



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

In reply, refer to: 3WC23

September 28, 2000

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

Rodney K. Alston
Lieutenant Colonel, U.S. Army
Commanding Officer
Radford Army Ammunition Plant
P.O. Box 2
Radford, Virginia 24141-0099

K.D. Dolph
Vice President, Operations
Alliant Ammunition and Powder Company LLC
RAAP, Rt. 114 P.O. Box 1
Radford, Virginia 24141-0100

Re: Notice of Decision
Radford Army Ammunition Plant, Radford, VA
VA1210020730

Dear LTC Alston and Mr. Dolph,

In accordance with regulation 40 C.F.R. § 124.15, promulgated under the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §§ 6921 - 6939(b), I have made the determination to issue the Environmental Protection Agency's (EPA) portion of the full RCRA permit to Alliant Ammunition and Powder Company LLC, as the operator, and to the United States Department of the Army, as the owner of the Radford Army Ammunition Plant, Radford, Virginia. Enclosed is EPA's RCRA permit for corrective action and waste minimization. Also enclosed is the *Response to Comments*, which addresses the comments submitted by the Department of the Army on July 10, 2000 and Alliant Ammunition and Powder Company LLC on July 21, 2000.

Any person who submitted comments on the draft permit may, under regulation 40 C.F.R. § 124.19, petition the Environmental Appeals Board of the United States Environmental Protection Agency to review any condition of the permit which was the subject of comment during the public comment period under regulations 40 C.F.R. § 124.19, provided the appeal is filed with thirty-three days (30 days plus 3 days for service of notice by mail) of the issuance of this Notice of Decision.

The petition must include a statement of the reasons supporting that review, including a demonstration that any issues raised were developed during the public comment period to the extent required by the regulations governing public comment. See regulations 40 C.F.R. §§ 124.10 and 124.13.

When appropriate, the petitioner should include a showing that the contested conditions is based on one of the following factors as set forth in 40 C.F.R. § 124.19(a)(1)-(2):

- (1) clearly erroneous findings of fact or conclusions of law; or
- (2) an exercise of discretion or an important policy consideration that the Board should review, in its discretion.

The Board must issue an order that grants or denies the petition within a reasonable time following the filing of the petition. Public notice of any grant of administrative review under regulation 40 C.F.R. § 124.19 must be given as provided in regulation 40 C.F.R. § 124.10. The public notice must contain a briefing schedule for the appeal and a statement that any interested persons may file amicus briefs. If the review is denied, notice need only be sent to the respective petitioners and permittee.

If any person should decide to appeal the permit, the original and one copy of the petition for review are to be filed with the Environmental Appeals Board at either of the following addresses:

SUBMISSIONS MADE BY MAIL ARE TO BE SENT TO THE FOLLOWING ADDRESS:

U.S. Environmental Protection Agency
Environmental Appeals Board (MC-1103B)
401 M Street, SW
Washington, D.C. 20460

SUBMISSIONS MADE BY HAND-DELIVERY (INCLUDING FEDERAL EXPRESS) ARE TO BE MADE AT THE FOLLOWING ADDRESS:

U.S. Environmental Protection Agency
Environmental Appeals Board
Westory Building
607 14th Street, NW
Suite 500
Washington, D.C. 20005

TELEPHONE NUMBERS: 202-501-7060
FAX: 202-501-7580

(If the permit appeal is faxed, it must be followed with a "hard copy.")

Should the permit be appealed, send a copy of the petition to:

General Operations Branch (3WC23)
USEPA Region III
1650 Arch Street
Philadelphia, PA 19103-2029

If you have any questions regarding the draft permit, please call Robert Greaves at 215-814-3423 or Russell Fish at 215-814-3226.

Sincerely,



Maria Parisi Vickers
Associate Division Director
Office of RCRA Programs
Waste & Chemicals Management Division

enc: Final Permit
Response to Comments

cc: Debbie Miller, VDEQ
Leslie Romanchik, VDEQ

**RESPONSE TO COMMENTS
UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
DRAFT PERMIT FOR CORRECTIVE ACTION AND WASTE MINIMIZATION
UNDER THE RESOURCE CONSERVATION AND RECOVERY ACT
AS AMENDED BY THE HAZARDOUS AND SOLID WASTE AMENDMENTS OF 1984**

Permittee: Alliant Ammunition and Powder Company LLC and the United States
Department of the Army

Permit Number: VA1210020730

**PUBLIC NOTICE PERIOD
June 8, 2000 To July 23, 2000**

The comments set forth below regarding the draft Permit were submitted by Alliant Ammunition and Powder Company LLC by letter dated July 21, 2000 and the United States Department of the Army by letter dated July 10, 2000. The Environmental Protection Agency's (EPA) response to each comment follows in *bold italic print*.

