INSTALLATION HAZARDOUS WASTE MANAGEMENT PLAN
FORT GEORGE G. MEADE

March 2011

For: Fort George G. Meade
Directorate of Public Works,
Environmental Division

By: Review and revised by DPW-ED

THIS DOCUMENT IS UNCONTROLLED WHEN PRINTED: for the latest version of this document, contact DPW-ED at 301-677-9648

Fort George G. Meade

The attached Installation Hazardous Waste Management Plan identifies the requirements hazardous waste generators on Fort George G. Meade (FGGM) must comply with. The Directorate of Public Works, Environmental Division is the proponent activity on FGGM responsible for providing guidance to waste generating activities.

The following signatures signify endorsement to the contents of this plan and support to the Army's goals on hazardous and solid waste management programs to protect the public health and environment by minimizing the generation of hazardous and solid wastes, development of cost effective waste management practices, saving energy, and conserving natural resources.

Date: 6 June 2011 _____
Mr. Michael P. Butler
Chief, Environmental Division
Directorate of Public Works

Date: 7 June 2011 _____
Mr. Tejbir Singh
Director of Public Works

Date: 13 June 2011 _____
Daniel L. Thomas
Colonel, Military Intelligence
Commanding

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

TABLE OF CONTENTS

Section Page No.

CHAPTER 1 – INTRODUCTION

1.1 Purpose 1
1.2 References..... 1
1.3 Applicability..... 1
a. Personnel, Activities, Tenants 1
b. Family Housing..... 1
c. Contractors..... 1
1.4 Special Wastes 1
a. Asbestos..... 1
b. Regulated Medical Waste 1
c. Radioactive Waste 1
d. Universal Waste..... 2
1.5 Proponent 2
1.6 Authority..... 2
a. Regulatory..... 2
b. General..... 2
1.7 Definition of Terms..... 2
1.8 Hazardous Waste Management Responsibilities..... 2
a. Installation Commander..... 2
b. Director, DPW..... 2
c. Chief, EMO..... 3
d. Manager/Alternate, CSSF..... 3
e. Activity Directors, Unit Commanders and Contractor Managers..... 5
f. Environmental Coordinator..... 5
g. Hazardous Waste Coordinator and Alternate..... 6
h. Activity, Unit and Contractor Personnel..... 7
i. Contractors..... 7
1.9 Goals..... 7

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

CHAPTER 2 - LAWS AND LIABILITIES

2.1 Responsibility..... 8
2.2 Dumping/Abandonment..... 8
a. On-Post Dumping..... 8
b. Off-Post Dumping..... 8
2.3 Cleanup and Disposal..... 8
a. Daily Operations 8
b. Emergency Incidents..... 8
c. Dumping and Abandonment 8
2.4 Reporting..... 9
2.5 Penalties 9

CHAPTER 3 - ADMINISTRATIVE REQUIREMENTS

3.1 Hazardous Waste Generator Status 10
a. Generating Activity..... 10
b. CHSSF 10
3.2 Notification and Appointment 10
a. Notification..... 10
b. Appointment..... 10
3.3 Standing Operating Procedures 10
3.4 Training Requirements..... 11
3.5 Hazardous Waste Disposal Process..... 11
3.6 Compliance Inspections..... 11
a. State of Maryland 11
b. Army and Installation..... 11
c. Activity..... 12
3.7 Recordkeeping..... 12

CHAPTER 4 - HAZARDOUS WASTE GENERATOR, SATELLITE ACCUMULATION POINT REQUIREMENTS

4.1 Pollution Prevention..... 13
a. Hazardous Materials No Longer Needed by the Activity..... 13
b. Hazardous Materials With Expired Shelf Life 13

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

4.2 Hazardous Waste Determination..... 13
a. Characteristic Waste 13
b. Listed Waste 14
c. Mixture..... 14
d. Container..... 14
e. Unknown Waste..... 14
4.3 Satellite Accumulation Point Management Practices 15
a. SAP Management..... 15
b. SAP Location..... 15
c. SAP Design..... 15
d. Waste Storage Quantities..... 16
e. Hazardous Waste Containers 17
f. Container Labeling and Marking..... 18
g. Waste Segregation and Compatibility..... 18
h. Accumulation Start Date and Pre-Transportation 19
i. SAP Inspections 20
j. Activity Spill Contingency Plan..... 20
4.4 Hazardous Waste Turn-In Procedures..... 20
a. Containers 20
b. Turn-In Documentation..... 20
c. Submission of TID 21
d. TID Approval..... 21
4.5 Transportation of Hazardous Waste..... 21
a. Authorized Generator..... 21
b. Vehicles..... 21
c. Container Security..... 21
d. Roadways 21
e. Turn-in Time and Location..... 22

CHAPTER 5 - CONTROLLED HAZARDOUS SUBSTANCE STORAGE FACILITY, DESIGN AND MANAGEMENT

5.1 Controlled Hazardous Substance Storage Facility Design..... 23
a. Secondary Containment 23
b. Non-Liquid Waste Storage 23
c. Signs..... 23
d. Spill Contingency Materials 24

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

5.2 Manager and Alternate Responsibilities..... 24
a. Training..... 24
b. Receipt of Hazardous Waste..... 24
c. Hazardous Waste in Storage 24
d. Waste Segregation and Compatibility..... 25
e. CHSSF Inspections 25
f. Hazardous Waste Disposal 26
g. Recordkeeping..... 26
h. Spill Contingency and Emergency Response 26

Appendices

A - REFERENCES A-1
B - DPW PERSONNEL AND PROGRAM AREAS OF RESPONSIBILITY..... B-1
C - ADDITIONAL INSTALLATION AND TENANT SUPPORT ACTIVITIES..... C-1
D - DEFINITION OF TERMS..... D-1
E - ENVIRONMENTAL LAWS AND LIABILITY..... E-1
F - SAMPLE CERTIFICATION STATEMENTS F-1
G - TRAINING REQUIREMENTS..... G-1
H - SAP/CHSSF INSPECTION LOG..... H-1
I - EXAMPLES OF HAZARDOUS WASTE GENERATED ON FGGM I-1
J - OVERPACK GUIDELINES..... J-1
K - STORAGE COMPATIBILITY CHART K-1
L - TURN-IN DOCUMENTATION..... L-1
M – HAZARDOUS WASTE GENERATORS…….. M-1

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

CHAPTER 1

INTRODUCTION

1.1 Purpose. To establish policies, procedures and responsibilities for proper management of hazardous waste (HW) at Fort George G. Meade (FGGM) in compliance with all federal, state, local, and Army regulations, policies and directives.

