

ORDNANCE SYSTEMS INC.
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford Virginia 24141

October 19, 2015

Leslie Romanchik
Hazardous Waste Program Manager
Virginia Department of Environmental Quality
629 East Main Street
Richmond, Virginia 23219

**Subject: RFAAP Incinerator Permit Application NOD Response
Radford Army Ammunition Plant, Radford, Virginia
EPA ID#: VA1210020730**

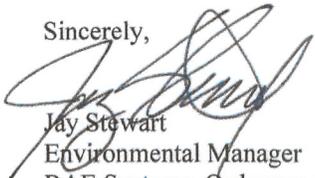
Dear Ms. Romanchik:

Attached, please find our responses to the notice of deficiency (NOD) issued by the Virginia Department of Environmental Quality (DEQ) September 25, 2015, for the Incinerator Resource Conservation and Recovery Act (RCRA) renewal application submitted in April 2012, and the amended version of that application provided to DEQ on August 13, 2015.

For each NOD provided by DEQ, we have summarized our conversations to date, made additional comments where appropriate, and summarized the action items resulting from the NOD. These NOD responses can be found in Attachment 1 to this letter. Along with each of the responses, we have provided revised application materials where appropriate. These revised pages are provided as Attachment 2 to this letter.

If you have any questions or concerns regarding our responses, please contact Mr. Matt Alberts at 540/639-8722 (matt.alberts@baesystems.com).

Sincerely,



Jay Stewart
Environmental Manager
BAE Systems, Ordnance Systems Inc.

Enclosures:

- Attachment 1 - Written Description of Application Revisions included with this Submittal
- Attachment 2 - Revised sections to the EWI RCRA permit application

c: Russ McAvoy, VDEQ-CO
Ashby Scott, VDEQ-CO

Coordination: 
J. McKenna

bc: J. Stewart, BAE Staff
J. McKenna, Army Staff
Matt Alberts, BAE Staff
Michele Gehring, Coterie Environmental
Env. File

Attachment 1

Written Description of Application
Revisions included with this Submittal

Comments and responses provided herein reflect those associated with the RCRA Permit notice of deficiencies provided in DEQ's letter dated September 25, 2015. DEQ's initial comment is provided in *italic* font, and BAE's response is provided in standard font. The numbering provided matches that in DEQ's letter.

Section 1, Comment 1: While RAAP's response is adequate the language in the discussion section which had been submitted for this and the previous responses raises a concern with DEQ. The language is as follows:

"On the issue of detection limits, RFAAP indicated that little data is available to compare because risk-assessment like testing is generally not being performed anymore. However, RFAAP will compare detection limits in the risk burn for dioxins/furans and metals to those achieved in the latest CPT."

Comparing the detection limits only of metals and dioxins/furans does not fulfill the conditions DEQ has stated. All constituent detection limits will be evaluated for the previous risk burn events. Failure to incorporate all compounds evaluated during the previous risk burn events may be answered with a request for a risk burn to be completed.

The language provided in the NOD response is consistent with RFAAP's prior communication on this issue and direct conversations held with DEQ during our January 2015 meeting. (Please reference the meeting minutes from our January meeting transmitted to DEQ in RFAAP letter log number 15-0900-143 via email on March 5, 2015, and DEQ's review and acknowledgement of this discussion included in their March 20, 2015, transmittal). As RFAAP communicated during that meeting, the risk burn included testing for many non-standard pollutants that are not included nor are required to be included in RFAAP's periodic emission tests under the HWC MACT program. Nor are these pollutants being tested for in incinerator emissions throughout the United States on a regular basis. (Most of the risk assessments and risk burns for others in the industry have been long since completed and no State that we identified other than Virginia is requiring recompletion of these assessments and test burns with RCRA permit renewals). Therefore, there is no data readily available to compare detection limits for every single pollutant that was evaluated in the previous risk burn. That said, the trend in detection limits has been generally consistent between methods. Therefore, RFAAP contends that if no significant decrease has occurred in metals or dioxin/furan detection limits since the risk burn, it is reasonable to assume that no significant decrease has been achieved in the other methods, especially considering that those other methods have limited application within the industry at this time.

Section 1 Comment 7: Section II.D.10 still has modified language included in the submitted revision to Module I. The modified language is identified by the red font [underlined below] in the following:

"I.D.10. - The Permittees shall not store or treat hazardous waste in any new or modified portion of the hazardous waste management unit, except as provided in 40 CFR 270.42, until the Permittees have submitted to the Director, by certified mail or hand delivery, a letter signed by the Permittees and, where required, a professional engineer registered by the Commonwealth, stating that the facility has been constructed or modified in compliance with the Permit; and:"

RAAP shall submit a revised Module I which removes the modified language from Section II.D.10. Alternatively RFAAP may consent to the removal of the revised language by DEQ during the drafting of the final permit language in a written response.

The revised Module I included with this submittal has been modified to eliminate the underlined text above from Condition I.D.10.

Section 2, Comment 2: DEQ has reviewed the submitted revised Module II and the language regarding facility operation and maintenance records and reports has been reinstated in the 5 year retention schedule conditions. However the language still remains in the 3 year retention schedule as item II.I.2.c.v and may cause some potential confusion with RAAP personnel or DEQ inspectors. A revised version of Module II with the language removed shall be submitted. Alternatively RAAP may consent to the language being removed by DEQ during the drafting phase for the final permit via a written response to satisfy this comment.

The revised Module II included with this submittal has been revised to remove the referenced requirement from the 3-year retention schedule.

Section 2, Comment 8: DEQ has reviewed the revised language in the submitted Attachment II.A, Section II.A.3 and finds the level of detail in the revised language to be insufficient when compared to the previous language which detailed the Auer Land Use Analysis. Additionally when comparing the previous language in the 2012 submission to the

revised language it is apparent RAAP only changed language which described the nearest elementary schools as being one mile away instead of 2.5 miles away. RAAP will submit revised language for the section which is a comparable substitution for the Auer Land Use Analysis language in the current permit or DEQ will include the current Auer Land Use Analysis section language in the final permit.

The Auer land use description referenced by DEQ was sourced from the previous risk assessment protocol during development of the draft Permit. Recognizing that land use has changed since the draft of the original risk assessment protocol, even if just slightly, RFAAP does not feel it appropriate to include the old Auer land use analysis in the new permit application. In fact, we can find no requirement within 40 CFR Parts 264 or 270 to include an analysis to the level of detail that DEQ has requested. However, should DEQ still insist that this level is necessary for adequate protection of human health and the environment, we request that DEQ utilize the analysis from the new risk assessment protocol that RFAAP will be required to develop instead of utilizing the old, outdated analysis. We also request the instead of including the language from the Protocol directly in the Permit, DEQ consider including the description provided in RFAAP's latest transmittal with a reference to the Risk Assessment Protocol for further detail.

Section 2, Comment 25 - The DEQ has reviewed the submitted revised language under Table II.D-1 and the language does not reference the specific policy document which requires the names of the persons holding the jobs described in the table to be withheld as agreed with DEQ. RAAP will revise the language to state the specific policy which requires the names to be withheld as a blanket statement regarding national security is not sufficient nor is what was agreed upon during discussions with DEQ regarding the comment.

We have revised the text as requested. The revised Table II.D-1 provided with this submittal provides direct reference to Department of Defense (DoD) Directive 5400.11-R, Office of Management and Budget (OMB) Memorandum M-07-16, and Army Regulation 340-21.

Section 2, Comment 28 - DEQ has reviewed the updated language and the description of the system designed to ensure an employee has receive training has been removed. RAAP shall submit a revised Section 7 of Appendix II.D-1 in Attachment II.D which details the mechanism by which proper training has been given to employees before working in areas which contain hazardous waste.

Section 7 of Appendix II.D-1 in the revised Attachment II-D included with this submittal has been revised to include information on how the training program tracks training requirements and progress to ensure that proper training has been given to employees before working in area which contain hazardous waste (or any other area of the plant).

Section 2, Comment 62 - The DEQ has reviewed the submitted revised language in Section III.2.B of Part III.2 in Module III and while RAAP has reinstated language regarding only incinerating waste generated at the facility the condition which states only slurried waste shall be incinerated is still struck out of the permit. RAAP shall submit a revision to Section III.2.B of part III.2 in Module III which the language about slurried waste. Alternatively RAAP may consent to having the language added by DEQ during the drafting of the final permit in writing.

The revised Module III included with this submittal has been revised to reinstate Permit Condition III.2.B.2, which concerns the incineration of slurried wastes.

Attachment 2

Revised Sections to the EWI RCRA Permit Application

MODULE I – STANDARD CONDITIONS

I.A. EFFECT OF PERMIT

This Permit, issued by the Director pursuant to 40 CFR 270.1(c)(4), authorizes only the management of hazardous waste expressly described in this Permit and in accordance with the conditions of this Permit and -with the applicable provisions of 9 VAC 20-60. Any management of hazardous waste by the Permittees in the permitted treatment and storage area or in the closed hazardous waste management units (HWMUs) which is not authorized by this Permit or 9 VAC 20-60, and for which a permit is required under Chapter 14, Article 4, Title 10.1, Code of Virginia (1950), as amended, is prohibited. Compliance with this Permit generally constitutes compliance, for the purposes of enforcement, with Chapter 14, Article 4, Title 10.1-1426, Code of Virginia (1950), as amended. This Permit does not convey any property rights of any sort, or any exclusive privilege. Possession of a permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of Commonwealth or local laws or regulations. Compliance with the terms of this Permit may not constitute a defense to any action brought under Chapter 14, Article 8, Code of Virginia (1950), as amended, or any other Commonwealth law governing protection of the public or the environment.

I.B. PERMIT ACTIONS

- I.B.1. This Permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR 124.5, 270.30(f), 270.41, and 270.43. The filing of a request by the Permittees for a permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance does not stay the applicability or enforceability of any permit condition.
- I.B.2. Permit modifications at the request of the Permittees shall be done as specified by 40 CFR 270.42.