PART I STANDARD CONDITIONS

A. DEFINITIONS

1. Page 1. Hazardous Constituent, request the following definition in lieu of the one in the draft permit. "Hazardous Constituent - any constituent identified in Appendix VIII of 40 C.F.R. Part 261 that is expected to present based on historical waste management practice and historic site specific characteristics."

EPA Response: The accepted definition of Hazardous Constituent is promulgated in 40 C.F.R. Part 261 Appendix VIII. Narrowing the list of hazardous constituents is achieved via the site screening process.

2. Page 2. In the definition of Site, we understand that "any contamination beyond the Facility boundary" must have originated within the Facility's boundaries. Request confirmation of our understanding.

EPA Response: EPA concurs with the Army's understanding

3. Site Screening Areas (SSAs) and Miscellaneous Units (MUs) are not defined.

EPA Response: Attachment A has been modified to indicate that SSAs and MUs are Areas of Concern.

PART II SPECIFIC FACILITY CONDITIONS

D. WORK TO BE PERFORMED

4. General. Through Fiscal Year 2000, the Army has performed Verification Inspections and RCRA Facility Investigations at the SWMUs and AOCs in accordance with the 1989 permit. Also the Army has conducted voluntary Interim Measures at selected SWMUs and AOCs within the Main Manufacturing Area and the New River Unit. This combined effort represents over \$15,959,900 in Army expenditures with no sites recognized by the EPA as officially closed out. The comments and requests provided below are structured to "retain and utilize" this work "to the maximum extent possible". In particular, Attachment A of the draft permit adds new sites some of which are governed by the Commonwealth of Virginia through Department of Environmental Quality (VADEQ). Since the VADEQ does have primacy over some of the Attachment A sites, we request that they be removed from the permit. In those cases, where the VADEQ has closed sites, we strongly request that they be removed from the permit. If EPA must retain them for record keeping or for some other purpose, then we request that they be explicitly identified as no further action is required. We have provided detailed comments for Attachment A sites below.

EPA Response: EPA agrees that a significant amount of investigation effort has occurred at the Radford Army Ammunition Plant (RAAP), however, after further discussion with VDEQ, EPA has confirmed that there are no units identified in Attachment A that have been officially clean closed for soils and groundwater or screened out of the investigation process via the site screening process. With the exception of the miscellaneous unit for the Karst Terrain Sinkholes, EPA must retain the units identified in Attachment A.

Page 13, II.D. 3, and Page 14, II.D. 6 and 7.

5. The process for including the new sites (i.e. SWMUs, SSAs, and MUs, etc.) into the Army's budget and scheduling program is to first conduct a screening exercise. Then if the data for the candidate site indicates it meets the criteria for threshold risk and is eligible for Environmental Restoration, Army (ER,A) funds then the site is entered into the Army restoration program and incorporated into the IAP. This process has been mandated by RFAAP's chain of command. RFAAP's chain of command has identified an alternative by tasking the US Army Center for Health Promotion and Preventive Medicine with new site screening. To conclude RFAAP is not able to comply with the cited sections as currently written. Requested revisions are provided below:

EPA Response: All units listed on Attachment A are subject to the screening process documented in permit condition II.D.7 regardless of the Army's internal risk screening results or the funding source utilized by the Army. Therefore, all units listed on Attachment A must be incorporated into the IAP. To allow for additional flexibility, the term "Deadlines" will be revised to "Deadlines or Milestones" in permit conditions II.D.3, 6 and 7. Adding the term "Milestones" will allow for the scheduling of dates from the current fiscal year to the Project End Dates.

Page 13, II.D. 3. Revise the second sentence to read as follows: "The SSP investigation(s) shall

be conducted in accordance with the requirements set forth in permit condition II.D.5-7."

EPA Response: The second sentence of permit condition II.D.3 will be revised to: "The SSP investigation(s) shall be conducted in accordance with the requirements set forth in permit condition II.D.5-7, the Deadlines or Milestones established therein and set forth in permit condition II.G (Deadlines and Contents of Installation Action Plan)."

Page 14, II.D. 6. Revise the second and third sentences to read as follows: "For any SSAs established pursuant to paragraph II.D. 5-7 after the effective date of this permit, the Army shall propose Deadlines for the submittal of an SSP Work Plan(s). This Deadline(s) shall be approved in accordance with permit condition II.G."

EPA Response: The second and third sentences will be modified to: "For any SSAs established pursuant to paragraphs II.D.5-7 after the effective date of this permit, the Army shall, in the next draft Amended Installation Action Plan, propose Deadlines or Milestones for the submittal of an SSP Work Plan(s). This Deadline(s) or Milestone(s) shall be approved in accordance with permit condition II.G and adopted in the Installation Action Plan."

