Resource Conservation and Recovery Act (RCRA)

Class 2 Hazardous Waste Storage & Treatment Permit Modification Request, Vertical Rocket Cutting Machines and Rocket Non Destructive Examination

for the Blue Grass Chemical Agent-Destruction Pilot Plant Blue Grass Army Depot, Richmond, Kentucky

EPA ID KY8-213-820-105







Submitted To:

Energy and Environment Cabinet Kentucky Department for Environmental Protection Division of Waste Management 300 Sower Blvd. Frankfort, Kentucky 40601

Submitted By:

Blue Grass Army Depot 431 Battlefield Memorial Highway Richmond, Kentucky 40475-5060

and

Bechtel Parsons Blue Grass 830 Eastern Bypass, Suite 106 Richmond, Kentucky 40475



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1.0 OVERVIEW

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This document contains a Class 2 permit modification request (PMR) for use of Vertical Rocket 2 Cutting Machines (VRCMs) in place of Rocket Cutting Machines (RCMs) and addition of Rocket 3 Non-Destructive Examination (RNDE) of rockets in the Munitions Demilitarization Building 4 (MDB) at the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) Main Plant facility 5 located at 431 Battlefield Memorial Highway, Richmond, Kentucky. The Bechtel Parsons Blue 6 Grass (BPBG) Joint Venture is the operator of the BGCAPP and is a Co-Permittee with Blue 7 Grass Army Depot (BGAD) under the Resource Conservation and Recovery Act (RCRA) Part B 8 Permit (EPA ID #KY8-213-820-105, AI #2805) issued by the Kentucky Department for 9 Environmental Protection, Division of Waste Management. 10

- 11 This PMR is being submitted in accordance with 401 Kentucky Administrative Regulation
- (KAR) 39:060, Section 5 (incorporating Title 40 Code of Federal Regulations (CFR) § 270.42).
 The following changes are requested:
- Substitution of four VRCMs for the two existing RCMs in the MDB.
 - Addition of RNDE technology to evaluate M55 rockets for chemical agent liquid leaks prior to processing in the VRCMs.

These proposed changes are being submitted as a Class 2 modification requiring approval consistent with 40 CFR § 270.42(d)(2)(ii). The changes do not alter the capability of the facility to protect human health and the environment.

20 2.0 PERMIT MODIFICATION REQUEST

21 **2.1 Class of Permit Modification**

The proposed changes are being submitted as a Class 2 permit modification based on the criteria in 40 CFR §270.42(d)(2)(ii), modifications that apply to changes that are necessary to enable a permittee to respond, in a timely manner, to (A) common variations in the types and quantities of the wastes managed under the facility permit, and (B) technological advancements. Justification for why the changes are needed for management of rockets in the Main Plant is provided in Section 2.3.

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2.2 Description and Justification for Permit Modification

2 2.2.1 Substitution of VRCMs for RCMs

The M55 rocket consists of the warhead and the rocket motor (RM) contained in a shipping and 3 firing tube (SFT). The BGCAPP Main Plant will separate the top SFT segment from the warhead 4 and then separate the warhead from the RM, with the remaining section of the SFT remaining in 5 place around the RMs. This separation was to have occurred in the unit operation known as the 6 Rocket Handling System (RHS) using two Rocket Cutting Machines (RCMs). However, during 7 inspection of rockets in storage at Blue Grass Chemical Activity (BGCA), many rockets were 8 observed to exhibit signs of being warped as a result of storage for 60+ years. There are 9 10 concerns that the process of rotating a warped SFT/rocket assembly in the existing RCMs could be problematic, resulting in incomplete cuts or RCM binding. Consequently, the RCMs will be 11 replaced by four VRCM units. 12

The VRCM units will use the existing Unpack Area (UPA) input conveyors where the rockets are 13 manually loaded onto the input conveyors and moved through the blast gates into the respective 14 Explosive Containment Vestibule (ECV) rooms. In the ECV, a new section of conveyor will 15 move the rocket to a "pick location" along the existing material path. A robot will then pick and 16 place the entire M55 Rocket Assembly within its SFT into one of the VRCMs (in the 17 upright/vertical orientation) of that rocket line. There will be two VRCM units on each rocket line; 18 only one VRCM per rocket line will be used at a time, with the other VRCM in standby. Once 19 placed in the VRCM unit, the top portion (warhead end) of the SFT will be held with the robot 20 pneumatic gripper and the lower side held with the lower clamping device. These two SFT 21 "clamp locations" are located near each other to minimize the amount of potential SFT warpage 22 at the cut location. 23