I.C. SEVERABILITY

- I.C.1. The provisions of this Permit are severable, and if any provision of this Permit or the application of any provision of this Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby. Invalidation of any Commonwealth or Federal statutory or regulatory provision which forms the basis for any condition of this Permit does not affect the validity of any other Commonwealth or Federal statutory or regulatory basis for said condition.
- I.C.2. In the event that a condition of this Permit is stayed for any reason, the Permittees shall continue to comply with the related applicable and relevant interim status

standards in 40 CFR ~~270.10(e)~~265 until final resolution of the stayed condition unless the Director determines compliance with the related applicable and relevant interim status standards would be technologically incompatible with compliance with other conditions of this Permit which have not been stayed.

I.D. DUTIES AND REQUIREMENTS

I.D.1. Duty to Comply

The Permittees shall comply with all conditions of this Permit, except that the Permittees need not comply with the conditions of this Permit to the extent and for the duration such noncompliance is authorized by an emergency permit (see 40 CFR 270.61). Any permit noncompliance, except under the terms of an emergency permit, constitutes a violation of Title 10.1 Code of Virginia (1950), as amended and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

I.D.2. Duty to Reapply

If the Permittees wish to continue an activity regulated by this Permit after the expiration date of this Permit, the Permittees shall apply for and obtain a new permit as specified below.

- a. The Permittees shall submit a new application at least 180 days before the expiration date of the Permit, unless a later date has been granted by the Director.
- b. Pursuant to 40 CFR 270.10(h), the Director shall not grant permission for an application to be submitted later than the expiration date of the existing permit.

I.D.3. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittees in an enforcement action to argue 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.D.4. Duty to Mitigate

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

I.D.5. Proper Operation and Maintenance

The Permittees 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 Permittees 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 quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Permit.

I.D.6. Duty to Provide Information

The Permittees shall furnish to the Director within a reasonable time, any pertinent information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit; or to determine compliance with this Permit. The Permittees shall also furnish to the Director, upon request, copies of records required to be kept by this Permit.

I.D.7. Inspection and Entry

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

- a. Enter at reasonable times upon the Permittees' premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under conditions of this Permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and
- d. Sample or monitor at reasonable times for the purposes of assuring permit compliance or as otherwise authorized by 9 VAC 20-60, any substances or parameters at any location.

I.D.8. Reporting Planned Changes

The Permittees shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. This notice shall include a description of all incidents of noncompliance reasonably expected to result from the proposed changes.

I.D.9. Anticipated Noncompliance

The Permittees shall give advance written notice to the Director of any planned changes in the permitted facility or activity that may result in noncompliance with Permit requirements.

I.D.10. New and Modified Portions of Any Waste Management Unit

The Permittees shall not store or treat hazardous waste in any new or modified portion of the hazardous waste management unit, except as provided in 40 CFR 270.42, until the Permittees have submitted to the Director, by certified mail or hand delivery, a letter signed by the Permittees and a professional engineer registered by the Commonwealth, stating that the facility has been constructed or modified in compliance with the Permit; and:

- a. The Director has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the Permit; or
- b. Within 15 days of the date of submission of the letter required pursuant to Permit Condition I.D.10, if the Permittees have not received notice from the Director of his intent to inspect, prior inspection is waived and the Permittees may commence treatment of hazardous waste.

I.D.11. Twenty-four Hour Reporting

The Permittees shall report to the Director any noncompliance which may endanger health or the environment. Information shall be provided orally as required by 40 CFR 270.30(l)(6) within twenty-four (24) hours from the time the Permittees become aware of the circumstances. The information specified in a. and b. below shall be included as information that shall be reported orally within 24 hours.

- a. Information concerning the release of any hazardous waste that may cause an endangerment to public drinking water supplies shall be reported.
- b. Any information of a release or discharge of hazardous waste, or of a fire or explosion at the facility, ~~which that~~ could threaten the environment or human health outside the facility shall be reported.
- ~~b.~~ The description of the occurrence and its cause shall include:
 - i. Name, address, and telephone number of the owner or operator;
 - ii. Name, address, and telephone number of the facility;

- iii. Date, time, and type of incident;
 - iv. Names and quantities of material(s) involved;
 - v. The extent of injuries, if any;
 - vi. An assessment of actual or potential hazard to the environment and human health outside the facility, where this is applicable; and
 - vii. Estimated quantity and disposition of recovered material that resulted from the incident.
- c. A written submission shall also be provided to the Director within five (5) days of the time the Permittees become aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the periods of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Director may waive the 5-day notice requirement in favor of a written report within fifteen (15) days prepared pursuant to Permit Condition II.H.5 and 40 CFR 270.30(1)(6)(iii).

I.D.12. Other Noncompliance

The Permittees shall report all other instances of noncompliance not otherwise reported pursuant to Permit Conditions I.D.11, I.D.13, and I.E.1 at the time monitoring reports are submitted. The reports shall contain the information listed in Permit Condition I.D.11.

I.D.13. Other Information

Whenever the Permittees become aware that they failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Director, the Permittees shall promptly submit such facts or information to the Director.

I.E. MONITORING AND RECORDS

I.E.1. Monitoring Reports

Monitoring shall be performed and results shall be reported at the intervals specified in the Permit.

I.E.2. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method

specified in 40 CFR 261, Appendix I, or an equivalent method approved by the EPA. Laboratory methods must be those specified in *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*, SW-846 (3rd ed.; November, 1986, as updated), *Standard Methods of Wastewater Analysis* (16th ed.; 1985), an equivalent method approved by the EPA, or RFAAP Laboratory methods specified in ~~Table 1 of Attachment H.B. (See Module H, Attachment H.B. –Waste Analysis Plan.)~~this Permit.

- I.E.3. The Permittees shall retain records of all monitoring information, including all calibration and maintenance records, and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this Permit, all certifications required by 40 CFR 264.73(b)(9), and records of all data used to complete the application for this Permit, for a period of at least 3 years (or longer if specified elsewhere in this Permit) from the date of the sample collection, measurement, report, certification, or application. These retention periods may be extended by the request of the Director at any time and are automatically extended during the course of any unresolved enforcement actions regarding this facility.

Records of monitoring information shall include at a minimum:

- a. The date, exact place, and time of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of such analyses.

I.F. COMPLIANCE NOT CONSTITUTING DEFENSE

Compliance with the terms of this Permit does not constitute a defense to any action brought under Chapter 14, Article 8 of Title 10.1, Code of Virginia (1950) as amended or any other Commonwealth law governing protection of the public or the environment.

I.G. TRANSFER OF PERMITS

This Permit is not transferrable to any person except after notice to the Director. The Director may require modification or revocation and reissuance pursuant to 40 CFR 124.5, 270.40, 270.41, 270.42, and 270.43 to change the name of the Permittees and incorporate such other requirements as may be necessary. Before

transferring ownership or operation of the facility during its operating life, the Permittees shall notify the new owner or operator in writing of the requirements of 9 VAC 20-60-264 and 40 CFR 270.

I.H. PERMIT EXPIRATION AND CONTINUATION

Pursuant to 9 VAC 20-60-270 B 5 this Permit will remain in force until the effective date of a new permit if the Permittees have submitted a timely, complete application pursuant to Permit Condition I.D.2.a and through no fault of the Permittees, the Director has not issued a new permit with an effective date on or before the expiration date of this Permit. All conditions of the continued Permit shall remain fully effective and enforceable.

I.I. REPORTS, NOTIFICATIONS, AND SUBMISSIONS TO THE DEPARTMENT

I.I.1. Biennial Report

The Permittees shall submit a biennial report to the Department which covers facility activities during the previous year. At a minimum this report will include:

- a. The generator biennial report pursuant to 40 CFR 262.41; and
- b. The hazardous waste management facility biennial report pursuant to 40 CFR 270.30(i)(9).

I.I.2. All reports, notifications or other submissions which are required by this Permit to be sent or given to the Director should be sent **by** certified mail, sent by certified carrier, or be hand-delivered to:

Director, Office of Waste Permitting
Department of Environmental Quality
PO Box 10009
Richmond, Virginia 23240-0009
Telephone Number (804) 698-4000

Copies of all such correspondence should also be sent to:

Director, West Central Regional Office
Department of Environmental Quality
3019 Peters Creek Road
Roanoke, VA 24019

Section Chief, Hazardous Waste Management Division
Environmental Protection Agency, Region III
1650 Arch Street

Philadelphia, PA 19103-2029

I.I.3. Signatory Requirements

All applications, reports, or information submitted to the Director shall be signed and certified as specified by 40 CFR 270.11.

I.J. **DOCUMENTS TO BE MAINTAINED AT THE FACILITY SITE**

I.J.1. Current copies of the following documents, as amended, revised, and modified, shall be maintained at the facility. These documents shall be maintained until post-closure care is completed and certified by the Permittees and by an independent, Virginia-registered professional engineer, unless a lesser time is specified in the Permit.

- a. The Permit, including all attachments;
- b. All Part B Permit Applications supporting the Permit;
- c. The facility operating record required by 40 CFR 264.73, Permit Condition II.I.2.;
- d. Inspection schedules and logs required by 40 CFR 264.15(b)(2) and 264.15(d);
- e. Personnel training documents and records required by 40 CFR 264.16 and this Permit;
- f. Closure Plans, as required by 40 CFR 264.112(a) and this Permit; **and**
- g. Post-Closure Plans, as required by 40 CFR 264.118(a) and this Permit.;

I.K. **REGULATORY REFERENCES FOR APPLICABLE REQUIREMENTS AND SITE-SPECIFIC CONSIDERATIONS**

I.K.1 Any changes to the facility or unit operations reported under Condition I.D.8 shall be provided in accordance with 40 CFR 270.30(l)(1). If these changes will require a permit modification, the Permittee shall prepare a modification request as required by 40 CFR 270.42. This request shall specify the exact change to be made to the permit conditions and any supporting documents referenced by the permit. In addition, this request shall include all applicable information required by 40 CFR 270.13 through 270.21, 270.62, and 270.63.

- I.K.2. Any anticipated non-completed reported under Condition I.D.9 shall be provided in accordance with 40 CFR 270.30(1)(2).
- I.K.3. Oral reporting of events triggering a 24-hour reporting requirement under Condition 1.D.11 shall be provided in accordance with 40 CFR 270.30(1)(6)(iii).
- I.K.4. In lieu of conducting sampling under Condition I.E.2 following standard procedures, the Permittee may conduct sampling pursuant to site-specific methods approved by DEQ in the Waste Analysis Plan (Attachment II.B).

