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LETTER AND ATTACHED FINAL RESOURCE CONSERVATION AND RECOVERY ACT PERMIT NUMBER WVO170023691 FOR ATK TACTICAL SYSTEMS COMPANY LLC AND NAVAL SEA SYSTEMS COMMAND ALLEGANY BALLISTICS LABORATORY ROCKET CENTER WV
08/24/2005
WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

west virginia department of environmental protection

Division of Water and Waste Management
601 57th Street, SE
Charleston, WV 25304

Joe Manchin, III, Governor
Stephanie R. Timmermeyer, Cabinet Secretary
www.wvdep.org

August 24, 2005

Mr. John Waugaman
Alliant Techsystems
Allegany Ballistics Laboratory
Mail Stop WV01-26P
210 State Route 956
Rocket Center, WV 26726-3548

RE: Allegany Ballistics Laboratory
EPA ID No: WVO170023691

Subject: Final RCRA Permit

Dear Mr. Waugaman:

Enclosed is the Final Permit Number WVO170023691 for ATK Tactical Systems Company LLC and Naval Sea Systems Command.

If I may be of assistance, please contact me at (304) 926-0499 ext.1287.

Sincerely,

Mark S. Priddy
Geologist, Permit Writer
Hazardous Waste Permitting Unit
Division of Water and Waste Management

Cc: Robert Greaves, US EPA Region III (permit w/all attachments)
James F. Duranti, DWWM Permitting (permit w/all attachments)
Mike Dorsey, DWWM CAER (cover letter only)
John Hando, DWWM CAER (permit w/all attachments)
Lucy Pontiveros, OAQ (permit w/all attachments)
Lisa McClung, DWWM (cover letter only)
Barbara Taylor, HHR (cover letter only)
Ira Baldwin, PSC (cover letter only)
James Youngblood, DOH (cover letter only)

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER AND WASTE MANAGEMENT
PERMIT

Permittee: ATK Tactical Systems Company LLC and Naval Sea Systems Command
210 State Route 956
Rocket Center, WV 26726-3548

EPA ID No: WVO170023691
Permit No: WVO170023691

Pursuant to the Hazardous Waste Management Act (Article 18, Chapter 22, of the West Virginia Code), hereinafter called "the Act", and the Hazardous Waste Management Rule (HWMR) (Title 33, Series 20), promulgated under the Act, a permit is issued by the West Virginia Department of Environmental Protection, Division of Water and Waste Management (DWWM), allowing ATK Tactical Systems Company LLC and Naval Sea Systems Command, Rocket Center, hereinafter called the "Permittee", to operate one (1) container storage area, one (1) Subpart X hazardous waste thermal treatment unit, and perform Corrective Action on at any areas impacted by the Permittee. The facility is located in Rocket Center, West Virginia on West Virginia Route 956 at latitude 39° 33' 30" N, and longitude 78° 50' 30" W.

The Permittee must comply with all terms and conditions of this permit and the applicable regulations. This permit consists of the conditions contained herein (including those in any and all attachments) and the regulations contained in the Code of Federal Regulations (40 CFR), Parts 260, 261, 262, 263, 264, 266, 268, and 270, which have been incorporated, by reference, into the HWMR, and applicable provisions of the Act.

This permit is based on information submitted in the permit application and all subsequent revisions. Any inaccuracies found in this information or violations of terms or conditions of this permit may be grounds for termination, revocation and reissuance, or modification of this permit and enforcement action. The Permittee must inform the DWWM, by means of written notification to the Director, DWWM, any deviation from or changes in the submitted information that would affect the Permittee's ability to comply with the applicable statues.

This permit is effective as of July 24, 2005 and shall remain in effect until July 24 2015 unless suspended, revoked, revoked and reissued or terminated (40 CFR 270.41, 270.43) or continued in accordance with 40 CFR 270.51.

Lisa A. McClung
Director
Division of Water and Waste Management

8/24/05
Date Signed

FACT SHEET
for
ATK Tactical Systems Company LLC and Naval Sea Systems Command
EPA ID NUMBER: WVO170023691
HAZARDOUS WASTE MANAGEMENT PERMIT

I. OVERVIEW

This Fact Sheet accompanies the permit for ATK Tactical Systems Company LLC and Naval Sea Systems Command, hereinafter called "the permittee", EPA I.D. Number WVO 170 023 691 located at Rocket Center, West Virginia and was prepared in accordance with Section 11.10 of Hazardous Waste Management Rule (HWMR).
The Department of Environmental Protection (DEP), Division of Water and Waste Management (DWWM), intends to issue a Hazardous Waste Management Permit to the permittees.

II. AUTHORITY

(a) Federal Law

The United States Environmental Protection Agency (EPA) under Section 3006 (b) of Resource Conservation and Recovery Act of 1976 (RCRA) has authorized the State of West Virginia to administer and enforce a hazardous waste program.

(b) State Law

Article 18, Chapter 22 of the West Virginia Code, Hazardous Waste Management Act, hereinafter referred to as the (ACT) designates the Department of Environmental Protection as the regulatory agency for hazardous waste management. Section 7(6), Article 1 Chapter 22 of the West Virginia Code charges the DWWM with administering and enforcing under the supervision of the Secretary, WVDEP, the provisions of the act.

Section 8 of the Act requires a person to have a permit in order to construct, operate, modify or close any facility or site used to treat, store, or dispose of hazardous waste.

Presently the facility treats and stores hazardous waste under a state permit issued on February 12, 1990 and continues in accordance with 40 CFR 270.51.

III. PURPOSE OF PERMITTING PROCESS

The permitting process provides an opportunity for the public, DWWM and other agencies and stake holders to evaluate the permittees' ability and commitments to comply with the Act and rules promulgated there under.

Section 11.9 of HWMR requires the DWWM to prepare draft permit which sets forth in one concise legal document all the applicable requirements that the permittees must comply with during the duration of the permit.

IV. PROCEDURES FOR REACHING A FINAL DECISION

(a) Pursuant to Section 11.11 of the HWMR, the public and other agencies are given forty five (45) days notice to review and comment on the application, fact sheet and the draft permit. A copy of these documents were available for public review at the WVDEP, DWWM, Public Information Office, 601 57th Street SE, Charleston, WV 25304.

The comment period began April 6, 2005 and ended May 21, 2005.

V. FACILITY DESCRIPTION

Naval Sea Systems Command is the owner of all portions of ABL except Plant 2. ATK Tactical Systems Company LLC (ATK), the operator at ABL, generates hazardous wastes and stores them on site in a container storage unit for more than 90 days before the wastes are transported off site for disposal. This permit application also covers an existing container storage building planned for hazardous waste storage. ATK also treats hazardous wastes through open burning (OB) at a designated area. Pursuant to 40 CFR Part 264, storage and treatment of hazardous wastes require a Resource Conservation and Recovery Act (RCRA) hazardous waste permit. Details of specific hazardous waste activities are provided in Section D of this application.

ABL's primary activities are development and production of solid propellant rocket motors, gas generators, warheads, and laser initiation systems for the U.S. Department of Defense (DoD). Other activities include development and production of metal parts, metal components, and filament wound composite structures and testing of automobile component products.

VI. PROCEDURES LEADING TO THIS PERMIT

Container Storage Area

Building 366 and Building 810 Container Storage. No more than five 55-gallon drums of hazardous waste are typically transported to Building 366 in a single vehicle. This will apply to Building 810 once permitted. Typically, no more than one hundred and five (105) 55-gallon drums of waste (a combination of both hazardous and nonhazardous waste drums) are transported off site from the hazardous waste storage buildings in a single vehicle.

Burning Ground

Principal reasons for using OB treatment are related to safety and protection of human health and compliance with U.S. Department of Transportation (DOT) regulations that prohibit the transportation of certain explosive classifications across public roads. This approach typically emphasizes minimal material handling and personnel exposure. ABL has conducted OB operations since the early 1940s.

VII. ORGANIZATION

The permit is divided into Modules as outlined below:

Module I, Standard Conditions;
Module II, General Facility Conditions;
Module III, Container Storage Area;
Module IV, Corrective Action;
Module V, Burning Ground;

The following attachments constitute part of this permit:

Attachment 1, Waste Analysis Plan
Attachment 2, Inspection Schedule
Attachment 3, Personnel Training
Attachment 4, Contingency Plan
Attachment 5, Closure and Post closure plan
Attachment 6, Container Management Plan
Attachment 7, Groundwater Monitoring

Alpha-numeric headings in the Attachments are in reference to the Part B permit application.

VIII. BASIS FOR PERMIT CONDITIONS

(a) Module I

Module I of the permit sets forth standard conditions that are applicable to all hazardous waste management facilities (TSDs). This permit is regulated by 40 CFR part 270, Subpart C and is supported by regulatory references cited in the permit. The permit condition F-16 of Module I requires the permittees to report non- compliance within 15 days.

(b) Module II

In Module II of the permit most of the conditions are direct citation of a regulatory or statutory requirement. There are a few conditions in this module where DWWM considers regulations vague or inadequate to cover a particular situation and relies on permitting policy. Examples are:

1. Frequency of verifying the analysis of each waste stream and the use of contractors for waste analysis in condition II-B of the permit.

2. In order to further support the closure performance standard of 40 CFR 264.111, DWWM has specified under permit condition II-H.5.b, an advanced notification requirement prior to the permittees sampling under the closure plan.

(c) Module III

In this Module, the Storage in Containers, permit conditions have been supported with applicable regulatory references.

(b) Module IV

This Module set forth the permit conditions for Corrective Action activities at the facility.

(c) Module V

This Module consists of a statement referring operation and maintenance of the Burning Ground to the permit issued by the Division of Air Quality.

MODULE I
STANDARD CONDITIONS

Module 1 of the permit sets forth the standard conditions that are applicable to all hazardous waste management and corrective action facilities. The regulations applicable to permitting, Parts 260 through 264, 266, 268, and 270, of Title 40, Code of Federal Regulations, have been incorporated by reference into Sections 2 through 7, and 9 through 11, respectively, of the State Legislative Rules, Title 33, Series 20, Hazardous Waste Management Rule (HWMR).

(NOTE: The regulatory and/or statutory citations in parentheses are incorporated into the permit by reference.)

1- A EFFECT OF PERMIT (40 CFR §§270.4,270.30(g), and §22-18-8(a) of W.Va. Code)

The Permittee is allowed to manage hazardous waste in accordance with the conditions of the West Virginia Hazardous Waste Management Permit (called the RCRA Permit or Permit). Any management of hazardous waste not authorized by this RCRA permit is prohibited, unless otherwise expressly or specifically exempted by law.

Compliance with the RCRA permit during its term constitutes compliance, for purposes of enforcement, with the Hazardous Waste Management Act (Article 18, Chapter 22 of the West Virginia Code), (hereinafter, the ACT), except for those requirements not included in the permit which: 1) become effective by statute; or 2) are promulgated under 40 CFR, Part 268, restricting the placement of hazardous waste in, or on the land; or 3) are promulgated under 40 CFR, Part 264, regarding leak detection systems for new, replacement, and lateral expansions of surface impoundments, waste piles, and landfill units which will be implemented through the procedures of 40 CFR 270.42, Class 1 permit modifications; or 4) are promulgated under Subparts AA, BB, or CC of 40 CFR, Part 265, limiting air emissions.

Issuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local law or regulations. Compliance with the Permit during its term constitutes compliance, for purposes of enforcement, with Subtitle C of RCRA.

1- B PERMIT ACTIONS (40 CFR §270.30(f))

This permit may be modified, revoked and reissued, or terminated for cause, as specified in 40 CFR §§270.41, 270.42, and 270.43. This permit may also be reviewed and modified by the West Virginia Department of Environmental Protection, Division of Water and Waste Management (DWWM), consistent with 40 CFR §270.41, to include any terms and conditions determined necessary to protect human health and the environment, and to achieve compliance with §270.32(b)(2). The filing of a request for a permit modification, revocation and re-issuance, or termination, or the notification of planned changes, or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any permit condition.

1- C SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit, or if 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.

1- D DEFINITIONS

For the purpose of this Permit, terms used herein shall have the same meaning as those set forth in the Act, HWMR, and 40 CFR, Parts 260 through 264, 266, 268, 270, and 279, which have been incorporated by reference, unless this permit specifically states otherwise. Where terms are not otherwise defined, the meaning associated with such terms shall be as defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term. The following definitions also apply to this permit.

D-1 "Director" means the Director of the Division of Water and Waste Management, Department of Environmental Protection;

D-2 "Days" mean except as otherwise provided herein, calendar days;

D-3 "Facility" - for the purpose of implementing corrective action under 40 C.F.R. § 264.101, all contiguous property under the control of the owner or operator seeking a permit under Subtitle C of RCRA. (40 C.F.R. § 260.10, Definitions, (2))

D-4 "Hazardous Constituent" means any constituent identified in Appendix VIII of 40 CFR, Part 261, or any constituent identified in Appendix IX of 40 CFR, Part 264;

D-5 "Release" means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment.

D-6 "Solid Waste Management Unit" ("SWMU") - any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a Facility at which solid wastes have been routinely and systematically released.

D-7 "Area of Concern" ("AOC") - an area at the facility or an off-site area, which is not at this time known to be a solid waste management unit, where releases from the facility are present or are suspected to be present

1- E FAILURE TO SUBMIT RELEVANT AND/OR ACCURATE INFORMATION

Whenever the Permittee becomes aware that it 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, DWWM, the Permittee shall notify the Director of such failure within seven (7) calendar days of becoming aware of such deficiency or inaccuracy. The Permittee shall submit the correct or additional information to the Director within thirty (30) days of becoming aware of the deficiency or inaccuracy (40 CFR, §270.30(l)(11) and 270.32(b)). Failure to submit the information required in this permit or misrepresentation of any submitted information is grounds for termination of this permit (40 CFR, §270.43).

1- F DUTIES AND REQUIREMENTS

F-1 Duty to Comply (40 CFR §270.30(a))

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

F-2 Duty to Re-apply (40 CFR §§270.30(b) and 270.10(h))

The Permittee shall submit a complete application for a new permit at least one hundred-eighty (180) days before this permit expires unless: a) the

Permittee no longer wishes to operate a hazardous waste management facility; b) the Permittee is no longer required to have a RCRA permit; or c) permission for a later date has been granted by the Director, DWWM. The Director, DWWM, shall not grant permission for applications to be submitted later than the expiration date of the existing permit.

F-3 Permit Expiration (40 CFR §§270.13, 270.14, 270.50, and 270.51)

This permit and all conditions herein shall be effective for a fixed term not to exceed ten (10) years, and will remain in effect beyond the permit's expiration date only if the Permittee has submitted a timely, complete application (per 40 CFR §270.10 and applicable sections of §§270.14 through 270.29): a) to the West Virginia Department of Environmental Protection, DWWM, and; b) through no fault of the Permittee, the Director, DWWM, has not issued a new permit, as set forth in 40 CFR §270.51.

F-4 Need to Halt or Reduce Activity Not a Defense (40 CFR §270.30(c))

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

F-5 Duty to Mitigate (40 CFR §270.30(d))

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

F-6 Proper Operation and Maintenance (40 CFR §270.30(e))

The Permittee shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality control/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 the permit.

F-7 Duty to Provide Information (40 CFR §§270.30(h) and 264.74)

The Permittee shall furnish to the Director, DWWM, within a reasonable time designated by the Director, any relevant 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 Permittee shall also furnish to the Director, DWWM, upon request, copies of records required to be kept by this permit.

F-8 Inspection and Entry (40 CFR §270.30(I))

The Permittee shall allow the Director, DWWM, 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 Permittee's 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 the 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 the Act, any substances or parameters at any location.

F-9 Monitoring and Record Keeping (40 CFR §§270.30(j), 264.73, and 264.74)

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

b. The Permittee 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 required by this permit, the certification 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 three years from the date of the sample, measurement, report, certification, or application. This period may be extended, by request of the Director, at any time.

c. The Permittee shall maintain records from all groundwater monitoring wells and associated groundwater surface elevations, for the active life of

the facility, and for disposal facilities for the post-closure care period as well.

F-10 Reporting Planned Changes (40 CFR §270.30(l)(1))

The Permittee shall give notice to the Director, DWWM, as soon as possible, of any planned physical alterations or additions to the permitted facility.

Such notification does not waive the Permittee's duty to comply with the following:

Permitting of these alterations or additions to the facility shall be in accordance with the permit modification procedures of 40 CFR 270.41 or 270.42 that have been incorporated by reference into Section 11 of the HWMR.

F-11 Anticipated Noncompliance (40 CFR §270.30(l)(2))

The Permittee shall give advance notice to the Director, DWWM, of any planned changes in the permitted facility, or activity, which may result in noncompliance with permit requirements. Such notice does not constitute a waiver of the Permittee's duty to comply with permit requirements.

F-12 Transfer of Permits (40 CFR §§270.30(l)(3), 270.40(a), and 264.12(c))

This permit may be transferred by the Permittee to a new owner or operator only after providing notice to the Director, DWWM, and only if the permit is modified, or revoked and reissued, pursuant to 40 CFR §§270.40(b), 270.41(b)(2), or 270.42(a). Before transferring ownership or operation of the facility during its operating life, the Permittee shall notify the new owner or operator, in writing, of the requirements of 40 CFR, Parts 264, 268, and 270 (including all applicable corrective action requirements), and shall provide a copy of the RCRA permit to the new owner or operator.

F-13 Compliance Schedule (40 CFR §270.30(l)(5))

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted to the Director, DWWM, no later than fourteen (14) days following each scheduled date.

F-14 Immediate Reporting (40 CFR, §264.56(d)(1) and (2))

Immediate Reporting of Emergencies to Local Authorities and the On-Scene Coordinator or the National Response Center.

a. Pursuant to 40 CFR, §264.56(d)(1) and (2), if the facility's emergency coordinator determines that the facility has had a release, fire, or explosion, which could threaten human health or the environment, outside the facility, he/she must report his/her findings as follows:

   i. If his/her assessment indicates that evacuation of local areas may be advisable, he/she must immediately notify appropriate local authorities. He/she must be available to help appropriate officials decide whether local areas should be evacuated; and

   ii. He/she must immediately notify the WVDEP Spill Line (1-800-642-3074) and the National Response Center (1-800-424-8802).

b. The report must include:

   i. Name and telephone number of the reporter;
   ii. Name, address, and telephone number of the facility;
   iii. Date, time and type of incident (e.g., release, fire);
   iv. Name and quantity of material(s) involved, to the extent known;
   v. The extent of injuries, if any; and
   vi. Possible hazards to human health or the environment, outside the facility.

F-15 Twenty-four (24) hour Reporting (40 CFR §§270.30(l)(6) and 270.33)

The Permittee shall report to the Director, DWWM, any noncompliance which may endanger human health or the environment. Any such information shall be reported orally as soon as possible, but no later than twenty-four (24) hours from the time the Permittee becomes aware of the circumstances.

This report shall include the following:

a. Information concerning the release of any hazardous waste which may endanger public drinking water supplies; and

b. Information concerning the release or discharge of any hazardous waste, or of a fire or explosion at the facility, which could threaten the environment or human health outside the facility. 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. Name and quantity of material(s) involved;

   v. The extent of injuries, if any;

   vi. An assessment of actual or potential hazard(s) 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.

A written submission shall also be provided to the Director, DWWM, within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period(s) of noncompliance (including exact dates and times); steps taken to minimize impact on the environment; whether the noncompliance has been corrected, and if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate and prevent recurrence of the noncompliance. The Permittee need not comply with the five (5) day written notice requirement if the Director, DWWM,

waives the requirement. Upon waiver of the five (5) day requirement, the Permittee shall submit a written report within fifteen (15) days of the time the Permittee becomes aware of the circumstances.

F-16 Other Noncompliance (40 CFR §270.30(l)(10))

The Permittee shall report all other instances of noncompliance not otherwise required to be reported above within fifteen (15) days of when the Permittee becomes aware of the noncompliance. The reports shall contain the information listed in Condition I-F-15.

F-17 Submittal of Reports or Other Information (40 CFR §§270.30(l)(7), (8), (9), and 270.31)

a. All plans, reports, notifications or other documents which are required by this permit to be submitted to the Director, shall be sent Certified Mail, Return Receipt Requested, overnight mail, or hand-carried to:

Mark Priddy
Hazardous Waste Permitting Unit
West Virginia Department of Environmental Protection
601 57th Street SE
Charleston, WV 25304
Telephone: 304-926-0499 ext. 1287
Facsimile: 304-926-0477
Electronic Mail Address: mpriddy@wvdep.org

b. Each report, notification or other submission shall reference the Permittee's name, permit number and Facility address. In addition, one copy of each submission shall be sent to:

Mark Stephens
Federal Facilities Section (3HS13)
Hazardous Site Cleanup Division
EPA Region III
1650 Arch Street
Philadelphia, Pennsylvania 19103
Telephone Number: 215-814-3353
Electronic Mail Address: stephens.mark@epa.gov

c. Documents to be submitted to the Permittee shall be sent to:

John Waugaman
ATK Tactical Systems Company LLC

210 State Route 956
Rocket Center, WV 26726
Telephone Number: 304-726-5218
Electronic Mail Address: john_waugaman@ATK.com

F – 18 Qualified Implementation

The Permittee shall ensure that all work performed under this Permit is done by qualified persons.

1- G BIENNIAL REPORTS

Pursuant to 40 CFR §264.75, the Permittee must prepare and submit a single copy of a biennial report to the Director, DWWM, by March 1, of each even numbered year. The biennial report must be submitted on EPA form 8700-13B. The report must cover facility activities during the previous calendar year and must include:

G-1 The EPA identification number, name, and address of the facility;

G-2 The calendar year covered by the report;

G-3 For off-site facilities, the EPA identification number of each hazardous waste generator from which the facility received a hazardous waste during the year; for imported shipments, the report must give the name and address of the foreign generator;

G-4 A description and the quantity of each hazardous waste the facility received during the year. For off-site facilities, this information must be listed by EPA identification number of each generator;

G-5 The method of treatment, storage, or disposal for each hazardous waste;

G-6 The certification signed by the owner or operator of the facility or his authorized representative.

1- H WASTE MINIMIZATION REPORT

H-1 Pursuant to 40 CFR §264.75(h), the Permittee must prepare and submit a single copy of a waste minimization report to the Director, DWWM, by March 1, of each even numbered year. The report shall include a description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated.

H-2 Annually, Permittee shall submit a copy of the certification maintained under 40 CFR §264.73(b)(9) to the Director, DWWM. The certification should detail the on-going 'Waste Minimization Program' in place and should be submitted no later than the first week of April every year.

1- I SIGNATORY REQUIREMENT

I-1 All reports or other information submitted to or requested by the Director, DWWM, his designee, or authorized representative, shall be signed and certified in accordance with 40 CFR §270.11.

I-2 Changes to Authorization. If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, or because a new individual or position has responsibility for the facility's compliance with environmental laws and permits, a new authorization satisfying the requirements shall be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative (40 CFR §270.11(c)).

1- J CONFIDENTIAL INFORMATION

In accordance with Section 11.18.b and c. of the HWMR, any information submitted to the Director, DWWM, pursuant to this permit, may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed in Section 11.18.b. and c. of the HWMR.

If no claim is made at the time of submission, the DWWM shall make the information available to the public. If a claim is asserted, the information shall be treated in accordance with the procedures in Section 11.18 of the HWMR.

1- K DOCUMENTS TO BE MAINTAINED AT THE FACILITY

The Permittee shall maintain, at the facility, until closure is completed and certified by an independent registered professional engineer, all items required by 40 CFR §264.73, including the following documents and all amendments, revisions, and modifications to these documents.

K-1 Waste Analysis Plan, as required by 40 CFR §264.13, and this permit;

K-2 Operating Record, as required by 40 CFR §264.73, and this permit;

The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility.

a. 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, in accordance with the instructions contained in Appendix I of 40 CFR §264;

b. Pursuant to 40 CFR §264.73(b)(2), the location of each hazardous waste within the facility along with the quantity at each location. For disposal facilities, the location and quantity of each hazardous waste must be recorded on a map or diagram of each cell or disposal area. For all facilities, this information must include cross-references to specific manifest document numbers, if the waste was accompanied by a manifest; {Comment: See 40 CFR §264.119 for related requirements.}

c. Records and results of waste analyses performed as specified in 40 CFR §§264.13, 264.17, 264.314, and 268.7.

d. Summary reports and details of all incidents that require implementing the contingency plan as specified in 40 CFR §264.56(j);

e. Records and results of inspections as required by 40 CFR §264.15(d) (this data needs to be kept for only three (3) years).

f. Monitoring, testing, or analytical data, and corrective action where required by 40 CFR 264, subpart F and §§264.19.

g. Pursuant to 40 CFR §264.73(b)(9), a certification by the Permittee, no less often than annually, that the Permittee has a program in place to reduce the volume and toxicity of hazardous waste that is generated to the degree determined by the Permittee to be economically practicable; and the proposed method of treatment, storage, or disposal, is that practicable method currently available to the Permittee which minimizes the present and future threat to human health and the environment.

h. For an off-site land disposal facility, a copy of the notice, and the certification and demonstration if applicable, required by the generator or the owner or operator of a treatment facility under 40 CFR §268.7 and §268.8, whichever is applicable; and

i. For an off-site storage facility, a copy of the notice, and the certification and demonstration if applicable, required by the

generator or the owner or operator under 40 CFR §268.7 or §268.8; and

j. For an on-site treatment facility, the information contained in the notice (except the manifest number), and the certification and demonstration (if applicable), required by the generator or the owner or operator under 40 CFR §268.7 or §268.8; and

k. For an on-site storage facility, the information contained in the notice (except the manifest number), and the certification and demonstration, if applicable, required by the generator or the owner or operator under 40 CFR §268.7 or 40 CFR §268.8.

K-3 Corrective action reports and records, if any, must be maintained for at least three (3) years after all corrective action activities have been completed.

1- L DISCLOSURE IN DEED

Pursuant to Section 21 of the Act and Section 12 of the HWMR, the Permittee shall make a notation on the deed or lease to the facility property, or on some other instrument that is normally examined during title search, that will, in perpetuity notify any potential purchaser that the land has been used to manage hazardous waste. Such disclosure shall describe the location upon said property, identifying the type and quantity of hazardous waste and the method of storage, treatment, or disposal with respect to such waste.

1- M LAND DISPOSAL REQUIREMENTS

M-1 GENERAL CONDITIONS

a. The Permittee shall comply with all applicable self- implementing requirements of 40 CFR, Part 268, and all applicable land disposal requirements that become effective by statute.

b. A mixture of any restricted waste with non-restricted waste(s) is a restricted waste under 40 CFR, Part 268.

c. Except as otherwise provided by 40 CFR, Part 268, the Permittee shall not in any way dilute a restricted waste or the residue from

treatment of a restricted waste as a substitute for adequate treatment to achieve compliance with 40 CFR, Part 268, Subpart D, to circumvent the effective date of a prohibition imposed by 40 CFR §268.3.

d. Pursuant to 40 CFR §268.7, the Permittee shall prepare and maintain a current list of the hazardous waste codes handled by the facility that are identified in 40 CFR §268, Subparts B and C. The list shall include these waste codes, and any associated treatment standards, and shall be updated through the inclusion of new treatment standards, as promulgated or amended. This list shall be provided to the WV DEP, DWWM representatives, or their designees, upon request.

M-2 TESTING AND RELATED REQUIREMENTS

a. The Permittee must test, in accordance with 40 CFR §268.7(a), any waste generated at the facility, or use knowledge of the waste, to determine if the waste is restricted from land disposal.

b. For restricted wastes with treatment standards expressed as concentrations in the waste, as specified in 40 CFR §268.40, the Permittee shall test the wastes or waste treatment residues, or extracts of such residues developed using the test Method 1311 described in US EPA Publication SW 846 and referenced in Appendix II of 40 CFR, Part 261 (Toxicity Characteristic Leaching Procedure, or TCLP) to assure that the wastes or waste treatment residues or extracts meet the applicable treatment standards of 40 CFR, Part 268, Subpart D. Such testing shall be performed as required by 40 CFR §264.13.

c. A restricted waste for which a treatment technology is specified under 40 CFR §§268.40 and 268.42(a) may be land disposed after it is treated using that specified technology or an equivalent treatment method approved under the procedures set forth in 40 CFR §268.42(b).

d. For restricted wastes with treatment standards expressed as concentrations in the waste, as specified in 40 CFR §268.40, the Permittee shall test the wastes or waste treatment residues (not an extract of such residues) to assure that the wastes or waste treatment residues meet the applicable treatment standards of 40 CFR, Part 268, Subpart D. Such testing shall be performed as required by 40 CFR §264.13.

e. The Permittee shall comply with all the applicable notification, certification, and record keeping requirements described in 40 CFR §268.7(a) and (b).

M-3 STORAGE PROHIBITIONS

a. The Permittee shall comply with all applicable prohibitions on storage of restricted wastes specified in 40 CFR, Part 268, Subpart E.

b. Except as otherwise provided in 40 CFR §268.50, the Permittee may store restricted wastes in tanks and containers solely for the purpose of the accumulation of such quantities of hazardous wastes as necessary to facilitate proper recovery, treatment, or disposal provided that:

i. Each container is clearly marked to identify its contents and the date each period of accumulation begins; and

ii. Each tank is clearly marked with a description of its contents, the quantity of each hazardous waste received, and the date each period of accumulation begins, or such information for each tank is recorded and maintained in the operating records at that facility.

iii. The Permittee may store restricted wastes for up to one (1) year unless the WVDEP, DWWM, or its authorized agent, can demonstrate that such storage was not solely for the purpose of accumulating such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.

iv. The Permittee may store restricted wastes beyond one (1) year; however, the Permittee bears the burden of proving that such storage was solely for the purpose of accumulating such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.

v. The Permittee shall not store any liquid hazardous waste containing polychlorinated biphenyls (PCBs) at concentrations greater than or equal to 50 ppm unless the waste is stored in a storage facility that meets the requirements of 40 CFR §761.65(b). This waste must be removed from storage and treated or disposed as

required by 40 CFR, Part 268 within one (1) year of the date when such wastes are first put into storage. Condition I.M-3(iv) above, that allows storage for over one (1) year with specified demonstration, does not apply to PCB wastes prohibited under 40 CFR §268.32. For clarification, a drum of PCB light ballast's may be stored at the facility.