1.2 References. A list of references is located in Appendix A.

1.3 Applicability. This plan applies to all generators of HW and identifies required procedures for its proper management. It excludes solid wastes that do not meet the criteria of HW. It applies to all personnel and activities including tenant organizations that generate, handle, store, and dispose of HW on FGGM. Contractors and subcontractors that generate HW while performing work on FGGM will comply with all Federal, state and local laws and regulations including all procedures outlined in this plan.

1.4 Special Wastes. This plan does not apply to the disposal of special wastes listed in the following subparagraphs.

a. Asbestos. Asbestos management is regulated by the State of Maryland in Code of Maryland Regulation Title 26, Subtitle 11, Chapter 21 (COMAR 26.11.21). The Directorate of Public Works – Environmental Division (DPW-ED) Asbestos Program at (301) 677-9648 provides oversight on asbestos related work performed on FGGM.

b. Regulated Medical Waste. Regulated medical waste (RMW) is governed by the State of Maryland under COMAR 26.13.11 through 13. The Preventive Medicine Service, Kimbrough Ambulatory Care Center at (301) 677-8501 is the proponent activity for the management of RMW on FGGM.

c. Radioactive Waste. Radioactive wastes must be managed in accordance with applicable federal, state, local and Army regulations. These regulations include: Title 10 Code of Federal Regulations (CFR) Part 71 (Packaging and Transportation of Radioactive Waste), 10 CFR Part 20.2001 (Subpart K Waste Disposal), Department of Transportation Regulations in 49 CFR Parts 100-177, Army Regulation 385-11, COMAR 26.15.03 (Standards Applicable to Generators of Radioactive Hazardous Substances), and COMAR 26.12.01.01. Radioactive wastes are managed in accordance with Nuclear Regulatory Commission license conditions. The Radiation Protection Officer, Installation Safety Office at (301) 677-4228/7508 is the point of contact for management of radioactive waste on FGGM

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

d. Universal Waste. Universal Waste as defined by COMAR 26.13.10 must be managed in accordance with COMAR 26.13.10.06-25. The CHSSF manager at (310) 677-9674 is the point of contact regarding the handling and disposal of universal waste.

1.5 Proponent. Overall management of HW on FGGM is the responsibility of the Installation Commander (IC); while DPW-ED manages the program on a day-to-day basis. Personnel in the DPW-ED manage and provide oversight to all environmental programs on the installation.
Appendix B lists DPW-ED, Contact phone numbers.
Appendix C lists activities that can provide additional assistance in the areas of safety, occupational health, and preventive medicine.

1.6 Authority. The U.S. Environmental Protection Agency (USEPA) has granted primacy to the State of Maryland for management of its HW program.

a. Regulatory. The Maryland HW regulations applicable to FGGM are located in COMAR 26.13. chapters 01-05.

b. General. Installation personnel are required to comply with all Federal, state, local, and Army laws, regulations, policies and directives aimed at protecting human health and the environment. In addition to these regulations, the DPW-ED has developed requirements to enhance the HW program at FGGM. This plan [Installation Hazardous Waste Management Plan (IHWMP)] includes these requirements.

1.7 Definition of Terms. Appendix D lists definitions of special terms and abbreviations used in this plan.

1.8 Hazardous Waste Management Responsibilities. This section identifies specific responsibilities for HW management on FGGM.

a. **Installation Commander**. Assumes ultimate responsibility for the FGGM HW program and performs the following:

(1) Ensure adequate resources are made available to operate a compliant HW program.
(2) Enforce compliance by all activities including tenant organizations and contractors.

b. **Director, DPW**. Provides financial and personnel resources to manage the HW program and performs the following:

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

(1) Sign as the facility "owner" for all HW notifications, responses to inspections, and reports to the State of Maryland.

(2) Ensure HW generating activities within DPW and throughout the installation, including tenant organizations and contractors, comply with HW regulations, policies, directives, and plans.

c. **Chief, DPW-ED**. Serves as the executive agent for management of the HW program and performs the following:

(1) Provide adequate personnel and resources necessary to comply with requirements of this plan.

(2) Appoint or assign a manager and alternate to operate the day-to-day activities at the Controlled Hazardous Substance Storage Facility (CHSSF).

(3) Provide training for staff members to ensure they are knowledgeable regarding HW requirements.

(4) Maintain training records on the CHSSF manager/alternate.

(5) Make recommendations for corrective actions or procedural changes when necessary or advisable.

(6) Advise the IC on state and Army inspection results as necessary.

(7) Prepare written correspondence to the State of Maryland including response to inspections and bi-annual HW generation reports as required.

(8) Promote initiatives to minimize the generation of HW.

(9) Ensure completion of the bi-annual HW generation report.

d. **Manager/Alternate, CHSSF**. Manages the day-to-day activities of the CHSSF, provides
guidance to activity, unit, and contractor (combined in this plan under the general term "organization") hazardous waste coordinators (HWCs) in the management of Satellite Accumulation Points (SAPs) on FGGM, and performs the following duties:

(1) Provide each HW generating activity/unit/contractor on FGGM with a copy of this plan.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

(2) Ensure that proper signs are posted at the CHSSF and that containers are in good condition, labeled properly, and kept closed.

(3) Assist organization personnel in the process of identifying unknown waste to determine if it is hazardous.

(4) Develop and maintain a SAP/CHSSF Inspection Log.

(5) Conduct and document weekly inspections of the CHSSF.

(6) Sign HW manifests, land disposal restriction forms and any additional paperwork required for disposal of HW.

(7) Ensure that HW prepared for transportation off site is placed in appropriate United Nations specification, performance oriented packaging; and sign all required HW turn-in/processing documentation.