MODULE II – GENERAL FACILITY CONDITIONS

II.A. WASTE ANALYSIS

II.A.1. General Waste Analysis

The Permittees shall follow the procedures described in the Waste Analysis Plan, Attachment II.B. Waste analysis shall require, at a minimum, the maintenance of proper functional instruments, use of approved sampling and analytical methods, verification of the validity of sampling and analytical procedures, and correct calculations. If the Permittees do not have sufficient capability for analysis, then the Permittees shall inform the laboratory performing the analysis that the laboratory must operate under the waste analysis conditions placed on the Permittees.

II.B. SECURITY

The Permittees shall comply with the security provisions of 40 CFR 264.14. The security provisions shall follow the outline in Attachment II.G.

II.C. GENERAL INSPECTION REQUIREMENTS

The Permittees shall follow the inspection schedule set out in the Inspection Schedule, Attachment II.C. The Permittees shall remedy any deterioration or malfunction discovered during an inspection as required by 40 CFR 264.15(c). Records of inspections shall be kept as required by 40 CFR 264.15(d) and Permit Condition II.I.2.~~dc.xxii~~.

II.D. PERSONNEL TRAINING

The Permittees shall conduct personnel training as required by 40 CFR 264.16. This training program shall follow Personnel Training, Attachment II.D. The Permittees shall maintain training documents and records as required by 40 CFR 264.16(d)(4) and 264.16(e) as well as Permit Conditions II.I.2.~~ba.vii~~ and II.I.2.~~dc.iiiix~~.

II.E. GENERAL REQUIREMENTS FOR REACTIVE WASTE

The Permittees shall comply with the requirements of 40 CFR 264.17. The Permittees shall follow the procedures for the handling of reactive waste detailed in Attachment III.1.C. (see Module III, Part III.1).

II.F. FLOODPLAIN STANDARD

The Permittees shall comply with the requirements of 40 CFR 264.18(b). The Permittees shall follow the flood plan in Attachment II.H.

II.G. PREPAREDNESS AND PREVENTION

II.G.1. Design and Operation of Facility

The Permittees shall maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or nonsudden release of hazardous waste constituents to air, soil, or surface water that could threaten human health or the environment.

II.G.2. Required Equipment

At a minimum, the Permittees shall equip the facility with the equipment set forth in the Contingency Plan, Attachment II.E, as required by 40 CFR 264.32.

II.G.3. Testing and Maintenance of Equipment

The Permittees shall test and maintain the equipment specified in Permit Condition II.G.2 and in Attachment II.E as necessary to assure its proper operation in time of emergency.

II.G.4. Access to Communications or Alarm System

The Permittees shall maintain access to the communication or alarm system as required by 40 CFR 264.34.

II.G.5. Arrangements with Local Authorities

The Permittees shall maintain arrangements with State and local authorities as required by 40 CFR 264.37. If State and local officials refuse to enter into or renew existing preparedness and prevention arrangements with the Permittees, the Permittees shall document this refusal in the operating record pursuant to Permit Condition II.I.2.ed.iv.

II.H. CONTINGENCY PLAN

II.H.1. Implementation of Plan

The Permittees shall immediately carry out the provisions of the Contingency Plan, Attachment II.E, and follow the emergency procedures described by 40 CFR 264.56, whenever there is an imminent or actual fire, explosion, or release of

hazardous waste or constituents ~~which that~~ threaten or could threaten human health or the environment.

II.H.2. Copies of Plan

The Permittees shall comply with the requirements of 40 CFR 264.53.

II.H.3. Amendments to Plan

The Permittees shall review and immediately amend, if necessary, the ~~contingency-Contingency plan~~ Plan, as required by 40 CFR 264.54.

II.H.4. Emergency Coordinator

The Permittees shall comply with the requirements of 40 CFR 264.55.

II.H.5. Emergency Procedures

The Permittees shall comply with the requirements of 40 CFR 264.56 including the recordkeeping and reporting requirements specified in Permit Condition II.I.2.~~ac.iv~~vii.

II.I. RECORDKEEPING AND REPORTING

II.I.1. Notification, Certification, and Recordkeeping Requirements

In addition to the recordkeeping and reporting requirements specified elsewhere in this Permit, the Permittees shall comply with all ~~the~~ applicable notification, certification, and recordkeeping requirements described in 40 CFR 264.73(b)(12) and 268.7.

II.I.2. Operating Record

The Permittees shall maintain a written operating record at the facility, consisting of records kept for the lengths of time specified below. The record can be a compilation of various documents. The operating record shall include, but ~~shall~~ not be limited to, the information listed below:

- a. The following records shall be maintained until closure is complete and certified:
 - i. A current map showing the location of hazardous waste management units and non-regulated units within the facility;
 - ii. A map showing all locations of past hazardous waste management units if different from present locations;

Comment [RFAAP1]: Changes in this section made to reflect those implemented as a result of the April 2006 burden reduction rule. See Federal Register Vol. 71, No. 64, pp. 16862 - 16915.

- iii. Pursuant to 40 CFR 264.73(b)(1), a description and the quantity of each hazardous waste received, and the method(s) and date(s) of its treatment, storage, or disposal at the facility;
- ~~iv. The time, date, and details of any incident that requires implementation of the contingency plan, including copies of all reports prepared pursuant to 40 CFR 264.56(j) and Permit Condition II.H.5. or I.D.11.e.;~~
- ~~v.iv. All submittals prepared pursuant to Permit Condition I.D.13 (revised or supplemental permit application materials);~~
- ~~vi. Records and results of waste analyses required by 40 CFR 264.13, pursuant to 40 CFR 264.73(b)(3), which shall include at a minimum:
 - ~~A. The date(s), exact place, and times of sampling or measurements;~~
 - ~~B. The name of the individual(s) who performed the sampling or measurements;~~
 - ~~C. The date(s) analyses were performed, demonstrating that holding times for the methods specified in the Waste Analysis Plan, Attachment II.B were satisfied;~~
 - ~~D. The name of the individual(s) who performed the analyses;~~
 - ~~E. The analytical techniques or method used;~~
 - ~~F. The analytical results;~~
 - ~~G. The QA/QC summary; and~~
 - ~~H. The type and model number of the equipment used for analysis.~~~~
- ~~vii. All waste determinations and waste profile determinations made pursuant to the Waste Analysis Plan, Attachment II.B.~~
- ~~viii. Certifications pursuant to 40 CFR 264.73(b)(9) (Waste Reduction Plan); and~~
- v. Certifications as required by 40 CFR 264.196(f) (Leaks or spills from leaking or unfit-for-use tank systems);
- vi. The notice and certification required by a generator under 40 CFR 268.7 (Land Disposal Restrictions) pursuant to 40 CFR 264.73(b)(10);

vii. Training records of current facility personnel pursuant to 40 CFR 264.16(e);

~~ix. _____.~~

~~x. The most recent revisions of all *Operating Procedures* listed in Table III-1.~~

~~b. The following records shall be maintained until post-closure is complete and certified:~~

~~i.viii. Records of spills and releases required by existing environmental laws, including, but not limited to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act; and~~

~~ii.ix. Written reports and records of verbal notification to the Director and the Administrator to address releases, fires, and explosions;~~

~~iii. All reports of noncompliance pursuant to Permit Condition I.D.12.;~~

~~iv. All reports prepared pursuant to Permit Condition I.D.11.;~~

~~v. Records of all monitoring information pursuant to Permit Condition I.E.; and~~

~~vi. Training records of current facility personnel.~~

e.b. The following records shall be maintained for a minimum of 5 years. This time period may be extended by the Department in the event of enforcement action or notification by the Department that an investigation is ongoing.

~~i. i. Facility operation and maintenance records and reports prepared pursuant to this Permit; and~~

~~Progress reports and any required notifications prepared pursuant to this Permit.~~

~~ii. Monitoring, testing, or analytical data, where required by 40 CFR 264.347 (monitoring and inspections for incinerators).~~

d.c. The following records shall be maintained for a minimum of 3 years. This time period may be extended by the Department in the event of enforcement action or notification by the Department that an investigation is ongoing.

i. Generator biennial reports submitted in compliance with 40 CFR 262.41;

ii. Facility biennial reports submitted in compliance with 40 CFR 264.75;

iii. All reports of noncompliance pursuant to Permit Condition I.D.12;

- iv. All reports prepared pursuant to Permit Condition I.D.11;
~~Facility operation and maintenance records and reports prepared pursuant to this Permit;~~
- ~~ii-v.~~ Progress reports and any required notifications prepared pursuant to this Permit;
- vi. Summary reports and details of any incident that requires implementation of the Contingency Plan, including copies of all reports prepared pursuant to 40 CFR 264.56(i) and Permit Condition II.H.5. or I.D.11.c.;
- vii. Certifications pursuant to 40 CFR 264.73(b)(9) (Waste Reduction Plan);
- ~~iii-viii.~~ Training records of former facility personnel pursuant to 40 CFR 264.16(e);
- x. Records and results of waste analyses required by 40 CFR 264.13, pursuant to 40 CFR 264.73(b)(3), which shall include at a minimum:
 - A. The date(s), exact place, and times of sampling or measurements;
 - B. The name of the individual(s) who performed the sampling or measurements;
 - C. The date(s) analyses were performed;
 - D. The name of the individual(s) who performed the analyses;
 - E. The analytical techniques or method used;
 - F. The analytical results; and
 - G. The QA/QC summary;
- ix. All waste determinations and waste profile determinations made pursuant to the Waste Analysis Plan, Attachment II.B;
- ~~iv-x.~~ Records of all monitoring information pursuant to Permit Condition I.E.3.; and
- ~~v-xi.~~ Records of all inspections, pursuant to 40 CFR 264.15(d), which shall include at a minimum:

- A. The date and time of the inspection;
- B. The name of the person performing the inspection;
- C. A notation of the observations made; and
- D. The date and nature of any repairs or remedial actions.

