ANDY BESHEAR
GOVERNOR

REBECCA W. GOODMAN
SECRETARY

TONY HATTON
COMMISSIONER

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

300 SOWER BOULEVARD
FRANKFORT, KENTUCKY 40601
TELEPHONE: 502-564-2150
TELEFAX: 502-564-4245

April 14, 2020

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

RE: Class 3 Hazardous Waste Storage & Treatment Permit Modification Request
Change in Rocket Management and Miscellaneous Permit Updates
Notice of Deficiencies (NOD) No. 1
Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP)
Blue Grass Army Depot, Richmond, Madison County, Kentucky
EPA ID: KY8-213-820-105, AI# 2805, Activity# APE20200005

Dear Colonel Kurz,

The Kentucky Division of Waste Management (Division) has reviewed the subject permit modification request dated March 19, 2020. The following pages contain the Division's comments and questions regarding this submittal. Please incorporate any changes needed and submit the entire revised application within 45 days of receipt of this letter. Please include a "red line" version of the revised application showing all changes.

If you have any questions concerning this matter, please do not hesitate to contact Dale Burton at (502) 782-6331 or at dale.burton@ky.gov.

Sincerely,

4/14/2020

Signed by: April Webb

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

Attachment

EC: John McArthur, BPBG
Todd Williams, ACWA
Brian Osterman, KDEP
Joe Elliott, BGAD
Brian Ballard, ACWA
Terri-Crosby Vega, EPA Region 4

Class 3 Hazardous Waste Storage & Treatment Permit Modification Request,

Change in Rocket Management and Miscellaneous Permit Updates

Notice of Deficiencies No. 1

Technical Comments:

1. Part A. Kentucky Addendum, Legal and Operating status codes: Please check and confirm all legal and operating status. For example, the Container Storage Facility is listed as TA (Temporary Authorization) but is a permitted unit. The Rocket Motor Igloos F1001 and F1002 are listed as Proposed but are permitted units.
2. Part A. See Section 2.2 of the Permit Modification Request. The description of changes to the waste streams and codes are difficult to follow and match with the changes to the Part A. Please revise to indicate changes made by specific line items in Section 7 of the Part A.
3. Part A. General, waste streams 27 and 28 appear to be the same process stream and should be combined into one.
4. Part A. The Unit of Measure "T" is used throughout the Part A, however this is not an allowed unit of measure, per the instructions – please correct.
5. Part A. Waste Stream No. 142, Energetics Hydrolysate, remains on the Part A. Please delete or explain why it is needed.
6. Part 1.0, page 3, line 19. It is stated that transportation of the skids to storage units is included in this permit modification request. ACWA's storage permit modification request indicates that transportation is included in that request. Please clarify/correct.
7. Part 1.0, page 3, line 35. Why is the term "Effluent" used when identifying Room 07-140? This had previously just been the Off-Gas Treatment System Room. The revised draft permit, A.III.I.(9).(u), uses "OTE" for Off-Gas Treatment Effluent which is problematic because OTE has had a different meaning. Please clarify.
8. Part 2.1.1, page 5, line 12. For DRE calculation, assumption of 100% agent drain is proposed. This section discusses agent heels in rocket warheads (page 4, line 34). The next section states that warheads may be undrained (page 5, line 28). Please clarify why 100% agent drain is proposed.
9. Part 2.1.1, page 5, line 15. Please include a DRE calculation. If warheads will not always be 100% percent drained, determination of DRE parameters for all conditions must be discussed.
10. Part 2.1.2, page 5, line 26. Please describe what would make the wrapping necessary and how a determination would be made.
11. Part 2.1.2, page 5, line 28. Please clarify in what cases a rocket warhead would not be drained.
12. Part 2.1.2, page 5, line 32. Please clarify whether the warhead will be weighed before and after draining and, if not, how remaining agent will be determined, for example, for DRE calculations.
13. Part 2.1.2, page 5, line 35. Please explain what information will be included on the label for each canister and if the labeling will include RCRA required information such as accumulation date and the words "hazardous waste". Also, explain what labeling will be done on each skid of containers.
14. Part 2.1.2, page 6, line 12.

a. The proposed RM monitoring strategy conflicts with the current permit language (Condition A.III.A.(4), fourth bullet), and possibly with KRS 224.1-400(4). A separate document was submitted that shows a proposed change to that condition as a redline change; please provide a clearer justification for the proposed change.

b. Please verify that the proposed monitoring standard for RMs is in agreement with ACWA's storage permit application.