(8) Review organization turn-in documentation (TID) including: DD Form 1348-1A, DPW Form 182 (Internal Hazardous Waste Manifest), and material safety data sheet (MSDS) for wastes turned-in.

(9) Attend training to ensure proficiency in performing duties.

(10) Ensure that remedial action is initiated for leaks or spills from containers at the CHSSF.

(11) Accompany state, Army, or other authorized personnel performing inspections of SAPs and the CHSSF. When necessary, forward deficiencies identified during inspections to the IC and ensure they are corrected.

(12) Maintain a copy of the Installation Spill Contingency Plan (ISCP), the Spill Prevention, Control, and Contingency Plan (SPCCP), and IHWMP at the CHSSF. Ensure these plans are updated if changes to the facility design or day-to day operations affect the emergency response procedures listed, or as required.

(13) Provide copies of the IHWMP to each waste generating activity upon request.

(14) Obtain and maintain personal protective equipment (PPE) necessary to manage HW turned in to the CHSSF.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

(15) Prepare the bi-annual HW generation report for FGGM.

(16) Maintain records to include: current inventories, inspections, TID, training records, and copies of required plans including IHWMP, and ISCP.

(17) Maintain references to include a copy of AR 200-1, and Federal and state regulations that apply to the management of HW.

(18) As the IC's representative, perform inspections of organizations involved in the generation, handling, and storage of HW.

e. **Activity Directors, Unit Commanders and Contractor Managers**. Assume responsibility for determining if their organizations' processes generate HW and for performing the following:

(1) Appoint an Environmental Coordinator (EC) (Senior Management Official) for Environmental Programs, and a Hazardous Waste Coordinator (HWC) and alternate. Provide a memorandum that identifies the appointment of an individual to each position, and includes the individual's name and respective telephone number to the EMO.
(2) Ensure personnel exposed to HW in the course of their work attend required training.
(3) Make PPE available for worker protection.
(4) Maintain records documenting required training, inspection, and TID.
(5) Ensure organization personnel do not transfer HW off the installation.
(6) Minimize HW generation to the greatest extent possible.
(7) Provide necessary funding for HW disposal.

f. **Environmental Coordinator**. Ensures all environmental programs are carried out in accordance with Federal, state, local, and Army regulations, policies, and directives and performs the following:

(1) Provide oversight to all environmental programs for the organization to ensure each is carried out in accordance with the law.

(2) Ensure that the director, commander, or manager appoints a HWC and alternate as the individuals responsible for management of the organization's SAP and that they have signed the

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

statement that they understand the ISCP. Each appointment must be made in the form of a signed memorandum and be provided to DPW-ED.

(3) Ensure that the HWC and alternate, and all organization personnel who handle HW in the normal course of their duties receive training required by this plan.

(4) Ensure that required spill response materials are on hand.

(5) Ensure that the IHWMP provided by DPW-ED and ISCP are maintained onsite.

(6) Ensure that organization personnel who handle HW read and understand all aspects of the IHWMP and ISCP prior to handling HW.

(7) Serves as the designated authority responsible for obtaining funds to ensure compliance with HW regulations, directives, and policies in the organization leader's absence.

g. **Hazardous Waste Coordinator and Alternate**. Serve as the points of contact for HW operations at the HW generating organization and are responsible for the following:

(1) Attend required training within six months of assignment as HWC or alternate and seek additional on-the-job and/or classroom training in the area of HW handling.
(2) Ensure appropriate PPE is available for HW handlers.
(3) Manage the SAP in accordance with all applicable regulations to include:
(a) Ensure proper container management.
(b) Separate incompatible wastes.
(c) Perform weekly inspections.
(d) Ensure that containers of HW are turned in when full.
(e) Prepare/develop TID for disposal of HW.
(f) Maintain HW management records including: inspection logs, ISCP, receipt copies of DD Form 1348-1A, and training certificates.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

(4) Ensure activity spill response personnel are familiar with and follow the activity spill contingency plan found in the ISCP.

(5) Maintain reference publications and regulations to include a copy of AR 200-1, IHWMP, and ISCP.

h. **Activity, Unit and Contractor Personnel**. Assume the following responsibilities:

(1) Attend required training within six months of assignment and seek additional on-the-job and/or classroom training in the area of HW handling.

(2) Wear appropriate PPE when handling HW. Refer to MSDS and material compatibility chart(s) to determine what type of PPE is compatible with the waste being handled.

(3) In the event of a HW spill, follow the procedures outlined in the ISCP. If Fire Department personnel deem the situation to be non-threatening, activity personnel may perform clean-up and disposal procedures.

i. **Contractors**. Perform all activities involving the handling and management of HW in accordance with the contract being executed at the time HW is generated, and all Federal, state and local HW laws and regulations including this plan. Contractors on FGGM must abide by the requirements in sections

(e) through (h) of this paragraph. Contractor personnel working on projects that exceed five years will obtain their own EPA generator identification number. Personnel from DPW-ED will be available to assist contract officer representatives in the evaluation of a contractor's performance in the management of HW.

1.9 Goals. In addition to proper HW management, a goal of the HW management program is to minimize and/or eliminate HW generation. All activities and contractors on FGGM that currently generate HW shall determine methods to minimize or eliminate the generation of HW.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

CHAPTER 2

LAWS & LIABILITIES

2.1 Responsibility. All personnel must ensure that their organizations comply with all applicable Federal, state, and local laws and regulations. Appendix E contains information on environmental laws and liability including fines and imprisonment.

2.2 Dumping/Abandonment. Hazardous waste shall not be dumped or disposed onto the ground, into waterways (including storm drains and ditches), sewers, trash dumpsters, or landfills. Additionally, containers of HW shall not be abandoned on-post or off-post. Personnel at FGGM will cooperate in any investigation conducted by an outside agency involving HW dumping.

a. On-Post Dumping. Persons identified as dumping or abandoning HW on post will be reported to: their organization commander or director; Military Police, (301) 677-6622; State of Maryland, Department of Environment; IC; and DPW-ED.

b. Off-Post Dumping. Personnel found dumping/abandoning HW off post will immediately be reported to the state or county police; State of Maryland, Department of Environment; and DPW-ED.