~~e-d.~~ Current copies of the following documents as amended, revised, and modified shall be maintained at the facility until closure and corrective action are complete and certified:

- i. Contingency Plan;
- ii. Personnel Training;
- iii. Waste Analysis Plan;
- iv. Documentation of arrangements made with local authorities pursuant to 40 CFR 264.37;
- v. Closure Plan;
- vi. ~~Documentation-Plans~~ pertaining to the storage and treatment of reactive waste in tanks required pursuant to 40 CFR 264.17(c) and Permit Condition III.1.C.1. (see Module III, Part III.1); ~~and~~
- vii. For all new and converted "new" tank systems, pursuant to 40 CFR 264.192:
 - A. An assessment, by an independent, registered professional engineer or independent qualified tank installation inspector not affiliated with the tank vendor, certified by an independent, registered professional engineer, that the tank system was installed properly and that all discrepancies have been repaired;
 - B. Results of tightness testing and integrity assessments; and
 - C. For all tanks which require corrosion protection, a written statement from a corrosion expert that attests to the proper design and installation of any corrosion protection measures.
- viii. ~~Documentation and information-Monitoring plans for equipment leaks~~ as required by 40 CFR 264.1064, Air Emission Standards for Equipment Leaks (see Module III, Attachment III.A.); ~~and~~

- ix. ~~Documentation and information~~ Monitoring plans or information on monitoring exemptions as required by 40 CFR 264.1089, Air Emission Standards for Tanks, Surface Impoundments, and Containers (see Module III, Attachment III.B).

II.J. CLOSURE

II.J.1. Performance Standard

The Permittees shall close the permitted treatment and storage area as required by 40 CFR 264.111, and in accordance with the Closure Plan, Attachment II.F.

II.J.2. Amendments to Closure Plan

The Permittees shall amend the ~~closure-Closure plan-Plan~~ in accordance with 40 CFR 264.112 whenever necessary.

II.J.3. Notification of Closure

The Permittees shall notify the Director at least 45 days prior to the date they expect to begin closure as required by 40 CFR 264.112(d).

II.J.4. Time Allowed for Closure

After receiving the final volume of hazardous waste, the Permittees shall treat or remove from the permitted treatment and storage area all hazardous waste and shall complete closure activities in accordance with the schedules specified in the Closure Plan, Attachment II.F.

II.J.5. Disposal or Decontamination of Equipment

The Permittees shall decontaminate and/or dispose of all facility equipment as required by 40 CFR 264.114 and the Closure Plan, Attachment II.F.

II.J.6. Certification of Closure

The Permittees shall certify that the permitted treatment and storage area has been closed in accordance with the specifications in the closure plan as required by 40 CFR 264.115.

MODULE II – LIST OF ATTACHMENTS

The following Attachments are incorporated, in their entirety, by reference into this Permit. These incorporated attachments are enforceable conditions of this Permit. Some of the documents contain excerpts from the Permittees' Hazardous Waste Permit Application. The Department has, as deemed necessary, modified specific language excerpted from the permit application. Additional modifications are prescribed in the Permit Conditions (Modules I through IX), and thereby supersede the language of the attachments. Facility operations shall be in accordance with the contents of the Attachments and this Permit.

Attachment II.A – Facility Description

Attachment II.B – Waste Analysis Plan

Attachment II.C – Inspection Schedule

Attachment II.D – Personnel Training

Attachment II.E – Contingency Plan

Attachment II.F – Closure Plan

Attachment II.G – Security Provisions

Attachment II.H – Flood Proofing/Protection Plans and Specifications and
100-Year Flood Response Procedures

ATTACHMENT II.D

PERSONNEL TRAINING

Comment [RFAAP1]: Revised this section to be largely consistent with the training program in the post-closure care permit.

ATTACHMENT II.D – PERSONNEL TRAINING

II.D.1. Personnel Training

Appropriate training shall be completed by all persons at RAAP who are or may be involved in a task associated with the permitted storage and treatment areas. The Permittee shall insure that those individuals responsible operating and inspecting the permitted systems are appropriately trained. New employees who have as part of their job responsibility tasks that are associated with or may be associated with the permitted storage and treatment area shall not work unsupervised until the training required in accordance with this permit is completed. Such new employees shall complete the required training within six months of their employment date. ~~The purpose of the introductory and continuing hazardous waste training program is to educate the employees who are responsible for handling hazardous wastes. The program makes known to the employee the hazards of those wastes being handled, the regulatory requirements for handling those wastes, and the proper procedures to follow in the event of an emergency. Employee training has been and will be completed through formal classes and through on the job training given by Alliant Ammunition and Powder Company, LLC.~~

II.D.2. Outline of the Training Program

All training of personnel shall be documented at the time of each completed session and such documentation shall be maintained in the facility operating log for at least three years from the date on which the training was completed. Such documentation shall include the name of each trainee and trainer, date of instruction, and a summary or outline of the training session. ~~Radford has an established group of personnel responsible for the employee training program. The training program at RFAAP consists of a general orientation, instruction for area specific procedures, on the job training, and a general and continued training program. Table II.D-1 summarizes the current training program at RFAAP.~~

II.D.3. Job Title/Job Description

All training under this permit shall be reviewed at least annually and updated as necessary. All personnel who are subject to the training requirements under this permit shall be required to review their training at least annually. ~~Job titles, job descriptions, and the names of those individuals involved with hazardous wastes at RFAAP are summarized in Table II.D-2. These job titles and the name of the individual filling it are maintained and kept on file at RFAAP.~~

II.D.4. Training Content, Frequency and Techniques

In general, all personnel who are actively associated with or may be associated with the proper operation, inspection, and maintenance of the permitted storage and treatment areas are required to read the standard operating or maintenance procedure for the incinerator area and the Contingency Plan, as appropriate. In addition, the personnel shall be trained to properly perform their assigned duties including, but not limited to, operating the storage tanks and incinerators and conducting inspections as required by this Permit. ~~Introductory training for all plant employees consists of general orientation, which is provided by the facility training department. Training in operating procedures is given on the job by the area foreman. The operating procedures cover subjects such as cleaning equipment and materials, operating equipment and materials, safety rules and precautions and a step by step description of the designated task. Table II.D-3 is a sample employee training record.~~

~~Facility personnel have or will successfully complete the required training program within six (6) months after the effective date of their employment or assignment to the permitted treatment and storage area, or to a new position at the permitted treatment and storage area, whichever is later. Employees will not work in unsupervised positions until they have completed the training requirements described in this section. Facility personnel will also participate in an annual review of the facility operating procedures. The plant has courses on subjects that range from Alliant and RFAAP regulations, technical updates, supervisory training, and personal development. The methods of instruction for these courses include stand up instruction, films, slide sound presentations, video-taped programs, worksheets, and hands on practice. The form of media is conducive to the content of the course.~~

II.D.5. ~~Training Director~~

The personnel noted above shall be required under this permit to fully understand the techniques of proper maintenance and operation and maintain appropriate documentation required under this permit. Supervisory staff shall be trained to review and to provide appropriate guidance and/or liaison with the Permittees' management. The Permittee shall provide sufficient opportunity for personnel to acquire a full understanding of maintenance and operation techniques by providing sufficient instruction and/or sponsoring sufficient instruction by professionals who are qualified to provide such instruction. ~~Area training is the responsibility of the Area Manager, Richard Labrie.~~

~~Mr. Jerry Redder conducts or oversees all hazardous waste management training and maintenance of personnel training records. Mr. Redder is a registered professional engineer.~~

~~Mr. Redder is presently serving as Lead Compliance Engineer for Solid and Hazardous Waste. The responsibilities for this position include compiling the hazardous waste annual report; notifying health, Safety, Security, Operations, and Fire Departments of changes in facility status; implementing the emergency response actions required for any spills, tank ruptures or unusual pollution conditions; Supervisor and foreman training, and reviewing operating procedures. Supervisor training includes security regulations, inspection requirements, personnel training, operating records and emergency plan measures. Appropriate changes in facility operating procedures are implemented as a result of training.~~

~~Operating personnel receive on-the-job training based on these operating procedures. At least annually, Mr. Redder conducts a course to review the permit conditions and any changes in the regulations. If a permit modification is approved, Mr. Redder will conduct a seminar on the modification within 30 days of the modification. In this way, the training of the operating personnel in facility procedures is accomplished. The Training Department Manager, Tom Lawley, maintains the records of all training at RFAAP. The Training Department keeps the records on a computer based file that documents when training has occurred and when it is required again. A log is maintained by the Environmental Department to supplement the Training Department's records.~~

II.D.6. ~~Relevance of Training to Job Description~~

~~All personnel who are or may be exposed to the hazards associated with the permitted storage and treatment operations shall All employees receive general plant orientation and training in area-specific procedures. Employees then receive on-the-job training in all of the procedures, which that specifically pertain to their area of employment.~~

~~Table II.D-3 is a sample employee training record. The employee training records are kept for all RFAAP employees. This system of maintaining employee training records at RFAAP (Section II.D.8.) ensures appropriate and relevant training is coordinated with employee job functions.~~

II.D.7. Training for Emergency Response

~~The training program at RFAAP includes on-the-job training to cover effective response to emergencies which involves knowledge of emergency procedures, emergency equipment, emergency systems, communications or alarm systems, and shutdown of operations. The operating procedures, which pertain to these topics are taught to the employee by the foreman. This training is equivalent to the training required by 29 CFR 1910.120(e) in accordance with 29 CFR 1910.120(e)(9). Due to the reactive wastes at RFAAP, it is imperative that adequate fire prevention and protection is provided. Response to fires is provided by RFAAP's fire department. The Fire Prevention and Protection Training Program includes drills, exercises, and hands-on training sessions. Each fireman receives a minimum of four hours training each week. A training schedule is prepared, and a training record is maintained on each fireman and retained in the fire station. New firemen receive formal and on-the-job training, and respond with the fire company to all fires. The basic training period usually covers at least 18 months depending on the prior qualification and experience of the new fireman. Training of other employees is conducted during drills and safety meetings. Fire department personnel are available to other RFAAP employees on request to conduct classes, demonstrations, and drills.~~

The personnel involved in the actual operation of the permitted storage and treatment area will be trained in the proper procedures for operation of the incinerators and storage tank system. These procedures have been designed to ensure continued safe operation and maintenance and compliance with applicable environmental regulations.