Page 14. II.D.7. Delete the fifth sentence which reads: "The schedule and Deadlines included in the final SSP Work Plan will be incorporated into the Installation Action Plan in accordance with permit condition II.G. (Deadlines and Contents of the Installation Action Plan)".

EPA Response: The last two sentences of this permit condition will be revised to: "The SSP Work Plan(s) shall include a proposed Deadline or Milestone for the submittal of an SSP Report(s). The schedule and Deadlines or Milestones included in the final SSP Work Plan will be incorporated into the Installation Action Plan in accordance with permit condition II.G. (Deadlines and Contents of the Installation Action Plan)."

To be consistent, permit condition II.D.7.c will be revised to: "Where EPA determines that an RFI is required, the Permittee shall, within the next draft Amended Installation Action Plan, propose to EPA a Deadline or Milestone for the submission of the RFI Work Plan for each Area of Concern or SWMU. The schedule and Deadlines or Milestones included in the final RFI Work Plan(s) will be incorporated into the next update of the Installation Action Plan and will be the enforceable schedule for the submittal of the draft RFI."

Page 15. RFI and CMS

6. The Permittee at paragraph 8 is to develop, implement and report upon a RFI for the SWMUs, AOCs and Miscellaneous Units listed in Sections 1, 2 and 4 of Attachment A. Request confirmation that this effort can be separated into several efforts and document deliverables. This will be necessary as there is not sufficient funding and resources to address the entire list of SWMUs, AOCs and Miscellaneous Units as one simultaneous effort. Also confirm that the SWMUs, AOCs and Miscellaneous Units can be closed out at the screening phase should the data suggest that further action is not warranted.

EPA Response: EPA agrees that the investigation and work to be conducted at the RAAP will be completed in a phased approach. The priority or sequence of units to be studied can be addressed during the Installation Action Plan "IAP" process (see Permit Condition II.H). Any unit which is found to have no unacceptable risk to human health or the environment via the site screening process will not be carried forward into the RFI process.

Page 19. Statement of Basis and Corrective Measures Implementation.

7. Request Paragraph 23 be revised to the following:

"Within sixty days (60) days after finalization of the CMS, the EPA will submit a draft Statement of Basis. EPA will issue the Statement of Basis, which includes EPA's tentative selection of the corrective measures to be implemented. The EPA Statement of Basis will be published for forty-five (45) days of public review and comment."

In accordance with the permit, EPA is selecting the remedy therefore it must be EPA that provides the rationale and basis for its decision (albeit tentative). As this is an EPA action, it is inappropriate for the Permittee to prepare the Statement of Basis.

EPA Response: While EPA is responsible for developing the final Statement of Basis, allowing the Permittee to complete and submit a Draft Statement of Basis will facilitate the Permittee's request for documenting final decisions on multiple operable units in a more efficient manner.

8. Request Paragraph 25 be revised to the following:

"Following the close of the public comment period, including any extensions, the EPA shall submit a draft Final Decision/Response to Comments (FDRC). The FDRC will include a Responsiveness Summary, in accordance with applicable EPA Guidance. EPA will issue the Final Decision/Response to Comments (FDRC) subsequent to the EPA final review."

As EPA selects the final remedy, EPA will issue a Class III permit modification for the selected remedy with a public notice. In any case, this is an EPA action with comments addressed to the EPA, it is inappropriate for the Permittee to prepare the response.

EPA Response: While EPA is responsible for developing the Final Decision/Response to Comments (FDRC), allowing the Permittee to complete and submit a Draft FDRC will facilitate the Permittee's request for documenting final decisions on multiple operable units in a more efficient manner.

9. During a May 18, 2000 site visit with EPA Region III representatives there was a discussion about separating SWMUs, AOCs, and MUs with respect to soil and groundwater. For example EPA indicated that a SWMU, AOC, MU, etc. could be closed for soil first with groundwater being addressed later. It is unclear how this can be accomplished under the conditions spelled out in this draft permit. Further clarification is requested..

EPA Response: The inherent flexibility of the RFI process is broad enough to address soil and groundwater at a SWMU or Area of Concern in a phased or sequenced approach if it is technically appropriate and is consistent with the overall cleanup philosophy for the facility, (e.g. in a situation where it was agreed that groundwater will be addressed on a facility-wide basis the investigation and cleanup of soils could precede any action addressing the groundwater). In a situation where EPA and the permittee agree that addressing soil and groundwater during independent phases is appropriate, separate RFI workplans including a proposed schedule would be submitted to EPA and VDEQ. Priorities addressing the order or phases of a unit (SWMU or AOC) investigation or cleanup shall be established during the annual IAP process.