1 – N APPROVAL/DISAPPROVAL OF SUBMISSIONS

WVDEP will review the plans, reports, schedules and other documents (hereinafter collectively referred to as "submission") submitted which require WVDEP approval. WVDEP will notify the Permittee in writing of WVDEP 's approval, conditional approval or disapproval of each submission. In the event of WVDEP disapproval of a submission, the Director shall specify the deficiencies in writingIn the event the Permittee disagrees with WVDEP 's disapproval of the revised submission the Permittee shall notify WVDEP in writing and the disagreement shall be resolved in accordance with the Dispute Resolution provision in permit condition 1-O of this permit.

No informal advice, guidance, suggestions, or comments by WVDEP regarding reports, plans, specifications, schedules, and any other writing submitted by the Permittee shall be construed as relieving the Permittee of its obligation to obtain written approval, if and when required by this Permit.

Documentation of comment resolution, and approval or disapproval of submissions in meeting minutes signed by WVDEP and the Permittee shall also satisfy the requirement of written approval/disapproval of submissions under this Permit.

1 – O DISPUTE RESOLUTION

Except as otherwise provided in this permit, in the event the Permittee disagrees, in whole or in part, with WVDEP disapproval of any submission required by this permit, the Permittee shall notify WVDEP in writing of its objections, and the basis therefore, within fourteen (14) days of receipt of WVDEP's disapproval.

Such notice shall set forth the specific matters in dispute, the basis for the Permittee's belief that its position is consistent with the permit requirements, and any supporting documentation.

WVDEP and the Permittee shall have an additional fourteen (14) days from WVDEP receipt of the notification to meet or confer to resolve any dispute. In the event agreement is reached, the Permittee shall submit the revised submission and implement the same in accordance with such agreement.

In the event WVDEP and the Permittee are not able to reach agreement within this fourteen (14)-day period, the Permittee shall have the opportunity to submit written comments regarding WVDEP's Decision in accordance with the State of West Virginia Administrative Procedures Act or WVDEP Administrative Procedures, as applicable.

MODULE II
GENERAL FACILITY CONDITIONS

II-A DESIGN AND OPERATION OF FACILITY

The Permittee shall design, construct, maintain, and operate the facility to minimize the possibility of any unpermitted fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste and/or hazardous waste constituents to air, soil, or state waters (including surface and groundwater) which could threaten human health or the environment as required by 40 CFR ∋264.31.

II-B GENERAL WASTE ANALYSIS

B-1 The Permittee shall follow the procedures as required by 40 CFR ∋264.13 and as described in their Waste Analysis plan, Attachment 1.

B-2 Except as provided below, the Permittee shall verify the analysis of each hazardous waste stream generated in the prior year as part of its quality assurance program. Analyses performed must be in accordance with the current EPA approved methods of sampling and analysis outlined in Test Methods for Evaluating Solid Waste, U.S. EPA Publication SW-846, or equivalent methods approved by the Director, DEP. Waste streams that are accurately characterized by knowledge of process or, in the case of expired or excess chemicals, by Material Safety Data Sheets do not require annual analysis.

B-3 If the Permittee uses a contractor to perform sampling and analysis, the Permittee shall ensure that:

a. The laboratories perform analyses according to the current EPA methods outlined in Test Methods for Evaluating Solid Waste, US EPA Publication SW-846 or equivalent methods approved by the Director, DEP

b. The laboratories participate in a quality assurance/quality control (QA/QC) program equivalent to that which is followed by the State or EPA.

B-4 For purposes of demonstrating compliance with this permit and the Act, the Permittee shall not use laboratory data generated by a laboratory which is not certified under the West Virginia laboratory certification program as required by 22-1-15 of the W.Va. Code and Title 47, Series 32 Rule promulgated under this statutory provision.

II-C GENERAL INSPECTION REQUIREMENTS

C-1 The Permittee must inspect the facility for malfunctions and deterioration, operator errors, and discharges which may be causing or may lead to:

a. Release of hazardous waste constituents to the environment; or;

b. A threat to human health.

The Permittee must conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment (40 CFR ∋264.15(a)).

C-2 The Permittee must follow a written inspection schedule as outlined in Attachment 2.

C-3 The Permittee must remedy any deterioration or malfunction of equipment or structures which inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, the Permittee must take remedial action immediately.

C-4 The Permittee shall record these inspections and their results in an inspection log (40 CFR 264.15(d), and the facility operating record as required by permit condition I-K-2.e.

II-D PERSONNEL TRAINING

The Permittee shall conduct personnel training as required by 40 CFR ∋264.16. This training program shall follow the outline in Attachment 3. The Permittee shall maintain training documents and records as required by 40 CFR ∋264.16.(d) and (e).

II-E PREPAREDNESS AND PREVENTION

E-1 Required Equipment

At a minimum, the Permittee shall equip the facility with the equipment as set forth in the contingency plan, Attachment 4, as required by 40 CFR ∋264.32.

E-2 Testing and Maintenance of Equipment

The Permittee shall test and maintain the equipment specified in the previous Permit Condition and in Attachment 4 as necessary to assure its proper operation in time of emergency as required by 40 CFR ∋264.33. The record of tests and maintenance shall be part of the facility operating record (40 CFR 264.73(b)(6)).

E-3 Access to Communications or Alarm System

The Permittee shall maintain access to the communications or alarm system as required by 40 CFR ∋264.32.

E-4 Required Aisle Space

At a minimum, the Permittee shall maintain aisle space as required by 40 CFR ∋264.35 to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment and decontamination equipment to any area of facility operation in an emergency.

II-F ARRANGEMENTS WITH LOCAL AUTHORITIES (40 CFR ∋264.37)

F-1 The Permittee shall comply with the requirements of 40 CFR ∋264.37 by making a diligent effort to:

a: Outside emergency response agencies and teams do not participate in emergency activities within ABL plant boundaries. The only exception is ambulances that would enter the ABL Facility under escort to provide medical assistance. ABL is self-sufficient for all other emergency activities. Any requested assistance will be escorted.

b: Familiarize the local ambulance services, fire department, hospitals, and any other local emergency service, with the chemical and physical properties of hazardous waste managed at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

F-2 When a State or local agency declines to enter into the arrangements set forth in 40 CFR ∋264.37(b), the Permittee shall document the refusal in the operating record.

F-3 The Permittee shall, in accordance with 40 CFR ∋264.53(b), submit a copy of the approved contingency plan, including all amendments, revisions, or modifications to all local police departments, fire departments, hospitals, and local emergency response teams that may be called upon to provide emergency services. The Permittee shall notify such agencies and the local authorities, in writing, within ten (10) days of the effective date of any amendments of, revisions to, or modifications to the contingency plan.

II-G CONTINGENCY PLAN

G-1 Implementation of Plan

The Permittee shall immediately carry out the provisions of the approved contingency plan, as set forth in Attachment 4, and follow the emergency procedures described by 40 CFR ∋264.56 whenever there is an imminent or actual emergency situation (which includes release of hazardous waste or constituents, a fire, or explosion), which threatens or could threaten human health or the environment.

G-2 Copies of Plan

The Permittee shall comply with the requirements of 40 CFR ∋264.53 in regards to contingency plan distribution.

G-3 Amendments to Plan

The Permittee shall review and amend, if necessary, the contingency plan, as required by 40 CFR ∋264.54. Refer to 40 CFR 270.42 appendix I.

G-4 Emergency Coordinator

Emergency Coordinators have been identified on page 4-7 of the Contingency Plan (Attachment 4). Permittee shall comply with the requirements set forth in 40 CFR ∋264.55 and §264.56 regarding the emergency coordinator.

II-H GENERAL CLOSURE REQUIREMENTS

H-1 Performance Standard

The Permittee shall perform partial and final closure as required by 40 CFR ∋264.111 and in accordance with the Closure Plan, Attachment 5.

H-2 Amendment to Closure Plan

The Permittee shall amend the Closure Plan in accordance with 40 CFR ∋2 70.42.

H-3 Notification of Closure

The Permittee shall submit to the Director a written notification of the partial or final closure in accordance with 40 CFR ∋264.112(d).

H-4 Schedule and Time Allowed For Closure

a. Pursuant to 40 CFR ∋264.112(b)(6), the Permittee has provided a schedule of closure for each hazardous waste management unit and for final closure of the facility in the approved closure plan, as set forth in Attachment 5. For

Permittees that use a Trust Fund to establish financial assurance, the schedule must also include an estimate of the expected year of final closure.

b. Pursuant to 40 CFR ∋264.113, the Permittee, after receiving the final volume of hazardous waste at a hazardous waste management unit or facility, shall perform one or more of the following within ninety (90) days or an alternate period approved by the Director pursuant to 40 CFR ∋264.113(a).

i. Remove all hazardous waste from the unit or facility.

ii. Treat those waste(s) which are permitted in accordance with the permit.

iii. Dispose of, on-site, those waste(s) which are permitted in accordance with the permit.

c. The Permittee shall complete partial and final closure activities in accordance with the approved closure plan and within one hundred-eighty (180) days after receiving the final volume of hazardous wastes at the hazardous waste management unit, or an alternate period contingent on the Director's approval of the demonstration made pursuant to 40 CFR

§264.113(b).

H-5 Disposal or Decontamination of Equipment

a. During partial and final closure, the Permittee must decontaminate and/or dispose of all contaminated equipment, structures, and soils, as required by 40 CFR §264.114 and the approved Closure Plan, as set forth in Attachment 5.

b. The Permittee shall provide the DWWM the opportunity to split samples by giving an advance notice, of one week, to the assigned DWWM inspector, of any sampling which is to be done under the closure plan.

H-6 Certification of Closure

Within sixty (60) days of completion of closure, Permittee must submit to the Director, certification both by the Permittee and by an independent registered professional engineer, that the partial or final closure has been performed in accordance with the specifications in the approved Closure Plan and the terms and conditions of this permit as required by 40 CFR §264.115.

II-I COST ESTIMATE FOR FACILITY CLOSURE

I-1 Cost Estimates

a. The Permittee must have a detailed written estimate in current dollars of the cost of closing the facility in accordance with the requirements of 40 CFR §264.142 and 40 CFR §264.144 (if applicable).

b. The estimate must equal the cost of final closure at the point in the facility's life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan.

c. The closure cost must be based on the costs to the owner or operator of hiring a third party to close the facility. A third party is a party who is neither a parent nor a subsidiary of the owner or operator.

d. The closure cost estimate may not incorporate any salvage value that may be realized with the sale of the hazardous wastes, facility structures or equipment, and/or other assets associated with the facility at the time of partial or final closure.

I-2 Adjustment for Changed Conditions

The Permittee must revise the cost estimate whenever there is a change in the facility's closure plan as required by 40 CFR §264.142(c) and/or post-closure plan as required by 264.144(c).

I-3 Availability

The Permittee must keep at the facility the latest cost estimate as required by 40 CFR §264.142(d) and 264.144(d).

II-J INCAPACITY OF OWNER/OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS

The Permittee must notify the Secretary, Department of Environmental Protection, by certified mail, of the commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming the Permittee as debtor, within ten (10) days after commencement of the proceeding, as required by 40 CFR ∋264.148.

II-K GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTES

The Permittee shall comply with the requirements of 40 CFR ∋264.17. Permittee shall follow the procedures for handling ignitable, reactive, and incompatible waste(s) set forth in Attachment 1.

II-L FINANCIAL ASSURANCE REQUIREMENTS

ABL will use the Federal Exemption in lieu of liability requirements.

II-M LIABILITY REQUIREMENTS

The Permittee shall comply with the requirements of 40 CFR ∋264.147 and the documentation requirements of 40 CFR ∋264.147, including the requirements to have and maintain liability coverage for sudden accidental occurrences in the amount of at least $1 million dollars per occurrence with an annual aggregate of at least $2 million, and maintain liability coverage for non-sudden accidental occurrences in the amount of at least $3 million per occurrence with an annual aggregate of at least $6 million, exclusive of legal defense costs.

II-N SECURITY

The Permittee shall comply with the security provisions of 40 CFR ∋264.14.

II-O REQUIRED NOTICES

The Permittee shall comply with the requirements of 40 CFR ∋264.12.

II-P MANIFEST SYSTEM

The Permittee shall comply with the manifest requirements of 40 CFR ∋∋264.71, 264.72, and 264.76.

II-Q CONSIDERATIONS UNDER STATE LAW

Q-1 Groundwater Protection Act

The Secretary, Department of Environmental Protection, under the provisions of

the Groundwater Protection Act (Article 12, Chapter 22 of the West Virginia Code), has certified the groundwater regulatory program of the Division of Waste Management (DWWM), Hazardous Waste Management, and thereby authorized DWWM to be a groundwater regulatory agency for the purposes of Article 12.

a. Annual Fee

The Permittee shall pay the annual groundwater protection fund fee in accordance with the regulations codified as Title 47, Series 55, that were promulgated under the Groundwater Protection Act. Pursuant to Section 9(a) of this Act, failure to remit groundwater protection fund fees may result in withdrawal or withholding of groundwater certification and, subject the Permittee to the penalties outlined in West Virginia Code §22-12-10.

b. Groundwater Protection Plan

The regulations, Title 47, Series 58, promulgated under the Groundwater

Protection Act, establish a series of practices which must be followed by persons subject to regulations by OWM under the Groundwater Protection Act. Pursuant to Section 4.12.3 of 47 CSR 58, the Groundwater Protection Plan (GPP) must be available on site at all times.

II-R AIR EMISSION STANDARDS FOR PROCESS VENTS (40 CFR 264.1030(c))

The Permittee is subject to the requirements of 40 CFR Part 264, Subpart AA. The Permittee shall comply with permit number HW-X-1 issued by the Department of Environmental Protection, Office of Air Quality (OAQ).

II-S AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS (40 CFR 264.1050(c))

The Permittee is subject to the requirements of 40 CFR Part 264, Subpart BB. The Permittee shall comply with §§264.1052 through 264.1065 and the emission standards approved and enforced by the Division of Environmental Protection, Office of Air Quality (OAQ).

II-T SUBPART CC AIR EMMISSIONS STANDARD FOR TANK, SURFACE IMPOUNDMENTS, AND CONTAINERS

The Permittee is subject to the requirements of 40 CFR Part 264, Subpart CC. The Permittee shall comply with §§264.1080 and the emissions standards approved and enforced by the Division of Environmental Protection, Office of Air Quality (OAQ).

MODULE III
STORAGE IN CONTAINERS

III-A. WASTE INDENTIFICATION

A-1. Subject to the terms of this permit, the Permittee may store hazardous wastes in containers at the container storage units which shall be limited to the waste codes identified in current Part A application and the applicable hazardous wastes as identified in 40 CFR 261 Subsections C and D.

A-2. The Permittee may also store non-hazardous material/ wastes in containers at the container storage .

III-B. CONDITION OF CONTAINERS [40 CFR §264.171]

B-1. The Permittee shall conduct a Weekly Inspection of all drums as described in Attachment 6.

B-2. If a container holding hazardous waste is not in good condition (e.g., rusting along seams or welds, severe rusting on the container body, bulging or other apparent structural defects) of if it begins to leak, the Permittee shall overpack or transfer the hazardous waste from such container to a container that is in good condition or otherwise manage the waste in compliance with the conditions of this permit.

III-C. PLACEMENT REQUIREMENTS

The Permittee shall store all hazardous waste containers in accordance with the following requirements:

C-1. The facility shall consist of two (2) container storage areas as in the Container Management Plan in Attachment 6.

C-2. Primary aisle space shall be maintained to provide the access. For inspection purposes a minimum of thirty (30) inches of aisle space shall be maintained between the rows of pallets.

C-3. Stacks of drums placed on pallets shall not exceed two layers high. Wooden pallets shall be used in between groups of drums.

C-4. Unobstructed access to all containers must be maintained.

C-5. No part of a container shall extend beyond its containment and unobstructed access to all secondary containment must be maintained.

C-6. Incompatible waste must not be stored in the same secondary containment cell.

C-7. For inspection purposes, the containers shall be stored in such a way that the labels are clearly visible for viewing purposes and are not obstructed by other drums or appurtenances.

C-8. Containers of unknown material may be stored at ABL within secondary containment having no other containers and labeled with any available information (e.g., generating building, supervisor, solid/liquid, date, etc.) and the wording "Hold for Testing". These wastes must be properly characterized within 90 days for prolonged storage in the permitted unit.

III-E. MANAGEMENT OF CONTAINERS [40 CFR §264.173]

The Permittee shall ensure that the containers are kept closed except when adding or removing waste, and the containers are not opened, handled, or stored in a manner that may rupture the containers as described in Attachment 6.

III-F. CONTAINMENT

The Permittee shall operate and maintain the containment system as described in Attachment 6.

III-G. SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTES [40 CFR § 264.176]

The Permittee shall not locate containers holding ignitable or reactive wastes within 15 meters (50 feet) of the facility's property line.

III-H. SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTES [40 CFR §264.17(a)]

H-1. Placement of Incompatible Wastes

Prior to placing incompatible wastes and/or materials in the same container, the Permittee shall follow the procedures specified in Section 264.177(e) of 40 CFR.

H-2. Incompatible Wastes in Unwashed Containers

The Permittee shall not place hazardous waste in an unwashed container that previously held an incompatible waste or material.

H-3. Storage of Incompatible Wastes

The Permittee shall store containers of incompatible wastes as described in Part III-C.

III-I. PROHIBITIONS

The Permittee shall not store any container of hazardous waste received from any off-site source.

III-J. INSPECTION SCHEDULE AND PROCEDURES [40 CFR §264.174]

As required by 40 CFR §264.174, the Permittee shall inspect the container storage area, at least weekly, and in accordance with the approved inspection schedule contained in Attachment 2, to detect leaking containers and deterioration of containers and the containment system caused by corrosion or other factors. The inspection should also check for any precipitation accumulation in the secondary containment. The Permittee shall note the results of these inspections in the inspection log along with any remedial action taken.

MODULE IV
CORRECTIVE ACTION

This Module applies to the SWMUs and AOCs specifically identified for Plant 2 as listed in Section IV-L-2 if this module, and any newly identified SWMUs or AOCs. Existing SWMUs and AOCs on Plant 1, which is owned the United States Department of the Navy and operated by ATK, will be addressed pursuant to the January 1998 Federal Facilities Agreement (FFA) established between the United States Environmental Protection Agency and the United States Department of the Navy under Section 120 of CERCLA.

CORRECTIVE ACTION: SPECIFIC FACILITY CONDITIONS

IV-A. CORRECTIVE ACTION FOR CONTINUING RELEASES; PROTECTION OF HUMAN HEALTH AND THE ENVIRONMENT

It is the intent of this permit, in accordance with the 1999 and 2001 RCRA reforms and the February 2003 guidance, to adopt and promote Cleanup Reforms implemented by EPA under the RCRA Corrective Action program. Specifically, Corrective Action at the Facility will focus on achievement of environmental results and goals via fostering maximum use of program flexibility. The sections below outline the formal process requirements. At the discretion of and concurrence by the WVDEP, the flexibility available through the Corrective Action program can be used to apply alternative methods that meet the intent of formal processes (e.g., submittals), and at the same time maximize efficiency and minimize steps necessary to meet the program goals.

Section 3004(u) of RCRA, 42 U.S.C § 6924(u), and regulations codified at 40 C.F.R. § 264.101, provide that all permits issued after November 8, 1984 must require corrective action and schedules of compliance as necessary to protect human health and the environment for all release of hazardous waste or hazardous constituents from any solid waste management unit (SWMU), regardless of when the waste was placed in the unit.

Under Section 3004(u) of RCRA, 42 U.S.C § 6924(v), WVDEP may require that corrective action at a permitted facility be taken beyond the facility boundary where necessary to protect human health and the environment, unless the owner or operator of the facility concerned demonstrates to the satisfaction of WVDEP that the permitted facility is not the source of contamination detected beyond the permitted facility boundary, that action(s) other than corrective action meet applicable laws and regulations and is adequately protective of both human health and the environment, or despite the owner or operator's best efforts, the

owner or operator was unable to obtain the necessary permission to undertake such action.

Section 3005(c) of RCRA, 42 U.S.C § 6925(c) and 40 C.F.R. § 270.32(b) provide that each permit shall contain such terms and conditions as the Director determines necessary to protect human health and the environment.

This permit requires the Permittee to conduct a RCRA Facility Investigation (RFI) and, if necessary, implement Interim Measures (IM). The RFI will determine the nature and extent of releases from regulated units, solid waste management units, and any area of concern at the Facility and gather all necessary data for WVDEP to determine whether a Corrective Measures Study (CMS) is required. The RFI includes the collection of site-specific data to evaluate any human health and/or ecological impacts of release from the Facility. If, on the basis of the RFI and any other relevant information, the Director determines that a CMS is necessary, the Permittee will be required to conduct a CMS for those releases from SWMUs or Areas of Concern (AOCs) which threaten human health or the environment.

Releases addressed by this permit comprise hazardous wastes, hazardous constituents, and any substance that does or may pose an unacceptable risk human health or the environment.

The Permittee may have completed some of the tasks required by this Permit and may have some of the information and data required by this Permit. The previous work may be used to meet the requirements of this Permit, upon submission to and approval by the Director in accordance with Module I.

The Permittee shall prepare Facility-specific work plans and reports. Alternatively, at the discretion of and concurrence by the WVDEP, alternative and innovative approaches may be implemented that meet the substantive intent of Facility-specific work plans and reports, while maximizing program flexibility and efficiency. Examples of such approaches include the use of pre-existing, regulatory approved project plans; face-to face meetings to discuss and concur on investigative approaches, results, and progress; documentation of comments, discussion, and concurrence via meeting minutes. The Scope of Work for Interim Measures, the Scope of Work for an RFI, the Scope of Work for Health and Safety Plan, the Scope of Work for a CMS, and relevant EPA guidance documents are available at the following web site: http://www.epa.gov/reg3wcmd/ca/ca_resources.htm, under Corrective Action Implementation Guidance, and are incorporated herein by reference. These documents are provided as reference and will be used as necessary and applicable.

The Permittee may, at any stage of the RFI, if applicable, submit to the Director, in writing, a proposal to perform corrective measures for the remediation of any

release at or from a SWMU/AOC. Any such proposal shall include a schedule for performance of such corrective measures. For any release to soil, groundwater, sediment and surface water, the Permittee must demonstrate in such proposal, to the Director's satisfaction, that the subsurface conditions and contaminant plume relating to such release have been adequately characterized and that the proposed corrective measures will adequately remove, contain, or treat the releases as necessary to protect human health and the environment. The nature and extent of releases to other media shall likewise be adequately characterized. The Permittee may use the IM provisions below to complete such characterizations. The Director shall review such proposal and notify the Permittee of his approval or disapproval of such proposal. If the Director approves such a demonstration, the Permittee shall be allowed to dispense with certain stages of the investigation, as described in the Director's approval of the demonstration. No term or condition of this permit, except as otherwise provided for by this permit, shall be affected by such proposal until such time as this permit has been modified to include such proposal. The Director or Permittee may seek modification of this permit pursuant to 40 C.F.R. § 270.41 or §270.42 and § 124.5 to include such proposal.

IV-B. INTERIM measures ("IM")

IV-B-1. As part of the submittals for the RFI, including the "Description of Current Conditions", the RFI, and any progress reports, the Permittee shall evaluate available information to determine whether an interim measure is needed to protect human health and the environment prior to the implementation of a final RCRA remedy and submit to WVDEP for approval an IM Workplan, or coordinate an alternative, innovative approach, as discussed above as may be appropriate.

IV-B-2 In the event the Permittee identifies an immediate or substantial threat to human health and/or the environment resulting from releases and such release is not subject to the contingency plan, the Permittee shall notify WVDEP, orally within twenty-four (24) hours of discovery and in writing within five (5) calendar days of such discovery summarizing the immediacy and magnitude of the hazard to human health and/or the environment. Upon written request from WVDEP setting forth the basis for its determination that an interim measure is necessary to address an immediate or substantial hazard to human health and/or the environment, the Permittee shall submit to WVDEP for approval an IM Workplan or coordinate an alternative, innovative approach, as discussed above, in accordance with the IM Scope of Work and paragraphs IV-B-4, 5 and 6 below, that identifies one or more IMs that will address such hazards as necessary to protect human health and the environment. If WVDEP determines that immediate action is required, the WVDEP Coordinator may orally authorize the Permittee to act prior to WVDEP's receipt of the IM Workplan.

IV-B-3. If the Director determines, on the basis of information submitted by the Permittee or any other information, that corrective action is necessary to protect

human health or the environment, the Permittee may be required to develop and submit to WVDEP for approval an IM Workplan or other innovative approach.

IV-B-4. All IM Workplans shall ensure that the interim measures are designed to mitigate immediate or substantial threats to human health or the environment, and should be consistent with cleanup objectives of, and contribute to the performance of any long-term remedy, if known, which may be required at the facility.

IV-B-5. Each IM Workplan shall include those of the following sections that are appropriate and approved by WVDEP: IM Objectives, Public Involvement Plan, Data Collection Quality Assurance, Data Management, Design Plans and Specifications, Operation and Maintenance, Project Schedule, IM Construction Quality Assurance, and Reporting Requirements.

IV-B-6. Concurrent with submission of an IM Workplan, the Permittee shall submit to WVDEP an IM Health and Safety Plan or reference an existing approved Health and Safety Plan with modifications, as appropriate.

IV-B-7. Nothing in this Permit shall limit WVDEP's authority to undertake or require any person to undertake response action or corrective action under any law, including but not limited to, Sections 104 or 106 of CERCLA, 42 U.S.C. §§ 9604 or 9606, and Section 7003, or RCRA, 42 U.S.C. § 6973. Nothing in this Permit shall relieve the Permittee of any obligation it may have under any law, including but not limited to, Section 103 of CERCLA, to report releases of hazardous waste, hazardous constituents or hazardous substances to, at, or from the Facility.

IV-C. RCRA FACILITY INVESTIGATION ("RFI")

IV-C-1. Within 90 calendar days of the effective date of this permit or within 90 calendar days after receipt of a determination by the Director that an investigation of a newly discovered SWMU/AOC is necessary, the Permittee shall submit to the Director an RFI Workplan that incorporates the relevant sections of the RFI Scope of Work and includes a description of current conditions, Alternatively, at the discretion of and concurrence by the WVDEP, alternative and innovative approaches may be implemented that meet the substantive intent of Facility-specific work plans, while maximizing program flexibility and efficiency.

IV-C-2. The RFI Workplan shall be designed to determine the presence, magnitude, extent, direction, and rate of movement of any hazardous wastes or hazardous constituents within and, if necessary, beyond the Facility boundary. The RFI Workplan shall document the procedures the Permittee shall use to conduct those activities necessary to: (A) characterize the source(s) of contamination; (B) characterize the potential pathway of contaminant migration;

(C) define the degree and extent of contamination; (D) identify actual or potential human and/or ecological receptors; and (E) support the development of alternatives from which a CM(s) will be selected by WVDEP. The Permittee may implement the work contained in The RFI Workplan in a phased approach. A specific schedule for timely implementation of all activities shall be include in the RFI Workplan.

IV-C-3. The RFI Workplan shall include: (A) a Project Management Plan; (B) a Data Collection Quality Assurance Plan; (C) a Data Management Plan; and (D) a Community Relations Plan that provides for the submission of a draft and final RFI report. Alternatively, at the discretion of and concurrence by the WVDEP, alternative and innovative approaches may be implemented that meet the substantive intent of Facility-specific work plans, while maximizing program flexibility and efficiency.

IV-C-4. Concurrent with submission of the RFI Workplan, the Permittee shall submit to WVDEP an RFI Health and Safety Plan or reference an existing approved Health and Safety Plan with modifications, as appropriate.

IV-C-5. Upon receipt of WVDEP approval of the RFI Workplan, the Permittee shall implement the RFI Workplan in accordance with the terms and schedule contained therein. Upon completion of implementation of the RFI Workplan, the Permittee shall submit to WVDEP for approval a draft RFI Report. Alternatively, if the RFI Workplan is to be implemented in a phased approach, and with concurrence by the WVDEP, an alternative and innovative approach may be implemented to meet the substantive intent of the report, while maximizing program flexibility and efficiency. For example, a face-to-face meeting may be held to discuss the findings of a particular phase of the RFI, concur on the activities of the subsequent phase(s), and document the information in meeting minutes that are signed by both parties(in lieu of interim reports). After receiving comments from WVDEP on the draft RFI Report, the Permittee shall submit to WVDEP for approval a final RFI Report, in accordance with the requirements and schedule contained in the WVDEP-approved RFI Workplan.

IV-D. CORRECTIVE MEASURES STUDY ("CMS")

IV-D-1. Within ninety (90) calendar days of WVDEP's determination that a Corrective Measures Study is necessary, the Permittee shall submit to WVDEP for approval a draft CMS Report for the facility. Alternatively, the WVDEP may concur upon, following review of the RFI data, a corrective action that meets the project goals, thereby obviating the need for a CMS.

IV-D-2. Within forty-five (45) calendar days of receipt of WVDEPS's comments on the Draft CMS Report, the Permittee shall submit to WVDEP the Final CMS

Report, revised to respond to all comments received from and/or remedy all deficiencies identified by WVDEP on the Draft CMS Report.

IV- E. QUALITY ASSURANCE

IV-E-1. Throughout all sample collection and analysis activities, the Permittee shall use WVDEP-approved quality assurance, quality control, and chain-of-custody procedures, as specified in the WVDEP-approved Workplans, or otherwise formally agreed upon. In addition, the Permittee shall:

a. Ensure that laboratories used by the Permittee for analyses perform such analyses according to the EPA methods included in "Test Methods for Evaluating Solid Waste" (SW-846, November 1986) or other methods deemed satisfactory to WVDEP. If methods other than EPA methods are to be used, the Permittee shall submit all analytical protocols to be used for analyses to WVDEP for approval at least thirty (30) calendar days prior to the commencement of analyses and shall obtain WVDEP approval prior to the use of such analytical protocols.

b. Ensure that laboratories used by the Permittee for analyses participate in a quality assurance/quality control program equivalent to that which is followed by EPA. As part of such program, and upon request by WVDEP, such laboratories shall perform analyses of the appropriate number of samples provided by WVDEP to demonstrate the quality of the analytical data.

c. Inform the WVDEP at least fourteen (14) calendar days in advance regarding which laboratory will be used by the Permittee to conduct laboratory analyses and ensure that WVDEP personnel and WVDEP authorized representatives have reasonable access to the laboratories and personnel used for analyses.