II.D.8. The facility operating contractor will be responsible for the overall training program, scheduling and documentation of such training and shall serve as the RCRA Training Director. Implementation of Training Program

~~There exists at Radford an extensive system to ensure that required on-the-job training has been conducted with each employee. When an employee performs a job, he submits a job card which has a code number that indicates the department he works in, his employee number and the operation number for the job he performed. When the cards are processed for payroll accounting through the computer, the computer also searches the employee's training history to determine if the employee was trained in the jobs he performed. If the computer search finds that the employee was not properly trained, it prints out a notice of the training deficiency. This notice is then routed to the foreman so the deficiency may be corrected.~~

~~Training records and computer based training (CBT) is maintained by the Training Department. The system notifies supervision when training is required. Non-CBT is recorded when supervisors submit the information to the Training Department for update. Training of area procedures is recorded in the CBT system.~~

~~Current training records of employees involved with hazardous waste management will be kept until closure of the hazardous waste facilities. Training records on former~~

~~employees will be kept for at least three years from the date the employee last worked at the facility.~~

- II.D.9. All personnel required under this permit to receive training shall at minimum be instructed in the following areas:
- a. Area specific management practices regarding the permitted storage and treatment area;
 - b. Security and safety;
 - c. General and area specific inspections and recordkeeping;
 - d. Regulatory updates that affect operations and activities; and
 - e. Job function and procedural descriptions of each employee's respective role in the permitted storage and treatment operations.
- II.D.10. A complete outline of the training program is provided in Appendix II.D-1.
- II.D.11. Job titles and descriptions for personnel involved in the permitted storage and treatment operations are summarized in Table II.D-1. These job titles and the name of the current person filling that position are kept on file at the RFAAP.

TABLE II.D-1 – JOB TITLES AND RESPONSIBILITIES ¹

Job Title	Job Description	Training Required
RCRA Compliance Coordinator	Responsible for overall administration of hazardous waste management program as directed by the US Army under the terms of the operating contract for the installation.	Trained in all aspects of hazardous waste management.
Training Coordinator	Conduct general and continuing training program.	Trained in all aspects of hazardous waste management.
Plant Protection Manager	Overall monitoring of radio transmissions and HWMU security.	Trained in all aspects of hazardous waste emergency response.
Fire Department Coordinator	Assist in preparation and presentation of training program, maintain pre-fire plan for the area, and respond to fire alarms.	Trained in hazardous waste emergency procedures.
Firemen	Respond to hazardous waste emergencies.	Trained in all aspects of hazardous waste emergency response. Training conducted with regular fire training and not hazardous waste program.
Medical Staff	Responds to all health emergencies. Responsible for all aspects of hazardous waste emergency health response.	Trained in hazardous waste emergency medical procedures.
Safety Manager	Assist in preparation and presentation of training program, provide health, safety and toxicological data on handling hazardous wastes.	Occasional outside training program to keep current. Trained in all aspects of hazardous waste emergency response.
Shift Foreman	Conduct weekly inside building inspections, supervise hazardous waste handling operations at HWM facility, and supervise minor spill cleanup. Responsible for on-the-job training of employees.	Trained in hazardous waste handling procedures, including chemical hazards, personnel protection, and explosive reactions.
Waste Propellant Facility Operators	Responsible for incinerator control room, coordinating maintenance activities, and performing inspections. Unloading, placing, and loading of hazardous wastes at a HWM facility.	Trained in hazardous waste handling procedures, including chemical hazards, personnel protection, and explosive reactions.
Environmental Manager	Functions as alternate to RCRA Coordinator. Responsible for overall plant environmental management.	Trained in all aspects of manufacturing and hazardous waste disposal operations.
Plant Manager	Responsible for overall plant management.	Trained in all aspects of manufacturing operations.

¹ Names of individuals fulfilling this positions are withheld to protect National security in accordance with Department of Defense (DoD) Directive 5400.11-R, Office of Management and Budget (OMB) Memorandum M-07-16, and Army Regulation 340-21. These names are available for review and inspection upon request.

Attachment II.D

Appendix II.D-1

OUTLINE OF TRAINING PROGRAM

Training Outline

1. Personnel Training

The purpose of the introductory and continuing hazardous waste training program is to educate the employees who are responsible for handling hazardous wastes and any permit related tasks. The program makes known to the employee the hazards of those wastes and the proper procedures to follow in the event of an emergency. The employee training has been and will be completed through formal classes and through on-the-job training administered by the Training Coordinator.

2. Overview of the Training Program

The training program at the facility consists of a general orientation, instruction for area-specific procedures, on-the-job training, and a general and continuing training program. To satisfy the requirements of 40 CFR § 264.16(a)(3), the following topics are addressed:

- Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;
- Key parameters for automatic waste feed cut-off systems;
- Communications and alarm systems;
- Response procedures for fires and explosions;
- Response procedures to groundwater contamination incidents; and
- Procedures for shutdown of operations.

3. Training Content, Frequency, and Techniques

Introductory training for all facility employees consists of a general orientation that is provided by the facility training department. Training in operating procedures is given on-the-job by the area foreman. The operating procedures cover subjects such as cleaning equipment and materials, operating equipment and materials, safety rules and precautions, and a step-by-step description of the designated task. Appropriate changes in facility operating procedures are implemented as a result of training.

Facility personnel have or will successfully complete the required training program within six (6) months after the effective date of their employment or assignment to the permitted storage and treatment area, or to a new position at the permitted storage and treatment area, whichever is later. Employees will not work in unsupervised positions until they have completed the training requirements described in this section. Facility personnel will also participate in an annual review of the introductory training program.

4. Training Coordinator

The Training Coordinator conducts or oversees all hazardous waste management training and maintenance of personnel training records. This person is also currently assigned as the RCRA Compliance Coordinator. The responsibilities for this position include compiling the

hazardous waste biennial report, notifying health, safety, security, operations, and fire departments of changes in facility status, and reviewing operating procedures.

5. Training Records

Training records are maintained for all facility employees by the training department. Training records of all employees involved with hazardous waste management will be reviewed annually in order to ensure that employee training is current and that appropriate and relevant training is coordinated with employee job functions. Current training records of employees involved with hazardous waste management and former employees will be kept as required by this Permit.

Contractor employee training records will be maintained by the contractor and supplied to ATK-RFAAP on an annual basis for recordkeeping.

6. Training for Emergency Response

The training program at RFAAP includes on-the-job training to cover effective response to emergencies. Additionally, it is imperative that adequate fire prevention and protection is provided by the facility's fire department due to the reactive wastes at the facility.

The Fire Prevention and Protection Training Program includes drills, exercises, and hands-on training sessions. Each fireman receives minimum of four hours training each week. A training schedule is prepared and a training record is maintained on each fireman and retained in the fire station. New firemen receive formal and on-the-job training and respond with the fire company to all fires. The basic training period usually covers at least 18 months depending on prior qualification and experience of the new fireman.

Training of other employees is conducted during drills and safety meetings. Fire department personnel are available to other people on request to conduct classes, demonstrations and drills.

7. Implementation of the Training Program

There exists at RFAAP, an extensive system and computer program to ensure that required on-the-job training has been conducted with each employee. This program is administered and maintained by the training department.

Based on the job title/description, each employee is assigned two sets of training programs and procedures. The first set is a general plant training set that each new employee gets and the second set of training is an area and job specific set. These training sets have a deadline by which they have to be completed. On-the-job training and area specific procedure training is usually preformed by the employee's foreman/supervisor. When the training is complete, the foreman/supervisor and employee verify the training with a sign-off sheet.

When a new employee is hired or assigned to a new area, the training department reviews the internal training matrix for that job category. That matrix and the requirements for completing it (e.g. timeframe, courses required, etc.) is entered into the facility's training database. That database sends the employee, their supervisor, and the training department, notifications for all training that must be performed for their specific job and the timeframe in which it must be performed. In certain instances, the Training Department's representative will intervene with specific hardcopy training documentation and/or certifications. This is dependent on the specialization required in the new position. This database not only tracks the required new-hire training, but also tracks the recertification requirements for each employee anytime work instructions for a particular job and/or task are revised or updated. This system is designed to help ensure that new or transferred employees do not work on a job task or in an area without first receiving the required training for that task or area.

TABLE II.D-1

OUTLINE OF RFAAP TRAINING PROGRAM

Type of Training	Training Content	Training Technique
General Plant Orientation	Layout of plant, security procedures, general job requirements, propellant safety requirements	Area training Coordinator at an onsite location.
Area Specific Procedures	Emergency response, safety training, and accident prevention	Area Training Coordinator at an onsite location
On-the-Job Operating Procedures	Operating the waste propellant incinerator, grinding and slurry operation, draining slurry tanks, propellant handling and transport, inspecting the surface impoundment, operating the open burning grounds	Area Foreman with on-the-job training.
General and Continuing Training	Alliant and RFAAP regulations, technical updates, supervisory training, personnel development practice.	Various instructors with stand-up instruction, films, slide sound presentation, video taped programs, and hands-on

TABLE I.I.D-2

PERSONNEL TRAINING SUMMARY OF RFAAP HAZARDOUS WASTE PROGRAM

Title	Responsibilities and Training Required	Current Assigned Personnel
RCRA Coordinator	Responsible for overall administration of hazardous waste management program as directed by the Army under the terms of the operating contract for the installation. Trained in all aspects of hazardous waste management. Involved in pollution abatement and hazardous waste management. Responsible for Waste Analysis Plan. Coordinates hazardous waste management supervisory training.	Mr. J. J. Redder
ACO Safety Protection Officer	Maintains health and safety documents, and operational records. Trained in all aspects of safety related hazardous waste management.	Mr. Douglas Day
ACO Environmental Scientist	Responsible for coordinating the hazardous waste management program and ACO regulations, update compliance plans, notify Health/Safety/Security Operations/Fire Departments of changes in HWM facility status.	Mr. Leonard DiHoia, Jr.
Safety Manager	Assist in preparation and presentation of training program, provide health and safety data on handling hazardous wastes. Occasional outside training program to keep current. Trained in all aspects of hazardous waste emergency response.	D. Hall
Training Coordinator	Conducts general and continuing training programs.	Mr. Thomas Lawley
Plant Protection Manager	Overall monitoring of radio transmissions and HWM facility security. Trained in all aspects of hazardous waste emergency response.	Mr. Thomas Lawley
Fire Department Coordinator	Assist in preparation and presentation of training program, maintain prefire plan for HWM facility, respond to fire alarms. Trained in hazardous waste emergency procedures.	Mr. Thomas Lawley
Medical Nurse	Responds to all health emergencies. Responsible for all aspects of hazardous waste emergency health responses.	Susan Simpkins, R.N.
Toxicologist Board	Review handling and management of an new materials to be used at RFAAP. Responsible for safety procedures.	Mr. Robert Kelly Mr. Mike Lee
WPI Foreman	Conduct weekly inside building inspections, supervise hazardous waste handling operations at HWM facility, minor spill cleanup supervision. Responsible for on the job training of employees.	Ms. Wanda Jones
Container Storage Facility Operators	Unloading, placing, and loading of hazardous wastes at a HWM facility. Trained in hazardous waste handling procedures, including chemical hazards, personnel protection, and explosive reactions.	Four people per shift