Once the rocket in its SFT has been loaded and is securely held by the clamps, the cutter 24 assembly will engage and begin rotating around the SFT while the cutter wheel and back rollers 25 are pneumatically driven inward to the 'start cut position'. The Cutter Assembly will rotate 26 around the static SFT and index the cutting blade into the material. The robot will raise the SFT 27 following the cut operation at which time the VRCM sequence will pause to allow inspection of 28 warhead prior to proceeding with next step. If acceptable, the top half of the SFT will then be 29 30 then removed and placed on the VRCM output conveyor and moved to the Motor Packing Room (MPR). 31

With the warhead exposed after removal of its SFT segment, the VRCM will lower the SFT while 32 a Laser Height Gauge is directed at the warhead. Once the warhead is lowered below the active 33 laser beam so that the beam is "broken", the lowering process will stop, and the lower clamp will 34 fully engage. The robot will then grip the exposed warhead with the pneumatic gripper and the 35 rotating cutoff tool will separate the warhead from the rocket motor. The operator uses a local 36 closed-circuit television (CCTV) to verify that liquid is or is not present. Upon verification that 37 liquid is not present, the operator directs the robot to remove the warhead and place it on the 38 VRCM output conveyor where it will be conveyed to the Explosive Containment Room (ECR) for 39 subsequent management in the Rocket Warhead Containerization System (RWCS). Separated 40 41 RMs in the remaining section of the SFT will be placed on the VRCM output conveyor and moved to the MPR. 42

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The VRCM has been designed with a removable containment bucket for the purposes of capturing / containing any liquid that may run out of the rocket during a cut operation. The liquid holding capacity of the vessel will be at least 1.2 gallons, which is the nominal agent volume within the warhead.

In the event of a "Process Reject" (e.g. liquid leaker or inability to process the munition) a Single
 Round Container (SRC) will be used to overpack the warhead / motor. The contaminated
 warhead and rocket motor will be robotically placed on a M55 Reject Rack and then directly
 inserted into a pre-staged SRC (with a pre-staged Upper Half SFT inserted). A Single Reject

9 Rack will be used to containerize a contaminated SFT that has been removed from a warhead.

¹⁰ The total capacity of each rocket line will be a maximum of 48 rockets per hour.

11 Illustrations showing the VRCMs are attached, as are mark-ups of permit drawings to be 12 updated.

Substitution of the four VCRMs, which are specifically designed to process warped rockets, will
 mitigate processing issues that could have been encountered with the RCMs, and is consistent
 with a Class 2 permit modification per the criteria of 40 CFR §270.42(d)(2)(ii).

16 2.2.2 Addition of RNDE for M55 Rockets

Prior to processing in the VRCMS, the M55 rockets will optionally undergo an x-ray screening to detect the presence of liquid chemical agent. This Non-Destructive Examination technology will consist of a stand-alone unit installed in Unpack Area 1 of the MDB. The RNDE system will be used on the first batches of chemical agent rockets that are processed to determine whether liquid agent is present. Continuation of RNDE monitoring will be based on the initial leak rates that are found or lots with the potential to be problematic.

The RNDE System will contain two independent RNDE work cells (Cell #1 & #2) enclosed by perimeter safety stand-off guards to provide radiation protection to the RDNE operator and to allow observation of the operation. Note that the X-ray compartment will contain sufficient radiation shielding to isolate the X-ray energy within the designated radiation safety boundary. A Hazards of Electromagnetic Radiation to Ordnance (HERO) review has determined that the RNDE equipment or power source present no risk to the M55 rocket's M62 ignition assembly or M417 point detonating (PD) fuze.

The two cells in the RNDE will be identical in layout and function and operated independently. 30 Operators in the UPA will unload pallets of rockets from the EONCs and deliver them to the 31 RNDE Unloading Table. The operators will load five rockets from the pallet onto a waiting input 32 cart. Once the five rockets are loaded, the cart will be moved to the RNDE and inserted into an 33 available cell (Cell #1 or Cell #2) slot where it is locked in place. The RNDE process will start 34 35 with a robot "picking" a rocket to be inspected from the input cart and placing it into a cradle in the Motion Sled. A pneumatic pusher will push the rocket into place within the Motion Sled, and 36 the Motion Sled will convey the rocket across the X-ray Scanner. 37