IV-F. SAMPLING AND DATA DOCUMENT AVAILABILITY

IV-F-1. The Permittee shall submit to WVDEP the results of all sampling and/or tests or other data generated by, or on behalf of, the Permittee in accordance with the requirement of the Permit.

IV-F-2. If requested in writing by the WVDEP, the Permittee shall notify WVDEP, in writing, at least fourteen (14) calendar days in advance of any field activities, including but not limited to, well drilling, installation of equipment, or sampling. At the request of WVDEP, the Permittee shall provide or allow WVDEP or its authorized representative to take split or duplicate samples of all samples collected by the Permittee pursuant to this Permit. At the request of the Permittee, WVDEP shall provide the

Permittee with a portion of each sample taken equal in volume or weight to the portion retained by WVDEP. Nothing in this Permit shall limit or otherwise affect WVDEP's authority to collect samples pursuant to applicable law, including, but not limited to, RCRA and CERCLA.

IV-F-3. The Permittee may assert a business confidentiality claim covering all or part of any information submitted to WVDEP pursuant to this Permit in a manner described in 40 C.F.R. § 2.203(b). Any assertion of confidentiality shall be adequately substantiated by the Permittee when the assertion is made in accordance with 40 C.F.R. § 2.204(e)(4). Information subject to a confidentiality claim shall be disclosed only to the extent allowed by, and in accordance with, the procedures set forth in 40 C.F.R. Part 2, Subpart B. If no such confidentiality claim accompanies the information when it is submitted to WVDEP, it may be made available to the public by WVDEP without further notice to the Permittee. The Permittee shall not assert any confidentiality claim with regard to any physical, sampling, monitoring, or analytical data, which relate in any way to this permit.

IV-F-4. If the Permittee wishes to assert a privilege with regard to any document which WVDEP seeks to inspect or copy pursuant this permit, the Permittee shall identify the document, the privilege claimed, and the basis therefore in writing. For the purposes of this Permit, "privileged documents" are those documents exempt from discovery from the United States in litigation under the Federal Rules of Civil Procedure. The Permittee shall not assert a privilege with regard to analytical, sampling and monitoring data, which relate in any way to this permit.

IV-G. ACCESS

IV-G-1. To the extent that activities required by this Permit, or any approved scope(s) of work or work plan(s) prepared pursuant hereto, must be done on property not owned or controlled by the Permittee, the Permittee shall use its best efforts, as defined below, to obtain site access agreements from the present owner(s) and or lessees, as appropriate, of such property within four (4) weeks after receipt of notice of WVDEP approval of any scope of work or work plan which require work on property which is not owned or controlled by the Permittee. "Best efforts" as used in this paragraph shall include at a minimum, but shall not be limited to, sending a certified letter to the present owners and/or lessees, as appropriate, of such property requesting access agreements to allow the Permittee and WVDEP and their authorized representatives to enter such property at all reasonable times.

IV-G-2. In the event that access agreements are not obtained within this time period, the Permittee shall immediately notify WVDEP in writing indicating all efforts made to obtain such agreements.

IV-H. ANNUAL REPORTING

The Permittee shall submit annual progress reports to the Director beginning twelve (12) month after the effective date of this Permit and continuing until the Permit is terminated or expires. Alternatively, annual progress reporting may be accomplished during meetings specifically held for or in conjunction with other meetings attended by WVDEP. The annual reporting shall include, at a minimum: activities completed with in the reporting period, changes in relevant personnel during the reporting period, summaries of any contacts made during the reporting period with local government, state government, public interest groups or individuals related to the implementation of this permit, including, but not limited to, any contacts made regarding access to off-site property, and identification and schedule of remaining activities.

IV-I. CORRECTIVE ACTION COMPLETE

At any time during the corrective action activities, the Permittee can submit documentation in support of corrective action complete in accordance with EPA's *Final Guidance on Completion of Corrective Action Activities at RCRA Facilities* (February 13, 2003).

IV-J. PERMIT TERMINATION

This Permit shall terminate when the Permittee demonstrates in writing and certifies to the satisfaction of WVDEP that all activities required under this Permit have been performed and WVDEP has approved the certification.

IV-K. FACILITY MAP

The Permittee shall maintain a current Facility Map. The current Facility Map will be considered part of this permit and shall accompany this Permit on-site. The Permittee shall provide an updated Facility Map within thirty (30) calendar days after any modification(s) to the facility, or in conjunction with submittals (or information submissions) required during the corrective action process.

IV-L. SOLID WASTE MANAGEMENT UNITS AND AREA OF CONCERN

IV-L-1 As noted in the first paragraph of this Module, the following SWMUs and AOCs will be addressed pursuant to the FFA:

SOLID WASTE MANAGEMENT UNITS (SWMUs)

SWMU 27A – Drainage Ditch System, Plant 1
SWMU 34 – Oil/Water Separators, Buildings 252 and 341
SWMU 48 – Munitions Test Area
SWMU 46 -- X-Range

IV-L-2 The following SWMUs shall be addressed pursuant to this Module:

SOLID WASTE MANAGEMENT UNITS (SWMUs)

SWMU 13 – Former Alodine Storage Area – Building 2014
SWMU 15 – Current Alodine waste Storage Area – Building 2014
SWMU 17 – Plant 2 Wastewater Treatment System (integrity ssessment)
SWMU 24 Satellite Accumulation Areas
- CC-Building 2002 Satellite Accumulation Area
- DD - Building 2014 Satellite Accumulation Area No. 1
- EE – Building 2014 Satellite Accumulation Area No. 2
- FF – Building 8204 Satellite Accumulation Area
- GG – Building 8501 Satellite Accumulation Area No. 1
- HH - Building 8501 Satellite Accumulation Area No. 2 (soil sample)

SWMU 25 Solvent Recovery Stills
- 25D Building 2014 Still No. 1
- 25E Building 2014 Still No. 2
- 25F Building 8203 Still

SWMU 27B Drainage Ditch System, Plant 2
SWMU 28 – Silver Recovery Units (Building 2010)
SWMU 29L and 29 M – Dust Collection Systems, Buildings 2003 and 2014
SWMU 30 – Spray Booth Filters, Buildings 2011, and 2014
SWMU 33 Dumpsters, Buildings 2014 and 8204
SWMU 34 Oil/Water Separators
- Building 2026
- Building 2034
- Building 8501

SWMU 37 Sumps
- 37R Building 2003 (integrity testing)
- 37S02 Building 2000
- 37T02 Building 2001
- 37U02 Building 2008

SWMU 38 – Parts Cleaner, Building 2014

MODULE V
BURNING GROUND

The Burning Ground shall be operated in accordance with Permit Number: HW-X-1 issued by the Division of Air Quality.

Attachment 1

Consolidated Waste Analysis Plan

for Burning Grounds and Container Storage Areas

Allegany Ballistics Laboratory

ATK Tactical Systems Company LLC

Allegany Ballistics Laboratory
Facility Description and Overview of Manufacturing, Waste Generation, and Waste Management Processes
ATK manufactures solid-fuel rocket motors and explosive warheads as well as other products not directed toward the manufacture of warheads and rocket motors at ABL. Raw materials for solid fuels are mixed to produce propellants that are either cast inside the motor casing (or otherwise fitted into the motor casing) to produce the finished unit. Motor casings may be manufactured on site or received from offsite sources. Wastes may be generated in the propellant preparation, motor casing preparation or motor assembly steps. Explosive warheads are manufactured in a similar process involving explosives preparation, warhead casing manufacture and warhead finishing operations. Operations for other products from the metal fabrication and composites areas generate wastes that are similar to materials from propellant/explosive products manufacture. An overview of manufacturing and waste management is provided in Figure 1. For facility details, see Sections B and C of the RCRA Part B permit application for the Burning Grounds.

Waste from the propellant operations are explosive and are treated on-site via burning in pans. The propellant wastes consist of the propellant and solvents associated with removal of the propellant from the mixing and casting equipment. Wastes from finished motor-assembly operations are also explosive and managed onsite via burning in aboveground pans. The wastes from warhead manufacture are explosive and treated onsite via burning on aboveground pans. Further information on wastes treated in the Burning Ground is provided in Section 1.

Wastes from motor casing preparation are typical of those associated with metals machining and surface preparation. These materials are segregated, containerized and transported offsite for treatment and/or disposal at properly permitted facilities. Miscellaneous articles such as contaminated personnel protective equipment (PPE), spatulas, rags, etc. are containerized and sent offsite for treatment and/or disposal in permitted facilities. Additional information on containerized wastes is found in Section 2.

Section 1—Wastes for Treatment and Treatment Residuals at Burning Grounds

(RCRA Category: Generator Treating Reactive Hazardous Wastes to meet LDRs)

Processes and activities that generate wastes or are used to manage wastes at the facility:

Propellant preparation is closely controlled for safety and to ensure product ballistic performance. Some propellants are incompatible with others. Propellants and their associated wastes are segregated by propellant type to ensure safe handling. Batch processing systems of various sizes are available to produce batches to meet motor production needs while minimizing wastes. The mixing and casting equipment may be utilized for more than one type of propellant necessitating proper cleaning to ensure there is not cross contamination of propellant types. The cleaning typically consists of a mechanical cleaning step followed by a solvent-cleaning step.

Propellants and explosives are grouped by their ingredients into categories. The categories are:

- Aluminized Composite Propellants
- Non-Aluminized Composite
- Hybrid Propellants
- Double Base Propellants
- Single Base Propellants
- PBX (plastic-bonded explosives)

The waste materials are also grouped in these categories plus waste propellant, warhead explosives and the associated equipment clean up materials are designated D003 for reactivity per RCRA regulations. The presence of lead in some products adds D008 designation to the wastes. Acetone (F003) and heptane (D001) used for equipment cleaning is distilled and recycled. The still bottoms are D003. The mix bowl cleaning wastes from propellant manufacturing are collected in plastic bags termed "diapers" as the materials are generated. For other manufacturing steps (mold disassembly, final assembly, etc.) wastes are collected in anti-static plastic bags. The materials are segregated, bagged and tagged for housing in less than 90 day storage sheds near each propellant mixing/casting building. The materials are transported from these staging areas to the Burning Grounds as necessary for proper waste management.

Wastes from finished motor assembly are typically solid propellants machined from a cast propellant. Machining of double-base propellants results in water wet propellant wastes. Burlap bags are used to collect this waste. Both the bag and the excess propellant are sent to the Burning Grounds for treatment.

Warheads processed at the facility contain polymer bound explosives. The explosives are primarily RDX and HMX. In some cases, metal-containing catalysts are used to effect the polymerization. The warhead wastes are RCRA hazardous for reactivity. The RCRA code is D003.

The conceptual treatment process is to deactivate the explosive characteristic D003 by open burning as depicted in Figure 2. Burn Pan Ash and Burn Pan Water are the combustion residuals that are subject to Treatment Standards for Hazardous Wastes (§ 268.40 particularly (d) and (e)) and Universal Treatment Standards (UTS) for underlying hazardous constituents (UHC)(§ 268.48).

Waste Analysis Parameters

Information on the sources of wastes to be burned and treatment residues is provided in Table 1-1. This table reflects in excess of 99.9 percent of the materials handled in the Burning Grounds. For example, a material that is not a waste but is handled in the Burning Grounds is boron/potassium nitrate (BKNO3). A small amount (total annual of less than 100 pounds) of BKNO3 pellets, starting powder, and/or casting powder is used as a burn initiator.

Applicable test methods relevant for the wastes shown in Table 1-1 include:

Parameters	Test Method
TC Leaching Procedure	SW-846 1311
Lead	SW-846 6010, SW-846 7420, or SW-846 7421
Acetone	SW-846 8260B

Figure 1 MANUFACTURING & WASTE HANDLING OVERVIEW

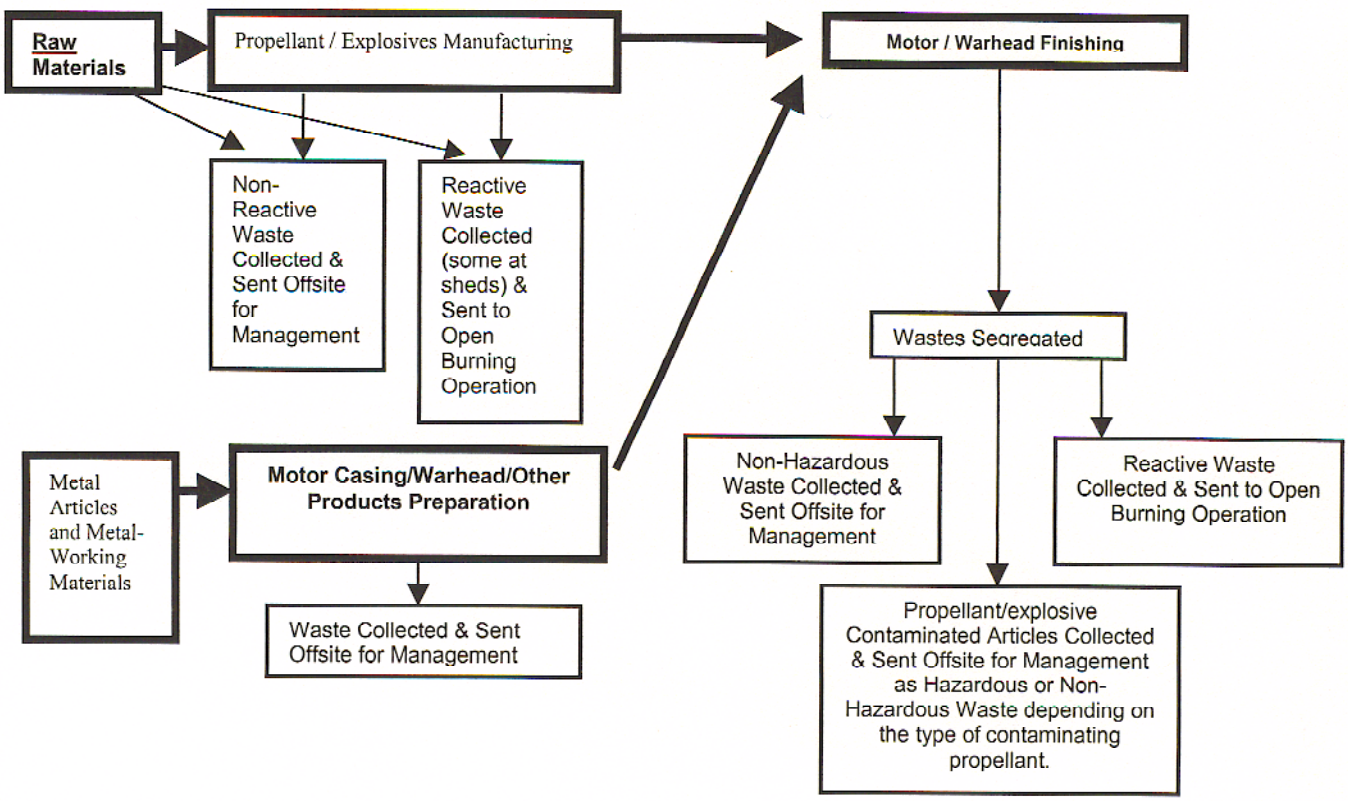
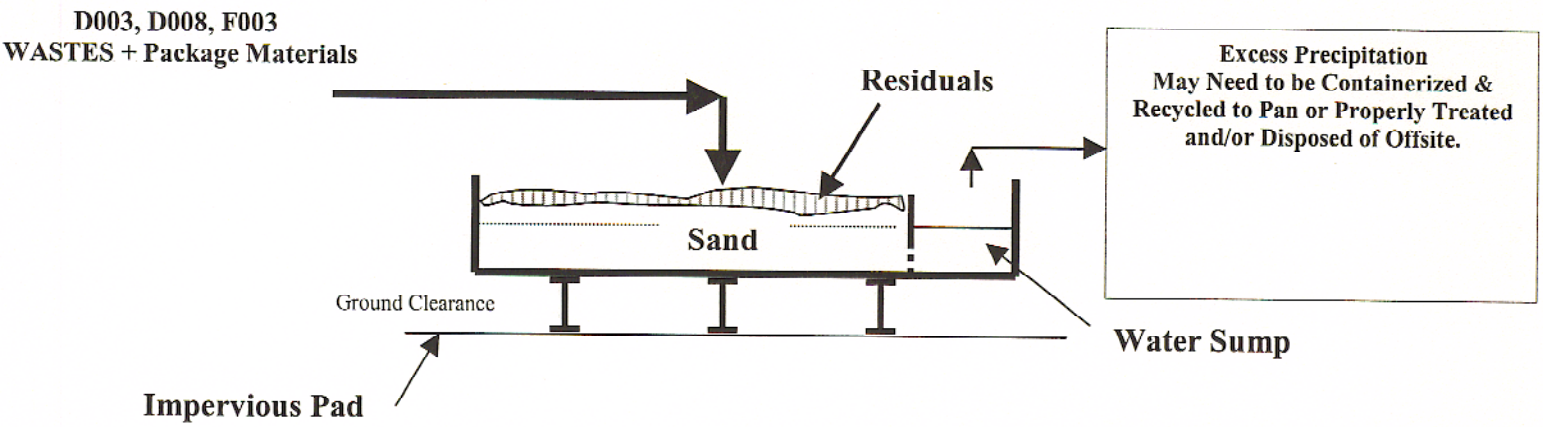


Figure 2 BURNING GROUND PROCESS



Conceptual Unit

(Cover removed for illustrative purposes)

TABLE 1-1
Burning Ground Wastes, Codes, Waste Analysis Parameters, LDR Requirements, and Re-evaluation Frequency

Waste Name, Description, Container, Management, Process Source	Waste Code	LDR	Physical & Chemical Analyses + Frequency	Treatment	LDR Treatment Standards and Test Results
Waste Name: **P/E Bulk Waste – Aluminized Composite Propellants** Waste Description: Bulk propellant or explosive materials that go to the Burning Ground (such as propellant heels, propellant samples, or neat explosive material) Waste Code Rationale D003 – reactive (yellow waste ticket); per process knowledge Container Type: Conductive or anti-static plastic bags Management: These materials are treated by open burning Mixing and casting propellant results in a specific quantity of the mix that adheres to the equipment and cannot be forced out of the mix bowl as well as residual materials that were used in the mix. These materials meet the definition of reactivity. Classification as Class 1.1 or 1.3 propellants is sufficient to determine reactivity.	D003	NWW	None. Code established based on process knowledge. Re-evaluate only when manufacturing process changes.	Burning	Deactivation and meet section §268.48 standards for underlying hazardous constituents
Waste Name: **P/E Bulk Waste – Non-Aluminized Composite** Waste Description: Bulk propellant or explosive materials that go to the Burning Ground (such as propellant heels, propellant samples, or neat explosive material) Waste Code Rationale D003 – reactive (yellow waste ticket); per process knowledge Container Type: Conductive or anti-static plastic bags Management: These materials are treated by open burning Mixing and casting propellant results in a specific quantity of the mix that adheres to the equipment and cannot be forced out of the mix bowl as well as residual materials that were used in the mix. These materials meet the definition of reactivity. Classification as Class 1.1 or 1.3 propellants is sufficient to determine reactivity.	D003	NWW	None. Code established based on process knowledge. Re-evaluate only when manufacturing process changes.	Burning	As above
Waste Name: **P/E Bulk Waste –Hybrid** Waste Description: Bulk propellant or explosive materials that go to the Burning Grounds (such as propellant heels,	D003	NWW	None. Code established based on process knowledge.	Burning	As above

TABLE 1-1
Burning Ground Wastes, Codes, Waste Analysis Parameters, LDR Requirements, and Re-evaluation Frequency

Waste Name, Description, Container, Management, Process Source	Waste Code	LDR	Physical & Chemical Analyses + Frequency	Treatment	LDR Treatment Standards and Test Results
propellant samples, or neat explosive material) Waste Code Rationale D003—reactive (yellow waste ticket); per process knowledge Container Type: Conductive or anti-static plastic bags Management: These materials are treated by open burning Mixing and casting propellant results in a specific quantity of the mix that adheres to the equipment and cannot be forced out of the mix bowl as well as residual materials that were used in the mix. These materials meet the definition of reactivity. Classification as Class 1.1 or 1.3 propellants is sufficient to determine reactivity.			Re-evaluate only when manufacturing process changes.		

TABLE 1-1
Burning Ground Wastes, Codes, Waste Analysis Parameters, LDR Requirements, and Re-evaluation Frequency

Waste Name, Description, Container, Management, Process Source	Waste Code	LDR	Physical & Chemical Analyses + Frequency	Treatment	LDR Treatment Standards and Test Results
Waste Name: **P/E Bulk Waste – Double Base Propellants** Waste Description: Bulk propellant or explosive materials that go to the Burning Ground (such as propellant heels, propellant samples, or neat explosive material) Waste Code Rationale D003 – reactive (yellow waste ticket), D008 – lead; per process knowledge Container Type: Conductive or anti-static plastic bags Management: These materials are treated by open burning Mixing and casting propellant results in a specific quantity of the mix that adheres to the equipment and cannot be forced out of the mix bowl as well as residual materials that were used in the mix. These materials meet the definition of reactivity. Classification as Class 1.1 or 1.3 propellants is sufficient to determine reactivity.	D003, D008	NWW	None. Code established based on process knowledge. Re-evaluate only when manufacturing process changes.	Burning	Deactivation plus Lead: 0.11 mg/kg. Toxicity charac-teristic leaching procedure (TCLP) for Nonwastewater and 0.69 mg/l for Wastewater and meet section 268.48 standards for under-lying hazardous constituents
Waste Name: **P/E Bulk Waste – PBX Explosives** Waste Description: Bulk propellant or explosive materials that go to the Burning Ground (such as propellant heels, propellant samples, or neat explosive material) Waste Code Rationale D003 – reactive (yellow waste ticket) lead; per process knowledge Container Type: Conductive or anti-static plastic bags Management: These materials are treated by open burning Mixing and casting propellant results in a specific quantity of the mix that adheres to the equipment and cannot be forced out of the mix bowl as well as residual materials that were used in the mix. These materials meet the definition of reactivity. Classification as Class 1.1 or 1.3 propellants is sufficient to determine reactivity.	D003	NWW	None. Code established based on process knowledge. Re-evaluate only when manufacturing process changes.	Burning	As above

TABLE 1-1
Burning Ground Wastes, Codes, Waste Analysis Parameters, LDR Requirements, and Re-evaluation Frequency

Waste Name, Description, Container, Management, Process Source	Waste Code	LDR	Physical & Chemical Analyses + Frequency	Treatment	LDR Treatment Standards and Test Results
Waste Name: **P/E Acetone Squares** Waste Description: Sawdust mixed with acetone containing double base propellant from cleanup operations Waste Code Rationale D003 - reactive (yellow waste ticket), D008—lead, per process knowledge (acetone squares are generated from the cleanup of double-base propellants containing lead);F003 - acetone; per process knowledge Container Type: Conductive or anti-static plastic bags Management: These materials are treated by open burning Equipment used for mixing and casting double base waste is soaked in acetone for cleaning. The acetone is reused as long as possible before being emptied into sawdust for disposal. Waste is soaked in sawdust to minimize likelihood of detonation during handling. Previous Sensitivity Data for these acetone squares indicate they are reactive, particularly if solvent is allowed to evaporate from the material.	D003, D008 F003	NWW	None. Code established based on process knowledge. Re-evaluate only when manufacturing process changes.	Burning	Deactivation plus Acetone: 160 mg/kg Non Wastewater, 0.28 mg/l for Wastewater and meet section §268.48 standards for underlying hazardous constituents
Waste Name: **P/E Lacquer Squares** Waste Description: Sawdust squares containing nitrate ester lacquers, acetone, and triacetin Waste Code Rationale D003 - reactive (yellow waste ticket), F003 – acetone; per process knowledge Container Type: Conductive or anti-static plastic bags Management: These materials are treated by open burning Waste liquid explosives are soaked in sawdust to minimize likelihood of detonation during handling. Previous Sensitivity data for these sawdust squares indicate they are reactive, particularly if solvent is allowed to evaporate from the material.	D003, F003	NWW	None. Code established based on process knowledge. Re-evaluate only when manufacturing process changes.	Burning	Deactivation plus Acetone: 160 mg/kg Non Wastewater, 0.28 mg/l for Wastewater and meet section §268.48 standards for underlying hazardous constituents

TABLE 1-1
Burning Ground Wastes, Codes, Waste Analysis Parameters, LDR Requirements, and Re-evaluation Frequency

Waste Name, Description, Container, Management, Process Source	Waste Code	LDR	Physical & Chemical Analyses + Frequency	Treatment	LDR Treatment Standards and Test Results
Treatment Residuals					
Waste Name: **Burning Ground (BG) Pan Ash** Waste Description: Ash and other residue from the open burning of waste propellants and explosives at the Burning Grounds Waste Code Rationale: D008 – lead; per testing Container Type: Open-head drum Management: Do not combine with other wastes Waste from the production of rocket motors, gas generators, and warheads exhibits the characteristic of reactivity. This material is treated by open burning at the Burning Grounds. Some propellants contain lead as a burn rate modifier. Therefore, the ash remaining after a burn may fail the TCLP for lead. The ash is removed from the pans periodically, placed in drums, and shipped offsite to a permitted treatment, storage, and disposal facility (TSDF).	D008	NWW	Code established based on testing. TCLP metals, dioxins, furans (no pesticides). Sample (representative grab) and re-evaluate only when material containerized for offsite disposal.	None. Containerized for occasional Offsite Disposal	Meet section §268.48 standards for underlying hazardous constituents. Test results above LDRs: TCLP Lead (60 mg/l); 2378 TCDF, 123478 HxCDF, 234678 HxCDF, 1234678 HpCDF, 1234678 HpCDD, OCDD, OCDF
Waste Name: **BG Pan Water** Waste Description: Contaminated water removed from burn pans at the Burning Grounds Waste Code Rationale: D001 – ignitable, F003 – acetone, D008 – lead; per testing. Assumed <1% TOC, <1%TSS Container Type: Closed-head drum Management: Do not combine with other wastes Waste from the production of rocket motors, gas generators, and warheads exhibits the characteristic of reactivity. This material is treated by open burning in burn pans at the Burning Grounds. Pans cannot be covered immediately after a burn because of safety restrictions, which may cause the pans to accumulate water if a heavy rain occurs shortly after a burn event. The water is removed as needed to provide a dry surface upon which to burn, and is placed in drums for shipment offsite to a permitted TSDF.	D001, F003, D008	WW	Code established based on testing. Flash Point, pH, TCLP metals, Solvent List (see below). Sample (representative grab) and re-evaluate only when material containerized for offsite disposal	None. Containerized for occasional Offsite Disposal	Test results above LDRs: Toluene, Acetone, Xylenes, Bis (2-ethyl hexyl) phthalate, 4-Methyl-2-pentanone

TABLE 1-1
Burning Ground Wastes, Codes, Waste Analysis Parameters, LDR Requirements, and Re-evaluation Frequency

Waste Name, Description, Container, Management, Process Source	Waste Code	LDR	Physical & Chemical Analyses + Frequency	Treatment	LDR Treatment Standards and Test Results

WW = (Wastewater), **NWW** (Non-Wastewater)

UHCs: Analysis for selected waste streams is required for the underlying hazardous constituents found in 40 CFR 268.48. Analysis for dioxins, furans, and/or pesticides is excluded for selected wastes as indicated. Analysis for the solvent list (below) is required for selected waste streams in lieu of full UHC analysis.

Solvent List: acetone, benzene, n-butyl alcohol, carbon disulfide, carbon tetrachloride, chlorobenzene, o-, m-, and p-cresol, cyclohexanone, o-dichlorobenzene, ethyl acetate, ethyl benzene, ethyl ether, isobutyl alcohol, methanol, methylene chloride, MEK, MIBK, nitrobenzene, pyridine, tetrachloroethylene, toluene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,1,2-trichloro-1,2,2-trifluoroethane, trichloroethylene, trichlorofluoromethane, xylenes.

Sampling

Propellant/explosive wastes that are D003 coded are managed based on process knowledge. No sampling will be performed.

Treatment residues such as burn pan ash and water will be grab sampled.

Waste Reevaluation Frequencies

Waste parameters for P/E wastes treated at the Burning Ground and treatment residuals will be re-evaluated when:

- Process changes or other factors affecting waste identification have occurred.
- Regulations affecting the definition of hazardous wastes are promulgated that may result in an increase in the number or types of hazardous wastes managed at the facility, or regulations are promulgated affecting the management of existing wastes at the facility.

Special Procedure Requirements

Propellant wastes and explosive wastes are segregated by propellant or explosive types to ensure safe handling. Material segregation procedures are established by the site Safety Department. Additional special handling information, such as ticketing and container type, etc., is noted in Table 1-1.

Chain of Custody Procedure

Standardized Chain of Custody procedures will be employed.

Section 2—Containerized Wastes for Offsite Treatment and/or Disposal (Generator Only)

Processes and activities that generate wastes or are used to manage wastes at the facility

Wastes that are not viewed as RCRA reactive and articles contaminated with low levels of propellants or warhead materials are containerized and sent offsite for proper management. These non-D003 wastes include out of date lab chemicals, unused raw materials, paints, used oil, spent solvents, etc.

The manufacturing process is operated in a campaign mode. Specific products are not necessarily made throughout the year. Not all wastes are available on site at any given time.

As noted in Table 2-1, some wastes are subject to the Treatment Standards (§ 268.40, particularly (d) and (e)) and to UTS for UHC (§ 268.48).

Facility Physical Layout

Containers are stored in the existing Container Storage Buildings 366 and 810. Key information includes:

Building 366: Approx. 150 ft long by 50 ft wide by 20 ft at peak of roof. (All dimensions are approximate.) Open sided. Laid out in rows of separate bays each with secondary containment.

Building 810: Approx. 10 ft long by 12 ft wide by 10 ft at peak of roof. (All dimensions are approximate.) Totally enclosed. Double door front entry. Secondary containment. Insulated, ventilated, heated.