TABLE I.I.D-2

PERSONNEL TRAINING SUMMARY OF RFAAP HAZARDOUS WASTE PROGRAM

Title	Responsibilities and Training Required	Current Assigned Personnel
Waste Propellant Facility Operators	Responsible for incinerator control room, coordinating maintenance activities, and performing inspections. Unloading, placing, and loading of hazardous wastes at a HWM facility. Trained in hazardous waste handling procedures, including chemical hazards, personnel protection, and explosive reactions.	M. Smith, R. Meredith, M. Booth, T. Lovern, J. McMillian, J. Burnett, C. Conley, J. Boyer, D. Duncan
Firemen	Responds to hazardous waste emergencies. Trained in all aspects of hazardous waste emergency response. Training conducted with regular fire training and not hazardous waste program.	All firemen
Environmental Manager	Functions as alternate to RCRA Coordinator. Responsible for overall plant management. Trained in all aspects of manufacturing and hazardous waste disposal operations.	Ms. C. A. Jake
Vice President Operations	Functions as alternate to RCRA Coordinator. Responsible for overall plant management funds allocation and expenditure. Trained in all aspects of manufacturing and hazardous waste disposal operations.	Mr. M. A. Miano

TABLE II.D-3

SAMPLE EMPLOYEE TRAINING RECORD

Remove this page and insert the following:

~~Figure II.D-3~~ ~~Table H-3 from Sept. 2000 permit appl.~~

MODULE III – OPERATING CONDITIONS

III.A. GENERAL

This Module is organized with separate Parts to identify the operational and performance requirements that are specific to each type of unit (i.e. tanks, incinerators, etc.) included in the permitted storage and treatment area. The module is organized as follows:

- Section III.B provides requirements for equipment subject to the air emission control requirements of 40 CFR 264 Subpart BB;
- Section III.C provides requirements for air emission controls for the permitted tanks pursuant to 40 CFR 264 Subpart CC;
- Part III.1 addresses specific requirements for storage and treatment in the permitted tank systems; and
- Part III.2 addresses specific requirements for the hazardous waste incinerators.

III.B. ORGANIC AIR EMISSION REQUIREMENTS FOR EQUIPMENT LEAKS

III.B.1. Highlights

The equipment subject to the 40 CFR 264, Subpart BB is that equipment that contains or contacts hazardous waste organic concentration of at least 10% by weight. The subject equipment is identified, listed in Attachment III.A, Table III.A-1. Information is provided on ~~are listed by the~~ equipment ID-identification number, the associated hazardous waste management unit, the type of equipment, and the approximate location. ~~A facility plot map (see Attachment III.A, Figure 1) shows the general area within which the subject equipment is located.~~ The subject equipment comes into contact with the waste slurry, a light liquid, before it is fed to the rotary kiln incinerators. This equipment includes various pumps, valves, and miscellaneous connections, each of which is marked in a manner such that they can be readily distinguished from other equipment. There are no compressors, pressure relief devices, sampling connecting systems, or open-ended valves or lines that contact or contain such waste.

The maximum possible organic ~~concentration~~ concentration of the waste that this equipment contacts or contains was determined from the maximum organic ~~concentration~~ concentration (100%) of any ~~propellant~~ energetic material generated at the RFAAP ~~Facility~~. Before being burned in the incinerators, all ~~propellants~~ energetic material ~~is~~ are ground into a slurry that is, at a minimum, 3.5 parts water for every part ~~propellant~~ energetic (this is a safety limitation). Based

on this specification, the maximum possible organic concentration (attributable to solid-propellant energetic material) that the equipment listed in Attachment III.A, Table III.A-1 could contain or contact would be 22%. This is the basis used for the organic concentration of <30% listed in Attachment III.A, Table- III.A-1.

III.B.2. Permitted and Prohibited Waste Identification

- a. The Permittees may manage the wastes listed in Appendix II.B-1, Table I (see Module II, Attachment II.B) with the equipment listed in Attachment III.A, Table I subject to the terms of this Permit.
- b. The Permittees are prohibited from managing hazardous waste that is not identified in Permit Condition III.B.2.a. with the equipment listed in Attachment III.A, Table III.A-1.

III.B.3. Emission Control Technology

The Permittees shall operate and maintain equipment and associated emission control technology according to detailed plans and reports contained in Attachment III.A, and Parts III.1 and III.2. of this Permit.

III.B.4. Monitoring and Inspection Schedules and Procedures

- a. Valves

Except for the valves designated as specified in III.B.4b, the following valves identified in Attachment III.A shall be monitored monthly using Reference Method 21, and must maintain a reading of less than 10,000 ppm as specified in Attachment III.A. Any valve for which a leak is not detected for two successive months may be monitored quarterly until a leak is detected. If a leak is detected, the Permittees must resume monitoring the valve monthly until a leak is not detected for two successive months. All leaks must be repaired in compliance no later than 15 calendar days after leak detection, and a first attempt at repair must be made no later than 5 calendar days after leak detection.

Comment [RFAAP1]: The tables in this section were eliminated as they duplicate the information in Attachment III.A, creating multiple places that need to be modified in the event of a change. We prefer to list the equipment only once and simply refer to it as appropriate from other locations.

Valve I.D. No.	HW Mgmt. Unit	Location
V-A-440	Incinerator 440	440 Pump House
V-B-440	Incinerator 440	440 Pump House
V-A-441	Incinerator 441	441 Pump House
V-B-441	Incinerator 441	441 Pump House
V-14	Tank T-1A	Grinder Bldg, 442
V-15	Tank T-1B	Grinder Bldg, 442
V-17A	Tank T-1A	Grinder Bldg, 442

Valve I.D. No.	HW Mgmt. Unit	Location
V-17B	Tank T-1B	Grinder Bldg, 442
V-18A	Tank T-1A	Grinder Bldg, 442
V-18B	Tank T-1B	Grinder Bldg, 442
V-27A	Tank T-1A	Grinder Bldg, 442
V-27B	Tank T-1B	Grinder Bldg, 442

- b. The following valves are designated in Attachment III.A as difficult or unsafe to monitor and shall be monitored annually as specified in Attachment III.A. This designation is applied to these valves because they are either at an elevated height of greater than 2 meters or are located in an area that requires personnel monitoring and presents safety risks when personnel are present for extended periods and waste is present in the slurry tanks. Furthermore, no leaks were identified in this equipment in the permit time frame from 2002 through 2012.

Comment [RFAAP2]: Moved grinder building valves to difficult to monitor designation due to safety concerns with extended periods in the grinder building basement.

Valve I.D. No.	HW Mgmt. Unit	Location
V-440S	Incinerator 440	Slurry Loop
V-440R	Incinerator 440	Slurry Loop
V-441S	Incinerator 441	Slurry Loop
V-441R	Incinerator 441	Slurry Loop

c. Pumps

The following pumps identified in Attachment III.A shall be visually inspected weekly and monitored monthly using Reference Method 21. Each pump and must maintain a reading less than 10,000 ppm and must comply with the leak repair program as specified in Attachment III.A.

Pump I.D. No.	HW Mgmt. Unit	Location
P-1A	Tank T-1A	Grinder Bldg, 442
P-1B	Tank T-1B	Grinder Bldg, 442
P-440	Incinerator 440	440 Pump House
P-441	Incinerator 441	441 Pump House

d. Flanges and Other Connectors

The following flanges and other connectors identified in Attachment III.A shall be monitored within 5 days using Reference Method 21 (and must maintain a reading of less than 10,000 ppm) if evidence of a leak is found by

visual, audible, olfactory, or any other detection method; and must comply with the leak repair program as specified in Attachment III.A.

Flange or Connector I.D. No.	HW Mgmt. Unit	Location
Tee-1A, flanged connection	Tank T-1A	Grinder Bldg, 442
Tee-1B, flanged connection	Tank T-1B	Grinder Bldg, 442
SG-1, flanged connection	Incinerator 440/441	Grinder Bldg, 442
PIT-1, screwed connection	Incinerator 440/441	Grinder Bldg, 442
PIT-2, screwed connection	Incinerator 440/441	Grinder Bldg, 442
Tee-A-440, flanged connection	Incinerator 440	440 Pump House
Tee-B-440, flanged connection	Incinerator 440	440 Pump House
Tee-C-440, flanged connection	Incinerator 440	440 Pump House
Tee-D-440, flanged connection	Incinerator 440	440 Pump House
Tee-A-441, flanged connection	Incinerator 441	441 Pump House
Tee-B-441, flanged connection	Incinerator 441	441 Pump House
Tee-C-441, flanged connection	Incinerator 441	441 Pump House
Tee-D-441, flanged connection	Incinerator 441	441 Pump House
Adp-A-440, hose adapter connection	Incinerator 440	440 Pump House
Adp-B-440, hose adapter connection	Incinerator 440	440 Pump House
Adp-C-440, hose adapter connection	Incinerator 440	440 Pump House
Adp-D-440, hose adapter connection	Incinerator 440	440 Pump House
Adp-E-440, hose adapter connection	Incinerator 440	440 Pump House
Adp-F-440, hose adapter connection	Incinerator 440	440 Pump House
Adp-G-440, hose adapter connection	Incinerator 440	440 Pump House
Adp-H-440, hose adapter connection	Incinerator 440	440 Pump House
Adp-A-441, hose adapter connection	Incinerator 441	441 Pump House
Adp-B-441, hose adapter connection	Incinerator 441	441 Pump House
Adp-C-441, hose adapter connection	Incinerator 441	441 Pump House
Adp-D-441, hose adapter connection	Incinerator 441	441 Pump House
Adp-E-441, hose adapter connection	Incinerator 441	441 Pump House
Adp-F-441, hose adapter connection	Incinerator 441	441 Pump House
Adp-G-441, hose adapter connection	Incinerator 441	441 Pump House
Adp-H-441, hose adapter connection	Incinerator 441	441 Pump House
EH-A-440, flanged connection	Incinerator 440	440 Pump House
EH-B-440, flanged connection	Incinerator 440	440 Pump House
EH-A-441, flanged connection	Incinerator 441	441 Pump House
EH-B-441, flanged connection	Incinerator 441	441 Pump House

III.B.5. Recordkeeping and Reporting

a. The Permittees shall keep on file the following equipment information **as required by 40 CFR 264.1052 through 264.1060**: listing of an identification number for each piece of equipment that contains or contacts hazardous wastes with **an** organic concentration of at least 10% by weight; the respective hazardous waste management unit identification; each piece of equipment's specific location at the facility; **and** the type of equipment; the hazardous waste state **at the equipment and percent-by-weight total organics in the waste stream at the equipment**; and the method of compliance with the standard.

b. The Permittees shall identify each piece of leaking equipment and provide required recordkeeping as provided in 40 CFR 264.1064(d).