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The X-ray scan will begin at the nose end, moving along the body of the warhead, and stopping 1 2 at the RM segment; that is, the X-ray Scanner will remain stationary while the rocket is slowly moved through the X-ray machine via the Motion Sled. The Motion Sled is also designed to also 3 allow for an optional 0-10° tilt at the discretion of the operator to potentially improve liquid 4 detection due to pooling at a low point. Results from the scan will appear on the X-Ray Monitor 5 6 which will provide sufficient detail and imagery to allow a trained operator to detect the presence (or absence) of liquid agent within the M55 rocket/SFT assembly and within the interstitial 7 spaces between the warhead and RM. Based on the scan, the operator will input PASS, 8 RESCAN, or FAIL into the RNDE interface. 9

If the rocket receives a "PASS" from the operator, indicting the absence of liquid agent, a robot 10 will "pick" it from the X-ray compartment and place it on the waiting output transport cart (locked 11 in place in the outlet of the cell). If the rocket receives "RESCAN" input from the operator, the 12 Motion Sled will tilt 3-10° and remain in that position to allow for any liquid to pool at the lower 13 section, and then the rocket re-scanned and evaluated again by the operator. RESCAN can be 14 repeated multiple times until the operator is confident of their assessment. If the scanned rocket 15 receives a "FAIL" input from the operator, indicting the presence of liquid, a robot will "pick" that 16 rocket from the X-ray compartment and return it back to the input transport cart. 17

Once all five rockets have been scanned and dispositioned, the input cart, empty or containing "FAILED" rockets, and the output cart, containing "PASSED" rockets, will be released from the RNDE cell. The output cart will be taken to one of the rocket feed lines for processing in the RWCS System. If the input cart contains any "FAILED" rockets, then the UPA operators will overpack the rockets in SRCs and placed in compliant storage pending transport by flat bed truck back to BGCA for storage until treatment at the Static Detonation Chamber (SDC) 2000 is available.

²⁵ The cycle time for the RNDE system will be approximately 24 rockets per hour.

26 Illustrations showing the RNDE operation are attached, as are mark-ups of permit drawings to 27 be updated.

Addition of the RNDE system will allow identification of liquid leakers that potentially do not result in elevated MINICAMS monitoring results due to liquid agent entrapment within the interspatial areas of the SFTs and the M55 rocket assembly. Consequently, the used of this advanced monitoring technique will be more protective of human health and the environment

and is consistent with a Class 2 permit modification per the criteria of 40 CFR §270.42(d)(2)(ii).

3.0 SUPPORTING INFORMATION AND DESCRIPTION OF 34 REQUESTED PERMIT CHANGES

35 **3.1 Part A Update**

The two RCMs miscellaneous units listed in the Main Plant Part A forms are replaced with the

four VRCM miscellaneous units. The RNDE is added as a miscellaneous unit.

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3.2 Other Required Updates

2 Updated professional engineer (PE) stamped as-built piping and instrumentation drawings

3 (P&IDs) and process flow diagrams (PFDs) will be provided separately when these are

4 completed. As indicated in Appendix A, no other permit document changes are required.

3.3 Requested Permit Modifications

⁶ The following permit modifications are requested. Additions are shown in red and deletions

7 shown by strikeout. Note full permit tables are not provided, only requested additions or

8 deletions.

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

1 2

Condition No.	Permitted Miscellaneou s Unit	Designation	Amount and types of waste	Secondary containment	Conditions
A.III.X.(4)(c)	Rocket Cutting Machines (RCM)	MX-RHS-0113, MX-RHS-0114	Approximately 51,700 rockets containing 10.7 pounds of GB.	Coated concrete floor with curb and sump.	Two rocket cutting machines are permitted for separating rocket motors from rocket warheads. The permitted capacity is 40 warheads per hour each line or 2400 pounds per hour each line.
A.III.X.(4)(c)	Vertical Rocket Cutting Machines (VRCMs)	MJ-VRCM-0106 MJ-VRCM-0107 MJ-VRCM-0126 MJ-VRCM-0127	Approximately 51,700 rockets containing approximately 10.7 pounds of GB; approximately 17,700 rockets containing approximately 10.1 pounds of VX	Coated concrete floor with curb and sump.	Four vertical rocket cutting machines (two each per rocket line) are permitted for separating rocket motors from rocket warheads. The permitted capacity is up to 48 warheads per hour each line or 2,880 pounds per hour each line.
A.III.X.(4)(i)	RNDE System	MJ-RNDE- 0101	Nominal 24 Rockets per hour	Coated concrete floor with curb and sump.	This unit is located in Unpack Area 1 and optionally used for examination of rockets for liquid chemical agent in the interspaces between the SFT and the rocket.

