MEMORANDUM

SUBJECT: Recommendation to issue the Class 3 modification to the Hazardous and Solid Waste Amendments (HSWA) Portion of the Resource Conservation and Recovery Act (RCRA) Permit
Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP)
Blue Grass Army Depot
Richmond, Kentucky
EPA ID Number KY8 213 820 105

FROM: Terri Crosby-Vega
Materials and Waste Management Branch

THRU: Meredith Anderson, Chief Material Management Branch
Carol J. Monell, Deputy Director
Resource Conservation and Restoration Division

TO: Susan E. Hansen, Acting Director
Resource Conservation and Restoration Division

ISSUE

The modified Hazardous and Solid Waste Amendments (HSWA) portion of the Resource Conservation and Recovery Act (RCRA) Permit for the Blue Grass Army Depot in Richmond, Kentucky is attached for your approval and signature. The “Response to Comments and Decision Document” is also attached for your signature.

BACKGROUND

Staff has reviewed a permit modification request submitted by the U.S. Department of the Army and Bechtel Parsons Blue Grass (BPBG), where they are seeking a modification to their existing Hazardous and Solid Waste Amendments (HSWA) Permit for the BGCAPP Main Plant. The Main Plant proposes to treat nerve agents GB and VX via chemical neutralization, followed by Supercritical Water Oxidation (SCWO). The proposed chemical weapons destruction is anticipated to start in the late-2019 or early-2020 timeframe.

The Kentucky Department for Environmental Protection (KDEP) has issued a Research, Development and Demonstration (RD&D) Permit for hazardous waste operations, and the proposed modified EPA HSWA Permit will be a companion permit to the RD&D Permit. The Commonwealth of Kentucky does not yet have federal authorization to implement the organic air emission requirements of the Resource
Conservation and Recovery Act set forth at Title 40 of the Code of Federal Regulations, for Subparts AA, BB and CC. Until final authorization has been granted to KDEP by the EPA, the responsibility for issuing such permits to regulated entities lies with the EPA.

The EPA HSWA Permit was originally issued for the BGCAPP Explosive Destruction Technology (EDT) facility on October 31, 2016 and imposed certain permit conditions for organic air emissions. The proposed draft HSWA Permit modification includes additional organic air emissions standards associated with the proposed treatment of GB and VX nerve agents at the Main Plant. The modification also includes land disposal restrictions.

The draft permit addressing the 1984 HSWA requirements was public noticed beginning August 15, 2018, and ending October 1, 2018. Although no comments were received during the EPA public notice period, one comment was received during the public notice required upon submittal of the modification application. The response to this comment is addressed in the attached “Response to Comments and Decision Document.” The permit will become effective immediately upon issuance pursuant to 40 CFR § 124.15.

RECOMMENDATION

It is recommended that the Region's final decision be to issue this permit modification. The Notice of HSWA Permit Modification, the Decision to Modify Permit transmittal letter, the Final HSWA Permit, and the Response to Comments are attached for your signature.

Attachments
1. Notice of HSWA Permit Modification
2. Decision to Modify Permit transmittal letter
3. Final HSWA Permit
4. Response to Comments
CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Colonel Norbert A. Fochs
Commander
Blue Grass Army Depot
431 Battlefield Memorial Parkway
Richmond, Kentucky 40475-5060

Re: Decision to Modify the Hazardous and Solid Waste Amendments
Portion of the Resource Conservation and Recovery Act Permit
Blue Grass Chemical Agent-Destruction Pilot Plant (BGCPP)
Blue Grass Army Depot (BGAD), Richmond, Kentucky
EPA ID No. KY8 213 820 105

Dear Colonel Fochs:

Please find enclosed the final Hazardous and Solid Waste Amendments (HSWA) Permit modification issued to the United States Department of the Army (USDOA) (owner) and Bechtel Parsons Blue Grass-Joint Venture (BPBG-JV) (operator) for the BGAD facility in Richmond, Kentucky. Because the Commonwealth of Kentucky is not yet authorized to implement 40 C.F.R. Part 264, Subparts AA, BB and CC, commonly referred to as the Resource Conservation and Recovery Act (RCRA) organic air emission standards, the EPA must issue a companion HSWA Permit in conjunction with the Commonwealth of Kentucky Permit for BGAD’s Main Plant operations. The Commonwealth Permit and the EPA HSWA Permit will constitute the full RCRA Permit for BGAD’s operations.

The public notice for the modified draft HSWA Permit was held from August 15, 2018 through October 1, 2018. Although no comments were received during the public comment period on the draft Permit, one comment was received during the required public notice upon submittal of the application. The HSWA Permit is effective immediately upon issuance, in accordance with 40 C.F.R. § 124.15.

Enclosed is a summary of requirements and procedures to request an administrative review of this Permit under 40 C.F.R. § 124.19. If you wish to request a review, you must submit such a request within thirty (30) days from your receipt of this letter in accordance with the procedures set forth in 40 C.F.R. § 124.19.

All applicable RCRA regulations in effect at the time of Permit issuance and referenced in the HSWA Permit shall be complied with throughout the life of the Permit, unless there are requests for modifications of the Permit in accordance with 40 C.F.R. §§ 270.41 and 270.42.
If you have any questions or comments concerning the final Permit or the appeal procedures, please feel free to contact Terri Crosby-Vega, Environmental Engineer for the Materials and Waste Management Branch, at (404) 562-8497 or by electronic mail at crosby-vega.terri@epa.gov, or Colleen E. Michuda, Senior Attorney, at 404-562-9865 or by electronic mail at michuda.colleen@epa.gov.

Sincerely,

Susan E. Hansen
Acting Director
Resource Conservation and Restoration Division

Enclosures

1. Final HSWA Permit
2. Response to Comments
3. Summary of Requirements for Notice of Appeal/Petition for Review
4. Notice of HSWA Permit Modification

cc April Webb, KDEP
CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Ron Hink
BGCAPP Project Manager
Bechtel Parsons Blue Grass
830 Eastern Bypass, Suite 106
Richmond, Kentucky 40475

Re: Decision to Modify the Hazardous and Solid Waste Amendments
Portion of the Resource Conservation and Recovery Act Permit
Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP)
Blue Grass Army Depot (BGAD), Richmond, Kentucky
EPA ID No. KY8 213 820 105

Dear Mr. Hink:

Please find enclosed the final Hazardous and Solid Waste Amendments (HSWA) Permit modification issued to the United States Department of the Army (USDOA) (owner) and Bechtel Parsons Blue Grass-Joint Venture (BPBG-JV) (operator) for the BGAD facility in Richmond, Kentucky. Because the Commonwealth of Kentucky is not yet authorized to implement 40 C.F.R. Part 264, Subparts AA, BB and CC, commonly referred to as the Resource Conservation and Recovery Act (RCRA) organic air emission standards, the EPA must issue a companion HSWA Permit in conjunction with the Commonwealth of Kentucky Permit for BGAD’s Main Plant operations. The Commonwealth Permit and the EPA HSWA Permit will constitute the full RCRA Permit for BGAD’s operations.

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If you have any questions or comments concerning the final Permit or the appeal procedures, please feel free to contact Terri Crosby-Vega, Environmental Engineer for the Materials and Waste Management Branch, at (404) 562-8497 or by electronic mail at crosby-vega.terri@epa.gov, or Colleen E. Michuda, Senior Attorney, at 404-562-9865 or by electronic mail at michuda.colleen@epa.gov.

Sincerely,

[Signature]

Susan E. Hansen
Acting Director
Resource Conservation and Restoration Division

Enclosures

1. Final HSWA Permit
2. Response to Comments
3. Summary of Requirements for Notice of Appeal/Petition for Review
4. Notice of HSWA Permit Modification

cc: April Webb, KDEP
U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 4

RESPONSE TO COMMENTS
Resource Conservation and Recovery Act (RCRA)
Hazardous and Solid Waste Amendments (HSWA)
Class 3 Permit Modification
for
Blue Grass Army Depot
Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP)
EPA I.D. KY 213 820 105

PUBLIC NOTICE Activities

The United States Department of the Army (USDOA) [owner] and Bechtel Parsons Blue Grass (BPBG) [operator] submitted a Class 3 Permit Modification (Modification) on October 12, 2017. Upon submittal of the Modification request, a public notice period was held from October 18, 2017 ending December 17, 2017. A public meeting was held on November 2, 2017 to provide an overview of the Modification. One comment was received during this public notice period.

A public comment period was set from August 15, 2018 to October 1, 2018 on the EPA’s draft HSWA Modification. The public notice was emailed out to 228 recipients, mailed in hard copy to 800 recipients, and published in several local newspapers: Lexington Herald Leader, Richmond Register, and Berea Citizen. A public service announcement was aired over two of the local radio stations WIRV-AM and V-99.3-FM. The public notice, Fact Sheet, and supporting documents were available for review at the following locations:

- Madison County Public Library- Richmond Branch
  507 West Main Street
  Richmond, Kentucky 40475

- Madison County Public Library- Berea Branch,
  319 E. Chestnut
  Berea, Kentucky 40403

- John G. Crabbe Library- Eastern Kentucky University
  521 Lancaster Avenue
  Richmond, Kentucky 40475

- Chemical Stockpile Outreach Office
  1000 Commercial Drive, Suite 2,
  Richmond, Kentucky 40475

- Berea College Hutchins Library
  100 Campus Drive
  Berea, Kentucky 40404

- Estill County Public Library
  246 Main Street
  Irvine, Kentucky 40336.

The public notice, Fact Sheet, and draft Permit were also made available on the EPA Region 4 website listed in the public notice. A public hearing was not held nor was a public hearing requested by the public.

RESPONSE TO COMMENTS

Upon submittal of the Modification request, a public notice period was held from October 18, 2017 ending December 17, 2017. One comment was received during this public notice period.
Comment- “Crosby, I do not understand why there is a request to remove certain law standards of the chemicals on post? There are people living here with families and we would like for our home environment to be safe. The property value is a big concern because you can not even sell because no one wants to live where there is a "little" nerve gas in the air. These gases were used in war to defeat and render the enemy in capable of fighting or death. We are not the governments enemy. This is our home. Please help the citizens and protect us from these chemical weapons. As of now they put off shots and you can see the black smoke rolling. It shakes our foundations and rattles our windows. Chemical warfare is not to be realist into our community.”

Response- The Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) is being constructed by the Department of Defense and the Department of the Army to destroy chemical munitions stored at the Blue Grass Army Depot (BGAD). The destruction of the chemical munitions is being performed in accordance with the 1993 Chemical Weapons Convention.

The current HWSA Permit includes general requirements and organic air emissions requirements for operation of BGCAPP. The HSWA Permit, issued by the EPA in conjunction with the Commonwealth of Kentucky Hazardous Waste Management Permit, requires the BGCAPP to comply with all applicable state and federal hazardous waste regulations. The EPA HSWA Permit specifically regulates hazardous organic air emissions for the facility under 40 CFR Part 264, Subpart AA, Subpart BB, and Subpart CC.

No open burning of chemical munitions is allowed at the BGCAPP at any time. All treatment will be conducted inside the facility buildings. As the Kentucky Division of Waste Management has authority to issue the RCRA permits in the Commonwealth of Kentucky, should you have additional concerns regarding the operations at the BGAD facility, please contact Dale Burton of the Blue Grass Army Depot Section (Dale.Burton@ky.gov).
NOTICE OF HSWA PERMIT MODIFICATION

Facility Name: Blue Grass Army Depot
EPA I.D. Number: KY8 213 820 105
Location: Richmond, Kentucky
Facility Owner and Operator:

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

Operator: Bechtel Parsons Blue Grass – Joint Venture
830 Eastern By-Pass, Suite 106
Richmond, Kentucky 40475

After due consideration of the facts applicable to the above-named facility as they appear in the administrative record and the requirements and policies expressed in the Resource Conservation and Recovery Act (RCRA) and appropriate regulations, I determine that the Class 3 Permit modification for the Hazardous and Solid Waste Amendments (HSWA) portion of the RCRA Permit should be issued. One comment was received during the public comment period on the submittal of the Class 3 Permit modification; however, no comments were received during the public comment period concerning the draft Permit, which was held from August 15, 2018 through October 1, 2018.

The administrative record with respect to this determination is maintained at the Agency’s office, 61 Forsyth Street, SW, Atlanta, Georgia, 30303, and is available for public inspection between the hours of 9:00 a.m. and 3:00 p.m., Monday through Friday. For further information on this Permit action, contact Terri Crosby-Vega, Environmental Engineer, at (404) 562-8497 or at the above address.

Date: 11/8/18

Susan E. Hansen
Acting Director
Resource Conservation and Restoration Division

Internet Address (URL) • http://www.epa.gov
Recycled/Recyclable • Printed with Vegetable Oil Based Inks on Recycled Paper (Minimum 30% Postconsumer)
Any person who filed comments on the draft permit or permit modification, or participated in the public hearing on the draft permit or permit modification, may petition the Environmental Appeals Board to review any condition of the final permit decision. A person who did not file comments or participate in the public hearing on the draft permit or permit modification may not petition for administrative review, except concerning those changes made from the draft to the final permit or permit modification (e.g., new or amended permit conditions that were not included in the draft document).