2.3 Cleanup and Disposal. Organization leaders are responsible for monitoring management of materials used by personnel under their command or direct control including disposal activities. Organizations should use good management practice to minimize contamination of the environment. All spill incidents must be reported in accordance with the ISCP.

a. Daily Operations. In the event of a HW spill, follow the procedures outlined in the ISCP. If Fire Department personnel deem the situation to be non-threatening, activity personnel may perform clean-up and disposal procedures.

b. Emergency Incidents. Emergency incidents include spills that pose an immediate threat to life or environment. Personnel observing emergency incidents should follow procedures in the ISCP including evacuating the area and contacting the Fire Department at (301) 677-2117.

c. Dumping and Abandonment. Cleanup of HW contamination from illegal and inappropriate dumping as well as disposal of abandoned HW in containers is the responsibility of the leader of the organization where the act takes place. This responsibility includes all costs associated with sampling, analysis, removal, and disposal. These acts do not refer to or include past disposal activities managed under the Comprehensive Environmental Response, Compensation, and Liability Act.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

2.4 Reporting. Anyone observing illegal HW dumping activities shall immediately report the activity to the Military Police at (301) 677-6622, and the DPW-ED at (301) 677-9674/9648. Confirmed cases of dumping will be reported to the Staff Judge Advocate for investigation.

2.5 Penalties. Any individual(s) disposing of HW illegally may be subject to administrative, civil or criminal penalties; and, may be held personally liable to pay cleanup costs.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

CHAPTER 3
ADMINISTRATIVE REQUIREMENTS

3.1 Hazardous Waste Generator Status. The FGGM HW program is operated as a less-than-90-day operation (reference 1). The HW program is comprised of two major elements: the HW generating organization that manages a SAP, and DPW-ED that processes HW for disposal at the CHSSF.

a. Generating Activity. Organizations on FGGM that generate HW must manage it in accordance with all Federal, state, local, and Army regulations, policies, directives, and this plan (IHWMP). The location used for the accumulation of a generating activity's HW is referred to as a SAP. The management procedures required of each SAP are the same for all sites throughout FGGM and are identified in Section 4.3 of this plan.

b. CHSSF. DPW-ED manages the CHSSF as a less-than-90-day site used to consolidate wastes generated on FGGM, store them temporarily, and prepare them for pickup and transportation to
a disposal facility. Chapter 5 covers specific requirements of the CHSSF manager and alternate.

3.2 Notification and Appointment. If an organization generates or anticipates generating HW, the leader will comply with the following subparagraphs.

a. Notification. All organizations on FGGM that generate or plan to generate HW must provide written notification to DPW-ED. The notification must include an inventory identifying the type and approximate quantity of HW to be generated, as well as the proposed location of the SAP. New generators of hazardous waste are required to notify and obtain the approval of DPW-ED thirty days prior to generation.

b. Appointment. Leaders of organizations that generate HW will appoint an EC, HWC and alternate by means of a signed memorandum to include names and phone numbers for each individual. Each organization will provide DPW-ED with this memorandum before generating HW.

3.3 Standing Operating Procedures. The EC, HWC and alternate, and any person designated as a HW handler will sign a certification statement that they have read and understand the IHWMP and the ISCP. The ISCP, provided by the DPW-ED, addresses emergency spill response procedures and installation notification requirements. The EC will provide DPW-ED a copy of these certification statements (see Appendix F for sample statements).

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

3.4 Training Requirements. The CHSSF manager and alternate, HWCs and alternates, and personnel who generate or handle HW will complete mandatory training within six months of appointment or assignment to the position and document this training on DPW Form 198. Appendix G contains a list of training requirements, recommended training, and a copy of DPW Form 198.

3.5 Hazardous Waste Disposal Process. All HW generated on FGGM must be turned in for disposal through DPW-ED, which maintains an off-site disposal contract established by the Defense Logistics Agency. Disposition Services - FGGM manages the disposal contract for HW generated on FGGM. Disposition Services-FGGM cannot provide a contractor for HW disposal in a timely manner, the IC reserves the right to obtain disposal support.

3.6 Compliance Inspections.

a. **State of Maryland**. When state personnel inspect HW-generating organizations at FGGM, the following will take place.
(1) The IC will be notified when appropriate.
(2) DPW-ED representative will escort the inspector to the organization.
(3) The organization's EC, HWC or alternate will make all records and accumulation areas available to the inspector after DPW-ED is notified.

b. **Army and Installation**. Compliance inspections may be performed by organizations external as well as internal to the installation.

(1) External Inspections. Some organizations external to FGGM may perform environmental compliance audits or related inspections. Any external inspection team should be directed to DPW-ED before inspecting an organization on the installation.

(a) The Army performs environmental compliance inspections at each installation every three years by means of the Environmental Performance Assessment System. These audits help the installation identify compliance shortfalls in environmental program areas.

(b) The Inspector General's office does not perform routine environmental compliance inspections. However, upon request it may be called in to perform an investigation concerning the environmental program.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

(c) The Army Audit Agency (AAA) performs routine investigations dealing mostly with logistics and finance. However, it performs environmental audits through a program named Environment, Safety and Chemical (reference 2). The AAA also performs investigations upon request.

(2) Internal Inspections. As the IC's representatives, DPW-ED personnel perform unannounced installation-level compliance inspections. The inspections ensure that organizations involved in the generation, handling, and storage of HW on FGGM comply with all applicable Federal, state, local, and Army regulations, policies, directives, and this plan.

(3) Notice of Deficiency. Written notification identifying all deficiencies and suggested or recommended corrective actions will be provided to all organizations found out of compliance. Notifications will be sent to the organization's leader and EC, as well as the IC if necessary.