15. Part 2.1.3, page 6, line 34. Please clarify how many rejected warheads can be stored in each ECR. Also, provide a discussion of the procedures for handling rejected warheads, both those placed in canisters and those not yet placed in canisters.

16. Part 2.1.3, page 7, line 8. Please provide additional detail about waste and containers in the MWS.

17. Part 2.1.4, page 7, line 12. Please provide additional detail about waste and containers in the rooms identified in this section.

18. Part 2.1.6, page 8, line 20.

    a. The Division prefers to reference the RCRA Operations Plan, with the stipulation that future changes to operating parameters specified within the permit may be incorporated by permit modification, and will not require an update to the RCRA Operations Plan.

    b. Please provide detail regarding which parameters are requested for removal and justification for each.

19. Part 2.2, page 8, line 33. Please verify that Net Explosive Weight has been considered and is not exceeded in each storage area.

20. Part 2.2, page 9, line 17-23. No. 7 states the cutting machine throughput is revised up to 2,400 gal/hr while No. 8 says the Crimp Station is 1,200 gal/hr to match. Please clarify.

21. Part 2.2, page 9, line 21. RWCS is defined here as Rocket Warhead Crimp Station, while RWCS is already in use as Rocket Warhead Containerization System. Please use an alternate acronym for the crimp station, and ensure all uses throughout the application are corrected.

22. Section 2.2, page 10, line 3. Item 20 refers to 'listed agent derived waste, other than activated carbon'. By the description, sequencing, and correlation with waste streams in the Kentucky Addendum, this appears to refer to lines 119-120 in Section 7 of the Federal Part A. However, the comments to Section 7 describe 119-120 as "contaminate activated carbon that may potentially characteristic for D022. [sic]" Please clarify.

23. Section 2.2, page 10, line 17. Item 24: Please explain why Energetics Hydrolysate is not completely removed from the Part A.

24. Section 2.2, page 10, line 26. Item 27: The justification given for this change is to make the Part A consistent with this section. Please clarify this circular reference.

25. Section 2.2, page 10, line 29. Item 28: This change states a change from X99 to S01, but the permit already appeared to contain S01. Please clarify if there was a previous Part A submission that used X99 erroneously.

26. Section 2.2, page 10, line 30. Item 29: The CSF permit lists individual waste streams associated with the Container Storage Facility. Please provide justification for combining previous waste streams into a single item.

27. Section 2.2, page 10, line 32. Items 30, 31: The proposed language and the revised Part A indicate the addition of N102 to F1001 and N101 to F1002. The permit application does not

otherwise address the addition of storing GB-derived rocket motors in F1002 or the addition of storing VX-derived motors in F1001. Please clarify and revise the permit modification request where needed.

28. Part 3.0, page 15. The table indicates there are new tank systems installed or designed but there do not appear to be any new tanks designed or installed as part of this permit modification request. Please clarify.

29. Volume III, Section 4, page 69. Please verify that the skid's secondary containment system is designed in accordance with 40 CFR 264.175(b)(2). The warhead containers must be elevated above the spill pan or otherwise protected from contact with the accumulated liquid or the base must be sloped or otherwise designed and operated to drain and remove liquids. It appears the current skid design allows the canisters to rest directly on the spill pan.

30. Please provide Licensed Professional Engineer certified drawings in accordance with KRS 322.340.

Administrative Comments:

31. Part 2.1.3, page 7, line 3. It appears that RCA should be RCRA.

Proposed (redline) permit changes:

32. General comment: All proposed permit modifications that are not a direct result of the RWCS process changes should be listed and described separately from the permit markup submittal.

33. A.III.A.(6) and (10). Please provide the DRE calculations to support these proposed changes.

34. A.III.I.(9)(I). Please clarify what is meant by "in-process".

35. A.III.X.(4)(c) and Appendix C-2. Please explain the increase in the Rocket Cutting Machine throughput.

36. A.III.X.(4)(d). The Rocket Shear Machine description still includes shearing warheads into segments. Delete shearing and clarify what remains of this unit, i.e. punch and drain.

37. A.III.X.(4)(i). Will SCWO reactor throughput continue to be 1,440 lbs/hr/unit? Explain what feed rate of agent hydrolysate is expected to be per unit under the new approach where energetics hydrolysate is no longer used.

38. Appendix E. Please update the monitoring table to include all changes and additional monitoring provided for monitoring and clearing: containerized warheads, skids of containers, and rocket motors, and any glove box monitoring used prior to rocket cutting (i.e. RM glove box shown in Vol I., p.5).

39. Appendix F. Add a critical parameter for the monitoring level to clear containerized warheads and skids or identify which existing parameter applies to these items.