~~e. The Permittees shall comply with the information requirements for equipment subject to 40 CFR 264.1052 through 264.1060.~~

Comment [RFAP3]: Deleted as it duplicates the information required by "a" above.

~~d.c.~~ The Permittees shall keep on file information used in determining exemptions pursuant to 40 CFR 264.1060 and 1064(k).

~~e.d.~~ The Permittees shall report semi-annually to the Department the information on valve and pump leaks that were not repaired in accordance with requirements, and the dates of hazardous waste management unit shutdowns.

III.C. ORGANIC AIR EMISSION REQUIREMENTS FOR TANKS AND CONTAINERS

III.C.1. Applicability

a. **40 CFR 264** Subpart CC applies to all tanks and containers identified in this Permit except as provided for in 40 CFR 264.1 and 264.1080(b).

b. Permit Condition III.C., **apply-applies** to the hazardous waste management units identified below, for which required control equipment has been installed and is operational or **which** are exempt from Subpart CC standards under 40 CFR 264.1082(c):

Unit Designation	Unit Type	Description of Air Emission Control System
T-1A and T-1B	tanks	Permanent total enclosure [40 CFR 264.1082(c)(5)(iii)]
Trolley conveyor containers	container	Design capacity ≤ 0.1m ³ [40 CFR 264.1080(b)(2)]
HW accumulation containers	container	Design capacity ≤ 0.1m ³ [40 CFR 264.1080(b)(2)]

III.C.2. Emission Control Technology

- a. The Permittees shall maintain all regulated units and associated emission control technology in accordance with Permit Condition III.C.2. and the detailed plans, schedules, information, and reports as contained in Attachments III.1.A, III.1.B, and III.1.C.
- b. The Permittees have elected to control hazardous waste organic air emissions in accordance with Permit Condition III.C. and 40 CFR 264, Subpart CC by demonstrating that the enclosure within which Tanks T-1A and T-1B are housed (Grinder Bldg, 442) is designed and operated in accordance with the criteria for permanent total enclosure as specified in "Procedure T – Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.471, Appendix B Part 51, Appendix M. ~~The verification conducted in February 15, 2002 is provided as Attachment III.B.~~
- c. The Permittees shall perform the verification procedure for the enclosure (Grinder Bldg, 442) as specified in Section 5.0 to "Procedure T – Criteria for and Verification of a Permanent or Temporary Total Enclosure" (see 40 CFR 52.741, Appendix B) annually. ~~Copies of this verification shall also be maintained in the operating record for a minimum of three years.~~
- d. Pursuant to Permit Condition III.C.2.b. ~~and Attachment III.B.~~, all doors and vents of the Grinder Building, 442 must remain closed whenever the grinder is in operation or ~~whenever~~ there is waste in Tanks T-1A or T-1B, except to allow worker access or passage of material, wastes, or equipment into or out of the enclosure.
- ~~e. The Permittees shall submit to the Department a verification (conducted within a year of the submittal date) pursuant to Permit Conditions III.C.2.c. and III.C.3.~~
- ~~f.e.~~ Pursuant to 40 CFR 270.32 (b)(2), VOC emissions that have been captured from the Grinder Bldg, 442 shall not be discharged through a control device as required by 40 CFR 264.1084(i). Under the authority granted by 40 CFR 270.32(b)(2), the Department has granted an exclusion from this provision to ensure protection of human health and the surrounding environment.
- ~~g.f.~~ If for any reason the Grinder Bldg, 442 is not verified as a permanent total enclosure pursuant to Permit Conditions III.C.2.c., III.C.2.e., and III.C.3., the Permittees shall cease operation of Tanks T-1A and T-1B until organic air emissions controls in accordance with 40 CFR 264, Subpart CC, as applicable, are provided, ~~or a repair is enacted that allows the building to requalify as a permanent total enclosure.~~

Comment [RFAAP4]: Due to the frequency with which this report is updated, we do not think it should be included in the Permit. Annual submittal to the Department should be sufficient.

Comment [RFAAP5]: Deleted as this requirement duplicated conditions found elsewhere in the permit (under III.C.3 below).

III.C.3. Reporting Requirements

- a. For each tank or container ~~which that~~ manages hazardous waste that is exempted from using air emission controls, a written report shall be submitted to the Department within fifteen (15) days of each occurrence when hazardous waste is placed in the waste management unit in noncompliance with the conditions of 40 CFR 264.1082(c)(1) or (c)(2), as applicable. The written report shall contain the EPA I.D. number, facility name and address, a description of the noncompliance event and the cause, the dates of the noncompliance, and the actions taken to correct the noncompliance and prevent reoccurrence of the noncompliance.

- b. By March 31 of each year, the Permittees shall submit to the Department the annual verification of the permanent total enclosure pursuant to Permit Conditions III.C.2.c. and III.C.2.e.

~~e.~~ Pursuant to ~~the exclusion 40 CFR 270.32 (b)(2) granted under III.C.2e above,~~ the Permittees shall maintain in the facility operating record all documentation concerning the feasibility of discharging captured VOC emissions from the Grinder Bldg, 442 to a control device. ~~A report documenting this feasibility must be submitted~~

~~d.c.~~ Pursuant to ~~40 CFR 270.32 (b)(2), the Permittees shall submit to~~ the Department for review ~~a report that meets the requirements of Attachment III.C~~ once every ~~3-5~~ years from the effective date of this permit. ~~This report shall be prepared according to the scope of work provided in Attachment III.C.~~

~~e.d.~~ All reports ~~prepared under this Permit~~ shall be signed and dated by an authorized representative of the Permittees in accordance with Permit Condition I.I.3. (see Module I).

III.C.4. Notification of New Units

Prior to installing any tank, surface impoundment, container, or miscellaneous unit subject to 40 CFR 264, Subpart CC, the Permittees shall apply for a permit modification in accordance with Permit Condition I.B.2. (see Module I) and provide specific Part B information required under 40 CFR 270.27, as applicable.

III.D. ADDITIONAL INFORMATION

The Permittees ~~shall operate the have developed a series of~~ *General Operating Procedures (GOPs), Unit Operating Procedures (UOPs), and Standing Operating Procedures (SOPs)* ~~which provide additional operating details of the~~ hazardous waste storage and treatment units in a manner that will provide protection of human health and the environment. The Permittee shall develop ~~These various~~

~~written operating procedures that direct operators in safe and compliant operation of these units, deal with a wide variety of issues that affect all aspects of storage and treatment units. These procedures shall be readily available for inspection and review at the RFAAP at the request of the Department.~~

~~For informational and completeness purposes, a tabulated list of all operating procedures relevant to any hazardous waste operations regulated by this Permit is provided in Table III-1. Requirements prescribed in the Permit Conditions (Modules I through IX) supersede the language of the operating procedures.~~

~~III.D.1. Revisions and Updates~~

~~The operating procedures are revised and updated by the Permittees on a periodic and/or as needed (e.g., implementation of an SOP reveals an inadequacy) basis.~~

- ~~a. All operating procedures revised or updated during the previous year shall be submitted to the Department by March 31 of each year, except as indicated in Permit Condition III.D.1.b.~~
- ~~b. Prior to implementation of any revision to an operating procedure that may result in a permit modification as specified in Appendix I to 40 CFR 270.42, a request for a permit modification must be submitted to the Department for review and approval.~~
- ~~c. A request for a permit modification shall be submitted in accordance with Permit Condition I.B.2 (see Module I) along with the corresponding proposed revisions to operating procedures submitted in accordance with Permit Condition III.D.1.b.~~
- ~~d. Requests for the addition or removal of any operating procedures from Table III-1 shall be made in accordance with Permit Condition I.B.2. (see Module I).~~
- ~~e. The most current revisions of all operating procedures listed in Table III-1 shall be maintained in accordance with Permit Condition II.I.2. (see Module II).~~

TABLE III-1
Operating Procedures

Procedure Type	Opn. No.	Area or Bldg. No.	Procedure No.	Operation or Title
GOP		Plantwide	4-A-014	Cleaning/Decontamination of Contaminated Facilities Prior to Dismantling and Disposal by Alliant or Sub-Contractor
GOP			4-1-2B	Powder Van Operations
GOP		Propellant Areas	4-1-6	General Safety Rules—Propellant Department
UOP		Loading Operations	4-3-2H	Pickup and Transporting Waste Explosive Material to the Explosive Hold House and/or Grinder House
UOP		Loading Operations	4-12-28	Delivering and/or Receiving Propellants and/or Propellant Ingredients
GOP		NG-2 Area	4-15-53	Cleanup and Decontamination of NG/Nitrate Ester and Other Hazardous Spills
MOP		Maintenance	4-27-004(e)	Operation of the Decontamination Oven
SOP for Receiving and Storage	4	Designated Prod. Area Bldg.	RD-0000-L-001	Picking Up Propellant from Production Areas
SOP for Explosive Waste Incinerator	5	430, 4601-7	RD-0000-K-002	Transferring Waste from Storage Building to Grinder Building
SOP for Explosive Waste Incinerator	6	442, 447	RD-0000-K-002	Entering Grinder Building Slurry Pit Basement (Confined Space)
SOP for Explosive Waste Incinerator	7	442, 447	RD-0000-K-002	Preparing Grinder Building for Operation
SOP for Explosive Waste Incinerator	8	430, 442, 446, 4601-7	RD-0000-K-002	Loading the Trolley Conveyor
SOP for Explosive Waste Incinerator	9	442, 447	RD-0000-K-002	Grinding
SOP for Explosive Waste Incinerator	10	442, 447	RD-0000-K-002	Decanting Excess Water from Ground Material
SOP for Explosive Waste Incinerator	11	442, 447	RD-0000-K-002	Handling Metal Detector Trips