Waste Analysis Parameters

Table 2-1 contains information on the sources, applicable RCRA codes, and LDR category for containerized wastes. The physical and chemical parameters needed to support the waste code determination are noted in the column headed "Hazardous Waste Parameters." Waste codes for solvents are used to indicate the groups of the chemical species to analyze. Analyses needed to ascertain if there are Underlying Hazardous Constituents in the waste stream are identified in the column "UHCs to be analyzed." Streams for which testing is needed to confirm LDR requirements are noted with the term "Required" followed by the type of information needed. The chemicals to be included in the Solvent List are noted at the end of Table 2-1. Available test information indicating if the waste does exceed LDR Standards is provided in the column titled "Constituents Above LDRs 2000 -2003 Test results." Analysis methods include those identified in Table 2-2.

Sampling

Grab sampling techniques will be used. . Paint rags (paint related waste material, solid) are composited.

Waste Reevaluation Frequencies

Waste parameters will be re-evaluated when:

- Process changes or other factors affecting waste identification have occurred.
- Regulations affecting the definition of hazardous wastes are promulgated that may result in an increase in the number or types of hazardous wastes managed at the facility, or regulations are promulgated affecting the management of existing wastes at the facility.

To ensure the availability of a complete LDR baseline assessment, RCRA wastes will be analyzed for UHCs once when the waste is available from the manufacturing operations. Additional sampling and characterization will occur only if triggered by the process change or regulatory change provisions noted above.

Special Procedure Requirements

Material segregation procedures to avoid incompatibilities are established by the site Safety Department. Additional special handling information, such as ticketing and container type, etc., is noted in Table 2-1.

Chain of Custody Procedure

Standardized Chain of Custody procedures and documentation will be employed.

TABLE 2-1
Containerized Wastes and Waste Analysis Parameters

Waste Name, Description, Container, Management, Process Source	Waste Code	LDR	Hazardous Waste Parameters to be Analyzed[1]	UHCs to be analyzed[1]	Constituents Above LDRs 2000 - 2003 Test Results
Waste Name: **Acetone** Waste Description: Waste acetone only Waste Code: D001 – ignitable, F003 – listed solvents Container Type: Closed-head drum Management: Acetone may also be added to Waste Flammable or Paint Related Waste as appropriate Acetone is used in the Composite Structures area parts cleaning in 5-gallon pails or smaller containers. Some parts are degreased while others are cleaned to remove uncured, non-regulated resins. No other solvents are added and the only materials that may be in the acetone are the non-regulated resins.	D001, F003, F005	NWW	Flash Point, F003, F005, TCLP metals	Solvent list (high total organic carbon (TOC))	Acetone, Toluene
Waste Name: **Actrel** Waste Description: Waste actrel only Waste Code: None	D001	NWW	Flash Point, TCLP metals	TCLP metals	None

TABLE 2-1
Containerized Wastes and Waste Analysis Parameters

Waste Name, Description, Container, Management, Process Source	Waste Code	LDR	Hazardous Waste Parameters to be Analyzed[1]	UHCs to be analyzed[1]	Constituents Above LDRs 2000 - 2003 Test Results
Container Type: Closed-head drum Management: Actrel may also be added to Waste Flammable as appropriate Process knowledge may be used for the general waste stream. However, TCLP for heavy metals should be run since cases are grit blasted prior to being degreased. Actrel is used to degrease empty rocket motor cases after they have been grit blasted. The degreased cases then move on for surface coating. The Actrel is recycled in order to be reused for further degreasing rather than disposal after a single pass. When the material can no longer be cleaned for further use, it is drummed for disposal. No other solvents or materials are added to Waste Actrel drums.					
Waste Name: Alodine Liquid Waste Description: Alodine rinsewater, possibly with concentrated alodine powder or liquid Waste Code: D007 – chromium Container Type: Closed-head drum Management: Do not combine with other wastes Aluminum rocket motor cases are sprayed with a concentrated solution (pH of ~2) of distilled water and Alodine Powder. The units then undergo a double rinse with distilled water to remove residue. The rinsewater which is collected for disposal has a pH between 5 and 7. Only Alodine rinsewater or small quantities of concentrated solution are added to drums. Alodine powder is known to contain hexavalent chromium and previous analytical testing has shown the solution to be above TCLP limit for chromium.	D007	NWW	TCLP metals	Required – 268.48 list (no dioxins / furans / pesticides)	chromium, cadmium -

TABLE 2-1
Containerized Wastes and Waste Analysis Parameters

Waste Name, Description, Container, Management, Process Source	Waste Code	LDR	Hazardous Waste Parameters to be Analyzed[1]	UHCs to be analyzed[1]	Constituents Above LDRs 2000 - 2003 Test Results
Waste Name: **Alodine Solids** Waste Description: Rags, gloves, etc. contaminated with alodine solution Waste Code: D007 – chromium Container Type: Open-head drum Management: Do not combine with other wastes The alodine process described above also generates rags, gloves, and other solid debris contaminated with alodine solution. This is the only waste that is added to drums. Material is known from previous analytical testing to be above TCLP limit for chromium.	D002, D006, D007	NWW	pH TCLP metals	Required – 268.48 list (no dioxins / furans / pesticides)	cadmium, chromium
Waste Name: **Asbestos** Waste Description: Double bagged, water wet asbestos only Waste Code: Not regulated Container Type: Open-head drum Management: Do not combine with other wastes Process generating the material is asbestos abatement projects. According to approved work plans, only asbestos and asbestos containing or contaminated items are added to bags or drums. Material is non-RCRA regulated.	None	NA	None	None	None
Waste Name: **Cadmium Liquid** Waste Description: Coolant contaminated with cadmium (from special operations) Waste Code: D006 - cadmium Container Type: Closed-head drum Management: Do not combine with other wastes The machining of cadmium-plated motor cases creates cadmium-contaminated coolant. Such machining is not routinely conducted. Any coolant from these machining operations is segregated from other waste streams and drummed to avoid cross-contamination of waste streams.	D006	NWW	, TCLP metals	Required – 268.48 list (no dioxins/ furans / pesticides)	cadmium

TABLE 2-1
Containerized Wastes and Waste Analysis Parameters

Waste Name, Description, Container, Management, Process Source	Waste Code	LDR	Hazardous Waste Parameters to be Analyzed[1]	UHCs to be analyzed[1]	Constituents Above LDRs 2000 - 2003 Test Results
Waste Name: **Cadmium Solids** Waste Description: Rags, gloves, etc. contaminated with cadmium (from special operations) Waste Code: D006 - cadmium Container Type: Open-head drum Management: Do not combine with other wastes Special operations such as machining or hand buffing of cadmium-plated motor cases creates cadmium contaminated solid debris (rags, personal protective equipment (PPE), etc.). Such special operations are not routinely conducted. Any wastes from these operations is segregated from other waste streams and drummed to avoid cross-contamination of waste streams.	D006	NWW	TCLP metals	Required – 268.48 list (no dioxins/furans/ pesticides)	-
Waste Name: **Chemlok/Water** Waste Description: Water based Chemloks only (805, 855, 8560) which may or may not be diluted with water Waste Code: Not regulated Container Type: Open-head drum Management: Do not combine with other wastes. ***Do NOT add solvent based Chemloks to this drum (they should go in Bondliner, Waste Flammable, or Paint Related Waste drums).*** Material should be tested for organic compounds due to the continued use of solvent-based Chemloks as well as possible confusion over the term "bondliner". These items could lead to the disposal of solvent-based Chemloks with the water-based materials or disposal of other bondliner (interior coating). Process knowledge will be used to determine the constituents when waste accumulation records are kept. Otherwise, testing of the waste will be conducted. Process involves spraying water based Chemlok material (adhesive solution) on the	None	NWW	Flash Point, F002, F003, F005, TCLP metals	Required – 268.48 list (no dioxins / furans / pesticides)	

TABLE 2-1
Containerized Wastes and Waste Analysis Parameters

Waste Name, Description, Container, Management, Process Source	Waste Code	LDR	Hazardous Waste Parameters to be Analyzed[1]	UHCs to be analyzed[1]	Constituents Above LDRs 2000 - 2003 Test Results
interior of empty rocket motor cases to improve the bond between the case and the propellant, which will be cast later. Waste material includes residuals from spraying, water from cleaning spray equipment, and out of shelf-life material.					
Waste Name: **Corrosives** **(Miscellaneous)** Waste Description: Oakite 32, 33, 132, acids, photo developing solutions, certain boiler chemicals Waste Code: D002 – corrosive Container Type: Closed-head poly-lined drum Management: Do not mix products without authorization	D002	NWW	pH, TCLP metals	Required – 268.48 list (no dioxins / furans / pesticides)	-
Waste Name: **Flammable Liquids** **(Miscellaneous)** Waste Description: Various flammable liquids Waste Code: D001 – ignitable, F002, F003 & F005 - listed solvents Container Type: Closed-head drum Management: Large quantities of any specific material should be in drums for specific wastes (such as acetone). This should be used for small quantities of various solvents, solvent based Chemloks, etc. Process knowledge may be used to determine the constituents when the drum contains only one material from a specific process. However, material should be tested for organic compounds in order to determine which F listed wastes are contained in it.	F002, F003, F005, D001	NWW	Flash Point, F002, F003, F005, TCLP metals	Required - Solvent list (high TOC)	methylene chloride, toluene, xylene -

TABLE 2-1
Containerized Wastes and Waste Analysis Parameters

Waste Name, Description, Container, Management, Process Source	Waste Code	LDR	Hazardous Waste Parameters to be Analyzed[1]	UHCs to be analyzed[1]	Constituents Above LDRs 2000 - 2003 Test Results
Waste Name: **Heptane** Waste Description: Waste heptane only Waste Code: D001 – ignitable Container Type: Closed-head drum Management: Do not combine with other wastes Spent heptane is generated from the cleaning of composite propellant-contaminated mixing and casting equipment.	D001	NWW	Flash Point, TCLP metals	Not required	-
Waste Name: **Isocyanates** Waste Description: Waste isocyanates that are not part of a bondliner system, paint system, etc. This usually consists of off-spec materials for disposal and may include HDI, TDI, MDI (PAPI, Desmodur N-100, Desmodur RE), IPDI, DDI, etc. Waste Code: D001 – ignitable, F005 – toluene Container Type: Closed-head drum Management: Do not combine with other wastes Materials are unused (residuals and expired shelf life) and consolidated from their original containers to a drum to reduce disposal cost. Material Safety Data Sheets may be used to determine hazards and constituents. Waste accumulation sheets are also maintained for drums of this waste.	D001, F005	NWW	Flash Point, F002, F003, F005, TCLP metals	Required - Solvent list (high TOC); TCLP Metals	Toluene, MEK
Waste Name: **Isopropanol/Water Solution** Waste Description: Mixture of IPA and water from RDX drying operations Waste Code: D001 – ignitable or not regulated, depending on alcohol concentration Container Type: Closed-head drum Management: Do not combine with other wastes	D001 or None (See text to left)	NWW	Flash Point,	Not required	-

TABLE 2-1
Containerized Wastes and Waste Analysis Parameters

Waste Name, Description, Container, Management, Process Source	Waste Code	LDR	Hazardous Waste Parameters to be Analyzed[1]	UHCs to be analyzed[1]	Constituents Above LDRs 2000 - 2003 Test Results
Process involves preparation of RDX for use. RDX is packaged wet with a water/isopropanol mixture (isopropanol is used as an anti-freeze agent). RDX must be dried and ground to the proper size prior to being mixed in propellant. The liquid is removed prior to grinding and drummed for disposal. RDX content of the liquid is too low to create the characteristic of reactivity.					
Waste Name: **Lab Solvents** Waste Description: Mixed solvents from lab operations Waste Code: D001 - ignitable; F002, F003 & F005 - listed solvents Container Type: Closed-head drum Management: Solvents and acids/bases should be kept separate. Materials are residuals from analytical or research procedures. Material Safety Data Sheets may be used to determine hazards and constituents. Waste accumulation sheets are also maintained for drums of this waste.	F002, F003, F005, D001	NWW	Flash Point, F002, F003, F005	Solvent list (high TOC)	Toluene, Acetone, Isobutanol, Methylene Chloride

TABLE 2-1
Containerized Wastes and Waste Analysis Parameters

Waste Name, Description, Container, Management, Process Source	Waste Code	LDR	Hazardous Waste Parameters to be Analyzed[1]	UHCs to be analyzed[1]	Constituents Above LDRs 2000 - 2003 Test Results
Waste Name: **Lacquer Premix with Methylene Chloride** Waste Description: Mixture of all materials for lacquers with other methylene chloride or nitrate esters Waste Code: F002 Container Type: Closed-head drum Management: Do not combine with other wastes In order to safely transport nitroglycerin (NG), a stabilizer mixture must be added. This mixture consists of a plasticizer and antioxidant compounds. None of the materials are regulated under RCRA. The mixture is added to dessicators (NG containers) prior to adding methylene chloride. The dessicators are then shipped to the NG manufacturing facility where the NG is added and the dessicators are returned to ABL. Premix may be made ahead of time and stored prior to adding the methylene chloride. Waste is generated from mix residuals or off spec batches. Any materials that contain methylene chloride or NG are segregated and treated separately.	D001, F002	NWW	Flash Point, F002,	Solvent list	Toluene, MEK, Methylene Chloride

TABLE 2-1
Containerized Wastes and Waste Analysis Parameters

Waste Name, Description, Container, Management, Process Source	Waste Code	LDR	Hazardous Waste Parameters to be Analyzed[1]	UHCs to be analyzed[1]	Constituents Above LDRs 2000 - 2003 Test Results
Waste Name: **Lead Solids** Waste Description: Rags, gloves, bags, freezettes, etc. contaminated with lead salts or lead salt paste Waste Code: D008 - lead Container Type: Open-head drum Management: Large quantities of lead salts or lead salt paste should be drummed separately from the contaminated materials. Lead citrate powder is used to change the burn rate properties of NG based propellants. In order to use the material, it must be ground to the proper size and then incorporated into a paste, which is used during propellant mixing. A paste is utilized in order to obtain a homogenous mixture without lumps. The primary generation of this waste is from the lead citrate processing building (384). The dried lead citrate is added to a grinding unit and heptane is added. The material is then ground to correct particle size and the heptane is evaporated off and recovered for reuse. The dried material is then mixed with a plasticizer (polyglycol adipate, or PGA) and carbon black. The mixed material is run through a roll mill to remove any lumps. Additional waste is generated in the propellant mixing areas when paste containers are emptied into propellant mixes. Waste materials include rags, paint paddles, PPE, tape, containers, etc. that become contaminated with the lead or lead paste during the process.	D008	NWW	TCLP metals	Required – 268.48 list (no dioxins / furans / pesticides)	UHC: Bis (2-ethyl hexyl) phthalate
Waste Name: **Methylene Chloride** Waste Description: Waste methylene chloride only. Waste Code: F002 - chlorinated solvent Container Type: Closed-head drum Management: Methylene chloride that is reclaimed from Bldg 352 should be stored in poly lined	F002	NWW	F002,	Solvent list	Methylene Chloride

TABLE 2-1
Containerized Wastes and Waste Analysis Parameters

Waste Name, Description, Container, Management, Process Source	Waste Code	LDR	Hazardous Waste Parameters to be Analyzed[1]	UHCs to be analyzed[1]	Constituents Above LDRs 2000 - 2003 Test Results
closed-head drums in case of water contamination from the recovery system Bldg 352 Process - NG with methylene chloride is received in dessicators. The methylene chloride must be stripped from the NG before it can be used to manufacture propellant. Air is bubbled through the liquid in the dessicators to drive off the methylene chloride, which is much more volatile than NG. The methylene chloride vapor is captured and condensed to control air emissions. The solvent that is condensed is collected and reused in empty dessicators that are returned to the NG supplier for the next shipment. Solvent may be recirculated through the system to remove moisture. If moisture level is too high and cannot be reduced, the material is disposed of.					
Waste Name: Mold Release Agents (MS143/MS145) Waste Description: Waste halogenated solvent-based mold release agents only. Waste Code: F002 - chlorinated solvent Container Type: Closed-head drum Management: Do not mix products without authorization Materials are unused and consolidated from their original containers to a drum to reduce disposal cost. Waste accumulation sheets are also maintained for drums of this waste.	F002	NWW	Flash Point, F002, F003, F005,	Required - Solvent list	acetone, toluene
Waste Name: Oakite Solution - Acidic Waste Description: Oakite 32, 33, 132 solutions with a pH of 1 to 6 Waste Code: D002 – corrosive Container Type: Closed-head poly-lined drum Management: Do not mix products without authorization Pipe shop and mechanics use acidic solution to clean parts. Only material that may be introduced into the waste is dirt and oils. Material Safety Data Sheets may be used to determine hazards.	D002	NWW	pH, TCLP metals	Required – 268.48 list	-

TABLE 2-1
Containerized Wastes and Waste Analysis Parameters

Waste Name, Description, Container, Management, Process Source	Waste Code	LDR	Hazardous Waste Parameters to be Analyzed[1]	UHCs to be analyzed[1]	Constituents Above LDRs 2000 - 2003 Test Results
Waste Name: **Oakite Solution – Alkaline** Waste Description: Oakite Enprox and Inpro-Tect solutions with a pH of 8-14 Waste Code: D002 – corrosive Container Type: Closed-head poly-lined drum Management: Do not mix products without authorization Metal fabrication area uses alkaline solution to clean parts. Only material that may be introduced into the waste is dirt and oils. Material Safety Data Sheets may be used to determine hazards.	D002	NWW	pH, TCLP metals	Required – 268.48 list	-
Waste Name: **Oil/Solvent** Waste Description: Waste oil of any type that may have been mixed with cleanup solvents such as varsol, kerosene, etc. (solvent may make material flammable) Waste Code: not regulated but potentially D001 - ignitable Container Type: Closed-head drum Management: Do not mix products without authorization Because shops also use kerosene, varsol, or other solvents, material should be tested at least annually to detect solvents that may be inadvertently added to the drum with the oils.	D001	NWW if RCRA trig-gered.	Flash Point, TCLP metals	Evaluate if RCRA triggered.	-
Waste Name: **P/E Contaminated Waste - Double Base** Waste Description: Rags, spatulas, material containers, etc. which are contaminated with double base propellant or	D008, F003, F005	NWW	F003, TCLP metals	268.48 list (no dioxins / furans / pesticides)	Acetone, MEK, lead

TABLE 2-1
Containerized Wastes and Waste Analysis Parameters

Waste Name, Description, Container, Management, Process Source	Waste Code	LDR	Hazardous Waste Parameters to be Analyzed[1]	UHCs to be analyzed[1]	Constituents Above LDRs 2000 - 2003 Test Results
explosives, but the total quantity of P/E does not exceed approximately 10% by weight. Waste Code: D008 – lead, F003 - acetone (yellow waste ticket), F005 (Toluene and MEK may be used for cleanup of these propellants) Container Type: Conductive or anti-static plastic bags that are loaded into cubic yard boxes Management: These materials must be shipped offsite for treatment and disposal Mixing and casting propellant results in a specific quantity of the mix that adheres to the equipment and must be cleaned out before the mixer may be used again. These materials do not contain enough propellant contamination to meet the definition of reactivity. Double base propellant contains lead compounds (D008) and uses acetone (F003 listed) for cleanup. Waste logs are maintained for each bag and box of waste generated.					
Waste Name: P/E Contaminated Waste - Hybrid Waste Description: Rags, spatulas, material containers, etc. that are contaminated with hybrid propellant or explosives, but the total quantity of P/E does not exceed approximately 10% by weight Waste Code: F003 - acetone (yellow waste ticket for nitrate ester based hybrids) or not regulated (blue waste ticket for AP-based hybrids), F005 (Toluene and MEK may be used for	F003 F005	NWW	F003, TCLP metals	Required – 268.48 list (no dioxins / furans / pesticides)	-

TABLE 2-1
Containerized Wastes and Waste Analysis Parameters

Waste Name, Description, Container, Management, Process Source	Waste Code	LDR	Hazardous Waste Parameters to be Analyzed[1]	UHCs to be analyzed[1]	Constituents Above LDRs 2000 - 2003 Test Results
cleanup of these propellants) Container Type: Conductive or anti-static plastic bags that are loaded into cubic yard boxes Management: These materials must be shipped offsite for treatment and disposal Mixing and casting propellant results in a specific quantity of the mix that adheres to the equipment and must be cleaned out before the mixer may be used again. These materials do not contain enough propellant contamination to meet the definition of reactivity. Hybrid propellant does not contain any RCRA listed wastes. Composite based hybrids use heptane (which is unlisted) for cleaning. Double base hybrids use acetone (F003 listed) for cleaning. Waste logs are maintained for each bag and box of waste generated.					

TABLE 2-1
Containerized Wastes and Waste Analysis Parameters

Waste Name, Description, Container, Management, Process Source		Waste Code	LDR	Hazardous Waste Parameters to be Analyzed[1]	UHCs to be analyzed[1]	Constituents Above LDRs 2000 - 2003 Test Results
Waste Name:	**Paint Related Waste Material (liquid)**	F002, F003, F005, D001, D007, D010	NWW	Flash Point, F003, F005, TCLP metals	Required – 268.48 list (no dioxins / furans / pesticides)	Toluene, Acetone, MEK, cadmium, chromium, selenium
Waste Description:	Paints (1 or 2 part types, including epoxies, polyurethanes, and other topcoats, primers, etc.), thinners (including solvents used for thinning which may not be a trade name thinner product)					
Waste Code:	D001 - ignitable; D007 & D008 - chromium or lead ; F003 & F005 - listed solvents					
Container Type:	Closed-head drum					
Management:	Paint is mixed and sprayed on exterior surface of either empty or propellant containing rocket motor cases. Waste consists of either residual paint that was mixed and not needed and off-spec or out of shelf-life paints. Material Safety Data Sheets may be used to determine hazards. Waste accumulation sheets that indicate the materials added to the drums are also maintained on this material.					
Waste Name:	**Paint Related Waste Material (solid)**	F002, F003, F005, D006, D007, D010	NWW	Flash Point, F002, F003, F005, TCLP metals	Required – 268.48 list (no dioxins / furans / pesticides)	Toluene, MEK, Ethylbenzene, Xylenes, 1,2-Dichloro-ethane, Naphthalene, Di-n-butyl phthalate,.
Waste Description:	Paint booth filters, rags, other solid items such as mixing cups, etc. which are contaminated with paint					
Waste Code:	D007 & D008 - chromium or lead ; F003 & F005 - listed solvents					
Container Type:	Open-head drum					
Management:	Mixing cups which have been wiped clean or rinsed clean with solvent may be disposed of in					

TABLE 2-1
Containerized Wastes and Waste Analysis Parameters

Waste Name, Description, Container, Management, Process Source	Waste Code	LDR	Hazardous Waste Parameters to be Analyzed[1]	UHCs to be analyzed[1]	Constituents Above LDRs 2000 - 2003 Test Results
ordinary trash Paint is mixed and sprayed on exterior surface of either empty or propellant containing rocket motor cases. Waste consists of rags, PPE, containers, and used paint booth filters contaminated with paint. The debris would be contaminated with the same materials that have been added to the liquid paint waste drums. Material Safety Data Sheets may be used to determine hazards.					
Waste Name: **Styrene & Inhibitors** Waste Description: Waste styrene monomer, or styrene mixed with cobalt octoate, Santoflex, and MEKP Waste Code: D001 Container Type: Closed-head drum Management: Materials are unused and consolidated from their original containers to a drum to reduce disposal cost. Material Safety Data Sheets may be used to determine hazards. Waste accumulation sheets are maintained for drums of this waste.	D001	NWW if RCRA trig-gered.	Flash Point, TCLP metals if triggered by process or regulatory changes.	Evaluate if RCRA triggered.	-
Waste Name: **Trichloroethylene** Waste Description: Waste trichloroethylene only Waste Code: F002 - chlorinated solvent Container Type: Closed-head drum Management: Do not mix products without authorization Materials are unused and consolidated from their original containers to a drum to reduce disposal cost. Material Safety Data Sheets may be used to determine hazards. Waste accumulation sheets are also maintained for drums of this waste.	F002	NWW	Flash Point, F003, F005,	Required - Solvent list	trichloroethylene

TABLE 2-1
Containerized Wastes and Waste Analysis Parameters

Waste Name, Description, Container, Management, Process Source	Waste Code	LDR	Hazardous Waste Parameters to be Analyzed[1]	UHCs to be analyzed[1]	Constituents Above LDRs 2000 - 2003 Test Results
Waste Name: **Used Grit** Waste Description: Used grit-blasting material Waste Code: Not regulated or D007, Container Type: Open-head drum Management: If any special blasting is conducted (such as stripping cad-plated cases, etc.) grit is held, sampled, and analyzed prior to disposal. Various types of metal cases are grit-blasted in different areas on site. Previous analysis of grit has not shown any metals levels close to the TCLP limits.	, D007,	NWW	TCLP metals	Required – 268.48 list (no dioxins / furans / pesticides)	chromium,
Waste Name: **Valenite VNT Valcool Coolant** Waste Description: Used Valcool coolant from broaching machine operations Waste Code: D007– chromium, D008- lead Container Type: Closed-head drum Management: Segregate from other coolants in closed head drums Valcool coolant from broaching machines picks up chromium and lead from machining operations and must be segregated from other coolants and treated separately. Drums are sent offsite from disposal.	, D007, D008,	NWW	TCLP metals, flashpoint	Required – 268.48 list (no dioxins / furans / pesticides)	chromium, lead
Waste Name: **Varsol** Waste Description: Waste varsol only Waste Code: D001 - ignitable Container Type: Closed-head drum Management: Varsol may be added to a Waste Flammable drum as appropriate. Maintenance shops use varsol to clean oily parts. Only material that may be introduced into the waste is dirt and oils. Material Safety Data Sheets may be used to determine hazards.	D001	NWW	Flash Point, TCLP metals	Not required	-
Waste Name: **Versatec Developer Solution**	D001	NWW	Flash Point, TCLP	Not required	-

TABLE 2-1
Containerized Wastes and Waste Analysis Parameters

Waste Name, Description, Container, Management, Process Source	Waste Code	LDR	Hazardous Waste Parameters to be Analyzed[1]	UHCs to be analyzed[1]	Constituents Above LDRs 2000 - 2003 Test Results
Waste Description: Solution from drafting equipment only Waste Code: D001 - ignitable Container Type: Closed-head drum Management: Versatec may be added to a Waste Flammable drum as appropriate. Drafting department equipment uses Versatec Developer Solution for printing drawings. Residual material is consolidated from its original containers to a drum to reduce disposal cost. Material Safety Data Sheets may be used to determine hazards.			metals		
Waste Name: **Watershield** Waste Description: Watershield (with or without water added) only Waste Code: NR Container Type: Closed-head drum Management: NO other mold release materials shall be added to this material. Water based mold release is applied to parts in a dip tank. The parts are then oven dried to remove any moisture. The mold release prevents propellant from sticking to the mold parts so they can be removed once the propellant is cured. Residual or off spec material is consolidated from its original containers to a drum to reduce disposal cost. Material Safety Data Sheets may be used to determine hazards.					

Waste Name, Description, Container, Management, Process Source	Waste Code	LDR	Hazardous Waste Parameters to be Analyzed[1]	UHCs to be analyzed[1]
Waste Name: **Lab Solutions** Waste Description: Shelf-life expired lab chemicals Waste Code: D, F, P and U wastes Container Type: Closed-head drum, lab packs Management: Combine into drums or labpack Commercial or reagent grade chemicals, typically from expired lab inventories.	D001-D043 P001–P205 U001-U395	NWW	TCLP metals Flashpoint VOCs Semi-volatiles pH	-

WW = (Wastewater), **NWW** (Non-Wastewater), **NA** = Not Applicable

GENERAL NOTE: Some entries for specific materials state that they may be added to another drum (Waste Flammable, Bondliner, etc.) as appropriate. This means there is only a small quantity of the material to be disposed of and there is no reason to have an entire drum in that area for that one material. For example, a painting area has a quart of acetone to dispose of.

They have a Waste Paint drum, but no acetone drum since this is not a usual occurrence. Therefore, they may add the acetone to the Waste Paint drum since acetone is a constituent of the paint waste.

Note 1: **Required** = Testing to be accomplished.

Note 2: **TS** = Treatment Standard, **UTS** = Universal Treatment Standard

UHCs: Analysis for selected waste streams is required for the underlying hazardous constituents found in 40 CFR 268.48. Analysis for dioxins, furans, and/or pesticides is excluded for selected wastes as indicated. Analysis for the solvent list (below) is required for selected waste streams in lieu of full UHC analysis.