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

Unit Identification	Unit Type	Design Capacity	Subpart CC Exclusion or Exemption
RNDE System	Containers	<0.1 m ³	Not applicable per 40 CFR 264.1080(b)(2); Excluded due to capacity

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

Rocket Cutting Machines (RCM): MX RHS 0113	Subpart X Miscellaneous Unit	Forty (40) M55 Rockets per hour	40 CFR 264.1084 (per 40 CFR 264.601)
• MX-RHS-0114			
Vertical Rocket Cutting Machines (VRCMs) • MJ-VRCM-0106 • MJ-VRCM-0107 • MJ-VRCM-0126 • MJ-VRCM-0127	Subpart X Miscellaneous Unit	Forty-Eight (48) M55 Rockets per hour	40 CFR 264.1084 (per 40 CFR 264.601)

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APPENDIX F. CRITICAL RCRA PARAMETERS

ltem	System	Parameter Description	Instrument Tag	Units	Critical Point	Setpoint
62	RCM	GB Rocket Throughput of MX- RHS-0113/0114	Known Rocket Weight / Rocket Counter	lb/hr	2400 (Maximum of 40 Rockets per Hour)	<u>≤2400</u>
62	VRCM	Rocket Throughput	Known Rocket Weight / Rocket Counter	lb/hr	2,880 (Maximum of 48 Rockets per Hour Each)	≤2,880

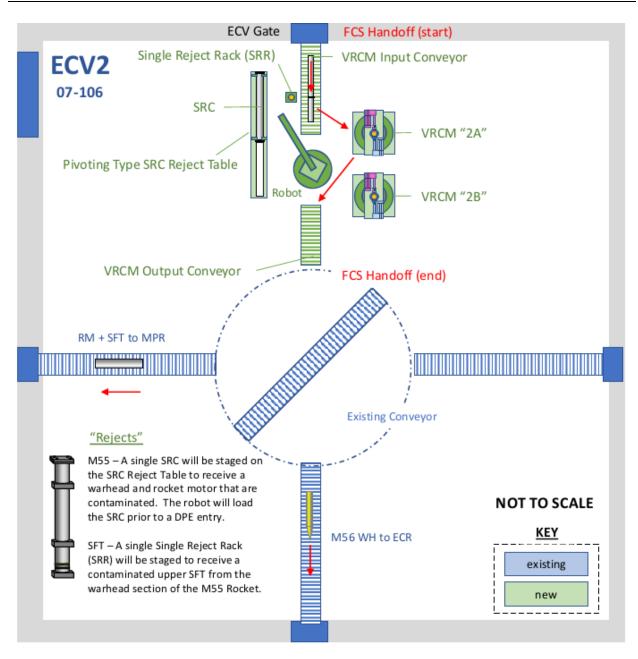
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APPENDIX G. MAIN PLANT INTERLOCKS

	System	Interlock Activation	Interlock Action
ſ	RCM	Shear blade cooling spray system low flow	Shear blade does not cut if inadequate flow detected
		HH current for chuck motor	Stop on high current
		SFT separation motor over torque	Stop on over torque and open SFT gripper

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ECV1 layout will be identical and mirrored

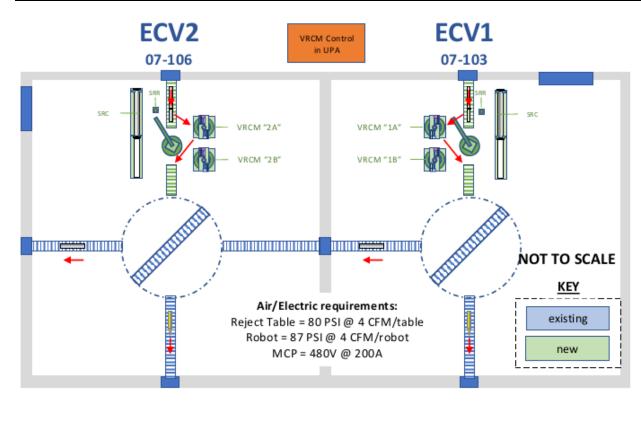
1

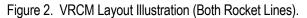
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Figure 1. VRCM Layout Illustration (One Rocket Line).