E. CONSULTATION

10. We have incorporated a 30 day period for EPA review and comment or approval for deliverable documents. Request confirmation as to the adequacy of this period or provide another time period. Note that there is a significant amount of work ongoing at SWMUS 31, 39, 48, 49, 50 & 59 and the New River Unit. Incorporating an appropriate time period for EPA review, comment, and/or approval is crucial for these project schedules and execution.

EPA Response: EPA will make best efforts to conduct timely reviews.

H. BUDGET DEVELOPMENT AND INSTALLATION ACTION PLAN

11. Page 30. Paragraph 5 Amended IAP.

Request the delivery date for the Amended IAP be changed from September 15 to November 15, 2000.

The Amended IAP is to be delivered approximately 45 days after the IAP workshop from a contractor retained by the Operations Support Command/Army Materiel Command (RFAAP's chain of command). OSC/AMC has retained this contractor for the specific purpose of revising/amending the IAPs under their command. For this year the Radford IAP workshop has been coordinated with the EPA for September 19, 20 and 21, 2000 and the revised IAP is expected no sooner than November 15, 2000.

EPA Response: EPA agrees with comment and will change the delivery date for the Amended IAP from September 15 to November 15, 2000.

ATTACHMENT A LIST OF UNITS

12. The following SWMUs and HWMUs are governed by existing permits issued by the Commonwealth of Virginia that already regulate potential releases. Therefore, it is requested that they be removed from the permit. If EPA still needs to retain them in the permit, it is requested that they be explicitly identified as requiring no further action.

SWMU 28 Sanitary Landfill: Permit 401
SWMU 52 Closed Sanitary Landfill: Permit 401
HWMU 16 Hazardous Waste Landfill: Permit No. 401
SWMU 26 Fly Ash Landfill No. 1: Permit No. 399
SWMU 53 Activated Carbon Disposal Area: Permit No. 399
SWMU 27 CaSO₄ Disposal Area: Permit No. 353
SWMU 29 Fly Ash Landfill No. 2: Permit No. 353
SWMU 32 Inert Landfill No. 1. Permit 400
HWMU 7 Surface Impoundment No 7: VADEQ Post Closure Care Permit issued in 1999

EPA Response: State permitted units are subject to Corrective Action under this permit. It is the intention of EPA and the Virginia Department of Environmental Quality (VDEQ) to coordinate cleanup efforts. These units will be moved to the final category in Attachment A, further documenting that these units are regulated by VDEQ and that cleanup of these units, if necessary, will be coordinated by both EPA and VDEQ.

13. The following SSAs were never used. Therefore, it is requested that they be removed from the permit. If EPA still needs to retain them in the permit, it is requested that they be explicitly identified as requiring no further action.

SSA21 Continuous Automated Single Base Line Wastewater Treatment Plant
SSA22 Wastewater Holding Lagoons
SSA23 Wastewater Holding Lagoons
SSA24 Wastewater Holding Lagoons
SSA25 Wastewater Holding Lagoons

EPA Response: Attachment A is a comprehensive listing of all waste management units currently identified for the Radford Army Ammunition Plant. The units identified in this comment were listed in the Radford Facility Assessment and are therefore subject to the site screening process. These sites may be removed after they have been screened out via the site screening process (Permit Condition II.D.7) or after the units are considered officially clean closed for soils and groundwater under the State's authorized program.

14. SWMU 39 Wastewater Ponds from Propellant incinerator needs to be moved to "1. List of Solid Waste Management Units (SWMUs)".

EPA Response: Attachment A will be modified to reflect that SWMU 39 has been listed under the Solid Waste Management Units.

15. "Incinerator Spray Pond Adjacent to SWMU 39" is HWMU 39. It is requested that it be removed from the permit as it was cleaned closed for soil with the Virginia Department of Environmental Quality (VADEQ). If EPA still needs to retain it in the permit, it is requested that it be explicitly identified as requiring no further action.

EPA Response: EPA agrees with comment and has modified Attachment A to identify this

unit as HWMU 39. After discussion with VDEQ, EPA concurs that this unit was clean closed for soils. Groundwater investigation at the location of this unit is still required and therefore EPA must retain this unit in the Attachment A listing.

16. SWMU 10 was cleaned closed for soil by the VADEQ. Documentation was submitted (see Attachment F). Request it be removed from the permit. If EPA still needs to retain it in the permit it is requested that it be explicitly identified as requiring no further action.

EPA Response: After discussion with VDEQ, EPA concurs that this unit was clean closed for soils. Groundwater investigation at the location of this unit is still required and therefore EPA must retain this unit in the Attachment A listing.

17. HWMU 4 was cleaned closed for soil by the VADEQ. Request it be removed from the permit. If EPA still needs to retain it in the permit it is requested that it be explicitly identified as requiring no further action.

EPA Response: As of the effective date of this final Corrective Action permit, this HWMU has not been clean closed for groundwater nor has it been issued a post closure permit. Therefore EPA must retain this HWMU in the Attachment A listing.