(4) Corrective Actions. The organization receiving a deficiency notice is required to identify and implement appropriate corrective actions for each deficiency and provide a written statement that the corrective action is complete. This statement will be submitted to DPW-ED within thirty days from receipt of the deficiency notice.

c. **Activity.** The CHSSF manager or alternate, and the HWCs or alternates are required to conduct weekly inspections of their respective storage facilities using the inspection log located in Appendix H. These inspections ensure that each activity is operating in full compliance with all HW regulations and this plan. Inspection results will identify deficiencies needing correction and prepare the activity for inspections from state, Army and installation activities.

3.7 Recordkeeping. Organization HWCs or alternates and the CHSSF manager or alternate are required to maintain TID, facility plans, training, and inspection records.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

CHAPTER 4

HAZARDOUS WASTE GENERATOR SATELLITE ACCUMULATION POINT REQUIREMENTS

4.1 Pollution Prevention. Garrison and tenant activities are required to enhance waste minimization through product substitution, process change and material inventory management and ensure appropriate stock is maintained based on activity usage.

a. HM No Longer Needed by the Activity. Hazardous materials that have not exceeded the expiration date and are no longer needed may be turned-in to the CHSSF to be assessed for re-issue or disposal. Contact the CHSSF manager for instructions (301-677-9674).

b. HM With Expired Shelf Life. Hazardous materials in containers that are unopened, free of rust and in good condition, and have exceeded expiration dates should be managed in accordance with the following:

(1) Extended Shelf Life. Review the MSDS to see if there is any information regarding shelf life extension. If none is found, proceed with turn-in as outlined in 4.1.(b, 2) below.

(2) Shelf Life Not Extended. If the expiration date has expired and is not extended, contact the Disposition Services-FGGM at (301) 677-6366 to see if the item can be reutilized with an expired date. If Disposition Services-FGGM cannot reutilize the item, determine if it meets the criteria as a HW and manage it in accordance with the procedures below.

4.2 Hazardous Waste Determination. It is the responsibility of the organization generating a HW to identify it properly. The following subparagraphs summarize the procedures used to determine if a solid waste is a HW (reference 3). In some instances waste analysis may be required to determine if a waste is HW.

a. Characteristic Waste. A waste that exhibits any of the following characteristics is a HW.

(1) Ignitability. Has a flash point < 140°F. Further criteria are in COMAR 26.13.02.11.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

(2) Corrosives. Have a pH ≤ 2 or ≥ 12.5. Further criteria are in COMAR 26.13.02.12.

(3) Reactivity. The item is normally unstable, reacts violently with water, forms potentially explosive mixtures or toxic gases when mixed with water, is capable of detonation if subject to an initiating source or if heated under confinement, or is readily capable of detonation at standard temperature and pressure. Further criteria are in COMAR 26.13.02.13.

(4) Toxicity. The item exceeds the allowable concentration for contaminants by the Toxicity Characteristic Leaching Procedure test method. Further criteria are in COMAR 26.13.02.14.
b. Listed Waste. A solid waste is a HW if it is listed in COMAR 26.13.02.15-.19 and has not been excluded (reference 4).

c. Mixture. A solid waste is a HW if it is a mixture of solid waste and a HW that is listed solely because it exhibits one or more of the characteristics of HW (reference 5).

d. Container. A container becomes a HW when it was previously used to store acutely toxic (p list) material or when the material stored in the container meets one of the criteria listed in subparagraphs (a), (b), or (c) above and has not been sufficiently emptied (reference 6). A container is *empty* if:

(1) All materials are removed using practices common for removal from that type of container such as pouring, pumping, and aspirating.

(2) Not more than 2.5 centimeters (1 inch) of residue remain on the bottom of the container or inner liner.

(3) Not more than three percent by weight of the total capacity of the container remains in the container or inner liner if the container is less than or equal to 110 gallons in size.

(4) Containers larger than 110 gallons in size and containers of compressed gas are subject to different requirements (reference 7).

e. Unknown Waste. The activity HWC shall contact DPW-ED at (301) 677-9674 for assistance in identifying all unknown wastes. All methods including a review of the following information will be performed to help identify the waste: package labeling information including manufacturer name, address, phone number, and national stock number; local stock number; and Federal supply class. If laboratory analysis is required to identify a waste item, an EPA-certified lab will be used. If the unknown waste is from a waste stream, is analyzed and determined to be a HW, and the process equipment and chemicals used do not change, generator knowledge may

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

be used in place of waste analysis in future HW determination processes. Appendix I includes some examples of HW generated on FGGM.

4.3 Satellite Accumulation Point Management Practices. All SAPs will be managed in accordance with the following requirements.

a. **SAP Management**. The HWC or alternate is responsible for management of the HW program for the organization. The HWC or alternate will complete mandatory training within six months of appointment to the position. Appendix G identifies training requirements.

b. **SAP Location**. All waste will be stored in a secure area designated and approved by the EMO as a SAP. Organization personnel should minimize the number of SAPs they operate.

c. **SAP Design**.

(1) Secondary Containment. Each SAP is required to be equipped with a secondary containment system capable of containing spills and leaks. Areas used for liquid storage shall be equipped with the following:

(a) A foundation underlying the containers which is free of cracks or gaps and is capable of containing leaks and spills until the collected material is detected and removed.
(b) A system that keeps standing liquid from contact with containers in the SAP.
(c) A containment system with sufficient capacity to hold 10 percent of the volume of the containers, or the volume of the largest container, whichever is greater.

(2) Non-Liquid Waste Storage. SAPs only used for the storage of containers free of liquids need not have a containment system as described above, provided that the containers are elevated to protect them from contact with standing liquid.

(3) Signs. The following signs must be posted at each SAP. Additional signs identifying potential health hazards associated with waste(s) typically stored at the SAP may be posted.