Solvent List: acetone, benzene, n-butyl alcohol, carbon disulfide, carbon tetrachloride, chlorobenzene, o-, m-, and p-cresol, cyclohexanone, o-dichlorobenzene, ethyl acetate, ethyl benzene, ethyl ether, isobutyl alcohol, methanol, methylene chloride, MEK, MIBK, nitrobenzene, pyridine, tetrachloroethylene, toluene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,1,2-trichloro-1,2,2-trifluoroethane, trichloroethylene, trichlorofluoromethane, xylenes

TABLE 2-2
Analytical Methods

Waste Code	Parameters	Analytical Methods
D001	Flashpoint	ASTM D93-99a or ASTM D3278-96e1
D002	pH	SW-846 1110 or SW-846 9040B
D004 to D043	TCLP	SW-846 1311
D004	Arsenic	SW-846 6010B, SW-846 7060A, or SW-846 7061A
D005	Barium	SW-846 6010B, SW-846 7080A, or SW-846 7081
D006	Cadmium	SW-846 6010B, SW-846 7130, or SW-846 7131A
D007	Chromium	SW-846 6010B, SW-846 7190, or SW-846 7191
D008	Lead	SW-846 6010B, SW-846 7420, or SW-846 7421
D009	Mercury	SW-846 7470A or SW-846 7472
D010	Selenium	SW-846 6010B, SW-846 7740, or SW-846 7741A
D011	Silver	SW-846 6010B, SW-846 7760A, or SW-846 7761
D018	Benzene	SW-846 8021B or SW-846 8260B
D019	Carbon tetrachloride	SW-846 8021B or SW-846 8260B
D021	Chlorobenzene	SW-846 8021B or SW-846 8260B
D022	Chloroform	SW-846 8021B or SW-846 8260B
D023	o-Cresol	SW-846 8041 or SW-846 8270C
D024	m-Cresol	SW-846 8041 or SW-846 8270C
D025	p-Cresol	SW-846 8041 or SW-846 8270C
D026	Cresol	SW-846 8041 or SW-846 8270C
D027	1,4-Dichlorobenzene	SW-846 8041 or SW-846 8270C
D028	1,2-Dichloroethane	SW-846 8021B or SW-846 8260B
D029	1,1-Dichloroethene	SW-846 8021B or SW-846 8260B
D030	2,4-Dinitrotoluene	SW-846 8091 or SW-846 8270C
D032	Hexachlorobenzene	SW-846 8081A or SW-846 8270C
D035	Methyl ethyl ketone	SW-846 8021B or SW-846 8260B
D036	Nitrobenzene	SW-846 8091 or SW-846 8270C
D038	Pyridine	SW-846 8091 or SW-846 8270C
D039	Tetrachloroethene	SW-846 8021B or SW-846 8260B
D040	Trichloroethene	SW-846 8021B or SW-846 8260B
D041	2,4,5-Trichlorophenol	SW-846 8041 or SW-846 8270C
D042	2,4,6-Trichlorophenol	SW-846 8041 or SW-846 8270C
D043	Vinyl chloride	SW-846 8021B or SW-846 8260B
F001	VOCs	SW-846 8021B or SW-846 8260B
F002	VOCs	SW-846 8021B or SW-846 8260B
F003	VOCs	SW-846 8021B or SW-846 8260B
F005	VOCs	SW-846 8021B or SW-846 8260B

References

1. USEPA. *Waste Analysis at Facilities that Generate, Treat, Store, and Dispose of Hazardous Wastes: A Guidance Manual.* USEPA OSWER 9938.4-03. April 1994.

Attachment 2
Inspection Schedule

F-2 Inspection Schedule [40 CFR 264.15, 270.14(b)(5)]

F-2a General Inspection Requirements [40 CFR 270.14(b)(5), 264.15(a) and (b), and 264.33]

The hazardous waste storage unit and the Burning Grounds are inspected for mal functions and deterioration, operator errors, and discharges. Inspections are conducted in accordance with written SOPs.

All facility communications, emergency alerting system and fire protection, spill control, and decontamination equipment are inspected, tested, and maintained as necessary to assure their proper operation in time of emergency. Where applicable, equipment is inspected to recognized standards. Records and operation logs are maintained for each inspection performed.

Inspection records for both the Burning Grounds and the hazardous waste storage unit are maintained in the Environmental Department. The form includes date, time, inspector's name and signature, observations, and remedial actions taken. Records are kept for 3 years.

A copy of the inspection form for the Burning Grounds is provided in Figure F-1. The frequency of inspection items is indicated on the inspection form.

A copy of the inspection form for the hazardous waste storage unit is provided in Figure F-2. The unit is inspected weekly by operating personnel. Once permitted, Building 810 will undergo weekly inspection.

F-2a(1) Types of Problems Addressed at the Inspection [40 CFR 264.15(b)(3)]

Burning Grounds

The following types of problems are looked for during inspections of the Burning Grounds:

Burning Pans (before collecting waste)
- Erosion of soil in burn pan
- Foreign objects or debris
- Tall grass or weeds
- Pan integrity
- Pad integrity
- Standing water

Circuit Check (before collecting waste)
- Control panel short circuit

Personal Protection (before use)
- Flame resistant coveralls
- Conductive shoes
- Safety glasses

Fire Protection (before use)
- Rubber tamper

- Water hoses
- Two-way communication

Ignition Items (before use)

- Electric matches
- Firing circuit continuity check
- Ignition Control System

Traffic Control (before ignition)

- Gates closed
- Signs posted

Fire Control (after completion of burn)

- Grass fires

Examples of possible problems and remedial actions for the Burning Grounds are presented below.

Problem	Remedial Action
Erosion of burning pan	Submit Work Order to Maintenance for repair
Foreign objects or debris in pan	Remove and dispose
Tall weeds or grass	Contact Grounds Crew and have grass cut
Firing circuit not shorted	Install shorting plug and retest, or contact electrician for repair
Missing fire protection item	Procure from Stores before proceeding
Missing ignition system item	Procure from Stores before proceeding
Electric match not properly connected to firing circuit	Repair connection before igniting pans
Gates open or signs not posted	Close gates and post signs before burning
Weather conditions unacceptable (See Section D-8)	Postpone burn until weather conditions acceptable

Building 366 Container Storage

The types of problems looked for during inspections of the Building 366 container storage area are listed below; Building 810, once permitted, will be inspected in a similar way:

Containers and Containment Cells

- Absent or illegible labels
- Leaking, bulging, rusted, or distorted drums
- Absence of drum bungs or closure rings
- Accumulated residue, water, or foreign material in cell containment

Structural Equipment and Operating Area

- Roof leaks, physical deterioration of structure
- Cracks or deterioration of concrete base or cell members
- Absent or illegible warning signs
- General housekeeping and cleanliness

Examples of possible problems and remedial actions for the hazardous waste storage unit are presented below.

Problem	Remedial Action
Missing or illegible label	Affix a proper legible label
Leaking drum	Transfer material to new drum or provide over pack.
Missing or insecure bung or lid	Install and tighten bung or lid
Distorted or rusted drum	Notify supervision. Transfer material if conditions affect the structural integrity of the drum.
Foreign residues in diked area disposal	Clean up residue and place in container for disposal

F-2a(2) Frequency of Inspections [40 CFR 264.15(b)(4)]

Burning Grounds

Burning Grounds facilities and equipment are inspected according to the frequencies listed below.

Burn Pans

Burn pans are inspected before waste is collected from the less-than-90-day storage areas to ensure that the pans are safe to receive waste.

Firing Circuit

The firing circuit is checked with a circuit tester before waste is collected to ensure that the control panel is short-circuited. This ensures that the circuit does not have a voltage potential between the two lines of the firing circuit, which in turn prevents premature firing of the electric match when the match is connected to the firing circuit.

Protective Equipment

PPE is inspected before each use.

Fire Protection

Fire protection equipment is inspected before each use.

Ignition items

The firing circuit is checked before each burn using a circuit tester to ensure that the electric match is properly connected to the firing circuit before burning is initiated. Electric matches and the ignition control system are inspected to ensure they are in good condition.

Traffic Control

Traffic control items (gates closed and signs posted) are inspected before each burn to ensure that unauthorized personnel do not enter the unit during a burn event.

Fire Control

The unit is inspected after each burn event to ensure that no grass fires are burning in or around the Burning Grounds.

Building 366 Container Storage

This building is inspected weekly when it contains wastes.

Monitoring Equipment

No permanent monitoring equipment is installed at the container storage building. In the event of a leak or other incident, portable equipment (e.g., air pumps, Draeger tubes, oxygen meters, or flammable vapor meters) is available from the Safety and Environmental Department. All such monitoring equipment is inspected and calibrated before use and maintained in accordance with the manufacturer's recommendations.

Areas Subject to Spills

The loading/unloading area is the center aisle driveway at the container storage building. This area is inspected after each material transfer to or from the area. Containers and containment cells are inspected weekly by operations personnel.

Operating and Structural Equipment

The concrete floor is checked visually during the weekly container area inspection. Forklifts, vehicles, and material transfer equipment (not dedicated to container area use) are on an annual preventive maintenance schedule.

Building 810

This building will be inspected weekly when it contains waste, once permitted.

Monitoring Equipment

No permanent monitoring equipment will be installed at the Building 810 container storage building. In the event of a leak or other incident, portable equipment (e.g., air pumps, Draeger tubes, oxygen meters, or flammable vapor meters) is available from the Safety and Environmental Department. All such monitoring equipment is inspected and calibrated before use and maintained in accordance with the manufacturer's recommendations.

Areas Subject to Spills

Loading and unloading of waste occurs at the front door. This area is inspected after each material transfer to or from the area. Containers and containment cells are inspected weekly by operations personnel.

Operating and Structural Equipment

The concrete floor will be checked visually during the weekly container area inspection.

F-2b Specific Process Inspection Requirements [40 CFR 270.14(b)(4) and 264.15(b)(4)]

F-2b(1) Container Inspection [40 CFR 264.174]

As discussed in Section F-2a, the containers and the container storage area are inspected weekly for leaks, spills, and deterioration caused by corrosion and other factors.

F-2b(2) Tanks System Inspection [40 CFR 264.195]

Not applicable.

F-2b(3) Waste Pile Inspection [40 CFR 270.18(d), 264.254(b)]

Not applicable.

F-2b(4) Surface Impoundment Inspection [40 CFR 270.17(c), 264.226(b), 264.226(c)]

Not applicable.

F-2b(5)(a) Incinerator and Associated Equipment [40 CFR 264.347(b)]

Not applicable.

F-2b(6) Landfill Inspection [40 CFR 264.303(b)]

Not applicable.

F-2b(7) Land Treatment Facility Inspection [40 CFR 264.273(g)]

Not applicable.

F-2b(8) Miscellaneous Unit Inspections [40 CFR 270.14(b)(5) and 264.602]

The general inspection requirements described in Section F-2a ensure compliance with the environmental performance standards discussed in Section D-8.

F-2b(9) Boilers and Industrial Furnaces (BIF) Inspections [40 CFR 264.15, 266.102(a)(2)(ii), 266.102(e)(8), 266.111(e)(3)]

Not applicable.

F-2b(10) Containment Building Inspection [40 CFR 264.1101(c), 264.1101(c)(4)]

Not applicable.

F-3 Waiver or Documentation of Preparedness and Prevention Requirements [40 CFR 270.14(b) and 264.32(a) through 264.32(d)]

A waiver from the preparedness and prevention requirements for the Burning Grounds and the hazardous waste storage units is not sought.

F-3a Equipment Requirements [40 CFR 270.14(b) and 264.32]

F-3a(1) Internal Communications and Alarms System [40 CFR 264.32(a)]

ABL provides internal communications by the following methods: telephones (cellular and fixed), two-way radios in plant vehicles, and the plant emergency alerting system. The internal communication system can be utilized to summon the plant security force, fire brigade, supervision, and the plant spill response team.

Burning Grounds

Under normal circumstances, no personnel (other than the Burning Grounds operator) are allowed to perform work activities at the Burning Grounds when waste is present on the burn pans. Grass mowing and other maintenance activities are performed only when the burn pans are empty of untreated reactive wastes. The Burning Grounds operator carries a cellular telephone at all times while performing duties at the Burning Grounds. If other personnel must perform duties within the Burning Grounds alone while waste is present, a two-way radio or cellular telephone is carried. No burning occurs while personnel are within the fenced Burning Grounds.

Building 366 Container Storage

Personnel performing duties at the hazardous waste storage unit have two-way radios in their vehicles. Security personnel with two-way radios are on duty 24 hours per day, 7 days per week to respond to emergencies. If any personnel must perform duties alone at the hazardous waste storage unit, a two-way radio or cellular telephone is carried.

Building 810 Container Storage

The provisions for internal communications and alarms systems at the Building 810 container storage unit will be the same as those for Building 366, once permitted.

F-3a(2) External Communications [40 CFR 264.32(b)]

Only ABL personnel are typically allowed on site in response to emergencies. If outside assistance is needed, communication is made by telephone through the regional Civil Defense office by dialing 911. Security and plant protection would use the telephone to contact ambulances.

F-3a(3) Emergency Equipment [40 CFR 264.32(c)]

Portable fire extinguishers are carried in all explosive-carrying vehicles and are placed strategically throughout the plant operating areas. ABL has a spill response vehicle to respond to any and all spills on location. It is equipped with the following:

Spill Kits: drain blocker, absorbent pads and booms for non-aggressive materials; oil pads and booms; pads and booms for acidic and caustic materials.

Respiratory Equipment: half- and full-face respirators with cartridges, self-contained breathing apparatus (SCBA) units with spare bottles.

Personal Protective Equipment: full complement of Level B and Level C suits.

Spill Prevention Materials: drum bungs (small and large), patch putty, sealant sticks, and puncture repair kit.

Medical Supplies: fully stocked medical "jump kit," oxygen cylinder and cannulas, sterile solutions, eyewash bottles.

Material Transfer Supplies: scoops, funnels (large and small), drum pumps, spatulas, and drum funnels.

Cleanup Supplies: bucket, detergent, shovel, water hose, broom, dustpan, decontamination pools.

Burning Grounds

The following emergency equipment is maintained at the Burning Grounds:

- Water hose
- Plastic rakes
- Rubber fire tampers

Building 366 Container Storage

The following spill response equipment is stored at the Building 366 hazardous waste storage unit:

- Overpack drum
- Oil absorbent pad
- Vermiculite

Building 810 Container Storage

The following spill response equipment will be stored at the Building 810 hazardous waste container storage unit:

- Overpack drum
- Oil absorbent pad
- Vermiculite

F-3a(4) Water for Fire Control [40 CFR 264.32(d)]

Water is available in adequate volumes and pressures to supply fire fighting water streams. The reservoir capacity is 1.4 million gallons and is located to give hydrant pressures of 125 psi.

Burning Grounds

Three water spigots with water hoses are located within the Burning Grounds. Water is used to fight grass fires and to cool burn pans before waste is placed on the pans, when less than 24 hours have elapsed since the previous burn. Under no circumstances will attempts be made to extinguish fires involving explosives.

Building 366 Container Storage

A fire hydrant is located approximately 100 ft from this building.

Building 810 Container Storage

A fire hydrant is located approximately 80 ft from this building.

F-3b Aisle Space Requirement [40 CFR 264.35]

Burning Grounds

The aisle space requirement is not applicable to the Burning Grounds. As shown on Drawing B-2 in Appendix B, there is sufficient space between the burn pans to allow the unobstructed movement of personnel, fire protection equipment, or spill control equipment in an emergency.

Building 366 Container Storage

Aisle space requirements will be established in accordance with Life Safety Code 101 and in accordance with sound safety practices. Aisle space is maintained in the container storage area to allow unobstructed movement of personnel and material handling, spill control, and decontamination equipment.

Building 810 Container Storage

Aisle space requirements are established in accordance with Life Safety Code 101 and in accordance with sound safety practices. Aisle space is maintained in the container storage area to allow unobstructed movement of personnel and material handling, spill control, and decontamination equipment.

F-4 Preventive Procedures, Structures, and Equipment [40 CFR 270.14(b)(8)]

F-4a Unloading Operations [40 CFR 270.14(b)(8)(i)]

Burning Grounds

Typically, wastes are loaded onto the explosive waste transport truck and unloaded onto the burn pans by hand. Wastes weighing more than 50 lbs in a single container are loaded and unloaded with a minimum of two people to avoid injury and to ensure that the waste is safely handled, unless mechanical equipment is available.

Building 366 Container Storage

Loading and unloading operations are conducted using a hydraulic lift tailgate mounted on a 5-ton stake bed truck. The drums are moved from the bed section of the truck to the hydraulic liftgate, which is then lowered to the ground. A drum tiller is then connected to the drum to transfer it from the tailgate to the containment cell. The bungs of the drum are tightened before unloading and transfer. This assures that no material is spilled in loading, unloading, or transfer. Waste containers are placed on pallets to be loaded by forklift onto hazardous waste transport trucks for shipment to offsite treatment or disposal facilities.

Building 810 Container Storage

Loading and unloading operations will be conducted by hand or by handtruck. Waste will be moved in small quantities and in the original containers where possible.

F-4b Runoff [40 CFR 270.14(b)(8)(ii)]

Burning Grounds

The Burning Grounds is located in a relatively flat area adjacent to the North Branch Potomac River. Except for a ditch near the western boundary of the Burning Grounds no discrete drainage features are present to channel runoff to the river. Runoff from this area would travel by overland flow to the river. Contamination of runoff will be minimized by conducting all treatment in burn pans, which will be placed on paved surfaces and by inspecting the area around the burn pans for the presence of and collection of ejected untreated wastes. Burn pan covers will minimize exposure of the burn pans to precipitation, thereby minimizing the risk of runoff from the waste treatment unit. Standing water is removed from the burn pans as needed to maintain a dry burn pan surface and prevent any accumulated waste from spilling out of the burn pan.

The 100-year flood elevation does not extend to the burn pan locations and is not expected to affect the pans.

Building 366 Container Storage

The hazardous waste storage containment area was designed and constructed in such a manner to prevent run-on. The containment area is protected from rainfall by a roof. Runoff from the roof and surrounding areas drains through the plant drainage ditches to the North Branch Potomac River. No runoff is expected from the waste storage area.

The hazardous waste storage unit is located at an elevation of 680 ft, which is 15 ft above the 100-year flood elevation in that area. No special precautions for flooding are necessary.

Building 810 Container Storage

The building was designed and constructed in such a manner to prevent run-on. The containment area is protected from rainfall by a roof and walls. Runoff from the roof and surrounding areas drains through the plant drainage ditches to the North Branch Potomac River. No runoff is expected from the future waste storage area.

The hazardous waste storage unit is located at an elevation of 669 ft, which is 4 ft above the 100-year flood elevation in that area. No special precautions for flooding are necessary.

F-4c Water Supplies [40 CFR 270.14(b)(8)(iii)]

The surface water and groundwater at the developed portion of ABL are not water supplies and the nearest public or private water supply is in Paw Paw, WV. Groundwater extracted by the CERCLA groundwater remediation system is treated before discharge to the North Branch Potomac River and is used onsite for steam generation, as needed. The OB unit is operated to minimize releases, as described in Section D. The container storage units are equipped with secondary containment to prevent releases, also as described in Section D.

F-4d Equipment and Power Failure [40 CFR 270.14(b)(8)(iv)]

Equipment failure would have no adverse effects on either the Burning Grounds or the hazardous waste storage units. Only standard industrial equipment is or will be used, and redundant equipment is available from other areas if needed. In the event of physical failure of a burn pan, use of this pan would be discontinued until its repair.

Power failure should have no adverse effects on either the Burning Grounds or the hazardous waste storage units. Operations are only conducted during the day shift, and no equipment requiring connection to the electrical power grid is required.

F-4e Personal Protective Equipment [40 CFR 270.14(b)(8)(v)]

Burning Grounds

Personnel present during Burning Grounds operations are required to wear safety shoes, safety glasses, and flame-retardant coveralls. The Burning Grounds operator is required to wear latex or vinyl gloves when handling all waste except rough or abrasive items. The operator is required to wear canvas gloves when handling rough or abrasive items.

Building 366 Container Storage

During loading and unloading operations at the hazardous waste storage unit, personnel are required to wear protective clothing, safety glasses, and safety shoes. For hazardous waste sampling and transfer operations, operators are also required to use face shields or goggles and protective gloves. Respirators are required when transferring or sampling most volatile organic chemicals.

Building 810 Container Storage

Procedures and equipment used to prevent undue exposure of personnel to hazardous waste at the Building 810 container storage unit will be the same as those for Building 366.

F-5 Prevention of Reaction of Ignitable Reactive, and Incompatible Wastes [40 CFR 270.14(b)(9)]

F-5a Precautions to Prevent Ignition or Reaction of Ignitable or Reactive Wastes [40 CFR 270.14(b)(9) and 264.17(a)]

Plant safety rules prohibit matches, lighters, flash bulbs, open flame, or heat-producing devices at the plant except by specific authorization. Smoking is prohibited in all operating areas and is permitted only in specific areas designated by signage. Written permits are issued for use of heat producing devices and portable power tools. These rules apply throughout the plant, including the Burning Grounds and the container storage building.

The source of ignition for open burning (i.e., electric matches) is not transported in the same vehicle as waste explosives. Starting powder and electric matches are stored in separate containers in the isolation box located within the fenced area of the Burning Grounds.

F-5b General Precautions for Handling Ignitable or Reactive Waste and Mixing of Incompatible Waste [40 CFR 270.14(b)(9) and 264.17(b)]

Burning Grounds

Wastes treated at the Burning Grounds may exhibit the characteristic of reactivity.

Containers for reactive wastes are lined with conductive or anti-static bags. Reactive wastes are kept out of direct sunlight until placement on the burn pan to prevent solar heating or material degradation.

Reactive wastes treated by open burning are segregated according to compatibility. The reactive wastes are evaluated for compatibility before they can be treated. Incompatible wastes are not placed on the same pan.

Building 366 Container Storage

Reactive wastes are not stored at Building 366.

Ignitable wastes are stored in sealed containers, in a covered, non-enclosed area to prevent direct exposure to sunlight but allow natural ventilation. No additional

precautions for prevention of waste ignition are required at the hazardous waste storage unit.

No containers that may have held incompatible materials are used for waste storage. Incompatible wastes are not stored in the same cell. The only potential compatibility issues among the most commonly stored wastes at the unit are between ignitable (D001, F003, and F005) and corrosive (D002 wastes). Other wastes are evaluated for compatibility before they are placed in the unit.

Building 810 Container Storage

Reactive wastes are not stored at Building 810.

Ignitable wastes are stored in sealed containers, in a covered, non-enclosed area to prevent direct exposure to sunlight but allow natural ventilation. No additional precautions for prevention of waste ignition are required at the hazardous waste storage unit.

No containers that may have held incompatible materials are used for waste storage. Incompatible wastes are not stored in the same cell. The only potential compatibility issues among the most commonly stored wastes at the unit are between ignitable (D001, F003, and F005) and corrosive (D002 wastes). Other wastes are evaluated for compatibility before they are placed in the unit.

F-5c Management of Ignitable or Reactive Wastes in Containers [40 CFR 270.15(c) and 264.176]

Building 366 Container Storage

Reactive wastes are not stored in containers at the hazardous waste storage area. The hazardous waste storage area is located at least 50 ft from the facility's property line and therefore meets the 50-ft setback requirement for management of ignitable waste.

Building 810 Container Storage

Reactive wastes will not be stored in containers at the hazardous waste storage building once permitted. The hazardous waste storage building is located at least 50 ft from the facility's property line and therefore meets the 50-ft setback requirement for management of ignitable waste.

F-5d Management of Incompatible Wastes in Containers [40 CFR 270.15(d) and 264.177]

Burning Grounds

Incompatible wastes are not stored in containers at the Burning Grounds.

Building 366 Container Storage

No containers that may have held incompatible materials are used for waste storage. Incompatible wastes are not stored in the same cell. The only potential compatibility issues among the most commonly stored wastes at the unit are between ignitable (D001, F003, and F005) and corrosive (D002 wastes). Combination of these wastes could cause a fire or explosion. Fire extinguishers are or will be available in both building 366 and 810.

In addition the facility maintains its own fire station for response. Other wastes are evaluated for compatibility before they are placed in the unit.

Building 810 Container Storage

No containers that may have held incompatible materials are used for waste storage. Incompatible wastes are not stored in the same cell. The only potential compatibility issues among the most commonly stored wastes at the unit are between ignitable (D001, F003, and F005) and corrosive (D002 wastes). Combination of these wastes could cause a fire or explosion. Fire extinguishers are or will be available in both building 366 and 810. In addition the facility maintains its own fire station for response. Other wastes are evaluated for compatibility before they are placed in the unit.

F-5e Management of Ignitable or Reactive Wastes in Tank Systems [40 CFR 270.16(j), 264.198]

Not applicable.

F-5f Management of Incompatible Wastes in Tank Systems [40 CFR 270.16(j), 264.199]

Not applicable.

F-5g Management of Ignitable or Reactive Wastes Placed in Waste Piles [40 CFR 270.18(g), 264.256]

Not applicable.

F-5h Management of Incompatible Wastes Placed in Waste Piles [40 CFR 270.18(h), 264.257]

Not applicable.

F-5i Management of Ignitable or Reactive Wastes Placed in Surface Impoundments [40 CFR 270.17(h), 264.229]

Not applicable.

F-5j Management of Incompatible Wastes Placed in Surface Impoundments [40 CFR 270.17(h), 264.230]

Not applicable.

F-5k Management of Ignitable or Reactive Wastes Placed in Landfills [40 CFR 270.21(f), 264.312]

Not applicable.

F-5l Management of Incompatible Wastes Placed in Landfills [40 CFR 270.21(g), 264.313]

Not applicable.

F-5m Management of Ignitable or Reactive Wastes Placed in Land Treatment Units [40 CFR 270.20(g), 264.281]

Not applicable.

F-5n Management of Incompatible Wastes Placed in Land Treatment Units [40 CFR 270.20(h), 264.282]

Not applicable.

F-5o Management of Incompatible Wastes in Containment Buildings [40 CFR 264.1101(a)(3)]

Not applicable.

Figures

Figure F-1

OPEN BURNING FACILITY INSPECTION CHECK SHEET

Inspector's Name _____ Signature _____

Date _____ Time _____ AM/PM

Item	Condition	Frequency	Acceptable	Repairs
Burning pans	Erosion, foreign objects or debris, tall weeds or grass, pan cooled	Before Collecting Waste	_____	_____
Circuit check	Control panel short circuit check	Before Collecting Waste	_____	_____
Alinco (ohms) Pan A_____ Pan A[1]_____ Pan B_____ Pan C_____ Pan D_____ Pan E_____ Pan F_____				
Personal protection	Flame resistant coveralls, conductive shoes, safety glasses	Before Use	_____	_____
Fire protection	Rubber tamper, water hoses, two-way communication	Before Use	_____	_____
Ignition items	Electric matches, firing circuit continuity check, blasting machine	Before Use	_____	_____
Alinco (ohms) Pan A_____ Pan A[1]_____ Pan B_____ Pan C_____ Pan D_____ Pan E_____ Pan F_____				
Traffic control	Gates closed and signs posted	Before Ignition	_____	_____
Fire control	Grass fires	After Completion of Burn	_____	_____

Observations:

Remedial Actions:

NOTES:

1. All tools shall be non-sparking type as specified by the procedure.

2. If an unexpected fire or explosion incident occurs, the Burning Ground Operator shall notify the Security Department for action in accord with the ABL Emergency Control Plan.

3. If less than 24 hours has elapsed since previous burn, pans shall pass a safety inspection.

Figure F-2

HAZARDOUS WASTE STORAGE UNIT INSPECTION SHEET

		YES	NO
1.	Drum labels are present and legible	_____	_____
2.	Drums are free of leaks	_____	_____
3.	Drum bungs or lids are installed and tight/secure	_____	_____
4.	Drums contain no distortion of shape or severe rust which would damage integrity	_____	_____
5.	No foreign residues inside diked areas	_____	_____
6.	Aisle space clear and free of spills	_____	_____
7. 8.	Structure in acceptable condition (roof, containment cells concrete floor, etc.)	_____	_____
8.	Warning signs present and legible	_____	_____
9.	Housekeeping and cleanliness acceptable	_____	_____
10.	Overpack drums available and in good condition	_____	_____
11.	Observations		

12. Remedial Actions Taken

13. Area supervisor notified of discrepancy (if found) **YES** **NO**

Inspector's Name Signature

Date _____ **Time** _____**AM/PM**

Attachment 3
Personnel Training

SECTION H

Personnel Training [40 CFR 270.14(b)(12) and 264.16]

This section describes ABL's training program for all employees involved in hazardous waste management activities at the Burning Grounds and hazardous waste storage unit.

H-1 Outline of the Training Program [40 CFR 264.16(a)(1)]

All employees assigned to hazardous waste duties at the Burning Grounds and the hazardous waste storage units are trained within 6 months of assignment. Employees must be trained and demonstrate competency before being allowed to work without direct supervision.

This personnel training program is designed to ensure that all hazardous waste treatment and storage operations are conducted in a safe and environmentally sound manner. The training program teaches personnel to follow the General Operating Procedures (GOPs) and Unit Operating Procedures (UOPs) and other requirements that ensure that operations are conducted in compliance with environmental regulations.

Employees are trained in the procedures that are necessary to perform their job functions. Employees are trained for specific operations. The corresponding procedures include the following: the particular hazard of the material and operations; proper and safe operating procedures; required safety equipment; response to emergencies, unforeseen events, equipment malfunctions, or lack of facilities; and other safety precautions. No employee may perform an operation without supervision until completion of training in that operation.

H-1a Job Title/Job Description [40 CFR 264.16(d)(1) and (2)]

Burning Grounds

Two employee classifications are involved in hazardous waste treatment operations: Environmental Engineer and Burning Grounds Operator. The job titles and job descriptions are provided below:

1. Environmental Engineer
   a. Hazardous Waste Duties
      - Coordinate Burning Grounds operations
      - Monitor Burning Grounds compliance
      - Determine suitability of meteorological conditions for open burning operations

   b. Qualifications
      - BS degree in engineering or natural sciences

2. Burning Grounds Operator
   a. Hazardous Waste Duties
      - Collect reactive hazardous waste from storage areas and transport to Burning Grounds
      - Prepare burn pans for waste treatment
      - Ignite burn pans
      - Inspect Burning Grounds and report any discrepancies
      - Cleanup and properly dispose of all residual material
      - Maintain all Burning Ground equipment and reactive waste containers
   b. Qualifications
      - High school diploma or equivalent

Buildings 366 and 810 Container Storage Units

Three employee classifications are involved with hazardous waste storage: Environmental Engineer, Environmental Specialist, and Hazardous Material Handler. The job title and job descriptions are provided below.

1. Environmental Engineer
   a. Hazardous Waste Duties
- Coordinate the hazardous waste storage activities
- Monitor waste storage area compliance
- Prepare profiles and information for proper disposal of hazardous waste
- Assist with proper shipping of all hazardous wastes off plant

   b. Qualifications
- BS in engineering or the natural sciences

2. Environmental Specialist
   a. Hazardous Waste Duties
- Schedule waste shipments
- Maintain manifest records
- Assist Environmental Engineer in the operation of the hazardous waste storage unit

   b. Qualifications
- BS degree in engineering or the natural sciences

3. Hazardous Material Handler
   a. Hazardous Waste Duties
- Identify and label all hazardous waste material
- Transport hazardous waste materials to the storage unit
- Maintain inventory of hazardous waste containers stored at the unit
- Transfer and consolidate like hazardous waste materials
- Monitor integrity of hazardous waste containers
- Inspect hazardous waste storage unit and report any discrepancies

H-1c Training Director [40 CFR 264.16(a)(2)]

The Environmental Engineer directs personnel training for hazardous waste operations. This individual is qualified to direct hazardous waste operations training by virtue of experience and training in the field of hazardous waste management. The training director's experience may include:

- Experience in explosive production operations, analytical chemistry, research operations, security, safety, and environmental

- Experience in hazardous waste treatment, storage, and disposal (TSD) services
- Hazardous Waste Operations and Emergency Response (HAZWOPER) 1910.120
- HAZWOPER Supervisor's Program
- HAZWOPER Train the Trainer
- Fundamentals of Industrial Hygiene Monitoring
- Training for Hazardous Waste Transportation
- Hazardous Materials Technician

H-1d Relevance of Training to Job Position [40 CFR 264.16(a)(2)]

The training program has been established to provide training to personnel at levels that are relevant to their position within the plant. All facility personnel responsible for handling waste or for any associated requirements (labeling, disposal, recordkeeping, emergency response, etc.) are required to receive hazardous waste training relevant to their assigned duties. Sections H-1a and H-1b have details.