18. HWMU 5 was closed in accordance with VADEQ approved closure plan. Request it be removed from the permit. If EPA still needs to retain it in the permit, it is requested that it be explicitly identified as requiring no further action.

EPA Response: See response to comment 17.

19. SWMU 68 Chromic Acid Treatment Tanks. This SWMU and impacted soils were removed during sampling and a closure report was prepared and submitted (see Attachment F). Request it be removed from the permit. If EPA still needs to retain it in the permit it is requested that it be explicitly identified as requiring no further action.

EPA Response: Approval of the closure report documenting clean closure of this unit has not been issued by EPA or VDEQ. Therefore, EPA must retain this unit on the Attachment A listing.

20. SWMU 69 Pond by Chromic Acid Treatment Tanks. impacted soils were removed and a closure report was prepared and submitted (see Attachment F). Request it be removed from the permit. If EPA still needs to retain it in the permit it is requested that it be explicitly identified as requiring no further action.

EPA Response: See response to comment #19.

21. SWMU 46 Propellant Burial can not be found despite diligent efforts to locate it. Spilled propellant from a reported train derailment would not likely be buried at the site of spillage. More likely it was taken to the burning ground and burned. Further investigative activities are

not likely to uncover anything new or relevant therefore request it be removed from the permit. If EPA still needs to retain it in the permit, it is requested that it be explicitly identified as requiring no further action.

EPA Response: The RAAP RCRA Facility Assessment, dated June 8, 1987 states "The unit is between Unit 34 and an open area identified by a sign as a septic field." EPA requests that the Permittee document and certify its efforts to locate this unit. EPA will make a final decision after reviewing Radford's submission.

22. SWMU 61 Mobile Waste Oil Tanks. These are active units and contained used oil, which is not a hazardous waste. Leaks and spills of used oil during handling and collection are managed in accordance with the RFAAP Spill Control and Countermeasures Plan and the Installation Spill Contingency Plan (SPCC/ISCP). Request it be removed from the permit. If EPA still needs to retain them in the permit, it is requested that they be explicitly identified as requiring no further action.

EPA Response: Releases of waste oil that contain hazardous waste or constituents are subject to Corrective Action. EPA will accept work previously completed by RAAP pursuant to other programs provided it meets the RCRA Corrective Action requirements. EPA cannot agree at this time that this unit will require no further action. If the Permittee has records of releases and subsequent cleanup activities, those records should be submitted to EPA for review.

23. SWMUs 75 and 76 Waste Oil Underground Storage Tanks. These tanks contained used oil which is not a hazardous waste. These tanks were managed and removed in accordance with RFAAP's Underground Storage Tank (UST) program. Request they be removed from the permit. If EPA still needs to retain them in the permit, it is requested that they be explicitly identified as requiring no further action.

EPA Response: See response to comment 22.

24. Request the following Miscellaneous Units be deleted from the permit.

Acid Sewers. Video investigation was completed with no major leaks found. Data was submitted to EPA in 1999. If EPA stills needs to retain it in the permit, it is requested that it be explicitly identified as requiring no further action.

EPA Response: A closure report documenting the permittee's findings that there have been no releases of hazardous waste or constituents should be prepared, certified in accordance with the permit requirements, and forwarded to EPA. This miscellaneous unit will be retained in the Attachment A listing until the closure report is approved by EPA.

Storm Sewers. Investigations, studies, etc. at SWMUs, AOCs, MUs, etc. already address releases into drainage areas at RFAAP and if applicable the storm sewers, Furthermore, these are governed by a separate VPDES storm water permit. If EPA still needs to retain them in the permit it is requested that they be explicitly identified as requiring no further action.

EPA Response: After further review by EPA, no specific areas in the storm sewer system have been identified for additional investigation. Therefore, the storm sewer system will not be retained on the Attachment A listing. Should any information become available regarding the release of hazardous waste or constituents in the future, the Permittee will be responsible for conducting a site screening process on the storm sewer system.

Oleum Plant. Material was removed and the equipment was cleaned before the facility was deactivated. If EPA still needs to retain it in the permit, it is requested that it be explicitly identified as requiring no further action.

EPA Response: A closure report documenting the permittee's actions to deactivate this unit including appropriate analytical data indicating that there have been no releases of hazardous waste or constituents should be prepared, certified in accordance with the permit requirements and submitted to EPA. Until the approval of the closure report by EPA, this miscellaneous unit will be retained on the Attachment A listing. EPA cannot agree at this time that this unit will require no further action.