(a) "Hazardous Waste Storage"

(b) "In Case of Emergency During Duty Hours Contact DPW Environmental Office (301) 677-9648"

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

(c) "In Case of Emergency During Non-Duty Hours Contact Fire Dept. (301) 677-2117"

(d) "Caution, Flammable, Keep Fire Away"

(4) Spill Contingency Materials. Organizations generating HW must maintain spill containment and cleanup materials. These materials must be maintained on the property of the organization generating the waste and include:

(a) An over pack drum or container large enough for use on the largest container used to accumulate HW.
(b) Absorbent material, e.g. vermiculite, or dry sweep (the absorbent material can be stored in the over pack drum to keep it from weathering).
(c) Broom or brush.
(d) Non-sparking dustpan or shovel.
(e) An operable fire extinguisher that is compatible with the type of waste accumulated. The FGGM Fire Department will assess types and quantities of HW generated, the physical characteristics of the SAP, and determine the type of fire extinguisher needed.

d. **Waste Storage Quantities**. Organizations are not allowed to accumulate more than 55 gallons of HW, or 1 quart of acutely toxic waste at any time (reference 8). To ensure HW generators remain compliant with this regulation, organizations must adhere to the following:

(1) Container Capacity. Do not maintain a combination of containers having capacities that exceed the 55-gallon limit at a single SAP; e.g., do not maintain a 30-gallon drum, two 15-gallon containers, and a 5-gallon container. In this example the total storage capacity is 65 gallons which exceeds the 55 gallon limit.

(2) Size Containers Appropriately. Store waste in containers that are sized appropriate to waste generation rates. For example, if the activity generates two quarts of HW per month, accumulate the waste in a 1 to 2-gallon container, not a 30-gallon drum. If a process generates 15 gallons of HW each month, consider accumulating the waste in a 55-gallon drum, but do not maintain a combination of drums and containers with capacities exceeding the 55-gallon limit.

(3) Accumulation Requirements. A HW generator may use only one container to accumulate waste from a single waste stream or process. A second container may be used to accumulate waste generated from that same waste stream only after each of the following is

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

accomplished: the first container is filled, the generator has complied with the accumulation start date requirements of paragraph 4.3.h.(1) and has completed the pre-transportation requirements described in paragraph 4.3.h.(2)(a).

(4) Multiple Waste Streams. If an organization generates HW from more than one process or waste stream and the quantity of HW generated warrants accumulation in drums or containers with a combined capacity that exceeds the 55 gallons allowed, the organization will be required to manage a separate SAP for each waste stream.

e. **Hazardous Waste Containers**. Hazardous waste shall be stored in safe, non-leaking containers. When liquid waste generation rates warrant the use of a 55-gallon drum for accumulation, only bung type Department of Transportation UN 1A1 or 1A2 drums will be accepted. Generally speaking, the original packaging used to ship the material may be used to accumulate the waste. There are three primary requirements with regard to containers, including condition of container, management of container, and compatibility of waste with container.

(1) Condition of Containers. If a container holding HW is not in good condition, the activity HWC, alternate, or HW handler will over pack or transfer the waste to a container in good condition.

(a) Wastes stored in open, leaking, corroded, bulging, dented, or otherwise deteriorated containers that might leak must be over packed or transferred to a different approved container and disposed of properly.

(b) Packaging must be durable, non-leaking, and constructed to safely contain the material being placed in it. When using over pack containers adhere to over pack guidelines listed in Appendix J.

(2) Management of Containers. A container holding HW shall always be kept closed except when it is necessary to add or remove waste. The container may not be handled or stored in a manner that may cause it to rupture or leak. Do not leave funnels in open bungs on drums or containers. To prevent overflow due to expansion leave the following headspace:
(a) 55-gallon drum - 3 to 4 inches
(b) 5-gallon can - 1.5 to 2 inches
(c) 1-gallon can - 1 inch

(3) Compatibility of Waste with Container. The HWC, alternate, and waste handlers shall use containers made of or lined with materials which do not react with, and are otherwise

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

compatible with, the HW to be stored, so that the ability of the container to contain the waste is not impaired. As an example, corrosives must not be stored in a steel drum or container. Additional information concerning compatibility is discussed in section 4.3.g. below. Guidance on the subject of compatibility may be obtained by contacting the DPW-ED at (301) 677-9674.

f. **Container Labeling and Marking**. All containers used to accumulate HW, including over packs, must be labeled in accordance with the following subparagraphs.

(1) At the time a HW is placed in a container it must be labeled with the words "Hazardous Waste" and the words that identify the common name of the waste stored, e.g. waste xylene, spent naphtha, and waste antifreeze. Preprinted hazardous waste labels are available from EMO.

(2) In addition to the requirement above, labels on over pack containers must identify the quantity of the hazardous waste they contain. For example, the number of 1-gallon cans of paint or the number of 5-gallon containers of adhesive.

(3) Labels on containers which are not applicable to the waste inside shall be removed or painted over. New labels or markings should not be placed over old ones.

g. **Waste Segregation and Compatibility**.

(1) Incompatible Wastes. Incompatible wastes must be segregated, as the mixing of incompatible wastes may result in a dangerous chemical reaction. Flammables and oxidizers (e.g. gasoline and lithium peroxide) are not compatible and may not be stored together. Other examples of incompatible wastes are acids and bases; or flammable and reactive wastes.

(a) Wastes that are not compatible must be separated by means of a physical barrier such as drip pans to prevent spills or leaks from reacting with one another.

(b) Organizations that generate incompatible wastes or are unsure if they do, shall contact DPW-ED at (301) 677-9674 for guidance on safe storage. Appendix K is a HW storage compatibility chart.

(2) Separate Containers. Hazardous wastes shall not be mixed. Separate containers are required for the accumulation of each waste generated. Mixing wastes together may contaminate potentially recyclable wastes making the combined waste non-recyclable, requiring it to be analyzed and disposed of as a HW.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

(b) Organizations that generate incompatible wastes or are unsure if they do shall contact DPW-ED at (301) 677-9674 for guidance on safe storage. Appendix K is a HW storage compatibility chart.

(2) Separate Containers. Hazardous wastes shall not be mixed. Separate containers are required for the accumulation of each waste generated. Mixing wastes together may contaminate potentially recyclable wastes making the combined waste non-recyclable, requiring it to be analyzed and disposed of as a HW.

(3) Chemicals and Materials. Hazardous chemicals and materials shall not be stored at a SAP. A SAP is designated to store only HW and spill response equipment and supplies.

h. **Accumulation Start Date and Pre-Transportation**.