TABLE III-1
Operating Procedures

Procedure Type	Opn. No.	Area or Bldg No.	Procedure No.	Operation or Title
SOP for Explosive Waste Incinerator	12	442, 447	RD-0000-K-002	Handling a Plugged Grinder Screen
SOP for Explosive Waste Incinerator	13	442, 447	RD-0000-K-002	Handling a Grinder Malfunction During Operations
SOP for Explosive Waste Incinerator	14	442, 447	RD-0000-K-002	Handling a Malfunction in the Oversize Detector
SOP for Explosive Waste Incinerator	15	442	RD-0000-K-002	Adding Antifoam to Makeup Water and Slurry Tanks
SOP for Explosive Waste Incinerator	16	442, 447	RD-0000-K-002	Grinder Shutdown Due to Vibration
SOP for Explosive Waste Incinerator	17	442, 447	RD-0000-K-002	Unloading a Malfunctioning Trolley Conveyor
SOP for Explosive Waste Incinerator	18	442, 447	RD-0000-K-002	Changing the Slurry Tank Agitator Speed
SOP for Explosive Waste Incinerator	19	442	RD-0000-K-002	Cleaning the Grinder for Maintenance Work
SOP for Explosive Waste Incinerator	26	442	RD-0000-K-002	Cleaning and Inspecting Sumps
SOP for Explosive Waste Incinerator	27	442, 447	RD-0000-K-002	Draining Slurry Tanks
SOP for Explosive Waste Incinerator	38	442	RD-0000-K-002	Pumping Water From Grinder Building Basement to Trailer

MODULE III – LIST OF ATTACHMENTS

The following Attachments are incorporated, in their entirety, by reference into this Permit. These incorporated attachments are enforceable conditions of this Permit. Some of the documents contain excerpts from the Permittees' Hazardous Waste Permit Application. The Department has, as deemed necessary, modified specific language excerpted from the permit application. Additional modifications are prescribed in the Permit Conditions (Modules I through IX), and thereby supersede the language of the attachments. Facility operations shall be in accordance with the contents of the Attachments and this Permit.

Attachment III.A – Air Emission Standards for Equipment Leaks

Attachment III.B – ~~Reserved Test Report for Procedure T Verification of Total Enclosure Surrounding the Waste Propellant Grinding Operation at the Radford Army Ammunition Plant (February 19, 2002)~~

Attachment III.C - Scope of Work for *Report on Control Device Technologies*

PART III.1 – STORAGE/TREATMENT IN TANKS

III.1.A. PERMITTED WASTES

- III.1.A.1. Subject to the terms of this Permit, the Permittees may store and treat in tanks only the hazardous wastes specified in the Waste Analysis Plan, Attachment II.B (see Module II), of this Permit.
- III.1.A.2. The Permittees shall store or treat in tanks only waste generated at the ~~facility~~RFAAP by either the Permittee or the RFAAP tenant organizations. This waste shall be within the limitations described in ~~as defined in~~ Attachment II.B. The Permittees shall not store or treat any waste generated outside of the facility.
- III.1.A.3. The Permittees may store and/or treat hazardous waste only in tanks T-1A and T-1B ~~which are~~ located in the Grinder ~~Building-House~~, Building 442.

III.1.B. TANK MANAGEMENT PRACTICES

III.1.B.1. Design and Construction of Tanks

The Permittees shall construct, modify, and maintain all permitted hazardous waste storage and treatment tanks in accordance with the plans and specifications in Attachment III.1.A. In order to ensure sufficient structural strength, the Permittees shall maintain a minimum shell thickness of 0.25 inches for all permitted tanks at all times.

III.1.B.2. Protection From Overfilling

The Permittees shall prevent overfilling of tanks by the use of automatic high level alarms as specified in Attachment III.1.B.

- III.1.B.3. The integrity of tank and process area containment systems shall be maintained. Cracks, gaps, loss of integrity, deterioration, corrosion, or erosion of pads, berms, curbs, sumps, construction joints, and coatings of the tank system area shall be repaired in accordance with the protocols and frequencies delineated in Attachments II.C (see Module II) and III.1.A.

III.1.C. SPECIAL REQUIREMENTS FOR REACTIVE WASTE

- III.1.C.1. The Permittees shall not place reactive waste in a tank unless the procedures described in Attachment III.1.C are followed. The Permittees shall document compliance with this Permit condition as required by 40 CFR 264.17(c) and shall place this documentation in the operating record pursuant to Permit Condition II.1.2.e.vi. (see Module II).

III.1.C.2. The Permittees shall comply with the requirements for the maintenance of protective distances between all tank systems and any public ways, alleys, or an adjoining property line that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code," (1977 or 1981).

PART III.1 – LIST OF ATTACHMENTS

The following Attachments are incorporated, in their entirety, by reference into this Permit. These incorporated attachments are enforceable conditions of this Permit. Some of the documents contain excerpts from the Permittees' Hazardous Waste Permit Application. The Department has, as deemed necessary, modified specific language excerpted from the permit application. Additional modifications are prescribed in the Permit Conditions (Modules I through IX), and thereby supersede the language of the attachments. Facility operations shall be in accordance with the contents of the Attachments and this Permit.

Attachment III.1.A – Plans and Specifications for Tanks

Attachment III.1.B – Storage and Treatment Tank Operation

Attachment III.1.C – Procedures for Handling Reactive Wastes in Tanks

PART III.2 – INCINERATION

III.2.A. GENERAL SPECIFICATIONS

This Permit authorizes the simultaneous operation of two equivalent incinerators (i.e., 440 and 441). Per 40 CFR 264.340, the operating requirements ~~pertain to~~ for these incinerators ~~is-are~~ no longer regulated under RCRA once a facility demonstrates compliance with the HWC NESHAP and submits their **Notification of Compliance (NOC)**, unless, the permit writer determines that limits above and beyond those required by the HWC NESHAP are necessary to protect human health or the environment. The potential impact of these units on human health and the environment was evaluated by conducting Human Health and Ecological Risk ~~Assessments~~ **Assessments** of the modeled emissions (based on trial burn data) from both incinerators operating simultaneously. The Human Health and Ecological Risk Assessments were approved by the Department on December 17, 2001. No permit limits other than those listed below and those required by the HWC NESHAP were necessary based upon the results of the risk assessments.

III.2.B. PERMITTED AND PROHIBITED WASTE FEED

III.2.B.1. The only wastes that the Permittees may incinerate are those specified in ~~Section H.B.1. of the Waste Analysis Plan,~~ Attachment II.B (see Module II). Whenever waste is being incinerated, the Permittees shall not include any other materials in the feed to the incinerator except water from the plant water supply ~~or surrogate waste materials injected for the purpose of compliance testing.~~

III.2.B.2. The Permittees shall incinerate only slurried waste. The slurry shall be managed in accordance with the Waste Analysis Plan (Attachment II.B) and the Procedures for Handling Reactive Wastes in Tanks (Attachment III.1.C).

III.2.B.3. The Permittees shall incinerate only waste generated at the facility, as specified in Attachment II.B. The Permittees shall not incinerate any waste generated outside of the facility.

III.2.C. INSPECTION REQUIREMENTS

III.2.C.1. The Permittees shall inspect the incineration unit in accordance with the Inspection Schedule, Attachment II.C (see Module II) ~~, and shall complete the following as part of these inspections:~~

a. The Permittees shall visually inspect the incinerator and the associated equipment thoroughly (including stack, pumps, valves, pipes, flanges, welds, bolted connections, threaded connections, etc.) for leaks, spills, rust, wear, and signs of tampering.

III.2.D. PERSONNEL TRAINING

The Permittees shall follow the procedures in Personnel Training, Attachment II.D (see Module II).

III.2.E. CONTINGENCY PLAN

The Permittees shall follow the procedures in the Contingency Plan, Attachment II.E (see Module II).

III.2.F. CLOSURE

The Permittees shall follow the procedures in the Closure Plan, Attachment II.F (see Module II).

III.2.G. RECORDKEEPING

III.2.G.1. The Permittees shall record and maintain in the operating record all the monitoring and inspection data compiled under the requirements of this Permit.

III.2.G.2. The Permittees shall record and maintain in the operating record all waste feed determinations made pursuant to the Waste Analysis Plan, Attachment II.B (see Module II).

TABLE III.2-1

MONITORING REQUIREMENTS FOR BOTH 440 AND 441 INCINERATION SYSTEMS

Operating Parameter Instrument Description	Instrument Location and Identification	Frequency Monitoring	Frequency Calibration
Slurry Tank 1A Level Control	Grinder Building LI-TIA	Continuous	Monthly
Slurry Tank 1B Level Control	Grinder Building LI-TIB	Continuous	Monthly
Slurry Tank 1A - Slurry Density	Pump recycle discharge - Grinder Building	Continuous	Monthly
Slurry Tank 1B - Slurry Density	Pump recycle discharge - Grinder Building	Continuous	Monthly
Slurry External Loop Feed Loop Pressure – dP Transmitter	Common pump discharge PT/PI	Continuous	Monthly
Slurry External Loop Loop Discharge Flow – Ultrasonic Flow Transmitter	Common loop discharge FT/FI	Continuous	Monthly

Comment [RFAAP6]: Deleted as there is no longer a solids feed rate limit or any other permit limit that would require density monitoring. This is done for safety purposes only.

* Recorders shall be calibrated monthly

PART III.2 – LIST OF ATTACHMENTS

The following Attachments are incorporated, in their entirety, by reference into this Permit. These incorporated attachments are enforceable conditions of this Permit. Some of the documents contain excerpts from the Permittees' Hazardous Waste Permit Application. The Department has, as deemed necessary, modified specific language excerpted from the permit application. Additional modifications are prescribed in the Permit Conditions (Modules I through IX), and thereby supersede the language of the attachments. Facility operations shall be in accordance with the contents of the Attachments and this Permit.

| Attachment III.2.A – Plans and Specifications for Incinerators

TABLE III.2-1

**~~MONITORING REQUIREMENTS FOR BOTH 440 AND 441 INCINERATION
SYSTEMS
PART III.3~~**

~~{RESERVED}~~