The petition must follow the guidelines set forth in 40 C.F.R. § 124.19, including, but not limited to, the following:

1. The petition must be filed within 30 days after the Region serves notice of the final permit decision.

2. The petition must identify the contested permit condition or other specific challenge to the permit decision. The petition must demonstrate that each challenge to the permit decision is based on:
   a. A finding of fact or conclusion of law that is clearly erroneous, or
   b. An exercise of discretion or an important policy consideration that the Environmental Appeals Board should, in its discretion, review.

3. The petition must demonstrate, with a specific citation to the administrative record, that the issue being raised was raised during the public comment period, or explain why the issue was not required to be raised. If the petition raises an issue that the Regional Administrator addressed in the response to comments, then the petitioner must provide a citation to the relevant comment and response and explain why the Regional Administrator's response was clearly erroneous or otherwise warrants review.

4. The petition must specifically identify in the caption the permit applicant, the permitted facility, and the permit number; must be signed by the person filing the petition; and must indicate the signer's name, address, and telephone number, as well as an email address, and facsimile number, if any.

5. The petition may not exceed 14,000 words or 30 pages, unless otherwise ordered by the Environmental Appeals Board, and it must comply with the other content and form requirements set forth at 40 C.F.R. § 124.19(d).

6. The petition must be filed either electronically (using the Environmental Appeals Board's electronic filing system), by mail, or by hand delivery.
   a. **By Mail:** The petition (an original and two copies) and a cover letter that complies with the requirements of 40 C.F.R. § 124.19(i)(2)(ii) must be delivered by U.S. Postal Service to the Clerk of the Environmental Appeals Board at the following address:
b. **By Hand or Courier (including deliveries by U.S. Express Mail):** The petition (an original and two copies) and a cover letter that complies with the requirements of 40 C.F.R. § 124.19(i)(2)(iii) must be delivered to the Clerk of the Environmental Appeals Board at the following address:

U.S. Environmental Protection Agency  
Environmental Appeals Board  
EPA East Building  
1201 Constitution Avenue, NW, Room 3334  
Washington, D.C. 20004

7. A copy of the Petition should also be served on the permit applicant (if the applicant is not the petitioner), and the Region 4 Regional Administrator at the following address:

U. S. Environmental Protection Agency  
Region 4  
61 Forsyth Street, SW  
Atlanta, Georgia 30303

8. A certificate of service that complies with 40 C.F.R. § 124.19(i)(4) must be included with each filed document.
U.S. Environmental Protection Agency Portion of the
Resource Conservation & Recovery Act Permit
Pursuant to the Hazardous & Solid Waste Amendments
Blue Grass Army Depot
EPA I.D. Number: KY8-213-820-105

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

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

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

This Permit, in conjunction with Hazardous Waste Management Permit No. KY8-213-820-105 issued by the
Commonwealth of Kentucky, constitutes the full RCRA Permit for this Facility. The Permittee, pursuant to this Permit,
shall be required to comply with the organic air emissions standards and land disposal restrictions applicable to the
Facility, subject to the terms, conditions, and limitations required herein. This Permit also requires the Permittee to
comply with all RCRA regulations applicable to the Facility.

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

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

This Permit is effective October 31, 2016 and shall remain in effect for ten (10) years until October 31, 2026 unless
revoked and reissued, or terminated under 40 C.F.R. § 270.41 and § 270.43, or continued in accordance with 40 C.F.R.
§ 270.51(a). All obligations for performance of HSWA provisions required under this Permit are in effect until deemed
complete by the Regional Administrator.

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

October 31, 2016
Issued Date
11/18/18
Date Last Modified

Susan E. Hansen, Acting Director
Resource Conservation and Restoration Division
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PART I. STANDARD CONDITIONS

I.A. Effect of Permit

[40 C.F.R. § 270.4]

This Permit is the Hazardous & Solid Waste Amendments (HSWA) portion of the Resource Conservation & Recovery Act (RCRA) Permit (this Permit) for the Facility and contains federal permit conditions for all HSWA provisions applicable to the Facility for which the Commonwealth of Kentucky is not yet authorized. The Permitee has also been issued a Hazardous Waste Management Permit (Commonwealth RCRA Permit) (Permit Number: KY8-213-820-105) covering all provisions of RCRA for which the Commonwealth of Kentucky has been authorized. This Permit, together with the Commonwealth RCRA Permit, shall constitute the complete RCRA Permit for the Facility.

The Permitee is hereby allowed to store and treat hazardous waste at the Facility in accordance with this Permit. Any hazardous waste activity which requires a permit, and is not authorized by either this Permit or the Commonwealth RCRA Permit, is prohibited.

Pursuant to 40 C.F.R. § 270.4, compliance with this Permit constitutes compliance, for purposes of enforcement, with Subtitle C of RCRA, only for those requirements and conditions specifically set forth in this Permit. The Permitee must also comply with the Commonwealth RCRA Permit, all applicable requirements of 40 C.F.R. Parts 260, 261, 262, 263, 273, and 279, and all applicable self-implementing HSWA provisions that take effect after issuance of this Permit.

Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under Sections 3004(u), 3004(v), 3008(a), 3008(c), 3008(h), 3007, 3013, or 7003 of RCRA, Sections 104, 106(a), or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq., commonly known as CERCLA), or any other law providing for protection of public health or the environment.

Should a discrepancy exist between any condition in this Permit or the Commonwealth RCRA Permit and an item in the Approved Permit Application, the conditions and requirements in this Permit and the Commonwealth RCRA Permit shall take precedence.

I.B. Stays of Contested Permit Conditions (Severability)

[40 C.F.R. § 124.16]

As specified in 40 C.F.R. § 124.16, if there is a request for review of this Permit, the contested Permit conditions shall be stayed. Uncontested conditions which are not severable from those contested shall also be stayed together with the contested conditions. All other conditions of the Permit become fully effective and enforceable thirty (30) calendar days after the Regional Administrator notifies the Environmental Appeals Board, the Permitee and all other interested parties of this Permit’s uncontested (and severable) conditions.
I.C. Conditions Applicable to All Permits
[40 C.F.R. § 270.30]

I.C.1. Duty to Comply
[40 C.F.R. §§ 270.30(a) & 270.61]

The Permittee must comply with all conditions of this Permit and the Approved Permit Application, except that the Permittee need not comply with the conditions of this Permit to the extent and for the duration such noncompliance is authorized in an emergency permit (See 40 C.F.R. § 270.61). Any Permit noncompliance, except under the terms of an emergency permit, constitutes a violation of RCRA and is grounds for enforcement action, permit termination, revocation and reissuance, modification or denial of a permit renewal application.

I.C.2. Duty to Reapply
[40 C.F.R. §§ 270.10(b) and § 270.30(b)]

I.C.2.a. If the Permittee will continue an activity allowed or required by this Permit after the expiration date of this Permit, the Permittee must apply for permit renewal.

I.C.2.b. The Permittee shall submit a complete application for permit renewal per 40 C.F.R. § 270.30(b), at least one hundred eighty (180) calendar days before this Permit expires, unless permission for a later date has been granted in writing by the Regional Administrator.

I.C.3. Need to Halt or Reduce Activity Not a Defense
[40 C.F.R. § 270.30(c)]

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.

I.C.4. Duty to Mitigate
[40 C.F.R. § 270.30(d)]

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

I.C.5. Proper Operation and Maintenance
[40 C.F.R. § 270.30(c)]

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve and maintain compliance with the conditions of this Permit.
I.C.6. Permit Actions  
[40 C.F.R. §§ 124.5, 270.4(a), 270.30(f), 270.41, 270.42, and 270.43]

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

I.C.7. Property Rights  
[40 C.F.R. § 270.30(g)]

Issuance of this RCRA 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.

I.C.8. Duty to Provide Information  
[40 C.F.R. § 270.30(h)]

The Permittee shall furnish to the Regional Administrator, within the specified timeframe, any relevant information which the Regional Administrator may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittee shall also furnish to the Regional Administrator, upon request, copies of any record required to be kept by this Permit or required to be kept per the applicable RCRA requirements of 40 C.F.R. Parts 260 through 270.

I.C.9. Inspection and Entry  
[40 C.F.R. § 270.30(i)]

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

I.C.9.a. Enter at reasonable times upon the Permittee's premises where a regulated activity is located or conducted, or where records must be kept under the conditions of this Permit or applicable RCRA requirements;

I.C.9.b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit or applicable RCRA requirements;

I.C.9.c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit or subject to RCRA; and

I.C.9.d. Sample or monitor at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by RCRA, any substances or parameters at any location.
I.C.10. Monitoring and Records

{40 C.F.R. §§ 264.74(b), 270.30(g), and 270.31}

I.C.10.a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

I.C.10.b. The method used to obtain a representative waste sample to be analyzed must be the method identified by Appendix I of 40 C.F.R. Part 261, the EPA Region 4 SESD Field Branches Quality System and Technical Procedures (most recent version), or an equivalent method previously approved in writing by the Regional Administrator. Procedures for sampling contaminated media must be those identified in the SESD Field Branches Quality System and Technical Procedures (most recent version), or an equivalent method previously approved in writing by the Regional Administrator. Laboratory methods must be those specified in the most recent edition of Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, or an equivalent method previously approved in writing by the Regional Administrator.

I.C.10.c. The Permittee shall maintain at the Facility, or other appropriate location as previously approved in writing by the Regional Administrator, records of all monitoring information required under the terms of this Permit, and monitoring and record keeping required by the applicable requirements of 40 C.F.R. Parts 260, 261, 262, 264, 266, and 268. Such records include but are not limited to:

I.C.10.c.i. All monitoring information (including the dates, exact place, and times of sampling, or measurements; the individuals who performed the sampling or measurements; the dates analyses were performed; the name of the laboratory which performed the analyses; the analytical techniques or methods used; and the results of such analyses);

I.C.10.c.ii. All calibration and maintenance records;

I.C.10.c.iii. All original strip chart recordings or equivalent for continuous monitoring instrumentation;

I.C.10.c.iv. The complete RCRA Permit, including any attachments or appendices;

I.C.10.c.v. Copies of all reports and records required by this Permit;

I.C.10.c.vi. Records of all data used to prepare documents required by this Permit;

I.C.10.c.vii. The certification required by 40 C.F.R. § 264.73(b)(9);

I.C.10.c.viii. Records of all data used to complete the application for this Permit;
I.C.10.c.ix. All notices, certifications, and demonstrations;
I.C.10.c.x. Waste analysis data; and

I.C.10.d. All the aforementioned records and documentation must be maintained by the Permittee for a period of at least three (3) years from the date of the sample, measurement, report, certification, or application, unless otherwise specified in this Permit or by the applicable regulation, or, where specified in this Permit, until final closure of the Facility or until occurrence of an alternative event as specified by revision of the federal regulations, whichever date is later. As a generator of hazardous waste, the Permittee shall retain a copy of all notices, certifications, demonstrations, waste analysis data, and other documentation produced pursuant to 40 C.F.R. Part 268 for at least three (3) years from the date that the waste which is the subject of such documentation was last sent for on-site or off-site treatment, storage, or disposal. These periods shall be extended by request of the Regional Administrator at any time and during the course of any unresolved enforcement action regarding this Facility or Permittee.

I.C.11. Signatory Requirement
[40 C.F.R. §§ 270.11 and 270.30(a)]

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

I.C.12. Reporting Requirements
[40 C.F.R. § 270.30(b)]

I.C.12.a. Planned Changes
[40 C.F.R. § 270.30(b)(1)]

The Permittee shall give written notice to the Regional Administrator as soon as possible, but no less than thirty (30) days in advance, of any planned physical alterations or additions to the permitted Facility. The notice shall include at a minimum, a summary of the planned change and the reason for the planned change.

I.C.12.b. Anticipated Noncompliance
[40 C.F.R. § 270.30(b)(2)]

The Permittee shall give advance notice to the Regional Administrator of any planned changes in the permitted Facility or activity which may result in noncompliance with Permit requirements. For a new facility or unit, the Permittee may not treat, store, or dispose of hazardous waste; and for a facility or unit being modified, the Permittee may not treat, store, or dispose of hazardous waste in the modified portion of the facility or unit, except as provided in 40 C.F.R. § 270.42, unless:

I.C.12.b.i. The Permittee has submitted to the Regional Administrator by certified mail or hand delivery a letter signed by the Permittee and
a registered professional engineer stating that the unit has been constructed or modified in compliance with the Permit; and

I.C.12.b.ii. The Regional Administrator has inspected the modified or newly constructed facility or unit and finds it is in compliance with the conditions of the Permit; or

I.C.12.b.iii. If, within fifteen (15) days of the date of submission of the letter required by Condition I.C.12.b.i. of this Permit, the Permittee has not received notice from the Regional Administrator of his or her intent to inspect.