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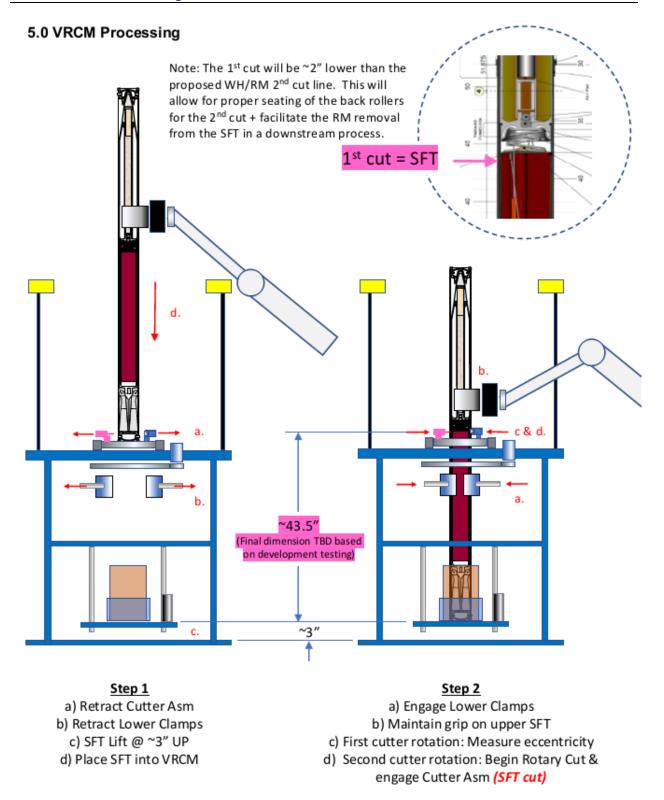
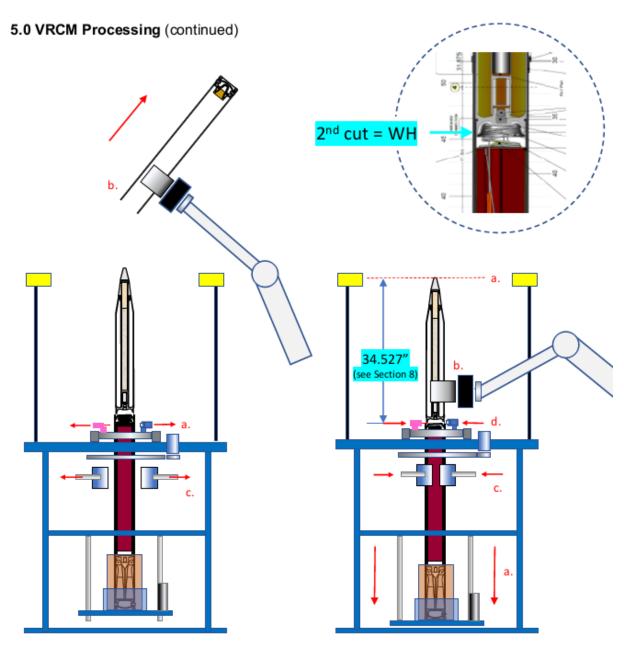


Figure 3. VRCM Operation Illustration (Rocket Placement and SFT Cut).

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Step 3 a) Retract Cutter Asm b) Remove upper SFT (place on conveyor) c) Retract Lower Clamp

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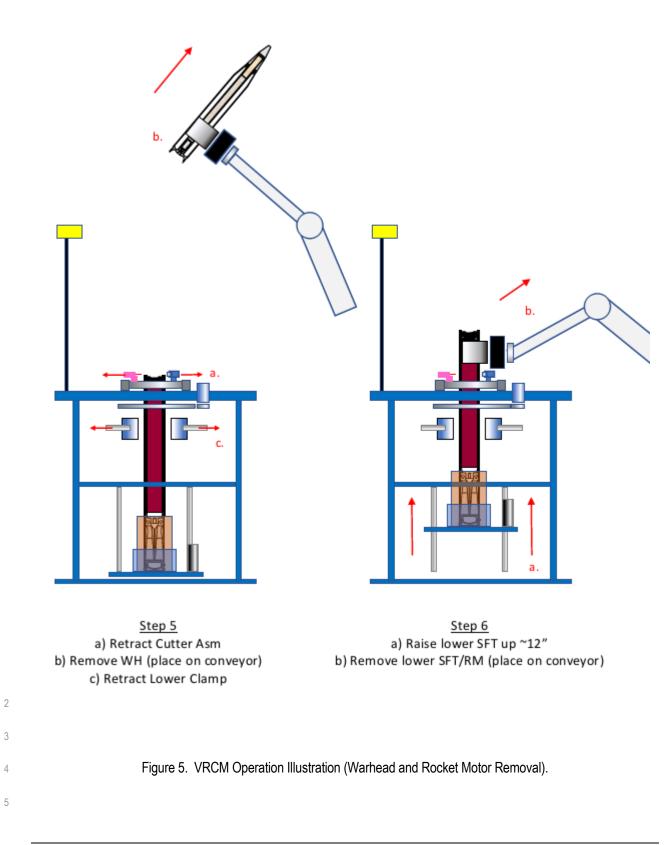
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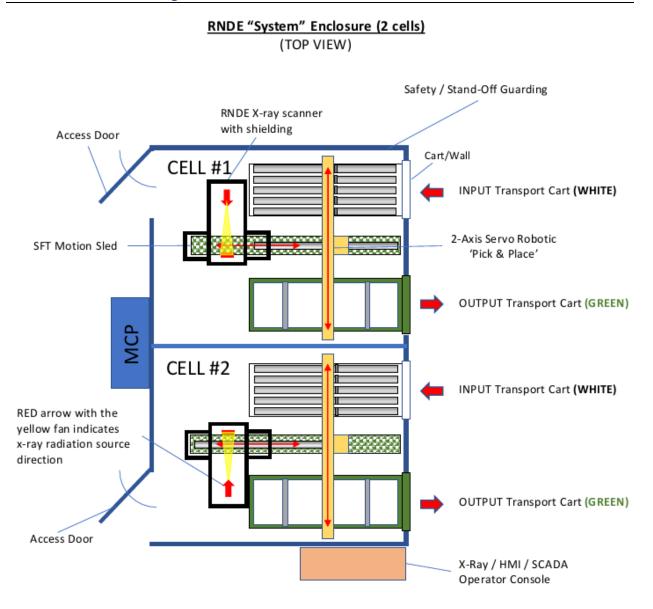
<u>Step 4</u> a) Lower Lift until Laser Beam "broken" b) Engage EOAT on WH c) Engage Lower Clamps d) Begin Rotary Cut & engage Cutter Asm *(WH cut)*

