	Yes	NRT Confirmation	Workspace monitoring	No
2	2	Unpack Area/Sample Table	Yes	NRT Confirmation	Workspace monitoring, Headspace monitoring	No
3	3-1 3-2 3-3 3-12	Filter 1, Midbed 1 Filter 1, Midbed 2 Filter 1, Midbed 3 Filter 1, Exhaust	Yes	NRT Confirmation	Verify midbed integrity, Environmental protection	Yes (At final monitoring point)
4	4-1 4-2 4-3 4-12	Filter 2, Midbed 1 Filter 2, Midbed 2 Filter 2, Midbed 3 Filter 2, Exhaust	Yes	NRT Confirmation	Verify midbed integrity, Environmental protection	Yes (At final monitoring point)
5	5	PDS	Yes	NRT Confirmation (Available)	Monitoring for potentially exposed workers and chemical casualties	No
6	N/A	Historical workspace at CAFS inlet	No	Historical Monitoring	Historical monitoring of the EE	No
7	N/A	Treaty Trailer	No	Historical Monitoring	Historical WPL monitoring	No

**PART VI  
WASTE MINIMIZATION**

See Entire Facility Section

1  
2

3  
4  
5  
6  
7  
8  
9