I.C.12.c. Transfers
[40 C.F.R. §§ 264.12(c), 270.30(l)(3), and 270.40]

This Permit may be transferred to a new owner or operator only after written notice to the Regional Administrator and only if the Permit is modified or revoked and reissued pursuant to 40 C.F.R. § 270.40(b) or § 270.41(b)(2) to identify the new Permittee and incorporate such other requirements as may be necessary under RCRA. Before transferring ownership or operation of a facility during its operating life, or of a disposal facility during the post closure-care period, the Permittee shall notify the new owner or operator in writing of the requirements of 40 C.F.R. Parts 260 through 270, and this Permit.

I.C.12.d. Monitoring Reports
[40 C.F.R. § 270.30(l)(4)]

Monitoring results shall be reported at the intervals specified elsewhere in this Permit.

I.C.12.e. Compliance Schedules
[40 C.F.R. §§ 270.30(l)(5) and 270.33]

Written reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Permit shall be submitted no later than fourteen (14) days following each schedule date. Any noncompliance with the schedule, including late or insufficient reports, may subject the Permittee to an enforcement action.

I.C.12.f. Twenty-four Hour Reporting
[40 C.F.R. §§ 264.56(d)(5), 270.30(l)(6), and 270.30(h)]

I.C.12.f.i. The Permittee shall report any noncompliance which may endanger health or the environment orally within twenty-four (24) hours from the time the Permittee becomes aware of the circumstances. This report shall include:

a. Information concerning the release of any hazardous waste or hazardous constituents which may endanger public drinking water supplies; and
b. Any information of a release or discharge of hazardous waste or of a fire or explosion from the Facility, which could threaten the environment or human health outside the Facility.

I.C.12.f.ii. The description of the occurrence and its cause shall include:

a. Name, address, and telephone number of the owner or operator;

b. Name, address, and telephone number of the Facility;

c. Date, time, and type of incident;

d. Name and quantity of materials involved;

e. The extent of injuries, if any;

f. An assessment of actual or potential hazard to the environment and human health outside the Facility; and

g. Estimated quantity and disposition of recovered material that resulted from the incident.

I.C.12.f.iii. A written report shall also be provided to the Regional Administrator within fifteen (15) days of the time the Permittee becomes aware of the circumstances. The written report shall include:

a. The information specified under Conditions I.C.12.f.i. and I.C.12.f.ii.;

b. A description of the noncompliance and its cause;

c. The period of noncompliance (including exact dates and times);

d. Whether the noncompliance has been corrected, and if not, the anticipated time it is expected to continue; and

e. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

I.C.12.g. Other Noncompliance

The Permittee shall report all instances of noncompliance not reported under other conditions of this Permit, at the time monitoring reports are submitted. The reports shall contain the information listed in Condition I.C.12.f.

I.C.12.h. Other Information

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

[40 C.F.R. § 270.12]

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

I.E. Reports, Notifications and Submissions

Unless otherwise specified, one paper copy and one electronic version, in a searchable portable document format (pdf) or other approved searchable format, of all applications, reports, notifications, or other submissions required by this Permit shall be submitted to the Regional Administrator in care of the RCRD Materials and Waste Management Branch at the following address:

U.S. Environmental Protection Agency Region 4  
Attn: Chief, Materials and Waste Management Branch  
Resource Conservation and Restoration Division  
Atlanta Federal Center  
61 Forsyth Street, SW  
Atlanta, Georgia 30303

In addition, one paper copy and one electronic version shall be submitted to:

Kentucky Energy and Environment Cabinet  
Department for Environmental Protection  
Attn: Hazardous Waste Branch Manager  
300 Sower Boulevard, 2nd Floor  
Frankfort, Kentucky 40601

I.F. DEFINITIONS

(40 C.F.R. Parts 124, 260, 261, 264, 266, 268, 270 & RCRA, as amended)

For purposes of this Permit, terms used herein shall have the same meaning as those in RCRA and 40 C.F.R. Parts 124, 260, 261, 264, 266, 268, and 270, unless this Permit specifically provides otherwise. Where terms are not defined in the regulations, the Permit, or EPA guidelines or publications, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

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

I.F.1. “Agent Collection System (ACS)” means the tanks and associated ancillary systems in the Main Plant used to collect and store Chemical Agent drained from Chemical Munitions.

I.F.2. “Agent Hydrolysate Sampling (AHS)” means the tanks and associated ancillary systems in the Main Plant used for storage and sampling of agent hydrolysate after
hydrolysis destruction of Chemical Agent in the Agent Neutralization Reactors.

I.F.3. "Agent Neutralization Reactors (ANR)" means the tanks and associated ancillary systems in the Main Plant used for hydrolysis destruction of Chemical Agent.

I.F.4. "Agent Neutralization System (ANS)" means the ANR and AHS tanks and associated ancillary systems in the Main Plant used for hydrolysis destruction of Chemical Agent and storage and sampling of agent hydrolysate.

I.F.5. "Aluminum Filtration System (AFS)" means the Subpart X miscellaneous unit filtration systems and associated ancillary systems in the Main Plant used for filtration of aluminum precipitation solids from energetics hydrolysate after its pH adjustment in the Aluminum Precipitation Reactors.

I.F.6. "APR"/"APS" means the Aluminum Precipitation Reactors (APR)/Aluminum Precipitation System (APS) tanks and associated ancillary systems in the Main Plant used for precipitation of dissolved aluminum from energetics hydrolysate by pH adjustment.

I.F.7. "Approved Permit Application" shall mean the RCRA Part A and Part B Permit Applications as described in Table 2: Approved Permit Application below.

Table 2: Approved Permit Application

<table>
<thead>
<tr>
<th>Part and Section</th>
<th>Revision</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A and Part B, Sections B through L, in the Class 3 Hazardous Waste Storage &amp; Treatment Permit Modification Request, Addition of Blue Grass Chemical Agent-Destruction Pilot Plant - Main Plant Organic Air Emissions (Main Plant) submitted to EPA</td>
<td>Revision 1</td>
<td>October 12, 2017/ Supplemented July 10, 2018</td>
</tr>
</tbody>
</table>

I.F.8. "Blister Agent" includes the compound listed below, or degradation byproducts of this compound: H, also known as Mustard (bis(2-chloroethyl) sulfide), and related compounds.

I.F.9. "Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP)" is located at the Blue Grass Army Depot and includes the Explosive Destruction Technology (EDT) and Main Plant operations.

I.F.10. "Buffer Tank" means the equalization unit in the Explosive Destruction Technology (EDT) Facility designed to smooth gas pressure and volume surges from the Static Detonation Chamber (SDC) that occur whenever a projectile is treated. The Buffer Tank is a cone-bottom cylindrical tank made of stainless steel. The inlet and outlet of the tank are designed to provide a cyclonic effect allowing the
removal of large particles.

IF.11. “Chemical Agent” refers to Chemical Agent GB and/or Chemical Agent VX and/or the Chemical Agent Mustard.

IF.12. “Chemical Agent GB” refers to the nerve agent known as sarin or isopropyl methylphosphonofluoridate, along with associated compounds present in Chemical Munitions being treated at the Main Plant.

IF.13. “Chemical Agent Mustard” means the nerve agent known as 1-Chloro-2-[(2-chloroethyl) sulfanyl]ethane, along with associated compounds present in Chemical Munitions or Department of Transportation (DOT) bottles being treated at the EDT Facility.

IF.14. “Chemical Agent VX” means the nerve agent known as O-Ethyl-S-(2-diisopropylaminoethyl) methyl phosphonothiolate, along with associated compounds present in Chemical Munitions or Department of Transportation (DOT) bottles being treated at the Main Plant.

IF.15. “Chemical Munitions” are assembled projectiles or rockets containing Chemical Agents GB (also known as sarin or isopropyl methylphosphonofluoridate), VX (also known as O-Ethyl-S-(2-diisopropylaminoethyl) methyl phosphonothiolate), or H (mustard agent).

IF.16. “Container Handling Building (CHB)” means the container storage area that will receive and store the Enhanced On-Site Containers (EONCs) used to move and hold Chemical Munitions prior to treatment.

IF.17. “Detonation Chamber (DC)” means the detonation chamber of the Static Detonation Chamber (SDC) treatment technology in the EDT Facility used for the treatment/ destruction of Chemical Munitions.

IF.18. “Energetics Batch Hydrolyzer (EBH)” means the Subpart X Miscellaneous Units and ancillary systems in the Main Plant used for hydrolysis of energetics in rocket warheads containing Chemical Agent and hydrolysis of energetic and propellant during the rocket “leaker” campaign.

IF.19. “ENR”/“ENS” means the Energetics Neutralization Reactors (ENR)/Energetics Neutralization System (ENS) tanks and associated ancillary systems in the Main Plant used for further treatment of energetics hydrolysate from the EBH units.

IF.20. “Enhanced On-Site Containers (EONCs)” means the containers used to move Chemical Munitions and provide secondary containment for these while stored in the CHB prior to treatment.

IF.21. “Explosive Containment Rooms (ECRs)” means the rooms in the Main Plant containing the rocket shear machines.

IF.22. “Explosive Containment Vestibules (ECVs)” means the areas in the Main Plant containing the rocket cutting machines.

IF.23. “Explosive Destruction Technology Facility (EDT Facility)” means the Static Detonation
Chamber (SDC), which includes the DC and the Buffer Tank, and the Off-Gas Treatment System (OTS). The EDT Facility processes M110, 155mm mustard (H) agent-filled projectiles, over-packed projectiles, and mustard (H) agent-filled DOT bottles from the Blue Grass Army Depot (BGAD) stockpile. No off-site wastes shall be treated in the EDT Facility. The EDT Facility is depicted in Figure 2.

I.F.24. “Facility” for purposes of this Permit is the Blue Grass Army Depot (BGAD), under the control of the U.S. Department of the Army. The BGAD Facility is depicted in Figure 1.

I.F.25. “Hazardous Constituents” are those substances listed in 40 C.F.R. Part 261 Appendix VIII and Part 264 Appendix IX, or any other substances deemed appropriate by the Regional Administrator.

I.F.26. “Heating, Ventilating, And Air-Conditioning (HVAC) System” means the system of vents, blowers, particulate and carbon filters, and ancillary equipment used for collection and control of vapor emissions and for providing conditioning of air in the Munitions Demilitarization Building (MDB) and other support buildings.

I.F.27. “Hot-Idle” means an operating status where the Thermal Oxidizer (TO) is operating at a reduced temperature and when no waste is being treated in the SDC.

I.F.28. “HSA”/“HSS”/“HST” means the Hydrolysate Storage Area (HSA)/Hydrolysate Storage System (HSS)/Hydrolysate Storage Tank (HST) storage area, tanks, and associated systems used for storage of agent hydrolysate, energetics hydrolysate, spent decontamination solution, and Off-Gas Treatment System thermal oxidizer condensate.

I.F.29. “Leak Detection and Repair Program (LDAR Program)” shall mean the processes and procedures set forth in Section L of the EDT Facility Approved Permit Application and Section L of the Main Plant Approved Permit Application.

I.F.30. “Main Plant” consists of the treatment and storage units associated with the Munitions Demilitarization Building (MDB), Supercritical Water Oxidation (SCWO) Building, Hydrolysate Storage Area, Waste Transfer Station, and other associated waste treatment and storage units used for treatment of Chemical Munitions at the BGCA site.

I.F.31. “Metal Parts Treaters (MPTs)” means the Subpart X miscellaneous units and ancillary systems in the Main Plant used for treatment of Chemical Munitions that have been drained of Chemical Agent and for treatment of secondary waste potentially contaminated with Chemical Agent.

I.F.32. “Motor Packing Room (MPR)” means the area in the Main Plant used for placing separated rocket motors into containers for monitoring, storage, and shipment.

I.F.33. “Motor Shipping Room (MSR)” means the area in the Main Plant used for preparing rocket motor containers for movement out of the MDB.
I.F.34. “MPT Cooling System (MCS)” means the storage area and ancillary systems in the Main Plant used to allow cooling, packaging, and storage of MPT treated Chemical Munitions and secondary waste.

I.F.35. “Munitions Demilitarization Building (MDB)” means the building in the Main Plant used for removal of Chemical Agent and energetics from Chemical Munitions, hydrolysis of Chemical Agent and energetics, and MPT treatment of Chemical Munitions and secondary wastes.

I.F.36. “Munitions Washout Systems (MWS)” means the Subpart X miscellaneous units and ancillary systems in the Main Plant used for draining of projectile Chemical Munitions containing Chemical Agent.

I.F.37. “Near Real Time (NRT)” means the use of field analytical units such as MINICAMS® that provides monitoring results in a relatively short time-frame.

I.F.38. “Nose Closure Removal (NCR)” / “Nose Closure Removal Station (NCRS)” means the part of the MWS Subpart X miscellaneous units that removes nose closures from projectiles containing Chemical Agent.

I.F.39. “Off-Gas Treatment (Effluent) EBH/ENS (OTE)” means the Clean Air Act (CAA) Title V permitted treatment system and associated ancillary systems that manage off-gas from the EBH and ENS systems.

I.F.40. “Off-Gas Treatment System (MPT/ANS) (OTM)” means the Clean Air Act (CAA) Title V permitted treatment system and associated ancillary equipment that manage off-gas from the tanks and Subpart X miscellaneous units and ancillary systems in the MDB, serving as the control device for organic air emissions.