Figure 4. VRCM Operation Illustration (SFT Segment Removal and Warhead Cut).

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NOTES:

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Safety Guarding (wall) provides stand-off barrier to support Time, Distance, and Shielding to the RNDE Operator and to Munition Handlers within the UPA.

The Safety Guarding material (clear plexiglass) allows for the UPA Operators to observe the operation directly and for CROs and Treaty Inspector to observe the operation via CCTV cameras.

Figure 6. RNDE Operation Illustration.

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Appendix A Permit Related Information or Documents Affected by PMR

Regulatory	Description of Requirement	Modifie	ed Information	
Citation(s) 401 KAR 39 (incorporating 40 CFR Part 264 where applicable)		Yes	No	Sections of the Part B Permit Modified or Supplemental Information Required
39:090 Sec. 1 (264 Subpart B)	_			
39:090 Sec. 1 (§264.11)	Identification number		✓	No change
39:090 Sec. 1 (§264.12)	Required notices		✓	No Change
39:090 Sec. 1 (§264.13)	General waste analysis		✓	No change
39:090 Sec. 1 (§264.14)	Security		✓	No change
39:090 Sec. 1 (§264.15)	General inspection requirements		✓	No change
39:090 Sec. 1 (§264.16)	Personnel training		✓	No change
39:090 Sec. 1 (§264.17)	General requirements for ignitable, reactive, or incompatible wastes		√	No change
39:090 Sec. 1	Location standards Geological Information		~	No change
39:090 Sec. 1 (§264.19)	Construction quality assurance program		✓	No change
39:090 Sec. 1 (264 Subpart C)	Preparedness and Prevention			
39:090 Sec. 1 (§264.31)	Design and operation of facility		✓	No change
39:090 Sec. 1 (§264.32)	Required equipment		✓	No change
39:090 Sec. 1 (§264.33)	Testing and maintenance of equipment		~	No change
39:090 Sec. 1 (§264.34)	Access to communication or alarm system		~	No change
39:090 Sec. 1 (§264.35)	Required aisle space		✓	No change
39:090 Sec. 1 (§264.37)	Arrangements with local authorities		✓	No change
39:090 Sec. 1 (264 Subpart D)	Contingency Plan and Emergency Procedures			
39:090 Sec. 1 (§264.51)	Purpose and implementation of contingency plan		~	No change
39:090 Sec. 1 (§264.52)	Content of contingency plan		✓	No Change
39:090 Sec. 1 (§264.53)	Copies of contingency plan		~	No change
39:090 Sec. 1 (§264.54)	Amendment of contingency plan		✓	No change
39:090 Sec. 1 (§264.55)	Emergency coordinator		✓	No change
39:090 Sec. 1 (§264.56)	Emergency procedures		✓	No change
39:090 Sec. 1 (264 Subpart E)	Manifest System, Recordkeeping, and Reporting			
39:090 Sec. 1 (§264.71)	Use of the manifest system		✓	No change
39:090 Sec. 1 (§264.72)	Manifest discrepancies		✓	No change
39:090 Sec. 1 (§264.73)	Operating record		✓	No change