H-1e Training for Emergency Response [40 CFR 264.16(a)(3)]

Hazardous waste training includes procedures to be followed in response to spills, explosions, fires, and other emergencies. Sitewide emergency training includes site alarms and appropriate actions. Communications systems are inspected as required, but no additional training is deemed necessary. The Burning Grounds training includes procedures for shutdown of operations; no such training is applicable for the hazardous waste storage units. Neither the Burning Grounds nor the hazardous waste storage units has any waste feed cut-off equipment or monitoring equipment; therefore, no training in these subjects is required.

H-2 Implementation of Training Program [40 CFR 264.16(b), (d)(4), and (e)]

Individuals receiving hazardous waste training place their name, employee number, date, and signature on a sign-in roster for each class. Introductory training for personnel with hazardous waste management duties is conducted within 6 months of employment, assignment to the facility, or transfer to a new position within the facility. The Human Resources Department maintains records documenting that each individual has received the required training. The Human Resources Department maintains all hazardous waste training records. Records are maintained on each employee receiving hazardous waste training until 3 years after the employee leaves the facility or until closure of the hazardous waste unit where he or she performs his or her duties.

Attachment 4
Contingency Plan

SECTION G

Contingency Plan [40 CFR 270.14(b)(7), 264.50 through 264.56, 264.52(b)]

This section contains the Contingency Plan prepared in fulfillment of the requirements in 40 CFR Section 264 Subpart D. It describes response actions for fires, explosions, or any unplanned release of hazardous waste or hazardous waste constituents to air, soil, or waters of the state from the hazardous waste container storage unit and the Burning Grounds. This plan describes the organization, procedures, facilities, and equipment ABL has available to respond to emergencies in its hazardous waste operations.

G-1 General Information

A copy of this Contingency Plan and all revisions will be sent to the Mineral County Office of Emergency Services, Allegany County Civil Defense and Disaster Preparedness Agency, Cresaptown Volunteer Fire Department, Short Gap Volunteer Fire Department, Memorial Hospital, and Sacred Heart Hospital. These copies are provided as courtesy copies only. No outside emergency agencies take part in emergency activities at ABL. Any exceptions such as D.O.D or an ambulance would enter the ABL facility under escort. All assistance should be provided outside of the hazardous waste storage and treatment facilities. The ABL Environmental Department maintains this document.

Facility Name, Location, Operator, and Site Plan

Facility Name:	Naval Industrial Reserve Ordnance Plant (NIROP) Allegany Ballistics Laboratory (ABL)
Location:	210 State Route 956 Rocket Center, Mineral County, West Virginia Latitude 39 deg 33 min 30 sec N, Longitude 78 deg 50 min W UTM Zone 17 4381000 N, 686000 E
Owners:	Plant 1 – Department of the Navy, Naval Sea Systems Command Plant 2 – ATK Tactical Systems Company LLC
Operator:	ATK Tactical Systems Company LLC
Site Plan:	Drawing B-3 (Section B) is a copy of the ABL site plan.

Description of Facility Operations

ABL is primarily a solid propellant rocket motor development and production facility operated by ATK. ABL consists of Plant 1, which is owned by the Department of the Navy, NAVSEA, and Plant 2, which is owned by ATK. Both plants are operated by ATK. Plant 1 is about 1,572 acres; about 400 acres are developed bottomland and the remainder is largely undeveloped-forested mountainous land. Plant 2 is 57 acres of bottomland adjacent to Plant 1.

Construction at ABL began in 1942. Kelly Tire Company originally operated the site, and the original purpose of the facility was loading and testing of 50-caliber ammunition for the U.S.

Army. George Washington University personnel also worked on development of solid propellants for bazooka ammunition during this period. In December 1945, the Navy assumed oversight responsibility for the facility. Since 1946, the predominant industrial operations at ABL have been associated with research, development, production, and testing of solid-propellant rocket motors.

Burning Grounds

The Burning Grounds is an 8-acre site on Plant 1 of ABL. A 7-ft-high chain-link fence surrounds the unit. The unit will consist of six burn pan sites and a rocket motor tie-down unit. The pans are ignited using an electric match, which is energized remotely using a standard blasting machine. The site has three water spigots with hoses attached. The unit is used for treatment of reactive (explosive) hazardous waste by open burning.

The Burning Grounds is limited to a total of 1,630 lbs of P/E material, distributed over six pan sites. Each pan has a limit on the quantity of P/E material burned based on the site's proximity to inhabited buildings, property line, and other sensitive features (See Figure D-1, of Module 5, for pan locations). The P/E material load limits are as follow:

- Pan A 200 pounds
- Pan B 200 pounds
- Pan C 155 pounds
- Pan D 400 pounds
- Pan E 200 pounds
- Pan F 200 pounds

Before waste is collected for a burn, the continuity of the firing circuit is checked at each pan site to ensure that the firing circuit is shorted at the firing box. The explosive waste to be burned that day is transported to the Burning Grounds by light-duty pickup truck equipped with a special electrically conductive, non-sparking bed liner. The waste is unloaded from the truck onto the pans. After the meteorological conditions are determined to be suitable for burning (see Table D-1, in Section D) for meteorological conditions), the Burning Grounds operator spreads the waste on the pan and squibs each pan by connecting an electric match to the wiring system for the pan and then placing the electric match in the pan. The pans are then ignited remotely by the operator from the Burning Grounds control room by connecting an ignition control system to the circuit corresponding to the pan to be ignited and twisting an ignition control system machine handle to energize the circuit and ignite the pan. Pans are ignited consecutively, allowing the fire in one pan to die down before the next pan is ignited.

Building 366 Container Storage

The Building 366 hazardous waste storage unit is a building designed specifically for drum storage. The unit consists of 40 cells capable of storing eight drums each. The storage pad is covered by a fixed roof, which protects the waste containers from precipitation. The unit is used for the storage of containerized waste, both hazardous and non-hazardous.

Before starting a new waste container, the person responsible for the waste contacts the Safety and Environmental Department. A representative issues a waste label (either hazardous or non-regulated) and an aluminum tag imprinted with an internal tracking number. The drum tracking number, waste name, generator name, and generator ID number are recorded on the waste label. The aluminum tags bearing the tracking numbers are attached to drums to enable drum identification if the waste labels become illegible.

The drum tracking number, the date the number was assigned, the drum location, and the waste name are recorded in a waste log. Once a drum is filled, the accumulation start date is recorded on the waste label and the drum is transferred to the hazardous waste storage unit within 3 days. Drums at the waste pad are inventoried and recorded monthly.

Drums are delivered to the site by forklift or by lift-gate truck. The drums are placed in one of the 40 cells in the unit and are inspected weekly. Drums are loaded by forklift onto the hazardous waste transporter truck for offsite shipment to a treatment, storage, or disposal facility.

Building 810 Container Storage

The hazardous waste container storage unit (once permitted) is a small metal-sided building near the Building 366 drum storage facility. The inside dimensions of the building are 19 ft 4 inches by 15 ft 4 inches, with a 10-ft ceiling. Building 810 has a fixed roof and permanent walls, which will protect the waste containers from precipitation. The unit will be for the storage of containerized waste, both hazardous and nonhazardous. Nine portable containment modules placed within the building provide secondary containment. Each containment module is topped with a rigid grate designed to ensure waste containers do not contact any liquids collected by the containment modules.

G-2 Emergency Coordinators [40 CFR 264.52(d) and 264.55]

Names, Addresses, and Telephone Numbers [40 CFR 264.52(d) and 264.55]

The names and telephone numbers of persons designated to act as Emergency Coordinators for both the Burning Grounds and the hazardous waste storage units are provided in Table G-1. The emergency coordinator has the authority to commit the resources necessary to implement the contingency plan. The emergency coordinator is either on the facility or on call at all times.

Duties of Emergency Coordinator [40 CFR 264.55 and 264.56]

In the event of an emergency involving hazardous waste or hazardous waste constituents at the Burning Grounds or either hazardous waste storage unit, the emergency coordinator or his designated alternate shall direct the necessary activities to bring the emergency under control. A command and control center will be established. The emergency coordinator may delegate some of the responsibilities of the position to other individuals as necessary to ensure that all tasks are properly executed. The emergency coordinator will direct emergency response activities.

West Virginia hazardous waste regulations have very specific requirements defining the duties of an emergency coordinator. These are summarized as follows:

- Notify facility personnel and request necessary assistance
- Identify the quantity and types of waste involved
- Assess hazards due to the wastes
- Report the incident to the involved regulatory agencies if areas outside the facility are affected and assist in evacuation if necessary
- Attempt to keep the emergency situation from spreading
- Monitor treatment systems if the situation has interrupted operations
- Arrange for disposal of waste and debris after the emergency is over
- Make sure that operations do not result in danger due to incompatible wastes reacting
- Make sure that operations do not resume until all emergency equipment is replenished
- Submit a written report to the required regulatory agencies within 15 days after the emergency

G-3 Implementation [40 CFR 264.52(a) and 264.56(d)]

The Burning Grounds, Building 366 hazardous waste storage unit, and Building 810 hazardous waste storage unit once permitted were evaluated with respect to their location, facility design, operating procedures, and types of wastes managed. The evaluation determined the emergency events that should be addressed in this contingency plan. Minor events not requiring implementation of the contingency plan are also discussed. The emergency events and the results of their evaluation are presented in this section.

Spills

Burning Grounds

A spill at the Burning Grounds would not constitute an emergency event requiring implementation of the contingency plan. Most of the waste items treated at the Burning Grounds are solid P/E wastes. P/E wastes containing liquid explosives (such as nitroglycerin) are absorbed in sawdust, which serves to desensitize the waste and absorb free liquids. Spills would be picked up and placed in the burn pan. If the spill occurs on the concrete, asphalt, or other surface that surrounds each burn pan, the material will be collected using a non-sparking shovel and placed into a burn pan. If the spill occurs on the soil, a thin layer of soil underlying the spill will be excavated using a non-sparking shovel and placed into a burn pan along with the spilled material.

Building 366 Container Storage

A spill at the Building 366 hazardous waste storage unit may constitute an emergency event requiring implementation of the contingency plan, depending on the size of the spill. A small leak from a drum would not require implementation of the contingency plan. The spill would be cleaned up using the onsite spill response kit, and the cleaned up material would be drummed for offsite treatment or disposal.

A catastrophic failure of a drum within Building 366, or any release escaping the confines of Building 366 would require implementation of the contingency plan. After determining the source and dispersion of a spill or release and assessing the hazards to human health and the environment, the emergency coordinator shall take the following actions:

1. If appropriate, initiate evacuation of threatened individuals according to the evacuation plan.
2. Contain spilled material by physical barriers (dikes, booms, adsorbents, or other means).
3. Control source of spill.
4. Collect all spilled material for disposal.

If a hazardous waste spill or leak from a container or if the condition of a container has deteriorated extensively, the material will be transferred to a container in good condition and labeled appropriately. Any spilled or leaked material and any contaminated soil or other material will also be cleaned up and placed in a suitable container and labeled. All containers will be properly stored until disposed.

Building 810 Container Storage

A spill at the Building 810 container storage unit (once permitted) may constitute an emergency event requiring implementation of the contingency plan, depending on the size of the spill. A small leak from a drum or other container would not require implementation of the contingency plan. The spill would be cleaned up using the onsite spill response kit, and the cleaned up material would be drummed for offsite treatment or disposal.

A catastrophic failure of a drum within Building 810, or any release escaping the confines of Building 810 would require implementation of the contingency plan. After determining the source and dispersion of a spill or release and assessing the hazards to human health and the environment, the emergency coordinator shall take the following actions:

1. If appropriate, initiate evacuation of threatened individuals according to the evacuation plan.
2. Contain spilled material by physical barriers (dikes, booms, adsorbents, or other means).
3. Control source of spill.
4. Collect all spilled material for disposal.

If a hazardous waste spills or leaks from a container or if the condition of a container has deteriorated extensively, the material will be transferred to a sound container and labeled appropriately. Any spilled or leaked material and any contaminated soil or other material will also be cleaned up, placed in a suitable container, and labeled. All containers will be properly stored until disposed.

Power Interruption

Power failure should have no adverse effects on the Burning Grounds, the Building 366 hazardous waste storage unit, or the Building 810 hazardous waste storage unit (once permitted). Operations are conducted only during the day shift, and no equipment requiring connection to the electrical power grid is required.

Fires

Burning Grounds

An unplanned fire could occur within the Burning Grounds and is a possible emergency event. The Burning Grounds operator may handle an unplanned fire using a water hose or a rubber fire beater, if the fire can be safely extinguished by such means. Small grass fires that can be extinguished by the Burning Grounds operator are not considered emergency events that require implementation of the contingency plan. If the Burning Grounds supervisor determines that the fire cannot be safely extinguished by the Burning Grounds operator, the ABL Fire Brigade will be summoned by calling the guard at ABL Plant Protection at extension 5400. Larger fires that threaten structures outside the Burning Grounds are considered emergency events requiring the implementation of the contingency plan. The guard will inform the Fire Brigade of the name of the caller, the size and location of the fire, and the presence of other untreated explosives at the site. The fire may be fought using water carried by the Fire Brigade in the tanker fire truck, or water from the fire hydrant adjacent to the unit may be used. The Fire Brigade will not attempt to extinguish fires involving explosives at the Burning Grounds.

Building 366 Container Storage

A fire at the Building 366 hazardous waste storage unit is an emergency event requiring implementation of the contingency plan. In case of fire at the unit, the Plant Protection staff can be notified by two-way radio or by the fire alarm box located on a utility pole to the east of Building 366. If the alarm box is pulled, the location will appear on the fire alarm panel at guard headquarters. When a guard notifies Plant Protection of a fire, they will sound the plant fire alarm to direct the Fire Brigade to the fire station. The fire may be fought using water carried by the Fire Brigade in the tanker fire truck, or water from the fire hydrant located approximately 100 ft from the building.

Building 810 Container Storage

A fire at the Building 810 hazardous waste storage unit (once permitted) is an emergency event requiring implementation of the contingency plan. In case of fire at the unit, the Plant Protection staff can be notified by two-way radio or by the fire alarm box located on a utility pole approximately 65 ft to the north of Building 810. If the alarm box is pulled, the location will appear on the fire alarm panel at Plant Protection. When the guard at Plant Protection is notified of a fire, they will sound the plant fire alarm to direct the Fire Brigade to the fire station. The fire may be fought using water carried by

the Fire Brigade in the tanker fire truck, or water from the fire hydrant located approximately 80 ft to the north of the unit.

Explosions

Burning Grounds

Open burning at the Burning Grounds treats waste explosives. Therefore, an explosion is a possible emergency event. Any explosion at the Burning Grounds resulting in ejection of materials outside the Burning Grounds is an emergency event requiring implementation of the contingency plan. The response to an explosion would be limited to addressing fires or other damage caused by the explosion.

Building 366 Container Storage

Reactive or otherwise explosive hazardous wastes are not stored at the Building 366 hazardous waste storage unit. Therefore, explosions are not expected in Building 366.

Building 810 Container Storage

Reactive or otherwise explosive hazardous wastes will not be stored at the Building 810 hazardous waste storage unit (once permitted). Therefore, explosions are not expected in Building 810.

Offsite Impacts of Explosions and Unplanned Fires

Burning Grounds

Each burn pan at the Burning Grounds has been assigned an explosive waste limit based on the proximity of the pan to the property line, inhabited buildings, and other sensitive features. These limits are designed to prevent adverse impacts from fires or explosions to offsite property, onsite buildings, or other sensitive entities near the Burning Grounds. The distance from the burn pans to the ABL property line complies with the requirements of WV CSR 45-25-3.2d. Pans are separated to prevent the propagation of explosions from one pan to another if a pan of explosives happens to explode. In the event of an explosion or unplanned fire (premature burn) of reactive wastes, offsite impacts would not be greater than those due to planned burns of waste material would. In addition, releases to air would not be greater than those due to planned burns. Therefore, significant offsite impacts from explosions or unplanned fires would not be expected.

Building 366 Container Storage

Reactive or otherwise explosive hazardous wastes are not stored at the Building 366 hazardous waste storage unit. Therefore, explosions are not expected at the unit. Significant offsite impacts from a fire, including air emissions, would not be expected because of the distance to the facility boundary and the nearest residences.

Building 810 Container Storage

Reactive or otherwise explosive hazardous wastes will not be stored at the Building 810 hazardous waste storage unit (once permitted). Therefore, explosions are not expected at the unit. Significant offsite impacts from a fire, including air emissions, would not be expected because of the distance to the facility boundary and the nearest residences.

Personnel Injury

Burning Grounds

Personnel injury is possible at the Burning Grounds because of fire or explosion. First responders would treat injuries and injured personnel would be transported to a local hospital if necessary.

Building 366 Container Storage

Personnel injury is possible at the Building 366 hazardous waste storage unit because of fire or spill. First responders would treat injuries and injured personnel would be transported to a local hospital if necessary.

Building 810 Container Storage

Personnel injury is possible at the Building 810 hazardous waste storage unit (once permitted) because of fire or spill. First responders would treat injuries and injured personnel would be transported to a local hospital if necessary.

G-4 Emergency Actions [40 CFR 264.56]

G-4a Notification [40 CFR 264.56(a)]

The discoverer of any emergency will contact the Plant Protection Department at the Emergency Extension 5400 (24-hour basis) or at (304) 726-5000 from off-plant. The Plant Protection personnel on duty will pass notification to the emergency coordinator. The emergency coordinator shall determine and make appropriate notification for the situation.

Plant personnel will be notified of any incident involving hazardous waste operations as appropriate by sounding a siren on the plant emergency alerting system. The All Clear signal is sounding of the Westminster Chimes on the alarm system.

G-4b Identification of Hazardous Materials [40 CFR 264.56(b)]

Whenever there is a release, unplanned fire, or explosion, the cognizant personnel on the scene or the emergency coordinator shall immediately identify the character, source, amount, and extent of any released hazardous waste materials. Identification may be by observation, review of records, or chemical analysis.

G-4c Assessment [40 CFR 264.56(c) and (d)]

Hazard Assessment [40 CFR 264.56(c)]

Based on the identification and quantity of hazardous materials and the nature of the emergency, the emergency coordinator shall assess possible hazards, both direct and indirect, to human health and the environment. As the emergency coordinator deems appropriate, the emergency coordinator may consult with other cognizant facility personnel in making this assessment. After assessing the situation, the emergency coordinator or cognizant facility personnel will initiate evacuation, if necessary, according to the evacuation plan under Section G-7, and initiate the containment and cleanup of the affected area.

Notification of Offsite Impacts [40 CFR 264.56(d)]

If the emergency coordinator determines that the facility has had a release, fire, or explosion that could threaten human health or the environment outside the facility, the emergency coordinator shall notify WVDEP. The Notification Number for WVDEP is 1-(800)-642-3074. Notification shall include the following:

- Name and telephone number of notifier
- Name and address of facility
- Time and type of incident
- Name and quantity of materials involved to the extent known
- The number and extent of injuries, if any
- The possible hazards to human health or the environment outside the plant boundary

G-4d Control Procedures [40 CFR 264.52(a)]

Fires

In the case of an unplanned fire at the Burning Grounds or at either hazardous waste storage unit, the emergency coordinator shall make a determination of wind direction and dispersal of combustion products. If appropriate, evacuation will be initiated according to the evacuation plan under Section G-7. The Fire Brigade shall not attempt to extinguish fires involving explosives at the Burning Grounds.

Burning Grounds

Treatment at the Burning Grounds is by open burning. Placement of wastes to be burned is designed to prevent reaction more severe than deflagration. In the event burning gets out of control, the result would be a grass fire involving the open burning area adjacent to the burning pans. Grass fires will be controlled and extinguished by application of water by the Burning Grounds operator, if it is deemed safe to do so. For fires that cannot be safely extinguished by the operator, assistance shall be requested from the plant Fire Brigade.

Building 366 Container Storage

Responses to a fire at the Building 366 hazardous waste storage unit will be dependent on the specifics of the situation (e.g., the specific waste involved, number of drum(s) involved, and location of other drums). The first consideration will be the safety of fire-fighting personnel. In general, responses will be taken to control and limit the spread of fire and to contain products of combustion, released material, and firewater. Such responses may include application of water to uninvolved adjacent drums to prevent ignition or removal of uninvolved adjacent drums to prevent spread of fire. To the extent possible, spread of contamination from application of firewater will be avoided by limiting the amount of water applied and by containment of runoff.

Building 810 Container Storage

Responses to a fire at the Building 810 hazardous waste storage unit (once permitted) will be dependent on the specifics of the situation (e.g., the specific waste involved, number of drum(s) involved, and location of other drums). The first consideration will

be the safety of fire-fighting personnel. In general, responses will be taken to control and limit the spread of fire and to contain products of combustion, released material, and firewater. Such responses may include application of water to uninvolved adjacent drums to prevent ignition or removal of uninvolved adjacent drums to prevent spread of fire. To the extent possible, spread of contamination from application of firewater will be avoided by limiting the amount of water applied and by containment of runoff.

Explosions

Burning Grounds

Control procedures for an explosion at the Burning Grounds will be limited to addressing fires or other damage caused by the explosion. Procedures for addressing fires are contained in Section G-4d(1). Procedures for addressing personnel injuries are contained in Section G-4d(4).

Building 366 Storage

Reactive or otherwise explosive hazardous wastes are not stored at the Building 366 hazardous waste storage unit. Therefore, explosions are not expected at the unit.

Building 810 Storage

Reactive or otherwise explosive hazardous wastes will not be stored at the Building 810 hazardous waste storage unit (once permitted). Therefore, explosions are not expected at the unit.

Spills

Burning Grounds

Most of the waste items treated at the Burning Grounds are solid P/E wastes. P/E wastes containing liquid explosives (such as nitroglycerin) are absorbed in sawdust, which serves to desensitize the waste and absorb free liquids. Spills involving solid explosives will be collected using non-sparking tools and placed in the burn pan. If the spill occurs on the pad surrounding the pan, the material will be collected and placed into a burn pan. If the spill occurs on soil, a thin layer of soil underlying the spill will be removed and placed into a burn pad along with the spilled materials.

Building 366 Container Storage

The release of hazardous waste from a container at the Building 366 hazardous waste storage unit would be contained by diking with appropriate materials, if necessary. The contained material would be collected and transferred to a sound container, labeled appropriately, and shipped offsite for treatment or disposal. All containers will be properly stored until shipped offsite. Any contaminated spill control equipment would be decontaminated in accordance with Section G-4h, or it would be shipped offsite for treatment or disposal.

If a hazardous waste is released from a container or if the condition of a container has deteriorated extensively, the material will be transferred to a sound container. The container shall be properly labeled. Any spilled or leaked material and any contaminated soil or other material will also be cleaned up, placed in a suitable container, and labeled.

Building 810 Container Storage

Diking with appropriate materials would contain the release of hazardous waste from a container at the Building 810 hazardous waste storage unit (once permitted), if necessary. The contained material would be collected and transferred to a sound container, labeled appropriately, and shipped offsite for treatment or disposal. All containers will be properly stored until shipped offsite. Any contaminated spill control equipment would be decontaminated in accordance with Section G-4h, or it would be shipped offsite for treatment or disposal.

If a hazardous waste is released from a container or if the condition of a container has deteriorated extensively, the material will be transferred to a sound container. The container shall be properly labeled. Any spilled or leaked material and any contaminated soil or other material will also be cleaned up, placed in a suitable container, and labeled.

Personnel Injury

At the Burning Grounds or at either hazardous waste storage unit, injuries to personnel will be treated immediately by trained first responders. The Plant Protection force and the Fire Brigade both have trained first responders on staff. An injured person will be transported to the Medical department if transport is possible, taking into account the nature and extent of the injuries. The staff nurse may attend the injured person at the site if the incident site is safe to enter. If transport to a hospital is required, Plant Protection will call Civil Defense, who will dispatch an ambulance to the scene. The ambulance will transport the injured personnel to either Sacred Heart Hospital or Memorial Hospital.

G-4e Prevention of Recurrence or Spread of Fires, Explosions, or Releases [40 CFR 264.56(e)]

Plant safety rules prohibit matches, lighters, flash bulbs, open flame, or heat-producing devices on plant property except by specific authorization. Smoking is prohibited in all operating areas and is permitted only in designated smoking locations within the plant. "No Smoking" signs are posted at appropriate locations. Written hot work permits are issued for the use of heat producing devices and portable power tools. Any fire, explosion, or release at the facility is investigated to determine cause(s) and implement corrective measures to prevent recurrence. In case of a fire, fire watches are maintained after the fire is extinguished to ensure the fire is completely out.

Burning Grounds

Waste containers for P/E are lined with conductive or anti-static bags. P/E is kept out of direct sunlight to prevent solar heating or material degradation.

Building 366 Container Storage

Flammable wastes are stored in sealed containers in a covered, non-enclosed area to prevent direct exposure to sunlight, but allow natural ventilation. Control and segregation of waste inventory prevent spread of fire.

Building 810 Container Storage

Flammable wastes will be accumulated in closed containers in suitable containment. Building 810 is completely enclosed to prevent exposure of the waste to direct sunlight. Control and segregation of waste inventory will prevent spread of fire.

G-4f Storage and Treatment of Released Materials [40 CFR 264.56 (g)]

Immediately after an emergency, the emergency coordinator will arrange for treatment, storage, or disposal of recovered waste, contaminated soil, surface water, or any other contaminated material.

G-4g Incompatible Waste [40 CFR 264.56(h)(1)]

The emergency coordinator will ensure that wastes that may be incompatible with released materials are managed separately until cleanup activities are complete.

G-4h Post-Emergency Equipment Maintenance [40 CFR 264.56(h)(2)]

After an emergency event, all emergency equipment that has been used will be cleaned and made fit for use, or it will be replaced. Hazardous waste operations resume only when emergency and other facility equipment are replaced, repaired, or decontaminated if necessary.

G-4i Container Spills and Leakage [40 CFR 264.52 and 264.171]

Diking with appropriate materials would contain a release from a container at either hazardous waste storage unit, if necessary. The contained material would be collected and transferred to a sound container, labeled appropriately, and shipped offsite for treatment or disposal. All containers will be properly stored until shipped offsite.

If a hazardous waste is released from a container or if the condition of a container has deteriorated extensively, the material will be transferred to a sound container. The container will be properly labeled. Any spilled or leaked material and any contaminated soil or other material will also be cleaned up, placed in a suitable container, and labeled.

G-4j Tank Spills and Leakage [40 CFR 264.196]

ABL does not store or treat hazardous wastes in tanks. Therefore, this section is not applicable.

G-4k Surface Impoundment Spills and Leakage [40 CFR 264.227]

ABL does not store or treat hazardous wastes in surface impoundments. Therefore, this section is not applicable.

G-4l Containment Building Leaks [40 CFR 264.1101(c)(3)]

ABL does not store hazardous wastes in containment buildings. Therefore, this section is not applicable.

G-5 Emergency Equipment [40 CFR 264.52(e)]

Fire Extinguishing Equipment and Water for Fire Control

The facility has two fire trucks that are located in Building 157. The two trucks are a 1978 Ward fire truck and a 1989 Ford F-350 fire truck. Each truck has water-carrying capacity and a ladder. The plant Fire Brigade operates the two trucks. The emergency response vehicle and the Burning Grounds operator's truck are both equipped with fire extinguishers.

Burning Grounds

The Burning Grounds has three water spigots and hoses available for fire control. The three spigots are distributed across the Burning Grounds such that all burn pans can be reached by at least one water hose. The Burning Grounds operator carries a fire blanket in the Burning Grounds truck. A fire beater is available in the Burning Grounds control room.

Building 366 Container Storage

The Building 366 hazardous waste storage unit has a fire hydrant located approximately 100 ft from the unit. The hydrant is supplied by a 1.4-million-gallon water reservoir.

Building 810 Container Storage

The Building 810 hazardous waste storage unit (once permitted) has a fire hydrant located approximately 80 ft from the unit. The hydrant is supplied by a 1.4-million-gallon water reservoir.

First Aid Equipment

The facility nurse has a fully stocked first aid kit in Building 446, which is available for responding to first aid cases. Plant Protection guards who serve as first responders have first aid kits to enable them to treat minor personnel injuries and attempt to stabilize more serious injuries while awaiting an ambulance to transport the injured party to a local hospital.

Burning Grounds

No additional first aid equipment is available at the Burning Grounds.

Building 366 Container Storage

A portable eye wash station with a 1-pint capacity is available at the Building 366 hazardous waste storage unit.

Building 810 Container Storage

A portable eye wash station with a 1-pint capacity will be available at the Building 810 hazardous waste storage unit (once permitted).

Communications Equipment

Burning Grounds

The Burning Grounds operator carries a cellular telephone at all times while working at the Burning Grounds.

Building 366 Container Storage

All personnel working at the Building 366 hazardous waste storage unit have cell phones in their vehicles.

Building 810 Container Storage

All personnel working at the Building 810 hazardous waste storage unit (once permitted) have cell phones in their vehicles.

Spill Control Equipment

Burning Grounds

A non-sparking shovel is available to control a minor spill at the Burning Grounds. Based on the nature of the waste treated at the Burning Grounds, no major spills are expected at the unit.

Building 366 Container Storage

A spill response kit containing a drain blocker, absorbent pads and booms for non-aggressive materials, oil pads and booms, and pads and booms for acidic and caustic materials is available in the emergency response van maintained by the Safety Department. Vermiculite and absorbent pads are available in the Building 366 hazardous waste storage unit. A shovel, broom, and dustpan are also available in the Building 366 hazardous waste storage unit.