I.F.41. “OTM Common System (OTMC)” means the control vents that connect tanks and Subpart X miscellaneous unit and ancillary systems in the MDB to the Thermal Oxidizer or activated carbon control devices.

I.F.42. “Off-Gas Treatment System (OTS)” includes the thermal oxidizer control (THO) and serves as the control device for vapor/gas emissions from the SDC.

I.F.43. “Regional Administrator” means the Regional Administrator for the EPA Region in which the Facility is located, or his/her designee.

I.F.44. “Release” includes any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment of any hazardous waste or hazardous constituents.

I.F.45. “Reverse Osmosis (RO)” means the Subpart X miscellaneous unit and ancillary systems in the Main Plant used for recovery of water from the Supercritical Water Oxidation (SCWO) effluent for reuse in the SCWO quench process.

I.F.46. “Rocket Cutting Machine (RCM)” means the Subpart X miscellaneous unit and ancillary systems in the Main Plant that cut the shipping and firing tube from around Chemical Agent-containing rocket warheads and separates (cuts) the warhead from the rocket motor.
I.F.47. “Rocket Handling System (RHS)” means the Subpart X miscellaneous unit and ancillary systems in the Main Plant consisting of the RCM and Rocket Shear Machine (RSM) that process Chemical Agent containing rockets.

I.F.48. “Rocket Shear Machine (RSM)” means the Subpart X miscellaneous unit and ancillary systems in the Main Plant that drain Chemical Agent from the rocket warhead and shear the warhead into segments for treatment in the EBH systems.

I.F.49. “Single Round Container (SRC)” means an overpack container used for projectiles or rockets.

I.F.50. “Spent Decontamination System (SDS)” means the tanks and ancillary systems used for management of decontamination liquids and spill clean-ups and OTM condensate during process upsets.

I.F.51. “Static Detonation Chamber (SDC)” means the combination of the DC and the Buffer Tank at the EDT Facility used for the treatment/destruction of Chemical Munitions.

I.F.52. “Supercritical Water Oxidation (SCWO)” means the Subpart X miscellaneous units and ancillary systems in the SCWO building in the Main Plant used for treatment of agent hydrolysate and pre-treated energetics hydrolysate.

I.F.53. “Supercritical Water Oxidation (SCWO) Tank Area (STA)” means the tanks and ancillary systems in the Main Plant used for storage of SCWO effluent and the RO water recovery system waste streams.

I.F.54. “Temporary Equipment” shall be any equipment that has not been specifically designed and engineered as part of the original system, or equipment which was not included in the information submitted as part of the Approved Permit Application, which the Permittee has placed in service on a non-permanent basis while performing repair and/or maintenance activities on permanent equipment.

I.F.55. “Thermal Oxidizer (THO or TO)” means the thermal control device included as part of the Title V permitted treatment system for the SDC, and “Thermal Oxidizer (TOX)” means the thermal control device included as part of the Title V permitted OTM system for the Main Plant.

I.F.56. “Toxic Maintenance Area (TMA)” means the maintenance area within the MDB used for storage and management of secondary waste produced from treatment of Chemical Agent containing Chemical Munitions.

I.F.57. “Unpack Area (UPA)” means the storage area within the MDB used for unloading Chemical Munitions from the EONCs.

I.F.58. “Waste Transfer Station (WTS)” means the storage area in the Main Plant used for storage of process and secondary wastes prior to shipment off site for treatment and disposal.

I.F.59. “Waste Treatment and Storage Units” means those units used for treatment and storage of hazardous waste at the Main Plant.
PART II. LAND DISPOSAL RESTRICTIONS
[40 C.F.R. Part 268]

II.A. General Restrictions
[40 C.F.R. Part 268 - Subpart A]

II.A.1. Applicability
[40 C.F.R. § 268.1]

40 C.F.R. Part 268 identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances under 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 40 C.F.R. Part 268. Where the Permittee has applied for an extension, exemption or variance under 40 C.F.R. Part 268, 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.

II.A.2. Dilution as a Substitute for Treatment
[40 C.F.R. § 268.3]

Except as provided by 40 C.F.R. § 268.3(b), the Permittee shall not in any way dilute a restricted waste or the residual from treatment of a restricted waste as a substitute for adequate treatment to achieve compliance with 40 C.F.R. Part 268 - Subpart D, to circumvent the effective date of a prohibition in 40 C.F.R. Part 268 - Subpart C, to otherwise avoid a prohibition in 40 C.F.R. Part 268 - Subpart C, or to circumvent a land disposal prohibition imposed by RCRA Section 3004.

II.A.3. Testing, Tracking, and Recordkeeping Requirements
[40 C.F.R. § 268.7]

The Permittee shall comply with the requirements of 40 C.F.R. § 268.7.

II.A.4. Special Rules Regarding Wastes that Exhibit a Characteristic
[40 C.F.R. § 268.9]

The Permittee shall comply with the requirements of 40 C.F.R. § 268.9.

II.B. Land Disposal Prohibitions and Treatment Standards

II.B.1. Land Disposal Prohibitions

A restricted waste identified in 40 C.F.R. Part 268 - Subpart C may not be placed in a land disposal unit without further treatment unless the requirements of 40 C.F.R. Part 268 - Subparts C and/or D are met.

II.B.2. Treatment Standards

The storage of hazardous wastes restricted from land disposal under 40 C.F.R. Part 268 is prohibited unless the requirements of 40 C.F.R. Part 268 - Subpart E are met.
PART III. ORGANIC AIR EMISSION STANDARDS FOR PROCESS VENTS, EQUIPMENT LEAKS, TANKS, CONTAINERS, AND MISCELLANEOUS UNITS
(40 C.F.R. §§ 264.1030, 264.1050, and 264.1080)

III.A. Subpart AA: Air Emission Standards for Process Vents
(40 C.F.R. Part 264, Subpart AA)

III.A.1. Applicability
[40 C.F.R. § 264.1030]

III.A.1.a. 40 C.F.R. Part 264 - Subpart AA contains emission standards for process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, and air or steam stripping operations that manage hazardous wastes with an annual average total organic concentration of at least ten (10) parts per million by weight (ppmw). 40 C.F.R. Part 264 - Subpart AA also contains standards for closed-vent systems and control devices.


III.A.2. Notification of Modifications, Additions, or New Units

III.A.2.a. The EDT Facility and the Main Plant do not contain any process vents regulated under Subpart AA. The closed vent systems and control devices subject to Subpart BB and CC standards are also subject to 40 C.F.R. § 264.1033.

III.A.2.b. Prior to installing or operating any new process vents, closed-vent systems, or control devices subject to 40 C.F.R. 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 C.F.R. Part 264 - Subpart AA, the Permittee shall apply for a permit modification under 40 C.F.R. § 270.42, provide specific Part B permit application information required under 40 C.F.R. §§ 270.14-16, and 270.24, as applicable, with the modification request, and shall obtain a permit modification in accordance with 40 C.F.R. § 270.42.

[40 C.F.R. § 264.1032]

This requirement is not applicable. The EDT Facility and the Main Plant do not contain any process vents regulated under Subpart AA.

III.A.4. Standards: Closed-Vent Systems and Control Devices
[40 C.F.R. § 264.1033]

III.A.4.a. Subpart BB – Main Plant 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 C.F.R. § 264.1060; therefore, these are exempted from monitoring requirements per 40 C.F.R. §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 C.F.R. § 264.1033 as specified in the Main Plant LDAR Program.

III.A.4.b. Subpart CC – EDT Facility Closed-Vent Systems and Control Devices

The closed-vent system shall route gases and vapors from the Detonation Chamber (DC) and Buffer Tank to the Thermal Oxidizer (THO) control device, which is part of the EDT OTS. The closed-vent system shall be designed to operate with no detectable emissions. The closed-vent system shall not contain bypass devices that divert gas or vapor to the atmosphere before entering the control device. The THO control device shall meet the requirements of 40 C.F.R. § 264.1087. Performance testing of the THO and associated OTS shall be conducted according to emission testing requirements specified in the EDT Facility’s Title V Permit No. V-10-023 and the Commonwealth RCRA Permit (KY8-213-820-105).

III.A.4.c. Subpart CC – Main Plant Closed-Vent Systems and Control Devices

III.A.4.c.i. Main Plant tanks and Subpart X miscellaneous units use closed-vent systems and control devices to satisfy Tank Level 2 controls (as applicable). The MDB HVAC System and the OTM Common System serve as closed-vent systems to the MDB HVAC System activated carbon and TOX units, respectively. The Super Critical Water Oxidation (SCWO) building HVAC System serves as the closed-vent system to the SCWO Building HVAC System activated carbon, and the APR vent system serves as the closed-vent system to the APR activated carbon filters. These systems shall comply with the requirements of 40 C.F.R. § 264.1033 as specified in the Main Plant LDAR Program.

III.A.4.c.ii. 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 vapor screening level (VSL) for GB or VX shall be the alternative monitoring criteria used to determine
organic breakthrough requiring changeout of the MDB HVAC System activated carbon.

III.A.4.c.iii. 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 (ppm), at which point the activated carbon shall be changed.

III.A.4.c.iv. 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 ppm shall result in carbon changeout.

III.A.4.c.v. 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 C.F.R § 264.1087(c)(5)(iii).

III.A.5. Test Methods and Procedures
[40 C.F.R. § 264.1034]

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

III.A.6. Recordkeeping Requirements
[40 C.F.R. § 264.1035]

III.A.6.a. Records demonstrating compliance with 40 C.F.R. Part 264 – Subpart AA, including any third party’s records, shall be maintained, accessible at the Facility or other appropriate location approved by the Regional Administrator, 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 listed in 40 C.F.R. § 264.1035 and this Permit.

III.A.6.b. These records shall include but are not limited to: (1) the current list of regulated process vents, closed-vent systems or control devices, and their physical location at the Facility as illustrated on a Facility map and/or
piping and instrumentation diagram (P&ID); (2) 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; (3) all maintenance, inspection, monitoring, leak detection, repair, and delay of repair records associated with each process vent, closed-vent system, or control device; and (4) training documentation for persons conducting inspections or monitoring.

III.A.6.c. Records explaining why a component(s) of a closed-vent system has been designated as unsafe to monitor in accordance with 40 C.F.R. § 264.1033(o), shall be kept at the Facility or other appropriate location approved by the Regional Administrator, and must be available for inspection at reasonable times, and demonstrate compliance with the requirements of 40 C.F.R. §§ 264.1033(o) and 264.1035(c).

III.A.7. Reporting Requirements
[40 C.F.R. § 264.1036]

III.A.7.a. In accordance with 40 C.F.R. § 264.1036, the Permittee shall prepare and submit a report semiannually to the Regional Administrator documenting all information required by 40 C.F.R. § 264.1036 for that semiannual reporting period.

III.A.7.b. The semiannual report shall be submitted by January 31st and July 31st of each calendar year. A copy of the semiannual report shall be maintained in the Facility’s operating record.

III.B. Subpart BB: Air Emission Standards for Equipment Leaks
[40 C.F.R. Part 264, Subpart BB]

III.B.1. Applicability
[40 C.F.R. § 264.1050]

III.B.1.a. 40 C.F.R. Part 264 – Subpart BB applies to all equipment that contains or contacts hazardous wastes with organic concentrations of at least 10 percent by weight (wt%).

III.B.1.b. The EDT Facility is permitted to treat/destroy mustard (H) Chemical Munitions and DOT bottles containing mustard. The Blister Agent H (mustard) is present in the projectiles at concentrations greater than 10 wt%, thus triggering the applicability of Subpart BB. It is considered a heavy liquid. Upon heating the projectiles and DOT bottles to the final operating temperature, the heavy mustard liquid will no longer be present, and the SDC system will contain only gases.

III.B.1.c. Specifically, Subpart BB applies to all EDT Facility equipment identified in Appendix B-1 of this Permit. All subject equipment is uniquely marked for the specific purposes of tracking, monitoring, inspecting, and repairing
each piece of equipment in accordance with the Permittee’s approved LDAR Program (Appendix L-3 of the EDT Facility Approved Permit Application) and 40 C.F.R. Part 264 – Subpart BB. All subject equipment shall comply with Part III.B of this Permit and 40 C.F.R. Part 264 – Subpart BB.

III.B.1.d. Appendix B-1 provides a list of subject EDT Facility equipment based on system configurations at the time of this Permit’s issuance. The Permittee shall maintain the most current equipment identification list in the Facility operating record accompanied by a written copy of the approved LDAR Program. The current equipment list and LDAR Program shall be available at all times to regulators at the Facility.

III.B.1.e. The Main Plant is permitted to treat/destroy Chemical Munitions and a single DOT bottle.

III.B.1.f. The Chemical Agent GB and the Chemical Agent VX in the projectiles, rockets, and DOT bottle are present at concentrations greater than 10 wt%, thus triggering the applicability of Subpart BB to equipment contacting Chemical Agent GB or Chemical Agent VX. In addition, Subpart BB is applicable to equipment contacting GB agent hydrolysate, VX agent hydrolysate, energetics (rockets only), and propellants (rocket leakers only), as these streams also have the potential to contain hazardous wastes with organic concentrations of greater than 10 wt%.