Selected Karst Terrain Sinkholes - Soil (and water) in Main Mfg. Plant Area. These were not identified in any previous study. This unit's description is not specific and is not tied to any solid or hazardous waste management activity nor is it associated with any SWMU, AOC or SSA heretofore identified in this draft permit. Therefore they should not be identified as a regulated unit to be governed by corrective action (i.e. screening, investigation, study or interim measure). Request they be removed from the permit.

EPA Response: EPA agrees with comment and will not retain "Selected Karst Terrain Sinkholes - Soils (and water) in Main Mfg. Plant Area" in the Attachment A listing. EPA believes that if there are sinkholes, acting as conduits of hazardous waste or constituents, they will be fully investigated and evaluated during unit specific or facility wide groundwater investigations.

Discarded munitions along the New River from testing at the Ballistics range. This also was not identified in any previous study. Test rounds were used and expended at the Ballistics range consistent with their intended use. They were not discarded in the New River. Request it be removed from the permit.

EPA Response: Discarded munitions may be subject to RCRA Corrective Action. EPA is requesting RAAP to conduct an ordnance survey to ascertain the presence of discarded munitions remaining at the ballistics range and in the vicinity of the ballistics range and provide the data allowing RAAP to safely conclude that all test rounds were used and expended at the ballistics range consistent with their intended use. EPA is requesting the findings of the ordnance survey be documented in a report and certified in accordance with the permit requirements and forwarded to EPA.

Automated single base area (abandoned). This area was not put into production. A limited production test was conducted but the product (propellant) was removed and the equipment cleaned before the facility was deactivated. If EPA still needs to retain it in the permit, it is

requested that it be explicitly identified as requiring no further action.

EPA Response: See above response to Comment 13 regarding the Continuous Automated Single Base Line Wastewater Treatment Plant.

ATTACHMENT B HAZARDOUS CONSTITUENT LIST AND RISK BASED CONCENTRATION SCREENING versus EPA letters dated February 16, 1999, November 17, 1999 and Radford AAP letter dated January 31, 2000

25. We are uncertain what is required with respect to site screening and request clarification.

A similar "ATTACHMENT B" was enclosed with the EPA February 16, 1999 letter. In subsequent meetings and conversations with Mr. Robert Thomson and Ms. Lynn Flowers it was our understanding that EPA did not want Radford to follow this process and instead requested the use of the final document that was being developed for the Former Nansemond Ordnance Depot, Suffolk, Virginia as a template. To date, Radford has only received the draft Nansemond site screening document. This was to be an update to our Master Work Plan. Ecological receptor screening is currently addressed in Radford's documents: Ecological Risk Assessment Approach (Oct 1998) and the Screening Ecological Risk Assessment (Sept 1999). Please note the issues raised in Radford's letter of January 31, 2000 (response to EPA's letter of November 17, 1999) have not been resolved and need to be addressed before performing further ecological site screening or risk assessment work. Note that the Screening Ecological Risk Assessment (Sept 1999) is based on the Ecological Risk Assessment Approach (Oct 1998) which was coordinated with the EPA BTAG. We believe the issues are workable with resolutions close at hand.

EPA Response: The procedure documented in Attachment B shall be followed for the site screening process for human health exposure. The procedure documented in Attachment B shall be followed for ecological receptors until the site specific Radford document "Ecological Risk Assessment Approach (Oct 1998)" is approved by EPA and final. The site specific Radford document "Ecological Risk Assessment Approach" will fulfill the Attachment B ecological risk assessment requirements after the document is final and approved by EPA.

26. However if our understanding is incorrect and Attachment B is what EPA intends to require then we have the following comments and requests.

1. Page 1. The intention of the Appendix VIII constituents was to be the universe of hazardous constituents that could be considered and not as an analytical list. Analytical parameters should be consistent with hazardous constituents that could reasonably be expected to be present at a given site based on historical knowledge of waste management practices and site characteristics determined through investigative activities.

Request that the listing of constituents be consistent with the EPA target analyte list for inorganic compounds, and target compound list (TCL) for organic compounds. Perchlorate will be added for aqueous analyses and dioxin/furans for areas that are determined to have

been impacted by practices conducive to the generation or use of dioxins. Rare organic constituents (i.e. pesticides) would appear as Tentatively Identified Compounds in either the SVOC or VOC fraction. Pesticides were not manufactured at RFAAP therefore we request that the current practice of assessing pesticides on a case by case basis be continued.

EPA Response: EPA will agree to substituting the EPA promulgated Target Analyte List/Target Compound List (TAL/TCL) in lieu of the Appendix VIII Hazardous Constituents list. In addition to the TAL/TCL list the Permittee shall also analyze for any chemical that is deemed by the EPA to be associated with the historical and current manufacturing processes conducted at the RAAP which would include, but not be limited to, perchlorate and dioxin/furans.