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Regulatory	Description of Requirement	Modifie	d or Clarifie	ed Information
Citation(s) 401 KAR 39 (incorporating 40 CFR Part 264 where applicable)		Yes	No	Sections of the Part B Permit Modified or Supplemental Information Required
39:090 Sec. 1 (§264.74)	Availability, retention, and disposition of records		\checkmark	No change
39:090 Sec. 1	Annual report		√	No change
39:090 Sec. 1 (§264.76)	Unmanifested waste report		√	No change
39:090 Sec. 1	Additional reports		✓	No change
39:090 Sec. 1 (264 Subpart F)	Releases from Solid Waste Management Units			
39:090 Sec. 1 (§264.91)	Required programs		✓	No change
39:090 Sec. 1 (§264.92)	Ground-water protection standard		√	No change
39:090 Sec. 1 (§264.93)	Hazardous constituents		√	No change
39:090 Sec. 1	Concentration limits		√	No change
39:090 Sec. 1 (§264.95)	Point of compliance		√	No change
39:090 Sec. 1 (§264.96)	Compliance period		√	No change
39:090 Sec. 1 and §264.97	General ground-water monitoring requirements		\checkmark	No change
39:090 Sec. 1 (§264.98)	Detection monitoring program		✓	No change
39:090 Sec. 1 (§264.99)	Compliance monitoring program		√	No change
39:090 Sec. 1 (§264.100)	Corrective action program		\checkmark	No change
39:090 Sec. 1	Releases from solid waste management units - corrective action for solid waste management units		~	No change
39:090 Sec. 1	Incorporation by reference - groundwater analysis and report forms		\checkmark	No change
39:090 Sec. 1 (264 Subpart G)	Closure and Post-Closure			· · ·
39:090 Sec. 1 (§264.111)	Closure performance standard		✓	No change
39:090 Sec. 1 and §264.112	Written plan, content of plan, amendment of plan, notification of partial closure and final closure, removal of wastes and decontamination or dismantling of equipment		~	No change
39:090 Sec. 1 and §264.113	Time allowed for closure		√	No change
39:090 Sec. 1 (§264.114)	Disposal or decontamination of equipment, structures, and soils		\checkmark	No change
39:090 Sec. 1 (§264.115)	Certification of closure		√	No change
39:090 Sec. 1 (§264.116)	Survey plat		\checkmark	No change
39:090 Sec. 1 and §264.117	Post-closure care and use of property		\checkmark	No change
39:090 Sec. 1 and §264.118	Post-closure plan and amendment of plan		✓	No change
39:090 Sec. 1 (§264.119)	Post-closure notices		✓	No change

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Regulatory	Description of Requirement	Modifie	d or Clarifi	ed Information
Citation(s) 401 KAR 39 (incorporating 40 CFR Part 264 where applicable)		Yes	Νο	Sections of the Part B Permit Modified or Supplemental Information Required
39:090 Sec. 1 (§264.120)	Certification of completion of post-closure care		~	No change
39:090 Sec. 1 (264 Subpart H)	Financial Requirements		✓	No applicable
39:090 Sec. 1 (264 Subpart I)	Use and Management of Containers			
39:090 Sec. 1 (§264.171)	Condition of containers		✓	No change
39:090 Sec. 1 (§264.172)	Compatibility of waste with containers		✓	No change
39:090 Sec. 1 (§264.173)	Management of containers		✓	No change
39:090 Sec. 1 (§264.174)	Inspections		✓	No change
39:090 Sec. 1 (§264.175)	Containment		✓	No change
39:090 Sec. 1 (§264.176)	Special requirements for ignitable or reactive waste		~	No change
39:090 Sec. 1 (§264.177)	Special requirements for incompatible wastes		~	No change
39:090 Sec. 1 (§264.178)	Closure		✓	No change
39:090 Sec. 1 (§264.179)	Air emission standards		✓	No change
39:090 Sec. 1 (264 Subpart J)	Tank Systems			
39:090 Sec. 1 (§264.191)	Assessment of existing tank system's integrity		✓	No change
39:090 Sec. 1 (§264.192)	Design and installation of new tank systems or components		~	No change
39:090 Sec. 1 (§264.193)	Containment and detection of releases		✓	No change
39:090 Sec. 1 (§264.194)	General operating requirements		✓	No change
39:090 Sec. 1 (§264.195)	Inspections		✓	No change
39:090 Sec. 1 (§264.196)	Response to leaks or spills and disposition of leaking or unfit-for-use tank systems		~	No change
39:090 Sec. 1 (§264.197)	Closure and post-closure care		✓	No change
39:090 Sec. 1 (§264.198)	Special requirements for ignitable or reactive wastes		~	No change
39:090 Sec. 1 (§264.199)	Special requirements for incompatible wastes		✓	No change
39:090 Sec. 1 (§264.200)	Air emissions standards		✓	No change
39:090 Sec. 1	Effective dates		✓	No change
39:090 Sec. 1 (264 Subpart X)	Miscellaneous Units			•
39:090 Sec. 1 (§264.601)	Environmental performance standards	\checkmark		Described in Section 2 of this PMR
39:090 Sec. 1 (§264.602)	Monitoring, analysis, inspection, response, reporting, and corrective action		~	No change
39:090 Sec. 1 (§264.603)	Post-closure care		✓	No change
39:090 Sec. 6	Treatment of Nerve and Blister Agents		✓	No change