III.B.1.g. Main Plant equipment subject to Subpart BB is in heavy liquid service as described in Section L of the Main Plant Approved Permit Application.

III.B.1.h. Subpart BB applies to all Main Plant equipment identified in Appendix B-2 of this Permit. All subject equipment is uniquely marked for the specific purposes of tracking, monitoring, inspecting, and repairing each piece of equipment in accordance with the Permittee’s approved Main Plant LDAR Program and 40 C.F.R. Part 264 – Subpart BB. All subject equipment shall comply with Part III.B of this Permit and 40 C.F.R. Part 264 – Subpart BB.

III.B.1.i. Appendix B-2 provides a list of subject Main Plant equipment based on system configurations at the time of this Permit’s issuance. The Permittee shall maintain the most current equipment identification list in the Facility operating record accompanied by a written copy of the approved LDAR Program. The current equipment list and LDAR Program shall be available at all times to regulators at the Facility.

III.B.2. Notification of Modifications, Additions, or New Units

Prior to installing or operating any new unit or equipment subject to 40 C.F.R. Part 264 – Subpart BB, or modifying any existing unit, equipment, procedure, or process such that the unit(s) or equipment will become subject to 40 C.F.R. Part 264 – Subpart BB, the Permittee shall apply for a permit modification under 40
C.F.R. § 270.42, provide specific Part B application information required under 40 C.F.R. §§ 270.14 - 16, and 270.25, as applicable, with the modification request, and shall obtain a permit modification in accordance with 40 C.F.R. § 270.42.

III.B.3. Marking and Tagging
[40 C.F.R. §§ 264.1050(d) & 264.1064(c)]

III.B.3.a. The Permittee shall maintain the most current equipment identification list and P&IDs in the Facility’s operating record. Section L in the Approved Permit Application for the EDT and Main Plant contains the equipment identification list, and Section D in the EDT and Main Plant Approved Permit Application contains the P&ID.

III.B.3.b. 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 in accordance with 40 C.F.R. Part 264 – Subpart BB (40 C.F.R. § 264.1050(d)). The marking must be of a permanent nature, weatherproof, and regularly maintained to ensure it is clearly visible at all times of operation. The unique marking of the equipment shall correspond to, and be identified on, the current equipment identification list and P&IDs maintained at the Facility and used to conduct all inspections and monitoring. Tags used to identify leaks and potential leaks must comply with all the applicable requirements of 40 C.F.R. § 264.1064(e), including, but not limited to the following requirements: (a) the tags must include the equipment identification number; (b) the tags must be readily visible; and (c) the tags must be made of or coated in a material that is not degraded by the hazardous waste stream, or weather, including UV light.

III.B.4. Excluded Equipment and Monitoring Exemptions
[40 C.F.R. §§ 264.1050(b), 264.1054(c), 264.1057(g), & 264.1058(a)]

III.B.4.a. The equipment identified in Table 3 below is excluded from the requirements of Subpart BB because it does not contain or contact hazardous wastes with organic concentrations of at least 10 wt%, as indicated.

III.B.4.b. Subpart BB Monitoring Exemptions

III.B.4.b.i. Pursuant to 40 C.F.R. § 264.1054(c), any pressure relief device that is equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in 40 C.F.R. § 264.1060 is exempt from the monitoring requirements of 40 C.F.R. § 264.1054(a)-(b).

III.B.4.b.ii. Pursuant to 40 C.F.R. § 264.1057(g), any valve that is designated as an unsafe-to-monitor valve is exempt from the requirements of
40 C.F.R. § 264.1057(a) if the conditions of 40 C.F.R. § 264.1057(g)(1) and (2) are met.

III.B.4.b.iii. Pursuant to 40 C.F.R. § 264.1058(e), any connector that is inaccessible or is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined) is exempt from the monitoring requirements of 40 C.F.R. § 264.1058(a) and from the recordkeeping requirements of 40 C.F.R. § 264.1064.

III.B.4.b.iv. The equipment identified in Table 3 below is exempt from the Subpart BB monitoring requirements as indicated.

III.B.4.c. Should conditions change such that the Permittee is no longer able to claim the exclusion or exemption identified in Table 3, the Permittee shall immediately notify the Regional Administrator per Conditions I.C.8 and I.C.12 of this Permit and should comply with the requirements of 40 C.F.R. Part 264 – Subpart BB.

(See Table 3 Next Page)
<table>
<thead>
<tr>
<th>Systems Exempt from Subpart BB Monitoring</th>
<th>Brief Description</th>
<th>Exemption or Exclusion Claimed</th>
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<tr>
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<tr>
<th>Systems Excluded from Subpart BB</th>
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<th>Exclusion Claimed</th>
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<tbody>
<tr>
<td>All Subpart BB Regulated Systems</td>
<td>EDT THO Unit and Downstream Off-Gas Treatment System (OTIS)</td>
<td>Contains or Contacts &lt;10 wt% Organic Concentrations – Excluded per 40 C.F.R. § 264.1050(b)</td>
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<tr>
<td>All Subpart BB Regulated Systems</td>
<td>Plant Air System</td>
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<td>All Subpart BB Regulated Systems</td>
<td>Plant Nitrogen System</td>
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<td>All Subpart BB Regulated Systems</td>
<td>Plant, Process, and Other Water Systems (Includes Boiler, Steam, Chiller, and Cooling Water)</td>
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<tr>
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<td>All Subpart BB Regulated Systems</td>
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<td>All Subpart BB Regulated Systems</td>
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<td>All Subpart BB Regulated Systems</td>
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<td>All Subpart BB Regulated Systems</td>
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<td>All Subpart BB Regulated Systems</td>
<td>- Sulfur</td>
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<td>All Subpart BB Regulated Systems</td>
<td>- Sodium Chloride</td>
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<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 C.F.R. § 264.1050(b)</td>
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<tr>
<td>All Subpart BB Regulated Systems</td>
<td>SDS Tank Vents</td>
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<td>All Subpart BB Regulated Systems</td>
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<td>All Subpart BB Regulated Systems</td>
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<td>All Subpart BB Regulated Systems</td>
<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 C.F.R. § 264.1050(b)</td>
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<td>OTM Systems</td>
<td>Contacts &lt;10 wt% Organic Concentrations – Excluded per 40 C.F.R. § 264.1050(b)</td>
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<td>All Subpart BB Regulated Systems</td>
<td>Equipment Downstream of SCWO: Gas Separators Systems</td>
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<tr>
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<td>All Subpart BB Regulated Systems</td>
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<td>All Subpart BB Regulated Systems</td>
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<td>All Subpart BB Regulated Systems</td>
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<td>All Subpart BB Regulated Systems</td>
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<tr>
<td>All Subpart BB Regulated Systems</td>
<td>Concentrate Tanker Loading Systems</td>
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</table>
III.B.5. Equipment Standards

All equipment subject to 40 C.F.R. Part 264 – Subpart BB shall comply with the appropriate equipment standard of 40 C.F.R. Part 264 – Subpart BB, the conditions of this Permit, and the requirements of the EDT and Main Plant LDAR Program.

III.B.5.a. Standards: Pumps in Light Liquid Service

The EDT Facility and the Main Plant do not contain any pumps in light liquid service regulated under Subpart BB.

III.B.5.b. Standards: Compressors

The EDT Facility and the Main Plant do not contain any compressors regulated under Subpart BB.

III.B.5.c. Standards: Pressure Relief Devices in Gas/Vapor Service

Pressure relief devices must be installed, operated, maintained and monitored in compliance with 40 C.F.R. § 264.1054. The P&IDs provided in Section D of the EDT and Main Plant Approved Permit Application list pressure relief device settings, tank design pressure, and set point on all vents.

III.B.5.c.i. The EDT Facility does not contain any pressure relief devices in gas/vapor service regulated under Subpart BB.

III.B.5.c.ii. Subpart BB applies to the Main Plant pressure relief devices in the MDB ACS and MPT systems identified in Appendix B-2 of this Permit. Pursuant to 40 C.F.R. § 264.1054(c), the ACS and MPT pressure relief devices in gas/vapor service are exempt from the requirements of 40 C.F.R. § 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 III.A.4.a. of this Permit.

III.B.5.d. Standards: Sampling Connection Systems

III.B.5.d.i. The EDT Facility does not contain any sampling connection systems regulated under Subpart BB.

III.B.5.d.ii. 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-2 of this Permit. Each sampling system shall meet the requirements of 40 C.F.R. § 264.1055.
III.B.5.e. Standards: Open-ended Valves or Lines
[40 C.F.R. § 264.1056]

III.B.5.e.i. The EDT Facility does not contain any open-ended valves or lines regulated under Subpart BB.

III.B.5.e.ii. Subpart BB applies to the Main Plant open-ended valves or lines in the MDB MWS, RHS, ACS, SDS, ANS, MPT, OTMC, and HSA tank systems identified in Appendix B-2 of this Permit. Each open-ended valve or line shall meet the requirements of 40 C.F.R. § 264.1056.

III.B.5.f. Standards: Valves in Gas/Vapor Service or in Light Liquid Service
[40 C.F.R. § 264.1057]

III.B.5.f.i. Subpart BB applies to the EDT Facility valves in gas/vapor service identified in Appendix B-1 of this Permit. The EDT Facility equipment identified in Appendix B-1 will be unsafe-to-monitor while the system is in operation due to the hazards associated with entry into the areas where the equipment is located. This equipment is therefore exempt from monitoring in accordance with 40 C.F.R. § 264.1057(g); however, the Permittee must adhere to a written plan that requires monitoring under 40 C.F.R. § 264.1057(a) as frequently as practicable during safe-to-monitor times.

III.B.5.f.ii. Subpart BB applies to the Main Plant MWS, RHS, and OTMC valves in gas/vapor service identified in Appendix B-2 of this Permit. The MWS, RHS, and OTMC valves in gas/vapor service identified in Appendix B-2 will be unsafe-to-monitor while the Main Plant is in operation due to the hazards associated with entry into the areas where the equipment is located. This equipment is therefore exempt from monitoring in accordance with 40 C.F.R. § 264.1057(g); however, the Permittee must adhere to a written plan that requires monitoring under 40 C.F.R. § 264.1057(a) as frequently as practicable during safe-to-monitor times.

III.B.5.f.iii. Repairs to equipment listed in Appendix B-1 and Appendix B-2 shall comply with the requirements of 40 C.F.R. § 264.1057, as applicable.

III.B.5.g. Standards: Pumps and Valves in Heavy Liquid Service, Pressure Relief Devices in Light Liquid or Heavy Liquid Service, and Flanges and Other Connectors
[40 C.F.R. §264.1058]

III.B.5.g.i. The EDT Facility does not contain any pumps in heavy liquid service or pressure relief devices in light liquid or heavy liquid service regulated under Subpart BB. Subpart BB applies to the EDT Facility valves in heavy liquid service and flanges and other
connectors identified in Appendix B-1 of this Permit. The EDT Facility valves in heavy liquid service and flanges and other connectors identified in Appendix B-1 are inaccessible while the EDT Facility is in operation due to the hazards associated with entry into the areas where the equipment is located. This equipment is therefore exempt from monitoring in accordance with 40 C.F.R. § 264.1058(e); however, monitoring under 40 C.F.R. § 264.1058(a) is required as frequently as practicable when accessible.

III.B.5.g.ii. Subpart BB applies to the Main Plant MDB MWS, RHS, ACS, SDS, and ANS systems and to the agent hydrolysate HSA tank system pumps, valves, and pressure relief devices in heavy liquid service and flanges and other connectors identified in Appendix B-2 of this Permit. The Main Plant does not contain pressure relief devices in light liquid service. In areas containing Chemical Agent within the MDB, monitoring of the equipment identified in Appendix B-2 shall be performed as described in the Main Plant LDAR Program and the alternative monitoring plan described in Appendix D-2 of this Permit in order to prevent unnecessary exposure of personnel to Chemical Agent; the plan shall include the use of CCTV for inspection to visually identify leaks and Near Real Time air monitoring MINICAMS® devices to identify elevated Chemical Agent 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-2 not in Chemical Agent processing areas shall be visually or otherwise monitored for leaks as required by 40 C.F.R. § 264.1058. Flanges and other connectors identified in Appendix B-2 of this Permit that are on insulated lines or tanks are exempt from the monitoring and recordkeeping requirements per 40 C.F.R. § 264.1058(e).

III.B.5.g.iii. The Permittee shall comply with 40 C.F.R. § 264.1058 for pumps and valves in heavy liquid service, pressure relief devices in light or heavy liquid service, and flanges and other connectors. All subject equipment shall be inspected each operating day in accordance with the inspection procedures found in the EDT and Main Plant LDAR Program of the Approved Permit Application, and in compliance with 40 C.F.R. § 264.195 and 40 C.F.R. § 264.1058. Repairs to equipment listed in Appendix B-1 and Appendix B-2 shall comply with the requirements of 40 C.F.R. § 264.1058, as applicable.