Building 810 Container Storage

A spill response kit containing a drain blocker, absorbent pads and booms for non-aggressive materials, oil pads and booms, and pads and booms for acidic and caustic materials is available in the emergency response van maintained by the Safety Department. Vermiculite and absorbent pads will be available in the Building 810 hazardous waste storage unit (once permitted). A shovel, broom, and dustpan are also available in the Building 810 hazardous waste storage unit (once permitted).

Emergency Decontamination Equipment

Burning Grounds

No decontamination equipment is available at the Burning Grounds.

Building 366 Container Storage

A decontamination kit containing a bucket, detergent, a shovel, a water hose, a broom, a dustpan, and decontamination pools are available at the emergency response van maintained by the Safety Department.

Building 810 Container Storage

A decontamination kit containing a bucket, detergent, a shovel, a water hose, a broom, a dustpan, and decontamination pools are available at the emergency response van maintained by the Safety Department.

Emergency Communications and Alarm Equipment

The Plant Protection department using the plant emergency alerting system can sound a plant-wide alarm. The sounding of the alarm instructs all persons on the facility to remain where they are at the time of the alarm unless they are at the location of the emergency. Emergency response personnel are not subject to this restriction.

G-6 Coordination Arrangements [40 CFR 264.52(c) and 264.37]

Outside emergency response agencies and teams do not participate in emergency activities within ABL plant boundaries. The only exception is ambulances that would enter the ABL Facility under escort to provide medical assistance. ABL is self-sufficient for all other emergency activities. Any requested assistance will be escorted.

G-7 Evacuation Plan [40 CFR 264.52(f)]

Evacuation of off-plant inhabited areas or general evacuation of plant personnel is an extremely unlikely necessity in responding to any hazardous waste emergency situation at ABL due to the limited quantities of waste, low level of toxicity, and lack of transport mechanisms for spilled wastes.

For the hazardous waste storage units, the separation of the units from adjacent buildings and the distance from the units to the plant boundaries serve to limit the likelihood of an offsite evacuation. The Building 366 hazardous waste storage unit has a roof but is open on all sides. If necessary, evacuation can take place by exiting any side of the storage building. The Building 810 hazardous waste storage unit has one exit door for emergency evacuation, which is sufficient due to the small size of the building.

A fence surrounds the Burning Grounds. The primary entrance is through Gate 36. If the exit through this gate is blocked, alternative Gate 35 can be used.

Figure G-1 of the permit application shows evacuation routes for operating personnel from the Burning Grounds and the two hazardous waste storage units (Building 366 and Building 810).

G-8 Required Reports [40 CFR 264.56(l) and (j)]

Operational Readiness Notification to Regulatory Agencies [40 CFR 264.56(i)]

If it is necessary to implement the contingency plan for either the Burning Grounds or the hazardous waste storage unit, the emergency coordinator will notify the Chief of the Division of Waste Management, WVDEP, before operations are resumed. The notification will include the following:

- A description of the control measures used in response to the emergency
- A statement that the emergency equipment has been cleaned or replaced and is ready for use
- A statement that cleanup procedures have been completed for any released materials that may be incompatible with wastes to be treated or stored at the unit

Incident Report in Operating Record [40 CFR 264.56(j)]

The emergency coordinator will record in the operating record for the unit the date, time, and details of any incident that requires implementation of the contingency plan for either the Burning Grounds or the hazardous waste storage unit. Within 15 days after the incident, the emergency coordinator will submit a written report on the incident to Chief of the Division of Waste Management, WVDEP. The report will include the following:

- Name address, and telephone number of the owner or operator
- Name, address, and telephone number of the facility
- Date, time, and type of incident (e.g., fire, explosion)
- Name and quantity of materials involved
- Extent of injuries, if any
- Assessment of the actual or potential hazards to human health or the environment
- Estimated quantity and disposition of recovered materials

G-9 Amendment of Contingency Plan [40 CFR 264.54]

The contingency plan will be reviewed and immediately amended, if necessary, whenever any of the following occurs:

- The facility permit is revised
- The plan fails in an emergency
- The facility changes its design, construction, operation, maintenance, or other circumstances in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency.
- The list of emergency coordinators changes
- The list of emergency equipment changes

A change in the contingency plan regarding the lists of facility emergency coordinators or equipment constitutes a minor modification to the facility permit to which the plan is a condition. Revisions will be forwarded to all parties holding a copy of the plan, including federal and state agencies.

Tables

TABLE G-1
List of Emergency Coordinators
Allegany Ballistics Laboratory
Rocket Center, West Virginia

Name	Telephone Number
Primary Emergency Coordinator	
Wes Foor	304-726-5009 (ABL) 301-729-8630 (home)
Alternate Emergency Coordinators[1]	
Randy Golden	304-726-5136 (ABL)
Jerry Willis	304-726-5136 (ABL)
Richard Goldsworthy	304-726-5136 (ABL)
Tom Wolford	304-726-5136 (ABL)

(1) One of the alternate emergency coordinators is on duty at all times.

Attachment 5
Closure Plans, Post-Closure Plans, and Financial Requirements

SECTION I

Closure Plans, Post-Closure Plans, and Financial Requirements [40 CFR 270.14(b)(13) and (15) through (18), 264.110 through 264.151, 264.178, 264.197, 264.228, 264.258, 264.280, 264.310, and 264.351]

This section contains the closure plan describing the steps necessary to close the container storage units and open burning unit at ABL. The maximum extent of operations left unclosed during the active life of the hazardous waste facilities is described. A contingent closure and post-closure plan are also provided if contamination has occurred and it is not possible to achieve clean closure standards. The ABL Environmental Department maintains a copy of this closure plan and any amendments.

I-1 Closure Plans [40 CFR 270.14(b)(13), 264.112(a)(1) and (2)]

ABL is primarily a solid propellant rocket motor development and production facility operated by ATK. ABL is located at Rocket Center in Mineral County, West Virginia. The site is approximately 9 miles south of Cumberland, Maryland on the southern bank of the North Branch Potomac River. ABL consists of Plant 1, which is owned by NAVSEA, and Plant 2, which is owned by ATK. Both plants are operated by ATK. Plant 1 is approximately 1,572 acres, of which approximately 400 acres is developed bottomland and the remainder largely undeveloped forested mountain land. Plant 2 is 57 acres of developed bottomland located adjacent to Plant 1.

ABL conducts or will conduct hazardous waste operations at three principal locations on the Plant 1 facility. These locations include one container storage area (Building 366) where up to 320 containers of waste is stored, and the Burning Grounds, an open burning area where reactive hazardous wastes are treated. Also, after permitting, Building 810 will store up to 44 drums of waste. ABL stores or will store both regulated and unregulated wastes at the container storage areas. Wastes stored in Building 366 include sludge from spent aluminum surface-treatment solutions; still bottoms from degreasing and cleaning operations; spent solvents, motor oil, and antifreeze; waste paint and thinners; solvents with lead contamination; lead solids; chromium solids; burning ground treatment residues; laboratory solvents; cured and uncured resins; lab packs;

and asbestos. Waste that will be stored at Building 810, once permitted, will primarily consist of lab packs but may occasionally include drums.
Reactive wastes consisting of explosives, propellants, and materials containing propellants and explosives are treated by open burning at the Burning Grounds.

I-1a Closure Performance Standard [40 CFR 264.111]

Burning Grounds

The Burning Grounds is co-located within a CERCLA remediation site known as ABL Site 1. This site contains two solvent disposal and an acid disposal pit that are considered to be primarily responsible for the contamination of groundwater under the Burning Grounds with perchlorate, explosives, TCE, and other VOCs from historical operations. Burning activities are also potentially responsible for a portion of the groundwater contamination. An active CERCLA groundwater extraction and treatment system is located at Site 1. Contaminated groundwater under the site (including the Burning Grounds) is captured by the extraction system and treated for VOC contamination. The treated water is either discharged to the North Branch Potomac River or pumped to the ABL steam generation plant for use as boiler feed water. All closure performance standards established for groundwater beneath the Burning Grounds will be incorporated into the CERCLA program. If the groundwater remediation objectives under CERCLA are met while the Burning Grounds are still in operation, further groundwater monitoring necessary will be conducted under RCRA.
Clean closure or risk based closure is intended for the aboveground pads, pans, etc and soil portion of the Burning Grounds, except for any non-RCRA historic contamination which will be addressed under CERCLA.
At closure, all untreated reactive hazardous waste, burn pan treatment residues, burn pans, the rocket motor tie-down unit, and contaminated soil above cleanup levels and background will be removed from the Burning Grounds. Removal of contaminated soil may include in-situ and/or onsite treatment.The need for further maintenance, except possibly for the groundwater remediation system, will not exist other than recontouring the surface and covering the area with native soil and vegetation to prevent erosion. If decontamination of soil cannot be achieved, additional closure activities, including closing the area as a land disposal unit, will be conducted to protect human health and the environment. In addition, the contingent Post-Closure Plan in Section I-2 will be implemented. Closure standards for hazardous constituents in soil within the Burning Grounds include background levels, soil screening levels, and site-specific risk-based concentrations for explosives, perchlorate, and metals (aluminum, bismuth, lead, tin, and zirconium). The explosives that will be considered will be those target analytes identified in Table E-1 of Attachment 1 of this Permit.

Soil cleanup goals will be established through a series of screening phases and detailed evaluations. The evaluation procedure that will be used to establish soil cleanup goals is outlined below.

Comparison to Background

Background soil concentrations will be developed at closure. For parameters that occur naturally, such as metals, the existence of contamination will be determined by a comparison with background concentrations. Naturally occurring parameters will be considered contaminated if the concentration exceeds the background mean plus two times that standard deviation (95-percent confidence interval using a one-tailed t-test). For parameters that do not occur naturally, such as explosives, any detected concentration will indicate potential contamination.

If background values are not exceeded for any parameter, soil at the Burning Grounds will be considered clean, and no further analysis will be conducted. If background values are exceeded, comparisons to soil screening levels will be made. Storm water from the soil, in compliance with these soil screening levels, shall not cause violations of the applicable requirements of the Clean Water Act and the West Virginia Water Pollution Control Act. Infiltration of rain water (or run-off) in the soil, in compliance with these soil screening levels, shall not cause violations of the applicable groundwater quality standards of West Virginia.

Comparison to Risk-based Concentrations

Analytical results will be assessed by comparing maximum analyte concentrations to USEPA Region III RBCs in effect at the time of closure. RBCs for explosives, metals, and perchlorates that are not listed in the RBC Table will be developed using USEPA Region III methodology. The screening criterion used at closure (industrial or residential) will be based on the intended future use of the Burning Grounds. If, after screening, the remaining cumulative carcinogenic impacts estimated by use of the Region III RBCs does not exceed the risk range of 1E-04 to 1E-06 and the remaining cumulative hazards index (HI) estimated by use of the Region III RBCs do not exceed 1.0, soil at the unit will be considered clean, and no further evaluations will be completed. (Note: for a risk exposure greater than 1E-06 institutional controls will required.) If the relevant target risk or hazard values are exceeded, a site-specific risk analysis may be conducted and/or remedial activities initiated, as appropriate. Risk assessment procedures are discussed in the following section. Chemicals have various toxicity endpoints. For example, one chemical may affect the liver but no other organs, whereas another chemical may affect only the central nervous system. The cumulative HI is initially calculated without any regard to the toxicity endpoint. If the cumulative HI does exceed 1.0, additional evaluations will be completed to determine the HI based on the toxic endpoints of the potential chemicals of concern. Under these circumstances, several cumulative HIs for chemicals with similar target organs may be determined, provided there are data of sufficient quality to permit a quantitative determination of alternate toxic endpoints. In this case, separate hazard indices would be determined for the appropriate target organs. If each of endpoint-specific HIs does not exceed 1.0, soil at the Burning Grounds will be considered clean from the standpoint of noncarcinogenic contamination.

For noncarcinogenic compounds, hazard quotients for all constituents and exposure pathways will be combined to determine a hazard index. If the hazard index is less than 1, the soil will be considered clean with regard to noncarcinogenic contamination. As discussed above, if the hazard index exceeds 1, a separate hazard index incorporating all exposure pathways for relevant constituents may be determined for each appropriate target organ. If none of the target organ-specific hazard indices exceeds 1, the site will also be considered clean with regard to nocarcinogenic contamination.

Quantitative Risk Assessment

Quantitative risk estimates will be developed for carcinogenic and noncarcinogenic compounds that exceed background levels in accordance with methodology contained in the USEPA Risk Assessment Guidance (EPA/540/1-89-002).
If the cumulative incremental cancer risk from all routes of exposure for all carcinogens detected above background does not exceed 1E-05, the soil will be considered clean from the standpoint of carcinogenic contamination.

Soil Removal

If potential risk from exposure to soil is determined to exceed an acceptable level, soil removal may be necessary to meet the soil cleanup goals. If soil removal is conducted, verification sampling will be conducted along the bottom and perimeter of excavation to determine that the soil cleanup goals have been attained. Acceptable soil removal alternatives may include in-situ and/or onsite treatment.

Buildings 366 and 810 Container Storage

The closure of the hazardous waste storage units will be conducted to minimize the need for further maintenance and to provide maximum protection of human health and the environment. Clean closure will be the method used to close the container storage units. At closure, all hazardous waste and hazardous waste residue will be removed from the storage units and transported to permitted treatment or disposal facilities. Any containment areas containing or contaminated with hazardous wastes will be decontaminated or removed.

I-1b Partial and Final Closure Procedures [40 CFR 264.112(b)(1) through (7)]

Burning Grounds

The entire Burning Grounds is expected to remain in service throughout the active life of the facility. However, one or more burn pans may be temporarily taken out of service for repair or replacement. The remaining burn pans within the unit would remain active. Replacement of burn pans during the active live would not be considered a closure activity.
The following is a summary of the procedures that will be used to close the Burning Grounds. Details are provided in Section I-1e(11).

- The final volume of reactive hazardous waste will be treated by open burning. Any ejected material will be collected and reburned, if necessary.
- After treatment of the final volume of wastes, the burn pans will contain open burning treatment residuals and the soil/sand liner. These materials will be tested to determine whether they would be classified as a RCRA hazardous waste or a nonhazardous waste and handled accordingly.
- The burn pans, rocket motor tie-down unit, and precipitation covers will be removed.
- The burn pads will be wipe tested to determine whether they would be classified as a hazardous or nonhazardous waste. If the pads meet the closure criteria for clean closure they will be left in place. If not they will be removed and disposed of as hazardous wastes.

- Soil samples will be collected from a grid pattern and analyzed to determine whether the soil meets the closure performance standards discussed in Section I-1a(1). If necessary, soil will be mitigated to attain the soil cleanup goals. The Burning Grounds will be regraded and covered with native soil and vegetation to control erosion.

Buildings 366 and 810 Container Storage

All hazardous waste storage units are expected to remain in service throughout the active life of the facility and will be closed at the time the facility is closed. The following is a summary of the procedures that will be used to close the hazardous waste storage units. Details are provided in Section I-1e(4).
All wastes stored at the units will be removed and transported to permitted treatment or disposal facilities at the time of closure. Containment cell surfaces will be inspected and cleaned as necessary. Surface wipe samples will be collected to confirm the absence of contamination. This will eliminate the need for further maintenance and will eliminate the possibility of post-closure escape of hazardous waste, hazardous waste constituents, or contaminated runoff. Contamination of soil or groundwater is not anticipated because the design features of the unit reduce or eliminate the possibility of contaminants reaching the soil and, therefore, the groundwater. Soil samples will be collected to verify the absence of contamination only if cracks extending through the concrete are found in the containment area. In the unlikely event that contamination has occurred, clean closure of the soil will be accomplished.

I-1c Maximum Waste Inventory [40 CFR 264.112(b)(3)]

Burning Grounds

Reactive wastes are neither stored nor accumulated at the Burning Grounds. The maximum inventory of reactive waste ever present at the Burning Grounds is the explosive load limit or 1,630 pounds of P/E material. This quantity would be the maximum waste inventory ever present at one time. Any reactive waste present at the Burning Grounds would be treated in the burn pans before closure begins. When closure activities begin, no inventory of reactive wastes will remain.

Building 366 Container Storage

ABL stores a maximum of 320 drums of waste at Building 366, once permitted. The largest drum stored is typically 55 gallons. Therefore, the maximum waste inventory is 17,600 gallons. Both hazardous and non-hazardous wastes are stored at this unit.

Building 810 Container Storage

ABL will store a maximum of 44 drums of waste at the storage pad. The largest drum stored may be 55 gallons. Therefore, the maximum waste inventory will be 2,420 gallons. Both hazardous and non-hazardous wastes will be stored at this unit.

I-1d Schedule for Closure [40 CFR 264.112(b)(6)]

RCRA regulations require that a closure date be specified to assess the adequacy of financial assurance provisions. Federal facilities are exempted in 40 CFR 264.140(c) from these requirements. Because closure of the hazardous waste treatment and waste storage units will depend on unknown future DOD operational requirements, a closure date is not specified for the facilities to be permitted pursuant to this application. Closure of these facilities is not anticipated before the year 2050.

I-1d(1) Time Allowed for Closure [40 CFR 264.112(b)(2), 264.113(a) and (b)

Burning Grounds

The Burning Grounds will be closed in accordance with the following schedule, relative to the start of closure, once the decision for closure has been made and funding has been provided.

Description	Cumulative Time (Days)
Receipt of final volume of waste	-90
Notify WVDEP in writing of final closure	-45
Start of closure	0
Site investigation (sampling and analysis, data interpretation)	60
Site remediation	120
Complete closure activities	180*
Certification of closure	240*

* Longer if large quantities of contaminated soil are encountered.

Buildings 366 and 810 Container Storage

The hazardous waste storage units will be closed in accordance with the following schedule, relative to the start of closure, once the decision for closure has been made and funding has been provided.

Description	Cumulative Time (Days)
Receipt of final volume of waste	-90
Notify WVDEP in writing of final closure	-45
Start of closure	0
Site investigation (sampling and analysis, data interpretation)	60
Complete closure activities	90
Certification of closure	150

I-1d(1)(a) Extension for Closure Time [40 CFR 264.113(a) and (b)]

If the planned closure is expected to exceed the 90 days for treatment, removal, or disposal of wastes and/or the 180 days for completion of closure activities, a petition for a schedule for closure and a permit notification that justifies that a longer period of closure time is required will be submitted. The petition will demonstrate one of the following, depending on the circumstances that necessitate a longer period of closure time:

- Closure activities require longer than 90 or 180 days
- Unit or facility has capacity to receive additional wastes
- There is a reasonable likelihood that another person other than the owner or operator will recommence operation of the site within one year
- Closure would be incompatible with continued operation

The petition will also demonstrate that all steps have and will be taken to prevent threats to human health and the environment from the unclosed but inactive facility.

I-1e Closure Procedures [40 CFR 264.112 and 264.114]

I-1e(1) Inventory Removal [40 CFR 264.112(b)(3)]

Burning Grounds

Methods for removing, transporting, treating, storing, or disposing of all hazardous wastes at the Burning Grounds are discussed in Section I-1e(11).

Buildings 366 and 810 Container Storage

Methods for removing, transporting, treating, storing, or disposing of all hazardous wastes at the hazardous waste storage units are discussed in Section I-1e(4).

I-1e(2) Disposal or Decontamination of Equipment, Structures, and Soils [40 CFR 264.112(b)(4) and 264.114]

Waste Treatment

A description of the steps needed to decontaminate and disposal of all facility equipment and structures at the Burning Grounds is provided in Section I-1e(11).

Waste Storage

A description of the steps needed to decontaminate and disposal of all facility equipment and structures at the hazardous waste storage units is provided in Section I-1e(4).

I-1e(3) Closure of Disposal Units/Contingent Closure [40 CFR 270.14(b)(13), 270.17(f), 270.18(h), 270.21(e), 264.228(a)(2), 264.228(c)(1)(i), 264.258(c), 264.258(c)(1)(i), 264.301(a), and 264.601]

This section is not applicable because no hazardous waste disposal units are present at ABL. However, if the soil at the Burning Grounds cannot be fully decontaminated to attain the closure performance standards, ABL will amend the closure plan in accordance with Section I-1f to address the details of closure, and the Burning Grounds will be closed as a land disposal facility.
If contaminated groundwater (from ABL Site 1) is present beneath the Burning Grounds at the time of closure, the existing groundwater remediation system, or a portion thereof, will continue to be operated and maintained, as deemed necessary under the CERCLA program.

If post-closure activities are required, ABL will develop a detailed post-closure plan that addresses the requirements in Section I-2.

I-1e(4) Closure of Containers [40 CFR 264.178, 264.112(b)(3), and 270.14(b)(13)]

Methods for determining the presence of contamination, performing decontamination, and evaluating the effectiveness of decontamination procedures during closure of the hazardous waste storage units are described in this section.

Inventory Removal

All waste stored at the unit will be removed at closure and transported to a permitted treatment, storage, or disposal facility.

Equipment Decontamination

Drum handling equipment, steel pallets, shovels, rakes, and other hand tools used in the cleanup of spilled or leaked materials will be rinsed with water three times to decontaminate them. The rinse water will be contained and tested for pH (corrosivity) and the presence of the predominant chemicals stored at the unit. If the rinse water is determined to be a hazardous waste, it will be shipped to an offsite permitted disposal facility. Wipe samples of the equipment surfaces will be collected and tested for the presence of the predominant chemicals stored at the unit. If surface contamination exists, the surface(s) will be cleaned with appropriate cleaning agents to acceptable RCRA levels. The cleansing agents

will be disposed or treated to standards established by Federal and/or State regulations that are in force at the time of closure. Contaminated rags, absorbents, plastic barriers, PPE, and other expendable materials will be containerized and shipped for appropriate treatment or disposal.

Structure Decontamination

The storage areas were designed to minimize structural exposure to leaked or spilled hazardous wastes. The concrete floors and dikes are the only structural portions of the storage area that will potentially be exposed to releases. Released materials are not allowed to accumulate in the cells; therefore, there is little or no potential contamination of subsurface concrete. Wipe samples of the concrete surfaces will be collected and tested for the presence of the predominant chemicals stored at the unit. If surface contamination exists, the surface(s) will be cleaned with appropriate cleaning agents to acceptable RCRA levels. The cleansing agents will be disposed or treated to standards established by Federal and/or State regulations that are in force at the time of closure.

Adjacent Soils

Soil samples will be collected from the areas immediately adjacent to the edge of the hazardous waste storage units. A work plan will be provided of WVDEP approval. Four samples (one from each side of the unit) will be analyzed for the predominant chemicals that have been stored in the unit during its active life. Initial samples will be collected from the top 6 inches of soil adjacent to the unit. Additional soil sampling will be performed to determine the extent of soil contamination if the initial samples indicate the presence of contamination above applicable regulatory levels. The disposal or treatment method(s) used will be consistent with 40 CFR 264.114 or other applicable regulations at the time of closure.

I-1e(5) Closure of Tanks [40 CFR 270.14(b)(13), 264.197, and 264.112(b)(3)]

ABL does not store hazardous waste in tanks. Therefore, this section is not applicable.

I-1e(6) Closure of Waste Piles [40 CFR 270.18(h) and 264.258]

ABL does not have any hazardous waste piles. Therefore, this section is not applicable.

I-1e(7) Closure of Surface Impoundments [40 CFR 270.17(f), 264.228(a)(1) and (2), and 264.228(b)]

ABL does not have any hazardous waste surface impoundments. Therefore, this section is not applicable.

I-1e(8) Closure of Incinerators [40 CFR 264.351 and 270.14(b)(13)]

ABL does not have any hazardous waste incinerators. Therefore, this section is not applicable.

I-1e(9) Closure of Landfills [40 CFR 270.21(e) and 264.310(a)]

ABL does not have any hazardous waste landfills. Therefore, this section is not applicable.

I-1e(10) Closure of Land Treatment Facilities [40 CFR 264.280(a) and 270.20(f)]

ABL does not have any hazardous waste land treatment facilities. Therefore, this section is not applicable.

I-1e(11) Closure of Miscellaneous Units [40 CFR 270.23(a)(2)]

Methods for determining the presence of contamination, performing decontamination, and evaluating the effectiveness of decontamination procedures during closure of the Burning Grounds are described in this section.

Inventory Removal and Disposal

As stated in Section I-1c(1), no inventory of reactive hazardous wastes will remain when closure activities begin.

Removal and Disposal of Treatment Residue and Soil/Sand Liner

Any contaminated soil at the Burning Grounds exceeding background screening levels and cleanup levels will be treated (potentially including excavation and removal). If excavation is implemented, soil will be removed in layers up to 2 ft thick using backhoes, bulldozers, or other excavation equipment. If the treatment residues are determined to be reactive, they will be reburned. The treatment residues will be removed from the pans, placed into containers, and analyzed for the toxicity characteristic (TC). If the treatment residue results exceed the regulatory TC levels, they will be disposed of as a hazardous waste. If the treatment residue results are below the regulatory TC levels, they will be disposed of as a solid waste.

The soil/sand liner will be inspected for evidence of entrainment of reactive material. Once determined to be free of reactive materials, the liners will then be sampled and analyzed for the TC for lead and 2,4-dinitrotoluene. If the liner results exceed regulatory TC levels, the materials will be placed into containers and disposed of as a hazardous waste. If the liner results are below the regulatory TC levels, the material will be considered clean and disposed of as a solid waste.

Burn Pan and Precipitation Cover Removal and Disposal

The burn pans and rocket motor tie-down unit will be decontaminated in place. After all the treatment residues and liners have been removed, the burn pans, tie-down unit, and covers will be inspected, certified as explosive-free, and sold for recycle as metallic scrap. The pads will be inspected for any residual contamination. When determined to be free of reactive material, the pads will either be abandoned in place or demolished and disposed of as demolition debris.

Assessment of Soil Contamination

During closure, soil samples will be collected from the Burning Grounds up to the fence line. A soil sampling grid will be established over the Burning Grounds, and a sample will be collected from the center of each grid or where the grid lines intersect. All soil samples will be collected to a depth of 1 ft using a stainless steel auger or similar sampling device. The soil removed by the auger will be thoroughly mixed and placed into the appropriate sample bottles. All soil samples will be analyzed for the metals and explosives listed in Section E-1 in Attachment 7. If hazardous constituents are detected at concentrations above background or risk-based levels, additional samples will be collected to characterize the nature and extent of contamination. Samples will be collected deeper than 1 ft, if necessary, to define the vertical extent of contamination. Additional samples will be collected, if necessary, to define the horizontal extent of contamination.
If the analysis of the soil samples shows that concentrations of all constituents are below background or site-specific risk-based levels, no further sampling or soil removal will be necessary.

Removal and Disposal of Contaminated Soil

Any contaminated soil at the Burning Grounds exceeding background screening level or site-specific risk-based concentrations will be excavated. Soil will be removed in layers up to 2 ft thick using backhoes, bulldozers, or other excavation equipment. After a layer of contaminated soil is removed, sampling and analysis will be conducted to determine whether the cleanup goals have been attained. If the cleanup goals are not attained, additional layers of soil will be removed until closure goals are attained or the unit will be closed as a landfill. At present, removal by excavation is expected. Treatment technologies for contaminated soil cannot be determined at this time. The decision on whether treatment is appropriate will be determined in the future. This decision will depend on the contaminants present, the nature and extent of contamination, and the status of available technology at that time. If treatment is considered to be appropriate, the closure plan will be revised and submitted to WVDEP in accordance with Section I-1f.
Chemicals have various toxicity endpoints. For example, one chemical may affect the liver but no other organs, whereas another chemical may affect only the central nervous system. The cumulative HI is initially calculated without any regard to the toxicity endpoint. If the cumulative HI does exceed 1.0, additional evaluations will be completed to determine the HI based on the toxicity endpoints of the potential chemicals of concern. Under these circumstances, it is likely that several cumulative HIs for chemicals with similar endpoints will be determined. For example, some of the chemicals of concern may affect only the liver, only the hearth, or only the central nervous system. In such cases, separate toxicity end-points would be determined for the liver, the heart, and the central nervous system. If each of the cumulative HIs based on toxicity endpoints does not exceed 1.0, soil at the Burning Grounds will be considered clean from the standpoint of noncarcinogenic contamination.
It is anticipated that contaminated soil would be classified as a nonhazardous waste. However, representative composite samples will be collected and tested

for TC and any other parameters required by the disposal facility. If any excavated soil fails the TC test, it will be disposed of at an offsite hazardous waste landfill.

Equipment Decontamination

A temporary decontamination pad will be constructed if soil removal is necessary. The decontamination pad will be constructed on a graded and compacted earthen foundation surrounded by berms. The pad and the berms will be overlain by a 30-mil (minimum) thick liner so that decontamination fluids are retained. The liner will be protected by a material such as sand or plywood to prevent tearing. Ramps will be positioned at the entrance and exit of the pad to allow vehicle access over the berms. The pad will be sloped so that decontamination fluids will flow to a low point for collection. After decontamination activities have been completed, the liner will be disposed of as a solid waste.

Any contamination on PPE is expected to consist of solids. All disposable PPE, such as clothing, gloves, and expendable protective gear, will be cleaned on the decontamination pad to remove any solid material adhering to the PPE. The PPE will then be placed into a container and disposed of as a nonhazardous solid waste.

Small excavation equipment, such as shovels and rakes, and hand tools will be decontaminated by removal of solids by brushing, scraping, raking, etc followed by steam cleaning with a high-pressure washer.

Vehicles and heavy equipment, such as trucks, backhoes, bulldozers, containers, and roll-off boxes, will be decontaminated, using a high pressure steam cleaner, before leaving the remediation area and entering a clean area.

Non-disposable sampling equipment will be decontaminated as follows:

- Potable water rinse
- Alconox or Liquinox detergent wash
- Potable water rinse
- Deionized water rinse
- Ispropanol rinse
- Analyte-free water rinse
- Air dry
- Wrap in aluminum foil

Liquid and solid decontamination wastes will be collected and placed into containers meeting DOT requirements. These wastes will be tested for the TC. Any decontamination wastes failing the TC will be handled as hazardous waste; otherwise they will be handled as nonhazardous wastes.