2. Page 1. Item 2. This item states that screening is performed against risk-based screening levels, however the proposal to use current Federal Primary Drinking Water Standards (MCLs) are not risk based values but are technology based. It is suggested that MCLs not be included in the screening process, but be considered during risk management activities.

EPA Response: EPA agrees that MCLs are not always risk based values. It is consistent with EPA Region III policy for facilities to screen groundwater samples against the Maximum Contaminant Levels (MCLs) established under the Safe Drinking Water Act, or, if no MCL is available, the EPA Region III Risk-Based Concentration (RBC) Table (most recent update) or a similarly derived risk-based screening level.

3. Ambient Water Quality Criteria (AWQC) will be used during the ecological screening for surface water evaluation.

EPA Response: The procedure documented in Attachment B shall be followed for ecological receptors until the site specific Radford document "Ecological Risk Assessment Approach (Oct 1998)" is approved by EPA and final.

4. Page 4. Item iii. Request the use of the RBC table values that were calculated to be protective of contaminant transfer from soil to groundwater or air.

EPA Response: EPA agrees that RBC table values are appropriate as screening values for determining protective levels for contaminant transfer from soil to groundwater or air.

5. Page 5. Items 5B. We request screening against RBCs because they are actually risk-based as opposed to MCLs, which are technology based. Furthermore, previous direction from Region III on screening surface water specified the use of 10 times the tap water RBC for human health risk assessments (Master Work Plan, 1999, Attachment F).

EPA Response: Please see response to 26.2 above. EPA agrees that the human health screen of surface water is conducted at 10 times the screening RBC for tap water.

6. Page 7. 5Cii.b. RFAAP conducts ecological risk screening/risk assessment in accordance with RFAAP document *Ecological Risk Assessment Approach*. October 1998. The

procedure outlined in the October 1998 document was coordinated with the EPA BTAG. Further, this approach was used in the preparation of the *Screening Ecological Risk-Assessment* in September 1999 and submitted to EPA. Request that this approach be retained in lieu of the Attachment B procedure as it is more comprehensive. Example: In addition to the Attachment B *Toxicological Benchmark for Screening Contaminants of Potential Concern for Effects on Sediment-Associated Biota: 1997 Revision*, the RFAAP *Ecological Risk Assessment Approach*, October 1998 uses the following documents (listed in preferential order) to obtain screening values.

- (a) Effects Range Low (ER-L) values selected preferentially from Long et al. (1995). alternatively from Long and Morgan (1990).
- (b) **LONG, E.R., MACDONALD, D.D., SMITH, S.L., and CALDER, F.D. 1995.** Incidence of adverse biological effects within ranges of chemical concentrations in marine and estuarine sediments. *Environmental Management* 19(1):81-97.
- (c) **LONG, E.R., and MORGAN, L.G. 1990.** *The Potential for Biological Effects of Sediment Sorbed Contaminants Tested in the National Status and Trends Program.* National Oceanic and Atmospheric Administration (NOAA), National Ocean Service, Seattle, Washington.
- (d) Threshold Effect Level (TEL) values from MacDonald et al. (1996)
- (e) **MACDONALD, D.D., CARR, R.S., CALDER, F.D., LONG, E.R., AND C.G. INGERSOLL. 1996.** Development and evaluation of sediment quality guidelines for Florida coastal waters. *Ecotoxicology* 5:253-278.
- (f) Lowest Effect Level (LEL) values from OMEE (1993)
- (g) **ONTARIO MINISTRY OF THE ENVIRONMENT AND ENERGY (OMEE). 1993.** *Guidelines for the Protection and Management of Aquatic Sediment Quality in Ontario.* Water Resources Branch, Ontario Ministry of the Environment and Energy.
- (h) Sediment Quality Benchmark (SQB) values from Jones et al. (1997) and USEPA (1996).
- (i) **JONES, D.S., SUTER 11, G.W., AND HULL, R.N. 1997.** Toxicological Benchmarks for Screening Contaminants of Potential /Concern for Effects on Sediment-Associated Biota: 1997 Revision. Prepared for U.S. Department of Energy. Office of Environmental Management. Oak Ridge National Laboratory, Oak Ridge, TN. ES/ER/TM-95/R4.
- (j) **U.S. ENVIRONMENTAL PROTECTION AGENCY (USEPA). 1996.** *Ecotox Thresholds. Eco Update*, 3(2): 1-12. Office of Solid Waste and Emergency Response. EPA 540/F-95/038. January 1996.

While some of the screening values listed in the Attachment B document: *Toxicological Benchmarks for Screening Contaminants of Potential Concern for Effects on Sediment Associated Biota* will overlap, the use of the Attachment B document will result in screening values that will be assessed differently from the approach that was coordinated with the BTAG for RFAAP.

Again we reiterate our request to use the procedure in the RFAAP document *Ecological Risk Assessment Approach*, October 1998 in lieu of the Attachment B procedure.