III.B.5.g.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 C.F.R. § 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 C.F.R. § 264.1058.

III.B.5.h. Standards: Delay of Repair

Delays of repair shall be in accordance with the requirements of 40 C.F.R. § 264.1059. A written description of the circumstances associated with the delay of repair addressing the requirements of 40 C.F.R. § 264.1059 shall be maintained in the Facility’s operating record.

III.B.5.i. Standards: Closed-Vent Systems and Control Devices

[40 C.F.R. § 264.1060]

Closed-vent systems and control devices subject to Subpart BB requirements shall comply with 40 C.F.R. § 264.1033 and Condition III.A.4. of this Permit.

III.B.5.j. Alternative Standards for Valves in Gas/Vapor Service or in Light Liquid Service: Percentage of Valves Allowed to Leak

[40 C.F.R. § 264.1061]

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

III.B.5.k. Alternative Standards for Valves in Gas/Vapor Service or in Light Liquid Service: Skip Period Leak Detection and Repair

[40 C.F.R. § 264.1062]

Extended skip periods for leak detection and repair for the EDT Facility and Main Plant valves in gas/vapor service or in light liquid service shall be used in accordance with 40 C.F.R. § 264.1062.

III.B.6. Test Methods and Procedures

[40 C.F.R. §264.1063]

III.B.6.a. The Permittee shall comply with the test methods and procedures identified in Section L of the EDT Facility Approved Permit Application, Section L of the Main Plant Facility Approved Permit Application, and 40 C.F.R. § 264.1063. All records of testing shall be kept in the Facility operating record at the Facility for a period of not less than three (3) years.

III.B.6.b. The Permittee shall comply with the test methods and procedures of 40 C.F.R. § 264.1063, the EDT and Main Plant LDAR Program, for all equipment subject to 40 C.F.R. Part 264 – Subpart BB.
III.B.6.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 C.F.R. § 264.1063, including, but not limited to, Method 21.

III.B.7. Recordkeeping Requirements

III.B.7.a. Records demonstrating compliance with 40 C.F.R. Part 264 – Subpart BB, including any third party’s records, shall be maintained, accessible at the Facility or other appropriate location approved by the Regional Administrator, 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 C.F.R. § 264.1064 and this Permit.

III.B.7.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 is used to manage hazardous waste with organic concentrations of at least ten (10) percent by weight; (3) all associated operating information, specifications, and standards for each unique piece of equipment; (4) all maintenance, inspection, leak detection, repair, and delay of repair records associated with each unique piece of equipment; and (5) training documentation for persons conducting inspections or monitoring.

III.B.7.c. Records justifying valves in light liquid service designated as difficult or unsafe to monitor shall comply with 40 C.F.R. § 264.1057(g) and (h), be kept at the Facility or other appropriate location approved by the Regional Administrator, be available for inspection at reasonable times, and demonstrate compliance with the requirements of 40 C.F.R. § 264.1064(h).

III.B.7.d. If the Permittee elects to comply with an equivalent recordkeeping system pursuant to 40 C.F.R. § 264.1064(m), the Permittee shall provide thirty (30) calendar days’ advance notice to the Regional Administrator outlining the specific equipment and the applicable provisions of 40 C.F.R. Parts 60, 61, or 63 with which the equipment must comply.

III.B.8. Reporting Requirements

III.B.8.a. In accordance with 40 C.F.R. § 264.1065, the Permittee shall prepare and submit a report semiannually to the Regional Administrator documenting all information required by 40 C.F.R. § 264.1065 for each month during that semiannual reporting period.

III.B.8.b. All information required by 40 C.F.R. § 264.1065 shall be submitted in the
semiannual report. The semiannual report shall be submitted by January 31st and July 31st of each calendar year. A copy of the semiannual report shall be maintained in the Facility’s operating record.

**III.B.9. Equipment Maintenance and Installation of Temporary Equipment**

**III.B.9.a.** Temporary equipment installed during maintenance or repair activities, including preventative maintenance activities, shall be noted in the daily inspection log in the Facility’s operating record. The notation shall include the date the maintenance or repair began, the date the maintenance or repair is expected to be completed, the equipment identification numbers replaced during the maintenance or repair activity, and a brief statement describing the installation and use of the temporary equipment.

**III.B.9.b.** All temporary equipment shall be designed and equipped to: ensure it will fulfill its intended functions without failure or release; perform equivalently to the equipment it is temporarily replacing to prevent performance upsets, releases of hazardous waste, fire or explosion; not jeopardize the safety of personnel, surrounding equipment or the environment; be compatible with the waste; and withstand environmental conditions at the Facility.

**III.B.9.c.** Temporary equipment shall be utilized on a temporary basis and shall not be used as a permanent part of the hazardous waste management unit or system, and shall not be considered a completed repair. Temporary equipment shall not remain in use longer than the timeframe allowed in the leak repair standard for the original equipment type, unless the standards of 40 C.F.R. § 264.1059 have been met.

**III.B.9.d.** Preventative maintenance activities shall be treated as a potential leak for purposes of the standards, monitoring and recordkeeping requirements of 40 C.F.R. Part 264 – Subpart BB.

**III.C. Subpart CC: Air Emission Standards for Tanks, Containers, & Miscellaneous Units**

*40 C.F.R. Part 264, Subpart CC*

**III.C.1. Applicability**

*40 C.F.R. §§ 264.1080 and 264.1082*

**III.C.1.a.** 40 C.F.R. Part 264 – Subpart CC contains emission standards for hazardous waste surface impoundments, tanks, miscellaneous units, and containers that contact hazardous waste containing an average volatile organic concentration greater than 500 parts per million by weight (ppm(w)) at the point of waste origination, as determined by the procedures outlined in 40 C.F.R. § 264.1083, except as excluded by 40 C.F.R. § 264.1080(b) or specifically exempted by 40 C.F.R. § 264.1082(c).

**III.C.1.b.** The Permittee operates several units in the EDT Facility and the Main Plant which contact hazardous waste containing an average volatile
organic concentration greater than 500 ppmw and are therefore subject to 40 C.F.R. Part 264 – Subpart CC. The requirements of 40 C.F.R. Part 264 – Subpart CC apply to the hazardous waste management units, as well as their covers, closure devices, and control devices as specifically listed in Appendix C.

III.C.2. Notification of Modifications, Additions, or New Units

Prior to installing or operating a new tank, container, surface impoundment, miscellaneous unit, closed vent system, or control device subject to 40 C.F.R. Part 264 – Subpart CC, or modifying any existing unit, procedure, or process such that the unit(s) will become subject to 40 C.F.R. Part 264 – Subpart CC, the Permittee shall apply for a permit modification under 40 C.F.R. § 270.42, provide specific Part B application information required under 40 C.F.R. §§ 270.14-16, and 270.27, as applicable, with the modification request, and shall obtain a permit modification in accordance with 40 C.F.R. § 270.42.

III.C.3. RCRA 40 C.F.R. Part 264 – Subpart CC Excluded Units and Exempted Units

III.C.3.a. Pursuant to 40 C.F.R. § 264.1080(b)(2), containers with a design capacity of less than or equal to 0.1 m³ are excluded from the requirements of 40 C.F.R. Part 264 – Subpart CC.

III.C.3.b. Pursuant to 40 C.F.R. § 264.1080(b)(3) and (4), tanks and surface impoundments, respectively, in which the Permittee has stopped adding hazardous waste and has begun implementing an approved closure plan are excluded from the requirements of 40 C.F.R. Part 264 – Subpart CC.

III.C.3.c. Pursuant to 40 C.F.R. § 264.1080(b)(5), waste management units that are used solely for the on-site treatment or storage of hazardous waste that is placed in the unit as a result of implementing remedial activities required under RCRA Section 3004(u) or (v), or CERCLA authorities, or similar State or Federal corrective action authorities, are excluded from the requirements of 40 C.F.R. Part 264 – Subpart CC.

III.C.3.d. Pursuant to 40 C.F.R. § 264.1080(b)(6), waste management units that are used solely for the management of radioactive mixed waste in accordance with the applicable regulations under the Atomic Energy Act and the Nuclear Waste Policy Act are excluded from the requirements of 40 C.F.R. Part 264 – Subpart CC.

III.C.3.e. Pursuant to 40 C.F.R. § 264.1080(b)(8), tanks with a process vent (as defined in 40 C.F.R. § 264.1031) are excluded from the requirements of 40 C.F.R. Part 264 – Subpart CC.

III.C.3.f. Pursuant to 40 C.F.R. § 264.1080(b)(7), the Permittee must have installed organic air emissions controls which adequately control organic air emissions at all times that the hazardous waste management unit is in operation. Hazardous waste management units that the Permittee has
certified are equipped with operating air emission controls in accordance with the requirements of an applicable Clean Air Act (CAA) regulation under 40 C.F.R. Parts 60, 61 or 63, are excluded from the requirements of 40 C.F.R. Part 264 – Subpart CC.

III.C.3.g. Pursuant to 40 C.F.R. § 264.1082(c)(2), tanks, surface impoundments, or containers for which the organic content of all the hazardous waste entering the waste management unit has been reduced by an organic destruction or removal process that achieves the criteria set forth in 40 C.F.R. § 264.1082(c)(2)(i)-(ix), are exempt from the standards in 40 C.F.R. §§ 264.1084 - 1087.

III.C.3.h. EDT Facility Excluded or Exempted Containers

III.C.3.h.i. The mustard agent-containing projectiles and two Department of Transportation (DOT) bottles containing mustard shall be stored in the EDT Service Magazine (ESM) and staged in the EDT Enclosure Building (EEB) prior to treatment in the SDC. The projectiles and DOT bottles contain less than 0.1 m³ of hazardous waste liquid and are therefore excluded from the requirements of 40 C.F.R. Part 264 – Subpart CC in accordance with 40 C.F.R. §264.1080(b)(2).

III.C.3.h.ii. Appendix C, Table 1A, contains a list of EDT Facility containers which are excluded from the Subpart CC requirements pursuant to 40 C.F.R. § 264.1080(b)(2).

III.C.3.i. Main Plant Facility Excluded or Exempted Containers, Tanks, and Miscellaneous Units

III.C.3.i.i. The Chemical Agent GB and Chemical Agent VX rockets and projectiles and generated secondary waste shall be stored in containers in the Main Plant container storage areas, stored or treated in tanks, or treated in miscellaneous units.

III.C.3.i.ii. Pursuant to 40 C.F.R. § 264.1080(b)(2), the following containers stored in the Main Plant have a design capacity of less than or equal to 0.1 m³ and are therefore excluded from the requirements of 40 C.F.R. Part 264 – Subpart CC:

   a. Containers in Table 1B of Appendix C of this Permit with capacity less than 26.4 gallons (0.1 m³).

   b. Projectiles (M426) containing approximately 1.6 gallons (0.0061 m³) of Chemical Agent GB.
c. Projectiles (M121A1) containing approximately 0.7 gallons (0.0026 m³) of Chemical Agent VX.

d. Rocket (M55 and M56) 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).

e. Overpack containers designed to hold single leaking projectiles or leaking rockets. Enhanced On-Site Containers (EONCs) used only for secondary containment of projectiles, rockets, overpacked projectiles, and overpacked rockets during transport or storage.

III.C.3.i.iii. Pursuant to 40 C.F.R. § 264.1082(c)(2), the following containers are exempt from the standards set forth in 40 C.F.R. §§ 264.1084-1087:

a. Pursuant to 40 C.F.R. § 264.1082(c)(2), roll-off containers used to contain Aluminum Filtration System (AFS) filter cake, metal for recycling, and other secondary solid wastes that have been treated so that these shall contain less than 500 ppm volatile organic (VO) concentrations.

b. Pursuant to 40 C.F.R. § 264.1082(c)(2), truck tankers of RO concentrate that contain less than 500 ppm VO and meet VO destruction and removal requirements.

c. Pursuant to 40 C.F.R. § 264.1082(c)(2), the OTM off-gas treatment tanks, miscellaneous units, and containers contacting effluent downstream of the thermal oxidizer (TOX).

d. Pursuant to 40 C.F.R. § 264.1082(c)(2), the SCWO tanks and miscellaneous units receives only wastes treated to contain < 500 ppm volatile organics and to meet at least 95% VO destruction and removal requirements.

e. Appendix C, Table 1B, contains a list of Main Plant containers, tanks, and miscellaneous units which are excluded or exempt from the Subpart CC requirements.

III.C.3.j. Should conditions change such that the Permittee is no longer able to claim the exclusions or exemptions identified in Appendix C, Tables 1A or 1B, the Permittee shall immediately notify the Regional Administrator per Conditions I.C.8. and I.C.12. of this Permit and shall comply with the requirements of 40 C.F.R. Part 264 – Subpart CC.
III.C.4. Waste Determination Procedures
[40 C.F.R. § 264.1083]

III.C.4.a. The Permittee must follow the waste determination procedures of 40 C.F.R. § 264.1083 and the most current approved Waste Analysis Plan in the Approved Permit Application.

III.C.4.b. The Permittee must conduct an annual re-characterization of the hazardous waste managed at the Facility at least once every twelve (12) months.