(1) Accumulation Start Date. The date a container becomes full is referred to as the accumulation start date, and must be written on the HW label affixed to the container. The date should be written next to the words “Start Date” on the label. A generator accumulating waste in more than one container (has more than one waste stream) is required to put the accumulation start date on each hazardous waste container label when it becomes full.

(2) Storage Time Limits and Pre-Transportation. Transport containers of HW to the CHSSF within three days from the accumulation start date on the container label. Initiate pre-transportation requirements at least one week before the three-day period is expected to begin. Pre-transportation requirements include:

(a) Complete and deliver to DPW-ED the required TID for each waste including: MSDS, DD Form 1348-1A, and DPW Form 182 (Internal Hazardous Waste Manifest). Appendix L contains an example of TID including: MSDS, Form 182, and DD Form 1348-1A, and instruction for completion of both forms. Copies of Form 182 may be made and completed for submission as part of the TID.

(b) Use official channels to obtain authority for use of a government vehicle to transport HW to the CHSSF. Coordinate the date and time of turn-in with DPW-ED prior to scheduling vehicle use.

(3) General Storage Rules. As a general rule, all HW generating activities should turn in accumulated wastes every three to four months even though they have not filled the container used to accumulate HW.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

i. **SAP Inspections**. All organizations generating HW must perform weekly inspections of each SAP under their control.

(1) Inspection results must be documented on the "SAP/CHSSF Inspection Log". This inspection log, located in Appendix H, may be copied for use by organization personnel performing inspections. Additional inspection forms may be obtained from DPW-ED as needed.

(2) Each question on the log sheet must be answered. Questions that do not apply may be answered with N/A (not applicable). Do not leave any of the spaces blank.

(3) Results of the inspections shall be placed on file with the other HW records and made accessible to state, DPW, and Army inspectors that have been cleared through DPW-ED. Maintain copies of all inspection logs for three years.

(4) When there are no wastes in storage, complete an inspection log and write "No Waste in Storage" in the comment section on the bottom of the form.

j. **Spill Contingency Plan**. Each organization generating HW is provided an ISCP by DPW-ED. A copy of the ISCP must be kept in an area familiar to the EC, HWC, and alternate.

4.4 Hazardous Waste Turn-In Procedures. All substances classified as HW shall be turned in to the CHSSF following the procedures listed below. The organization HWC or alternate is responsible for completing appropriate TID and ensuring the HW is ready to turn in. Call DPW-ED at (301) 677-9674 for assistance in completing the requirements of this section.

a. **Containers**. Containers must be non-leaking, safe to handle, closed, and labeled.

b. **Turn-In Documentation**. The paperwork required for each waste being turned in for disposal includes an MSDS specific to the waste, a completed DD Form 1348-1A, and a DPW Form 182 (Internal Hazardous Waste Manifest). Appendix L provides an example of this paperwork including instruction for its completion.

(1) Obtain a copy of the MSDS specific to each waste turned in. When waste streams are made up of more than one chemical, obtain an MSDS for each chemical making up the waste and indicate the approximate fraction of each waste in the mixture.

(2) If the waste has been turned in previously, DPW-ED may have a "waste profile number" and if current it may be provided on the Form 1348-1A, eliminating the need to submit an MSDS.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

(3) Prepare a separate Form 1348-lA and Form 182 for each waste being turned in.

c. **Submission of TID**. Submit the completed TID for each waste to DPW-ED, building 2250. Turn-in documentation that is not filled out correctly will be returned to the generating activity for correction prior to setting a date to turn in the waste.

d. **TID Approval**. After the TID has been determined to be accurate and complete, the CHSSF manager or alternate will coordinate turn in of the HW.

4.5 Transportation of Hazardous Waste. Hazardous waste generators will not transport HW on FGGM except for delivery to the CHSSF.

a. **Authorized Generator**. The CHSSF manager or alternate only accepts HW from organizations on FGGM approved to generate HW. Any HW generated from off the installation will not be accepted for disposal. Any HW generated off post during field exercises must be turned in at the host installation. Arrangements with the host facility should be made well in advance of field exercises.

b. **Vehicles**. Vehicles used to transport HW on FGGM must be government-owned, licensed, and in good working order. Waste-generating organizations are responsible for arranging delivery of their HW to the CHSSF. At no time is use of a privately owned vehicle authorized for transportation of HW.

c. **Container Security**. Containers of HW shall be secured during transportation to avoid spills.

(1) Drums including over packs will not be double-stacked during transit.
(2) All drums and containers shall be transported in an upright position.
(3) Containers on pallets will be banded or secured to ensure they do not topple. Exercise caution to avoid denting or damaging containers.

(4) Incompatible wastes will be separated by physical barrier if transported on the same vehicle.

d. **Roadways**.

(1) State and County Roads. Hazardous waste shall not be transported on any state or county road except by a State of Maryland permitted HW hauler using a HW Manifest.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

(2) Installation Roads. Hazardous waste may be transported on installation roads from the point of generation to the CHSSF. Personnel driving vehicles used to transport HW are to comply with all traffic laws and are not permitted to transport HW on any state or county roadway. Contact DPW-ED if you have questions concerning this requirement.

e. **Turn-in Time and Location**. The turn-in of HW is authorized only on the date and at the time established by the CHSSF manager or alternate. All HW is turned-in to the CHSSF, Building 2250, located on Rock Avenue.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

CHAPTER 5

CONTROLLED HAZARDOUS SUBSTANCE STORAGE FACILITY DESIGN AND MANAGEMENT

5.1 Controlled Hazardous Substance Storage Facility Design. The CHSSF used to consolidate, and temporarily store HW prior to disposal is located in building 2250, on Rock Avenue. The CHSSF design must include the following:

a. **Secondary Containment**. Storage areas within the CHSSF are required to be equipped with a secondary containment system capable of containing spills and leaks. Areas used for liquid storage shall be equipped with the following:

(1) A foundation underlying the containers which is free of cracks or gaps and is able to contain leaks and spills until the collected material is detected and removed.
(2) A system that keeps standing liquid from contact with containers in the accumulation area.
(3) A containment system with sufficient capacity to contain 10 percent of the volume of the containers, or the volume of the largest container, whichever is greater.

b. **Non-Liquid Waste Storage**. Areas within the facility used for the storage of containers free of liquids need not have a containment system as described above, provided that the containers are elevated to protect them from contact with standing liquid.

c. **Signs**. Signs must be posted at the CHSSF that accurately identify hazards associated with each of the storage areas within the facility. Additional signs must be located on the exterior of the facility warning emergency response personnel and individuals entering the facility of potential hazards from wastes in storage. At a minimum the following information will be posted.