I-1e(12) Closure of Boilers and Industrial Furnaces (BIFs) [40 CFR 266.102(a)(2)(vii)]

ABL does not have any hazardous waste BIFs. Therefore, this section is not applicable.

I-1e(13) Closure of Containment Buildings [40 CFR 264.1102]

ABL does not have any hazardous waste containment buildings. Therefore, this section is not applicable.

I-1f Amendment to Closure Plan [40 CFR 264.112(c)]

ABL will maintain this closure plan to ensure that it is current and accounts for anticipated closure activities. This closure plan will be amended when the following events or contingencies occur:

- The expected reasons that warrant closure of the treatment or storage unit change.
- Changes in operating plans or facility design affect this closure plan. This will include, but not be limited to, the need to modify the treatment or storage units or to expand the capacity.
- New information is obtained that significantly changes the underlying assumptions or procedures outlined in this closure plan.
- Unexpected events occur during closure that require significant modifications of this closure plan.

Certain events and contingencies are anticipated in this closure plan that do not warrant formal amendments to this plan. Examples of these events and contingencies include the need to remove minor additional quantities of soil than is currently anticipated. Soil will be properly managed and/or disposed. Such events and contingencies will be brought to the attention of the WVDEP; however, a formal amendment of the closure plan will not be requested. Whenever events or contingencies require formal amendment of this closure plan occur, a written request for permit modification will be submitted to the WVDEP. Such request will be submitted to the Director of the Division of Water and Waste Management and sent by certified mail. Any request for amendment will describe in detail the necessary closure plan changes. This request will be submitted at least 60 days prior to the proposed change in facility design or operation or no later than 60 days after an unexpected event has occurred that has affected the closure plan. If the unexpected event occurs during the partial or final closure period, ABL will request a permit modification no later than 30 days after the unexpected event.

I-2 Post-Closure Plan/Contingent Post-Closure [40 CFR 270.14(b)(13), 270.17(f), 270.18(h), 270.20(f), 270.21(e), 270.23(a)(3), 264.118, 264.197(b), 264.197(c)(2), 264.228(c)(1)(ii), 264.280(c), and 264.603]

Post-closure is not expected to be required for the hazardous waste storage unit because clean closure is planned.

Clean closure is also planned for the hazardous waste treatment unit. However, if soils at the Burning Grounds cannot be fully decontaminated to attain the closure performance standards, the waste treatment unit will be closed as a land

disposal facility. Any contaminated soil will be covered with soil or other material having permeability less than or equal to that of the natural subsoils present beneath the unit to minimize migration of liquids through the closed unit. The cover will be vegetated and contoured to promote drainage and to prevent erosion. The cover material will be of sufficient thickness and elasticity to accommodate settling and subsidence. Any portion closed as a land disposal unit will also have run-on and run-off controls to prevent damage to the final cover.
If contaminated groundwater (from another source) is present beneath the Burning Grounds at the time of closure, the existing groundwater remediation system, or some variation thereof, will continue to be operated and maintained, as deemed necessary under the CERCLA program.
If post-closure activities are required, ABL will develop a detailed post-closure plan. The contents of the post-closure plan are discussed in the following sections. The ABL Environmental Department will maintain a copy of the post-closure plan and will be responsible for updating the plan, as necessary.

I-2a Inspection Plan [40 CFR 264.118(a), 264.197(b), 264.197(c)(2), 264.226(d)(2), 264.228(b), 264.228(c)(1)(ii), 264.258(b), 264.258(c)(1)(ii), 264.303(c), and 264.310(b)]

Inspections of the Burning Grounds will be conducted during the post-closure care period whenever groundwater is sampled or, at a minimum, semiannually. Records of inspections will be maintained by ABL. The items to be inspected are as follows:

- Security—Gates, fencing, and warning signs will be inspected for damage.
- Erosion—The cover (cap) will be inspected for erosion damage such as washouts or large rodents damage (Groundhog borrows).
- Settlement—The cover (cap) will be inspected for indications of settlement, subsidence, or displacement.
- Vegetative Cover—The conditions of the vegetative cover will be inspected for adequate coverage.
- Run-on and Run-off Controls—Drainage channels designed to divert and collect storm water will be inspected to ensure good drainage.
- Monitoring Equipment - The conditions of well casing, caps, and locks will be inspected when the well is sampled.

I-2b Monitoring Plan [40 CFR 264.118(b)(1), 264.197(b), 264.197(c)(2), 264.226(d)(2), 264.228(b), 264.228(c)(1)(ii), 264.258(b), 264.258(c)(1)(ii), 264.303(c), and 264.310(b)]

The *Work Plan, Long-term Monitoring for Site 1* (CH2M HILL, 2004) defines the requirements established for groundwater and treatment plant effluent monitoring required under the CERCLA program. Substantive requirements for post-closure monitoring will be incorporated into the ongoing monitoring under the CERCLA program. This coordination of RCRA and CERCLA program requirements is in accordance with the ABL Federal Facility Agreement (January 1998) and USEPA guidance (USEPA, September 24, 1996). However, if the groundwater

remediation objectives under CERCLA have already been met when the Burning Grounds are closed, any post-closure groundwater monitoring necessary will be conducted under RCRA.

I-2c Maintenance Plan [40 CFR 264.118(b)(2), 264.197(b), 264.197(c)(2), 264.228(b), 264.228(c)(1)(ii), 264.258(b), 264,258(c)(1)(ii), and 264.310(b)]

Deficiencies noted during the inspections of the Burning Grounds described in Section I-2a will be corrected to maintain the integrity of the closed unit. Records of maintenance activities will be maintained by ABL. A discussion of the preventative and corrective procedures and the equipment required for the post-closure maintenance program follows:

- Security—Signs will be replaced before they become illegible. Ground at the base of the fence will be regraded, as needed, to maintain adequate site security. The fence will be replaced, as needed, to maintain adequate site security.

- Erosion—Washouts of the cover (cap) will be repaired as they are detected. If the cap integrity is in question, repair activities will be made as soon as practical. Restoration of the vegetative cover will be performed as needed. Groundhog and other rodent borrows will be filled and compacted. The vegetative cover will be restored at these locations. An effort to trap and relocate the rodents should be attempted in order to minimize future maintenance problems. If required, a permit for trapping the rodents will be obtained from the West Virginia Department of Natural Resources.

- Settlement—Settlement of the cover (cap) will be repaired by placing additional cover material on top of the existing cover and replacing vegetation.

- Vegetative Cover—Maintenance of the vegetative cover will include revegetation as needed.

- Run-on and Run-off Controls—Drainage channels will be cleaned and maintained to allow free drainage so retention of stormwater does not occur.

- Monitoring Equipment—Damage to monitoring equipment will be recorded, and repairs will be made as needed.

I-2d Land Treatment [40 CFR 264.228(c)]

ABL does not have any land treatment units. Therefore, this section is not applicable.

I-2e Post-Closure Care for Miscellaneous Units [40 CFR 270.23(a)(3) and 264.603]

Post-closure care for miscellaneous units (i.e., the Burning Grounds) is discussed in Sections I-2a, I-2b, and I-2c.

I-2f Post-Closure Security [264.117(b) and (c)]

Hazardous waste will not remain exposed after completion of final closure of the Burning Grounds. The fence will remain at the Burning Grounds; therefore, access by the public or domestic livestock will not pose a hazard to human health. ABL will retain control of the Burning Ground following closure. Post-closure use will not allow the disturbance or modification to the integrity of the final cover or any other components of the containment system or the function of any monitoring system in place at the time. The post-closure notices (see Section I-3) will contain restrictions on post-closure activities.

I-2g Post-Closure Contact [40 CFR 264.118(b)(3)]

The name, address, and telephone number of the person or office to contact during the post-closure care period will be specified in the post-closure plan.

I-2h Amendment to Post-Closure Plan [40 CFR 264.118(d)]

ABL will maintain the post-closure plan to ensure that it is current and accounts for anticipated post-closure activities. The post-closure plan will be amended whenever either of the following occurs:

- Changes in operating plans or facility design affect the approved post-closure plan.
- Events that occur during the active life of the facility, including partial and final closures, affect the approved post-closure plan.

A written request for permit modification will be made to the Director of the Division of Water and Waste Management, WVDEP, if amendment to the post-closure plan is required. This request will be made at least 60 days before the proposed change in facility design or operation or not later than 60 days after an unexpected event has occurred that has affected the post-closure plan.

I-3 Notices Required for Disposal Facilities

I-3a Certification of Closure [40 CFR 264.115 and 264.280]

Within 60 days of completion of closure of the Burning Grounds or the hazardous waste storage unit and within 60 days of the completion of final closure, ABL will submit a closure certification to the Director of the Division of Water and Waste Management, WVDEP, by registered mail. The certification will certify that that the hazardous waste management unit or facility, as applicable, has been closed in accordance with the specifications of the approved closure plan. The certification will be signed by an authorized representative of ABL and by an independent professional engineer registered in the State of West Virginia. Documentation supporting the professional engineer's certification will be furnished to WVDEP.

I-3b Survey Plat [40 CFR 264.116]

A survey plat will not be required unless the Burning Grounds is closed as a land disposal unit or contaminated groundwater (from ABL CERCLA Site 1) remains at the time of closure. If a survey plat is required, ABL will submit the survey plat

on the West Virginia State plain coordinates, to the authority with jurisdiction over local land use and the Director of the Division of Water and Waste Management, WVDEP. The survey plat will be submitted no later than the submission of the certification of closure. The plat will indicate the location of the land disposal unit with respect to permanently surveyed benchmarks and will be prepared and certified by a professional land surveyor registered in the State of West Virginia. The survey plat filed with the local land-use authority will contain a prominently displayed note that states ABL's obligation to restrict disturbance of the land disposal unit.

I-3c Post-Closure Certification [40 CFR 264.120]

Within 60 days of completion of the post-closure care period for the Burning Grounds, certification will be submitted to the Director of the Division of Water and Waste Management, WVDEP. The certification will certify that the post-closure care period was performed in accordance with the specification of the approved post-closure plan. The certification will be signed by a representative of ABL and by an independent professional engineer registered in the State of West Virginia.

I-3d Post-Closure Notices [40 CFR 270.14(b)(14) and 264.119]

The following post-closure notices will be appropriately filed and submitted. A record of the type, location, and quantity of hazardous waste remaining within each land disposal unit will be submitted to the authority with jurisdiction over local land use and to the Director of the Division of Water and Waste Management, WVDEP, no later than 60 days after certification of closure for each disposal unit.

I-4 Closure Cost Estimate [40 CFR 270.14(B)(15) and (16), 264.140(C), and 264.142]

Federal facilities are exempted in 40 CFR 264.140(c) from financial requirements, including a closure cost estimate. ABL is a federal government facility.

I-5 Financial Assurance Mechanism for Closure [40 CFR 270.14(B)(15) and (16), 264.140(C), 264.143, and 264.151]

Federal facilities are exempted in 40 CFR 264.140(c) from financial requirements, including a financial assurance mechanism for closure.

I-6 Post-Closure Cost Estimate [40 CFR 270.14)(16), 264.140(C), and 264.144]

Federal facilities are exempted in 40 CFR 264.140(c) from financial requirements, including a post-closure cost estimate.

I-7 Financial Assurance Mechanisms for Post-Closure Care [40 CFR 270.14(B)(16), 264.140(C), 264.165, and 264.151]

Federal facilities are exempted in 40 CFR 264.140(c) from financial requirements, including a financial assurance mechanism for post-closure care. See Figure I-1 in the permit application.

I-8 Liability Requirements [40 CFR 270.14(B)(17), 264.140(C), and 264.147]

Federal facilities are exempt from financial requirements, including liability requirements.

I-9 Use of State-Required Mechanisms [40 CFR 270.14(B)(18)]

West Virginia has adopted the exemption of state and federal facilities from financial requirements. Therefore, this section is not applicable.

Attachment 6
Container Management Plan

D-1 Containers [40 CFR 270.15 and 264.170 through 264.178]

ATK stores hazardous waste in containers. Currently, waste is stored in Building 366. Building 810 will be used for waste storage after permit issuance.

Building 366. Building 366 is approximately 100 ft long and 75 ft wide and covered with a roof. The sides of the building are open. The container storage area consists of two sets of concrete cells that are raised above the ground. Each set contains 20 cells, each with dimensions of 9 ft 3 in. long by 6 ft wide by 6.25 in. deep.

Building 810. The lab pack storage building is metal-sided structure with a concrete foundation. The inside dimensions of the building are 19 ft 4 in. by 15 ft 4 in., with a 10-ft ceiling. Nine portable polyethylene containment modules placed within the building provide secondary containment. Each containment module is topped with a rigid grate designed to ensure waste containers do not contact any liquids collected by the containment modules.

D-1a Containers with Free Liquids

D-1a(1) Description of Containers [40 CFR 264.171, 264.172, and 270.14(b)(1)]

The container storage units are or will be used for storage of both hazardous and nonhazardous waste. The Building 366 hazardous waste storage area is designed to store a maximum of 320 drums within 40 diked cells (i.e., eight drums per cell). The containers are typically either 45-gallon or 55-gallon drums. Cubic yard boxes may also be stored at Building 366. Building 810 is designed primarily to store containerized wastes in preparation for lab packing, to prepare lab packs for shipment, and to store the lab packs. These wastes are typically expired or off-specification commercial chemical products, stored in the original containers until lab packed. Maximum capacity is forty-four 55-gallon drums and four 21-gallon drums. All waste drums meet DOT specifications for the waste stored in the drums and are in good condition. "Good condition" means without significant rust, apparent structural defects, or leaks. Only containers that are compatible with the wastes generated on site shall be used. Obsolete labels are removed from previously used drums. No drums that may have held incompatible materials are used for waste storage.

D-1a(2) Container Management Practices [40 CFR 264.173]

Procedures for transporting, handling, storing, and closing containers include provisions to ensure that containers are not opened, handled, or stored in a manner that may rupture the containers. Persons engaged in hazardous waste operations are trained in the applicable procedures. Containers are moved with hand trucks, drum handlers, forklifts, or trucks with hydraulic tailgates, depending on the job task.

Container management practices include the following:

- Containers and drums are transported to and handled at the storage areas only by designated, trained personnel.

- Only trained drivers operate forklifts. Forklifts enter Building 366 from the ramp at the north end of the building.
- Containers will typically be placed into Building 810 by hand. There is a small internal ramp to accommodate a hand truck.
- Designated tools and equipment will be used for moving drums (e.g., forklift) or for opening and closing drum bungs and lids.
- Containers are not opened except to add or remove wastes and to obtain samples.
- Weekly inspections are performed to verify that containers are closed and in good condition.
- Containers to be transported off site are inspected for the following: they are DOT approved for hazardous waste; they are visually in good condition; they contain sufficient freeboard; they are securely closed and properly labeled; drum labels agree with the waste log; and they are labeled with the accumulation date.

In Building 366, containers are stored on skids, and a maximum of 8 drums are stored in each of the 40 diked cells. Waste containers are not stacked. Cells are separated by concrete lips and the two rows of cells are separated by a center aisle approximately 20 ft wide.

In Building 810, containers will be stored directly on the portable containment units or on portable shelving units, depending on the size of the container. Materials such as out-of-date lab chemicals will be stored in their original containers prior to being packaged for offsite shipment. Typically, waste containers will not be stacked.

D-1a(3) Secondary Containment System Design and Operation [40 CFR 270.15(a)(1), 264.175(a), and 264.175(d)]

Building 366. The storage area design provides secondary containment well in excess of the volume of the largest container stored and/or in excess of 10 percent of the entire volume stored. The area consists of two sets of concrete cells that are raised approximately 4 in. above the ground. Each set contains 20 cells, each with dimensions of 9 ft 3 in. long by 6 ft wide 6.25 in. deep. The separate, diked cells allow incompatible wastes to be segregated.

Building 810. The area typically consists of nine sets of portable containment modules that are placed on the concrete floor of Building 810. These modules consist of:

- Four large containment modules that can each hold eight drums. Each module is 100 in. long, 53 in. wide, and 6 in. deep. The sump capacity of the eight-drum containment module (according to the manufacturer) is 73 gallons.
- Three mid-sized containment modules that can each hold six-drums. Each module is 76 in. long, 53 in. wide, and 6 in. deep. The sump capacity of the six-drum containment module (according to the manufacturer) is 61 gallons.
- Two small containment modules that can each hold two-drums. Each module is 53 in. long, 29 in. wide, and 6 in. deep. The sump capacity of the two-drum

containment module (according to the manufacturer) is 21 gallons. The separate containment modules allow incompatible wastes to be segregated. No containers larger than 21 gallons will be stored on the two-drum containment modules.

The storage area design provides secondary containment either in excess of the volume of the largest container stored or greater than 10 percent of the total volume stored.

D-1a(3)(a) Requirement for the Base or Liner to Contain Liquids [40 CFR 264.175(b)(1)]

Building 366. The concrete forming the floor in the cells will be free from cracks or gaps. Any cracks or gaps that develop will be sealed. The concrete is resistant to precipitation (e.g., runoff) and the wastes stored at the unit. The concrete is compatible with the waste and would not be adversely affected by contact with the waste. A roof to keep precipitation out of the cells covers the entire storage area. A 6-mil polyethylene vapor barrier was installed under the concrete at the storage area.

Building 810. The portable containment modules in Building 810 are formed from a single piece of polyethylene and are free from cracks and gaps. They are compatible with and resistant to all materials stored within the unit. The building is completely enclosed and prevents precipitation from entering the containment modules. No waste containers will be positioned to straddle two containment modules, thereby ensuring that any leaks or spills are contained within a single containment module.

D-1a(3)(b) Containment System Drainage [40 CFR 270.15(a)(2) and 264.175(b)(2)]

Building 366. Each cell in the storage area contains skids that are used to keep containers from direct contact with the base. The roof over the unit prevents run-on into the containment system and prevents the accumulation of precipitation in the cells. Checking for the presence or absence of standing liquid or other foreign residue in the cells is a weekly inspection item.

Building 810. Each containment unit in the storage area contains rigid grates that are used to keep containers from direct contact with the container base. The roof and walls prevent run-on into the containment units. Checking for the presence or absence of standing liquid or other foreign residue in the containment areas will be a weekly inspection item.

D-1b Containers Without Free Liquids

D-1b(1) Test for Free Liquids [40 CFR 270.15(b)(1)]

Drummed hazardous waste is managed as if it contained free liquid. Therefore, those wastes are not tested to determine whether they contain free liquid.

Wastes in cubic yard boxes have no free liquids. They are from wipe-cleaning operations using solvent dispensed from squeeze bottles. This technique eliminates free liquid accumulation in waste containers.

D-1b(2) Description of Containers [40 CFR 264.171 and 264.172]

With the exception of cubic yard boxes, the containers used for waste without free liquids are the same as those for waste with free liquids, as discussed in Section D-1a(1).

D-1b(3) Container Management Practices [40 CFR 264.173]

Container management practices used for waste without free liquids are the same as those for waste with free liquids, as discussed in Section D-1a(2).

D-1b(4) Container Storage Area Drainage [40 CFR 270.15(b)(2) and 264.175(c)]

Containers without free liquids are stored within the secondary containment structure described in Section D-1a(3).

Attachment 7
Groundwater Monitoring

SECTION E

Groundwater Monitoring

The Burning Grounds is a RCRA Subpart X unit beneath which groundwater contamination has been identified. Groundwater beneath the Burning Grounds is currently included as part of a CERCLA remedial action (*Final Record of Decision (ROD) for Site 1 Operable Unit 3: Groundwater, Surface Water, and Sediment at Allegany Ballistics Laboratory, West Virginia,* April 1997). Attachment 7 of the RCRA permit is intended to provide a description of groundwater monitoring program elements that are required to address Subpart X. The monitoring program is part of the ongoing CERCLA Long-term Remedial Action (LTRA). All Figures and Tables referenced in this Attachment are in the Part B permit application.

E-1 Exemption from Groundwater Protection Requirements [270.14(c)]

The requirements of this section pertain to surface impoundments, landfills, or landfill treatment facilities. Therefore, this section is not applicable.

E-2 Groundwater Assessment Plan [40 CFR 265.93(d)(2)]

As noted in Section E-2a, the presence of constituents detected at statistically significant concentrations in groundwater beneath the Burning Grounds is, at least in part, associated with the historical disposal activities in the former solvent disposal pits. The presence of volatile constituents is being addressed under a CERCLA LTRA and long-term monitoring program. A component of the CERCLA monitoring program is a piezometric surface elevation monitoring that ensures contaminated groundwater in the alluvial and bedrock aquifers at Site 1, including the area underlying the Burning Grounds, is hydraulically contained, extracted, and treated at the onsite groundwater treatment plant. Tri-quarterly (i.e., every 9 months) groundwater sampling conducted under CERCLA at Site 1 provides a means of monitoring the long-term reduction in volatile contaminant concentrations. Continued groundwater assessment monitoring will be conducted under the CERCLA program until the remediation goal is achieved. CERCLA activities at ABL are only required to meet the substantive requirements of permitting requirements for remedial activities. The current CERCLA long term monitoring plan will be revised to include the substantive requirements for RCRA monitoring which are delineated in the current Technical Memorandum for the RCRA Groundwater Monitoring Program. Integration of RCRA actions into the CERCLA process will make it necessary to obtain a NPDES permit for the CERCLA 001 outfall. Monitoring in conjunction with the Part B permit will be incorporated into the CERCLA monitoring program. This coordination of RCRA and CERCLA program requirements is in accordance with the ABL Federal Facility Agreement (January 1998) (FFA) and USEPA guidance (USEPA, September 24, 1996). A re-evaluation of the NPDES established treatment plant effluent discharge limits as well as potential modification to the current

ground water treatment system will be required provided contaminants are identified in the groundwater associated with the RCRA permitted unit

If the groundwater remediation objectives under CERCLA are met while the Burning Grounds are still in operation, further groundwater monitoring necessary will be conducted under RCRA.

E-3 General Monitoring Program Requirements [40 CFR 270.14(c)(5), 264.97, 264.90(b)(4)]

The *Long-Term Monitoring Plan Site 1—Burning Grounds* (CH2M HILL, 1998) defines the requirements established for groundwater and treatment plant effluent monitoring required under the CERCLA program. Continued groundwater assessment monitoring will be conducted under the CERCLA program until the remediation goal is achieved. CERCLA activities at ABL are only required to meet the substantive requirements of permitting requirements for remedial activities, including the requirements of the Clean Water Act. Accordingly, no permit is necessary for discharges that occur pursuant to CERCLA, *see* CERCLA section 121(e)(1); *see also* 40 CFR 264.1(g)(6). In the event that there would be a release from RCRA regulated activities on-site that are independent of the CERCLA program or that come into being after the CERCLA program is completed, those activities may require a NPDES permit. Monitoring in conjunction with the Part B permit will be incorporated into the CERCLA monitoring program. This coordination of RCRA and CERCLA program requirements is in accordance with the ABL FFA and USEPA guidance (USEPA, September 24, 1996). A re-evaluation of the established treatment plant effluent discharge limits, as well as potential modification to the current groundwater treatment system, may be required if contaminants associated with the RCRA permitted unit are identified in the groundwater effluent above permissible levels.

If the groundwater remediation objectives under CERCLA are met while the Burning Grounds are still in operation, any further groundwater monitoring necessary due to the operation of the Burning Grounds that is not contemplated by the CERCLA objectives will be conducted under RCRA.

E-4 Detection Monitoring Program [40 CFR 270.14(c)(6), 264.91(a)(4), 264.98]

As noted above, substantive requirements for monitoring in conjunction with the Part B permit will be incorporated into the CERCLA monitoring program that is being conducted for the Site 1 groundwater extraction and treatment system.

E-5 Compliance Monitoring Program [40 CFR 270.14(c)(7), 264.99]

As noted above, substantive requirements for monitoring in conjunction with the Part B permit will be incorporated into the CERCLA monitoring program that is being conducted for the Site 1 groundwater extraction and treatment system.

E-6 Corrective Action Program [40 CFR 270.14(c)(8), 264.100, 264.99(l)]

As noted above, substantive requirements for monitoring in conjunction with the Part B permit will be incorporated into the CERCLA monitoring program that is being conducted for the Site 1 groundwater extraction and treatment system.

Tables

Table E-1a - Semi-volatile Organic Compounds		
Analytical Method SW8270		
1,2,4,5-Tetrachlorobenzene	4-Methylphenol	Indeno(1,2,3-cd)pyrene
1,2,4-Trichlorobenzene	4-Nitroaniline	Isodrin
1,2-Dichlorobenzene	4-Nitrophenol	Isophorone
1,3,5-Trinitrobenzene	4-Nitroquinoline-1-oxide	Isosafrole
1,3-Dichlorobenzene	7,12-Dimethylbenz(a)anthracene	Kepone
1,3-Dinitrobenzene	Acenaphthene	Methapyrilene
1,4-Dichlorobenzene	Acenaphthylene	Methyl methanesulfonate
1,4-Naphthoquinone	Acetophenone	N-Nitrosomorpholine
1-Naphthylamine	Aniline	N-Nitrosopiperidine
2,2'-Oxybis(1-chloropropane)	Anthracene	Naphthalene
2,3,4,6-Tetrachlorophenol	Aramite	Nitrobenzene
2,4,5-Trichlorophenol	Benzo(a)anthracene	Nitroglycerin
2,4,6-Trichlorophenol	Benzo(a)pyrene	O,O,O-Triethyl phosphorothioate
2,4-Dichlorophenol	Benzo(b)fluoranthene	PETN
2,4-Dimethylphenol	Benzo(g,h,i)perylene	Pentachlorobenzene
2,4-Dinitrophenol	Benzo(k)fluoranthene	Pentachloroethane
2,6-Dichlorophenol	Benzyl alcohol	Pentachloronitrobenzene
2-Acetylaminofluorene	Butylbenzylphthalate	Pentachlorophenol
2-Chloronaphthalene	Chlorobenzilate	Phenacetin
2-Chlorophenol	Chrysene	Phenanthrene
2-Methyl-5-nitroaniline	Di-n-butylphthalate	Phenol
2-Methylaniline	Di-n-octylphthalate	Phorate
2-Methylnaphthalene	Diallate	Pronamide
2-Methylphenol	Dibenz(a,h)anthracene	Pyrene
2-Naphthylamine	Dibenzofuran	Pyridine
2-Nitroaniline	Diethylphthalate	Safrole
2-Nitrophenol	Dimethoate	Sulfotepp
2-Picoline	Dimethyl phthalate	Thionazin

3,3'-Dichlorobenzidine	Dinoseb	a,a-Dimethylphenethylamine
3,3'-Dimethylbenzidine	Diphenylamine	bis(2-Chloroethoxy)methane
3,4-Dimethylphenol	Disulfoton	bis(2-Chloroethyl)ether
3- and 4-Methylphenol	Ethyl methanesulfonate	bis(2-Ethylhexyl)phthalate
3-Methylcholanthrene	Famphur	n-Nitroso-di-n-butylamine
3-Methylphenol	Fluoranthene	n-Nitroso-di-n-propylamine
3-Nitroaniline	Fluorene	n-Nitroso-n-methylethylamine
4,6-Dinitro-2-methylphenol	Hexachlorobenzene	n-Nitrosodiethylamine
4-Aminobiphenyl	Hexachlorobutadiene	n-Nitrosodimethylamine
4-Bromophenyl-phenylether	Hexachlorocyclopentadiene	n-Nitrosodiphenylamine
4-Chloro-3-methylphenol	Hexachloroethane	n-Nitrosopyrrolidine
4-Chloroaniline	Hexachlorophene	p-Dimethylaminoazobenzene
4-Chlorophenyl-phenylether	Hexachloropropene	p-Phenylenediamine

Table E-1b - Volatile Organic Compounds		
Anlytical Method 8260		
1,1,1,2-Tetrachloroethane	Acrolein	Methacrylonitrile
1,1,1-Trichloroethane	Acrylonitrile	Methyl methacrylate
1,1,2,2-Tetrachloroethane	Allyl chloride	Methylene chloride
1,1,2-Trichloroethane	Benzene	Propionitrile
1,1-Dichloroethane	Bromodichloromethane	Styrene
1,1-Dichloroethene	Bromoform	Tetrachloroethene
1,2,3-Trichloropropane	Bromomethane	Toluene
1,2-Dibromo-3-chloropropane	Carbon disulfide	Trichloroethene
1,2-Dibromoethane	Carbon tetrachloride	Trichlorofluoromethane
1,2-Dichloroethane	Chlorobenzene	Vinyl acetate
1,2-Dichloroethene (total)	Chloroethane	Vinyl chloride
1,2-Dichloropropane	Chloroform	Xylene, total
1,4-Dioxane	Chloromethane	cis-1,2-Dichloroethene
2-Butanone	Dibromochloromethane	cis-1,3-Dichloropropene
2-Chloro-1,3-butadiene	Dibromomethane	trans-1,2-Dichloroethene
2-Chloroethyl vinyl ether	Dichlorodifluoromethane	trans-1,3-Dichloropropene
2-Hexanone	Ethyl methacrylate	trans-1,4-Dichloro-2-butene
4-Methyl-2-pentanone	Ethylbenzene	
Acetone	Iodomethane	
Acetonitrile	Isobutanol	

Table E-1c - Pesticide/Polychlorinated Biphenyls		
Anlytical Methods SW8081, SW8081, SW8141		
2,4,5-TP (Silvex)	Dieldrin	Methyl parathion
2,4-D	Dimethoate	O,O,O-Triethyl phosphorothioate
4,4'-DDD	Dinoseb	Parathion

Chromium	Mercury	Zinc
Cobalt	Nickel	

Table E-1g - Explosives		
Anlytical Methods SW-846 8330, 8332, EPA 300m, IAAP		
1,3,5-Trinitrobenzene	2-Nitrotoluene	Nitrobenzene
1,3-Dinitrobenzene	3-Nitrotoluene	Nitrocellulose
2,4,6-Trinitrotoluene	4-Amino-2,6-dinitrotoluene	Nitroglycerin
2,4-Dinitrotoluene	4-Nitrotoluene	Perchlorate
2,6-Dinitrotoluene	Ammonium perchlorate	RDX
2-Amino-4,6-dinitrotoluene	HMX	Tetryl

Table E-1h - Wet Chemistry		
Anlytical Method EPA 376.1		
Sulfide		