EPA Response: EPA will agree to use the procedure outlined in Radford's submittal entitled Ecological Risk Assessment Approach, October 1998 once the document has been approved by EPA. Until such time the procedure in Attachment B shall be used for ecological receptor screening.

ATTACHMENT C RCRA FACILITY INVESTIGATION

27. Page 18. 2. RCRA Facility Investigations, f. Risk Assessment

RFAAP (Main Manufacturing and New River Areas) will perform risk assessments using the industrial scenario for current and future use. This is reasonable and is consistent with planned Army use of RFAAP. The Army plan is to maintain RFAAP as a propellant manufacturing facility at least through 2025. RFAAP is the only domestic and Government-owned facility for propellant manufacturing, this fact combined with no foreseeable changes in the make up of Department of Defense weaponry, RFAAP future use will continue to reflect its current industrial use well beyond 2025.

EPA Response: Both the industrial and residential use scenarios, as well as other site-specific use scenarios must be evaluated in the baseline risk assessment process. However, the actual land use scenario chosen for the remedy selected will occur after the completion of the baseline risk assessment during the Corrective Measures Study.

28. Page 19, 3. RCRA Facility Investigation Report. b. Media Cleanup Standards

The Permittee is required to provide media cleanup standards in the RFI Report. Such standards are typically included during the consideration of appropriate remedies i.e., the Corrective Measures Study Report. Request that media cleanup standards be moved to Attachment D Corrective Measures Study.

EPA Response: EPA disagrees with comment. EPA believes that identifying media cleanup standards in the RFI Report is appropriate and consistent with cleanup investigations at similar facilities and will narrow the focus and facilitate the development of the Corrective measures Study Report.

29. Our understanding that upon delegation of the correction action program to the Commonwealth of Virginia, they will approve decision documents, cleanup actions, etc. via

permit modifications. Our concern is that the draft permit does not adequately incorporate the necessary Commonwealth review and approval of any of the documents that support cleanup action decisions. Routinely we have provided the Commonwealth with these decision documents, notices of meetings, etc with no response. How will the EPA ensure participation of the Commonwealth prior to and subsequent to delegation? One recommendation we have is that at Part 1. Section B. 7. Project Coordinators, the Commonwealth be required to provide a Project Coordinator at a similar level of responsibility as Mr. Thomson.

EPA Response: All permit modifications will be coordinated with VDEQ.

TECHSYSTEMS

1. I concur with the comments provide to you by LTC Alston's July 10, 2000 letter. I will not repeat those comments in this letter.

2. As the operator of Radford AAP, Alliant Ammunition and Powder Company, LLC (Alliant) recognizes EPA's need to list the company as the operator. The permit does discuss the Army's funding mechanisms. Alliant has no input into the Installation Action Plan and therefore should not be held accountable to EPA for it's contents or the consequences of the Army not performing in accordance with the Installation Action Plan.

EPA Response: EPA acknowledges that Alliant is not part of the IAP process.

3. Part I Section B paragraph 8a.

Request confirmation that overnight mail includes commercial carriers such as Federal Express.

EPA Response: EPA agrees with comment.

4. Part I Section B paragraph 8b.

This permit is written in such a manner that the owner is the responsible party for actions. In this light please allow that reports to be submitted be certified IAW 40 CFR 270.11 only by the owner. The current contract between the Army and Alliant states that Alliant will be the responsible party to transmit the reports. Allowing the Army to be the only certifier will increase deliverables to EPA by at least 5 days.

EPA Response: The Permittee must submit all requirements in accordance with the permit.

5. Part 11 Section A

There is no reference in the Statement of Purpose to the previous permit. As the permit reads, none of the work submitted by the Permittee from 1989 to present is usable. It appears that this permit will require different screening values and different lists in which to screen.

EPA Response: Previously submitted documents have been acknowledged by EPA and are listed on Attachment F. With respect to the requirements of this permit, EPA will accept any

previously collected data that are relevant and appropriate.

6. Attachment A Section I

SWMU 74 and SWMU 29 are active permitted landfills. They do not meet the requirements of corrective action. These permits have closure plans that will be reviewed by VDEQ 180 days prior to closure in accordance with VDEQ regulations.

EPA Response: Solid Waste Management Units are subject to Corrective Action under this permit. All actions relating to these units will be coordinated with VDEQ.

7. Attachment A Section 4

We have no record of discarded munitions in the New River from the ballistics range. Please inform us as the rationale to place this requirement in this permit. The Automated single base line is not abandoned. Alliant is attempting to market the building for ARMs tenants. The facility was never in production but was proved out. Please document on a map the location of the "selected Karst Terrain sinkholes"

EPA Response: See the EPA Response to U.S. Army comment #24.