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Regulatory	Description of Requirement	Modified or Clarified Information		
Citation(s) 401 KAR 39 (incorporating 40 CFR Part 264 where applicable)		Yes	No	Sections of the Part B Permit Modified or Supplemental Information Required
Appendices				
39:090 Sec. 1 (264 Appendix I)	Recordkeeping instructions		✓	No change
39:090 Sec. 1 (264 Appendix IV)	Cochran's approximation to the Behrens- Fisher Students' T-Test		~	No change
39:090 Sec. 1 (264 Appendix V)	Examples of potentially incompatible waste		~	No change
39:090 Sec. 1 (264 Appendix IX)	List of hazardous constituents for groundwater monitoring		~	No change

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Regulatory	Description of Requirement	Modified or Clarified Information			
Citation(s) 401 KAR 39 (incorporating 40 CFR Part 270 where applicable)	-	Yes	No	Sections of the Part B Permit Modified or Supplemental Information Required	
39:060 Sec. 5 (270 Subpart A)	General Information				
39:060 Sec. 5	Considerations under Federal law		✓	No change	
39:060 Sec. 5 (§270.4)	Effect of a permit		✓	No change	
39:060 Sec. 5	Prohibition of use of unpermitted facility		✓	No change	
39:060 Sec. 5 (§270.5)	Noncompliance and program reporting by the cabinet		~	No change	
39:060 Sec. 5 (270 Subpart C)	Permit Conditions			-	
39:060 Sec. 5 and §270.30	Conditions applicable to all permits		✓	No change	
39:060 Sec. 5 (§270.31)	Requirements for recording and reporting of monitoring results		~	No change	
39:060 Sec. 5 and §270.32	Establishing permit conditions	\checkmark		Requested modifications provided in Section 3 of this PMR	
39:060 Sec. 5 (§270.33)	Schedules of compliance		✓	No change	
39:060 Sec. 5	Contents of Part A of the Permit Application (Form 7058A)	\checkmark		Updated Part A included with this PMR	
39:060 Sec. 5	General Contents of Part B Application				
39:060 Sec. 5 (§270.14(a))	Contents of Part B: General requirements Certified documents	✓		Updated permit drawings to be provided as-built; mark-ups included with this PMR	
39:060 Sec. 5 and §270.14	General information requirements General description Topographic map Seismic considerations Subsurface geology and Karst features Groundwater monitoring Floodplain requirements Traffic information Alternative analysis plan Past compliance record Financial responsibility to construct and operate		✓	No change	
39:060 Sec. 5 (§270.14(b) (11))	Location information		~	No change	
39:060 Sec. 5 (§270.14(c))	Additional groundwater protection information requirements		~	No change	
39:060 Sec. 5 (§270.14(d))	Information requirements for solid waste management units		√	No change	
39:060 Sec. 5 (§270.15)	Specific Part B information requirements for containers		✓	No change	
39:060 Sec. 5 (§270.16)	Specific Part B information requirements for tanks		✓	No change	
	Number, location, and types of tanks				

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	Tank dimensions and capacity		
	Procedures for handling incompatible, ignitable, or reactive wastes		
	Material of construction, volume, dimensions and all design details		
	Type of waste contained in tanks		
	Operating pressure and temperature		
	Description of the feed systems, safety cutoff, bypasses systems, and pressure controls		
	Diagrams of piping, instrumentation and process flow for each tank system		
39:060 Sec. 5 (§270.23)	Specific part B information requirements for miscellaneous units.	~	Provided in Sections 2 and 3 of this PMR
	Description		
	Treatment unit design/construction details		
	Site assessments		
	Potential exposure pathways		
	Effectiveness of treatment		

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REVISED PART A AND DRAWINGS MARKUPS