III.C.5. Standards: General
[40 C.F.R. §§ 264.1082 and 264.1084 through 264.1087]

Each unit subject to 40 C.F.R. Part 264 – Subpart CC shall comply with the appropriate standard applicable to the hazardous waste management unit.

III.C.5.b. EDT Facility

III.C.5.b.i. The Permittee shall control organic air emissions associated with the DC and the Buffer Tank. The DC and Buffer Tank are miscellaneous units that are considered tank-like, with the potential to contain average volatile organic concentrations greater than or equal to 500 ppmw (as H mustard). These units are permitted as Subpart X hazardous waste management units and are subject to the Subpart CC requirements. See Appendix C, Table 2A, for a listing of the EDT Subpart X hazardous waste management units subject to Subpart CC.

III.C.5.b.ii. The air emissions from the DC and Buffer Tank shall be controlled in accordance with the standards specified in 40 C.F.R. §§ 264.1084 (tanks) and 264.1087 (closed-vent systems and control devices), as applicable.

III.C.5.c. Main Plant

III.C.5.c.i. The Permittee shall control air pollutant emissions associated with the containers, tanks, and miscellaneous units that will contact waste streams described in Appendix L-7 of the Main Plant Approved Permit Application with the potential to contain average volatile organic concentrations greater than or equal to 500 ppmw. These include containers in permitted storage areas, tanks, and units permitted as Subpart X hazardous waste management units that are subject to the Subpart CC requirements. See Appendix C, Table 2B, for a listing of the Main Plant waste management units subject to Subpart CC.

III.C.5.c.ii. The air emissions from the Main Plant waste management units subject to Subpart CC shall be controlled in accordance with the
standards specified in 40 C.F.R. §§ 264.1086 (containers), 264.1084 (tanks), and 264.1087 (closed-vent systems and control devices), as applicable.

III.C.6. Standards: Tanks/Miscellaneous Units  
[40 C.F.R. § 264.1084]

III.C.6.a. EDT Facility

The DC and Buffer Tank, Subpart X miscellaneous units, are tank-like and must comply with the standards set forth in 40 C.F.R. § 264.1084. The DC and Buffer Tank shall provide a continuous barrier around the waste to be treated. The OTS serves as the Level 2 control device for the DC and Buffer Tank. Any DC and Buffer Tank openings not vented to the OTS shall be equipped with a closure device designed to operate with no detectable emissions. The DC and Buffer Tank shall be constructed of suitable materials and operated to minimize exposure of wastes to the atmosphere.

III.C.6.b. Main Plant

III.C.6.b.i. The tanks listed in Appendix C, Table 2B, must comply with the standards set forth in 40 C.F.R. § 264.1084. These tanks shall provide a continuous barrier around the waste to be treated.

III.C.6.b.ii. Each tank 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. The tanks shall be constructed of suitable materials and operated to minimize exposure of wastes to the atmosphere.

III.C.6.b.iii. The Subpart X miscellaneous units listed in Appendix C, Table 2B, must comply with the standards set forth in 40 C.F.R. § 264.1084 and shall be vented to a Level 2 control device of activated carbon or thermal oxidizer.

III.C.7. Standards: Containers  
[40 C.F.R. § 264.1086]

III.C.7.a. EDT Facility

All containers in permitted storage at the EDT Facility are excluded from the requirements of 40 C.F.R. Part 264 – Subpart CC in accordance with 40 C.F.R. § 264.1080(b)(2) as set forth in Condition III.C.3. above.

III.C.7.c. Main Plant Facility

III.C.7.c.i. Containers in Subpart I container storage areas having a design capacity greater than 26.4 gallons (0.1 m³) managing hazardous waste with an VO concentration of more than 500 ppmw must
comply with the standards set forth in 40 C.F.R. § 264.1086.

III.C.7.c.ii. See Appendix C, Table 2B, for a listing of the Subpart I container storage areas with containers subject to Subpart CC.

III.C.8. Standards: Closed-Vent Systems & Control Devices

III.C.8.a. EDT Facility

The closed-vent system shall route gases and vapors from the DC and Buffer Tank to the thermal oxidizer (THO) control device, which is part of the OTS. The closed-vent system shall be designed to operate with no detectable emissions. The closed-vent system shall not contain bypass devices that divert gas or vapor to the atmosphere before entering the control device. The THO control device shall meet the requirements of 40 C.F.R. § 264.1087 and the requirements specified in Condition III.A.4.b. Performance testing of the THO and associated OTS shall be conducted according to emission testing requirements specified in the EDT Facility’s Title V Permit No. V-16-019 and the Commonwealth RCRA Permit (KY8-213-820-105).

III.C.8.b. Main Plant Facility

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 C.F.R. § 264.1087 and the requirements specified in Condition III.A.4.c. 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 the Commonwealth RCRA Permit (KY8-213-820-105).

III.C.9. Inspection and Monitoring Requirements

The Permittee shall comply with the inspection and monitoring requirements of 40 C.F.R. § 264.1088, this Permit, and Section L of the EDT and Main Plant Approved Permit Application.

III.C.9.b. EDT Facility

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

III.C.9.d. Main Plant

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 C.F.R. § 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 C.F.R. § 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.

III.C.10. Recordkeeping Requirements
[40 C.F.R. § 264.1089]

III.C.10.a. Records demonstrating compliance with 40 C.F.R. Part 264 – Subpart CC, including any third party’s records, shall be maintained, accessible at the facility or other appropriate location approved by the Regional Administrator, 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 C.F.R. § 264.1089 and this Permit.

III.C.10.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.

III.C.10.c. Records justifying covers designated as unsafe to inspect or monitor shall comply with 40 C.F.R. §§ 264.1084(l) or 264.1085(g), be kept at the facility or other appropriate location approved by the Regional Administrator, be available for inspection at reasonable times, and demonstrate compliance with the requirements of 40 C.F.R. § 264.1089(g).

III.C.11. Reporting Requirements
[40 C.F.R. §264.1090]

III.C.11.a. In accordance with 40 C.F.R. § 264.1090(a) and (b), the Permittee shall
prepare and submit a report within fifteen (15) calendar days to the Regional Administrator documenting each occurrence of noncompliance.

III.C.11.b. In accordance with 40 C.F.R. § 264.1090(c), the Permittee shall submit a report semiannually to the Regional Administrator documenting, for control devices operating in accordance with 40 C.F.R. § 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.

III.C.11.c. The semiannual report shall be submitted by January 31st and July 31st of each calendar year.
APPENDIX A: FACILITY INFORMATION
FIGURE 3-MAIN PLANT FACILITY
APPENDIX B: LIST OF EQUIPMENT SUBJECT TO RCRA ORGANIC AIR EMISSIONS STANDARDS
### Appendix B-1: EDT Facility Equipment Subject to RCRA Subpart BB Requirements

<table>
<thead>
<tr>
<th>Equipment Tag</th>
<th>Equipment Description</th>
<th>Area</th>
<th>Near</th>
<th>Equipment Type</th>
<th>Organic Type / Concentration</th>
<th>Monitoring Exemption</th>
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<tbody>
<tr>
<td>140V03</td>
<td>1&quot; flange, check valve</td>
<td>Secondary Containment</td>
<td>SDC</td>
<td>F, V</td>
<td>Heavy Liquid (&gt;10%) and Gas</td>
<td>40 C.F.R. § 264.1057(g), 40 C.F.R. § 264.1058(e)</td>
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<td>SDC</td>
<td>F, V</td>
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<td>SDC</td>
<td>V</td>
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<td>40 C.F.R. § 264.1057(g)</td>
</tr>
<tr>
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<td>SDC</td>
<td>F, V</td>
<td>Heavy Liquid (&gt;10%) and Gas</td>
<td>40 C.F.R. § 264.1057(g), 40 C.F.R. § 264.1058(e)</td>
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<td>Slide Gate to Loading Chamber 2</td>
<td>Secondary Containment</td>
<td>SDC</td>
<td>Slide Gate</td>
<td>Heavy Liquid (&gt;10%) and Gas</td>
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<td>F</td>
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<td>F, V</td>
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<td>40 C.F.R. § 264.1057(g), 40 C.F.R. § 264.1058(e)</td>
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<td>SDC</td>
<td>F, F, Expansion Joint, F</td>
<td>Gas</td>
<td>40 C.F.R. § 264.1058(e)</td>
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<td>V</td>
<td>Gas</td>
<td>40 C.F.R. § 264.1057(g)</td>
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<td>Secondary Containment</td>
<td>SDC</td>
<td>V, F</td>
<td>Gas</td>
<td>40 C.F.R. § 264.1057(g), 40 C.F.R. § 264.1058(e)</td>
</tr>
<tr>
<td>162V01</td>
<td>Gate Valve</td>
<td>Secondary Containment</td>
<td>SDC</td>
<td>V</td>
<td>Gas</td>
<td>40 C.F.R. § 264.1057(g)</td>
</tr>
<tr>
<td>162V02</td>
<td>Gate Valve</td>
<td>Secondary Containment</td>
<td>SDC</td>
<td>V</td>
<td>Gas</td>
<td>40 C.F.R. § 264.1057(g)</td>
</tr>
<tr>
<td>N/A</td>
<td>Flanged Restriction Orifice</td>
<td>Secondary Containment</td>
<td>Buffer Tank</td>
<td>F</td>
<td>Gas</td>
<td>40 C.F.R. § 264.1058(e)</td>
</tr>
<tr>
<td>TI 31015</td>
<td>Flange to TI</td>
<td>Secondary Containment</td>
<td>TO</td>
<td>F</td>
<td>Gas</td>
<td>40 C.F.R. § 264.1058(e)</td>
</tr>
<tr>
<td>Equipment Tag</td>
<td>Equipment Description</td>
<td>Area</td>
<td>Near</td>
<td>Equipment Type</td>
<td>Organic Type / Concentration</td>
<td>Monitoring Exemption</td>
</tr>
<tr>
<td>---------------</td>
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<td>------</td>
<td>----------------</td>
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</tr>
<tr>
<td>PI31016</td>
<td>Flange, needle valve to PI</td>
<td>Secondary Containment</td>
<td>TO</td>
<td>F, V</td>
<td>Gas</td>
<td>40 C.F.R. § 264.1057(g), 40 C.F.R. § 264.1058(e)</td>
</tr>
</tbody>
</table>

NOTES: F – Flange; V – Valve; SDC-Static Detonation Chamber, TO-Thermal Oxidizer
## Appendix B-2: Main Plant Facility Equipment Subject to RCRA Subpart BB Requirements

### SUMMARY OF EQUIPMENT SUBJECT TO RCRA SUBPART BB REQUIREMENTS

**Main Plant**  
**Blue Grass Chemical Agent-Destruction Pilot Plant**  
**EPA I.D. No. KY8-213-820-105**

<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 the Main Plant Approved Permit Application</td>
</tr>
<tr>
<td>Sampling Connection Systems</td>
<td>See Table L-7 in Appendix L-4 of the Main Plant Approved Permit Application</td>
</tr>
<tr>
<td>Open-Ended Valves or Lines</td>
<td>See Table L-8, Table L-10, Table L-12, and Table L-13 in Appendix L-4 of the Main Plant Approved Permit Application</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 the Main Plant Approved Permit Application</td>
</tr>
<tr>
<td>Pumps in Heavy Liquid Service</td>
<td>See Table L-9 in Appendix L-4 of the Main Plant Approved Permit Application</td>
</tr>
<tr>
<td>Valves in Heavy Liquid Service</td>
<td>See Table L-10 in Appendix L-4 of the Main Plant Approved Permit Application</td>
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<tr>
<td>Pressure Relief Devices in Light Liquid or Heavy Liquid Service</td>
<td>See Table L-11 in Appendix L-4 of the Main Plant Approved Permit Application</td>
</tr>
<tr>
<td>Flanges and Other Connectors</td>
<td>See Table L-12 and Table L-13 in Appendix L-4 of the Main Plant Approved Permit Application</td>
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</table>
APPENDIX C: LIST OF UNITS SUBJECT TO RCRA ORGANIC AIR EMISSIONS STANDARDS UNDER SUBPART CC
<table>
<thead>
<tr>
<th>Area</th>
<th>Unit Type</th>
<th>Container Design Capacity</th>
<th>Subpart CC Exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESM, Storage Area that will store projectiles containing Mustard</td>
<td>Containers</td>
<td>&lt;0.1 m³</td>
<td>Not applicable per 40 CFR § 264.1080(b)(2); Excluded due to capacity</td>
</tr>
</tbody>
</table>
# TABLE 1B: 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 m³</td>
<td>Not applicable per 40 C.F.R. § 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 ppm VO; Exempted per 40 C.F.R. § 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 to contain &lt;500 ppm VO and to meet VO destruction and removal requirements; Exempted per 40 C.F.R. § 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
- Receives only wastes treated to contain <500 ppm VO and to meet at least 95% VO destruction and removal requirements; Exempted per 40 C.F.R. §264.1082(c)(2)
<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>Detonation Chamber</td>
<td>Subpart X Miscellaneous Unit - Detonation Chamber</td>
<td>Six (6) 155 mm M110 Projectiles per Hour</td>
<td>40 C.F.R. § 264.1084 (per 40 C.F.R. § 264.601)</td>
</tr>
<tr>
<td>Buffer Tank</td>
<td>Subpart X Miscellaneous Unit - Pressure</td>
<td>&lt;300 Standard Cubic Feet per Minute</td>
<td>40 C.F.R. § 264.1084 (per 40 C.F.R. § 264.601)</td>
</tr>
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</table>
### TABLE 2B: 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 C.F.R. § 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 C.F.R. § 264.1086</td>
</tr>
<tr>
<td>Tray/Container Transfer Room</td>
<td>Subpart I Container Storage</td>
<td>550 gallons</td>
<td>40 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 264.1086</td>
</tr>
<tr>
<td>SCWO Building Storage Area</td>
<td>Subpart I Container Storage</td>
<td>8,550 gallons</td>
<td>40 C.F.R. § 264.1086</td>
</tr>
<tr>
<td>Agent Collection System (ACS) Tanks</td>
<td>Subpart J Tank Unit</td>
<td>1,856 gallons each</td>
<td>40 C.F.R. § 264.1084</td>
</tr>
<tr>
<td>• Agent Holding Tank – MT-ACS-0105</td>
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<tr>
<td>• Agent Surge Tank – MT-ACS-0106</td>
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</tr>
<tr>
<td>Spent Decontamination System (SDS) Tanks</td>
<td>Subpart J Tank Unit</td>
<td>9,769 gallons each</td>
<td>40 C.F.R. § 264.1084</td>
</tr>
<tr>
<td>• MV-SDS-0101</td>
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<td>• MV-SDS-0201</td>
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<tr>
<td>• MV-SDS-0301</td>
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</tr>
<tr>
<td>Agent Neutralization Reactors (ANR) Tanks</td>
<td>Subpart J Tank Unit</td>
<td>2,251 gallons each</td>
<td>40 C.F.R. § 264.1084</td>
</tr>
<tr>
<td>• MV-ANS-0101</td>
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<tr>
<td>• MV-ANS-0201</td>
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<tr>
<td>Agent Hydrolysate Sampling (AHS) Tanks</td>
<td>Subpart J Tank Unit</td>
<td>5,865 gallons each</td>
<td>40 C.F.R. § 264.1084</td>
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<tr>
<td>• MT-ANS-0103</td>
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<td>• MT-ANS-0203</td>
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<td>• MT-ANS-0303</td>
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<td>Unit Identification</td>
<td>Unit Type</td>
<td>Design Capacity</td>
<td>Subpart CC Applicability</td>
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<tr>
<td>Hydrolysate Collection Tank</td>
<td>Subpart J Tank Unit</td>
<td>1,421 gallons each</td>
<td>40 C.F.R. § 264.1084</td>
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<tr>
<td>MT-EBH-1901</td>
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<tr>
<td>Energetics Neutralization Reactors (ENR) Tanks</td>
<td>Subpart J Tank Unit</td>
<td>4,007 gallons each</td>
<td>40 C.F.R. § 264.1084</td>
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<td>• MV-ENS-0101</td>
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<td>• MV-ENS-0102</td>
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<td>• MV-ENS-0103</td>
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<tr>
<td>Agent Hydrolysate HSA Tanks</td>
<td>Subpart J Tank Unit</td>
<td>103,195 gallons - MT-HSS-0104 (VX only)</td>
<td>40 C.F.R. § 264.1084</td>
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<tr>
<td>• MT-HSS-0104 (VX only)</td>
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<td>336,943 gallons each - MT-HSS-0105 (GB only)</td>
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<tr>
<td>• MT-HSS-0105 (GB only)</td>
<td></td>
<td>and MT-HSS-0205 (GB only)</td>
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<tr>
<td>• MT-HSS-0205 (GB only)</td>
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<tr>
<td>Energetics Hydrolysate HSA Tanks</td>
<td>Subpart J Tank Unit</td>
<td>316,192 gallons each</td>
<td>40 C.F.R. § 264.1084</td>
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<tr>
<td>• MT-HSS-0604</td>
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<td>• MT-HSS-0704</td>
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<tr>
<td>Aluminum Precipitation Reactors</td>
<td>Subpart J Tank Unit</td>
<td>1,523 gallons each</td>
<td>40 C.F.R. § 264.1084</td>
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<tr>
<td>• MV-APS-0101</td>
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<td>• MV-APS-0102</td>
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<tr>
<td>Aluminum Filtration Feed Tanks</td>
<td>Subpart J Tank Unit</td>
<td>1,644 gallons each MT-AFS-1010 and MT-AFS-2010</td>
<td>40 C.F.R. § 264.1084</td>
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<tr>
<td>• MT-AFS-1010</td>
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<td>• MT-AFS-2010</td>
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<tr>
<td>Aluminum Filtrate Tank</td>
<td></td>
<td>4,233 gallons - MT-AFS-1012</td>
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<td>MT-AFS-1012</td>
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<tr>
<td>SCWO Hydrolysate Blend Tanks</td>
<td>Subpart J Tank Unit</td>
<td>6,662 gallons each</td>
<td>40 C.F.R. § 264.1084</td>
</tr>
<tr>
<td>• MT-SCWO-0030</td>
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<td>• MT-SCWO-0031</td>
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<tr>
<td>SCWO Batch Hydrolysate Holding Tank</td>
<td>Subpart J Tank Unit</td>
<td>6,662 gallons</td>
<td>40 C.F.R. § 264.1084</td>
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<td>MT-SCWO-0032</td>
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<tr>
<td>SCWO Off-Spec Effluent Tank</td>
<td>Subpart J Tank Unit</td>
<td>4,213 gallons</td>
<td>40 C.F.R. § 264.1084</td>
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<td>Unit Identification</td>
<td>Unit Type</td>
<td>Design Capacity</td>
<td>Subpart CC Applicability</td>
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</tr>
<tr>
<td>SCWO Emergency Relief Tank</td>
<td>Subpart J Tank Unit</td>
<td>2,260 gallons</td>
<td>40 C.F.R. § 264.1084</td>
</tr>
<tr>
<td>MT-SCWO-0040</td>
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<tr>
<td>SCWO Off-Spec Effluent Tank</td>
<td>Subpart J Tank Unit</td>
<td>4,213 gallons</td>
<td>40 C.F.R. § 264.1084</td>
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<tr>
<td>MT-SCWO-0041</td>
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<tr>
<td>SCWO Emergency Relief Tank</td>
<td>Subpart J Tank Unit</td>
<td>2,260 gallons</td>
<td>40 C.F.R. § 264.1084</td>
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<td>MT-SCWO-0040</td>
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<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 C.F.R. § 264.1084 (per 40 C.F.R. § 264.601)</td>
</tr>
<tr>
<td>Miscellaneous Units:</td>
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<tr>
<td>• MZ-MWS-0101A</td>
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<td>• MZ-MWS-0101B</td>
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<td>• MZ-MWS-0101C</td>
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<td>• MZ-MWS-0101D</td>
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</tr>
<tr>
<td>• MZ-MWS-0101E</td>
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</tr>
<tr>
<td>Rocket Handling System (RHS) Miscellaneous Units (nonleakers):</td>
<td>Subpart X Miscellaneous Unit</td>
<td>Twenty-four (24) M55 Rockets per hour</td>
<td>40 C.F.R. § 264.1084 (per 40 C.F.R. § 264.601)</td>
</tr>
<tr>
<td>Rocket Shear Machine (RSM) – MY-RHS-0101</td>
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<td>Rocket Shear Machine (RSM) – MY-RHS-0102</td>
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<tr>
<td>Rocket Handling System (RHS) Miscellaneous Units (leakers)</td>
<td>Subpart X Miscellaneous Unit</td>
<td>Twenty-four (24) M55 Rockets per hour</td>
<td>40 C.F.R. § 264.1084 (per 40 C.F.R. § 264.601)</td>
</tr>
<tr>
<td>Rocket Shear Machine (RSM) – MY-RHS-0101</td>
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<tr>
<td>Rocket Shear Machine (RSM) – MY-RHS-0102</td>
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</tr>
<tr>
<td>Energetics Batch Hydrolyzer (EBH) Miscellaneous Units</td>
<td>Subpart X Miscellaneous Unit</td>
<td>1,150 gallons each</td>
<td>40 C.F.R. § 264.1084 (per 40 C.F.R. § 264.601)</td>
</tr>
<tr>
<td>• MV-EBH-1101</td>
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<td>• MV-EBH-1201</td>
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<td>• MV-EBH-1301</td>
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</tr>
<tr>
<td>Metal Parts Treaters</td>
<td>Subpart X Miscellaneous Unit</td>
<td>8,000 pounds per hour each</td>
<td>40 C.F.R. § 264.1084 (per 40 C.F.R. § 264.601)</td>
</tr>
<tr>
<td>• ME-MPT-0101</td>
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</tr>
<tr>
<td>• ME-MPT-0201</td>
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<td>Unit Identification</td>
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<td>Design Capacity</td>
<td>Subpart CC Applicability</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>---------------------</td>
<td>---------------------</td>
<td>----------------------------------------------------------------</td>
</tr>
<tr>
<td>Aluminum Filtration Units</td>
<td>Subpart X</td>
<td>2,500 pounds per hour each</td>
<td></td>
</tr>
<tr>
<td>• ML-AFS-1040</td>
<td>Miscellaneous Unit</td>
<td></td>
<td>40 C.F.R. § 264.1084 (per 40 C.F.R. § 264.601)</td>
</tr>
<tr>
<td>• ML-AFS-2040</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>SCWO Reactors</td>
<td>Subpart X</td>
<td>1,200 pounds per hour each</td>
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<tr>
<td>• MV-SCWO-1030</td>
<td>Miscellaneous Unit</td>
<td></td>
<td>40 C.F.R. § 264.1084 (per 40 C.F.R. § 264.601)</td>
</tr>
<tr>
<td>• MV-SCWO-2030</td>
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<tr>
<td>• MV-SCWO-3030</td>
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APPENDIX D: ALTERNATE MONITORING
Appendix D-1: Alternate Monitoring for EDT Facility

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

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

<table>
<thead>
<tr>
<th>Station Name¹</th>
<th>MINICAMS Tag</th>
<th>Area Monitored</th>
<th>NRT Target Monitoring Level²</th>
<th>NRT Alarm Level²</th>
<th>Primary Purpose - MINICAMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDT 307</td>
<td>70-AMS-AIT5006</td>
<td>EEB - EDT Airlock Vestibule 100</td>
<td>VSL</td>
<td>0.70</td>
<td>NRT spoiled monitoring line within the EEB Vestibule. Used to support worker safety during agent entries and egress from the EEB. Also used to support decontamination operations for a &quot;leaker&quot; EONC after it has been unloaded within the EEB. Also serves as an indicator of VO emissions.</td>
</tr>
<tr>
<td>EDT 308</td>
<td>70-AMS-AIT5007</td>
<td>EEB - Munitions Loading Area SDC Room 104</td>
<td>VSL</td>
<td>0.70</td>
<td>NRT monitoring of SDC munitions unloading area during munitions staging, handling, loading and processing. Also serves as an indicator of VO emissions.</td>
</tr>
<tr>
<td>EDT 309</td>
<td>70-AMS-AIT5008</td>
<td>EEB - Buffer Tank Enclosure SDC Room 104</td>
<td>VSL</td>
<td>0.70</td>
<td>NRT monitoring within the Buffer Tank (BT) secondary containment enclosure during normal EDT operations. Used to support safe access to the BT during BT residue drum change out. Also serves as an indicator of VO emissions.</td>
</tr>
<tr>
<td>EDT 310</td>
<td>70-AMS-AIT5009</td>
<td>EEB - Detonation Chamber Enclosure SDC Room 104</td>
<td>VSL</td>
<td>0.70</td>
<td>NRT monitoring within the Detonation Chamber's (DC) secondary containment enclosure during normal EDT operations. Used to support safe access to the DC Enclosure to perform operational or maintenance activities. Also serves as an indicator of VO emissions.</td>
</tr>
<tr>
<td>EDT 311</td>
<td>70-AMS-AIT5010</td>
<td>EEB - Scrap Exit Area SDC Room 104</td>
<td>VSL</td>
<td>0.70</td>
<td>NRT monitoring of the SDC munitions scrap inspection conveyor area during scrap processing, munitions deformation inspections and scrap removal and replacement operations. Also serves as an indicator of VO emissions.</td>
</tr>
</tbody>
</table>

Notes:

¹ When there is no agent hazard present, MINICAMS® can be off-line and not collecting data.
² VSL - vapor screening level - 0.003 mg/m³ (0.00046 ppmw at 25°C)
³ Fraction of the VSL.
Appendix D-2: Alternate Monitoring for Main Plant

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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 ppm (as specified in 40 C.F.R. § 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 C.F.R. § 264.1084(d) or those in 40 C.F.R. § 264.1034(b) are required to demonstrate no detectable emissions (defined as instrument readings less than 500 ppm 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 ppm 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 C.F.R. § 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 C.F.R. § 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.