(1) “Hazardous Waste Storage”

(2) “In Case of Emergency During Duty Hours Contact DPW Environmental Division (301) 677-9648”

(3) “In Case of Emergency During Non-Duty Hours Contact Fire Dept. (301) 677-2117”

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

d. **Spill Contingency Materials**. The manager or alternate will maintain materials to be used in the event of a spill incident. These materials must be maintained on the property and include:

(1) Over pack drums or containers large enough for use on the largest container received at the facility.
(2) Absorbent material (e.g., vermiculite and sweeping compound) in sufficient quantities to absorb 5 gallons of spilled liquid waste.
(3) Broom or brush.
(4) Non-sparking dustpan or shovel, and
(5) An operable fire extinguisher and suppression system that is compatible with the types of waste received. The FGGM Fire Department will assess types and quantities of HW received at the facility, the physical characteristics of the facility, and make a determination on the type of fire extinguisher/suppression system needed.

5.2 Manager and Alternate Responsibilities. The manager or alternate is responsible for managing the CHSSF, and providing guidance to activity personnel generating HW on FGGM.

a. **Training**. The CHSSF manager and alternate will complete mandatory training within six months of appointment to the position. Training requirements are identified in Appendix G.

b. **Receipt of Hazardous Waste**. The manager or alternate will accept the turn in of HW to the CHSSF from approved generating activities. The manager or alternate is responsible for: reviewing and ensuring the completion of generator TID, coordinating a turn-in date and time acceptable to the HW generator, and perform an inspection of containers at the time of turn-in.

(1) The TID required for each waste being turned in for disposal includes a MSDS specific to the waste (or current profile code), a completed DD Form 1348-1A, and a DPW Form 182.

(2) Containers must be non-leaking, safe to handle, closed, and labeled.

c. **Hazardous Waste in Storage**. All wastes accepted into storage at the CHSSF must be managed in accordance with the following:

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

(1) All wastes will be stored in safe, non-leaking containers. Wastes will not be approved for receipt to the CHSSF if stored in open, leaking, corroded, bulging, dented, or otherwise deteriorated containers which might leak.

(2) Containers holding HW shall always be kept closed except when it is necessary to add or remove waste. Do not leave funnels in open bungs on drums or containers.

(3) Containers received for storage will be marked with the appropriate HW labeling information including: the words “Hazardous Waste”, the words that identify the common name of the waste stored, and the accumulation start date (date container was filled).

(4) If container over packing is required, use over packs that are durable, non-leaking, and constructed to safely contain the material being placed in it. Labels on over pack containers must identify the quantity of the HW it contains. Over pack guidelines are listed in Appendix J.

(5) The CHSSF manager or alternate will not store HW beyond 90 days from the accumulation start date identified on the container label.

d. **Waste Segregation and Compatibility**.

(1) Incompatible Wastes. Incompatible wastes must be segregated, as the mixing of incompatible wastes may result in a dangerous chemical reaction. Flammables and oxidizers (e.g. gasoline and lithium peroxide) are not compatible and may not be stored together. Other examples of incompatible wastes are acids and bases; or flammable and reactive wastes. Wastes that are not compatible must be separated by means of a physical barrier such as drip pans to prevent spills or leaks from reacting with one another. Appendix K shows a HW storage compatibility chart .

(2) Separate Containers. Consolidation or bulking of similar wastes (e.g., paints) is acceptable, However mixing of wastes is not allowed. Mixing wastes may contaminate potentially recyclable wastes making the combined waste non-recyclable, requiring it to be analyzed and disposed as a HW.

(3) Chemicals and Materials. Hazardous chemicals and materials shall not be stored in areas designated for the storage of HW at the CHSSF.

e. **CHSSF Inspections**. The manager or alternate is required to perform weekly inspections of the CHSSF.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

(1) Inspection results must be documented on the "SAP/CHSSF Inspection Log". This inspection log, located in Appendix H, may be copied for use.
(2) Each question on the log sheet must be answered. Questions that do not apply may be answered with N/A (not applicable). Do not leave any of the spaces blank.
(3) Results of the inspections shall be placed on file with the other HW records and made accessible to state and Army inspectors that have been cleared through DPW-ED. Maintain copies of all inspection logs for one year.

f. **Hazardous Waste Disposal**. The manager or alternate is responsible for completing each of the following requirements to ensure HW is disposed of within ninety days of the accumulation start date on the HW label.

(1) Provides TID required for contract removal through Disposition Services-FGGM.
(2) Coordinates dates and times for contract removal of HW from the CHSSF.
(3) Ensures that all HW manifests are completed properly and signs as the HW generator.

g. **Recordkeeping**. The manager of the CHSSF maintains copies of the following documents:

(1) DD Form 1348-1A
(2) Land Disposal Restriction Forms
(3) HW Manifests (EPA Form 8700-22 or equivalent)
(4) HW Inventory

h. **Spill Contingency and Emergency Response**. The manager or alternate acts as the emergency coordinator, responsible for coordinating all emergency response measures, and will perform the following:

(1) Maintain a copy of the ISCP in a designated area familiar to both the manager and alternate. The manger and alternate will be thoroughly familiar with the ISCP, the facility operations and activities, the location and characteristics of the wastes handled, locations of records, and facility layout.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

(2) In the event of a spill, identify the characteristics, source, amount, and aerial extent of released materials by observation (at a safe distance), records, or knowledge of operations.

(3) Act to contain the spill and prevent threats to human health and the environment only if the resources are available to do so safely without threat to health and safety of response personnel.

(4) If the spill threatens human health or the environment, evacuate the area, call the FGGM Fire Department, (301) 677-2117, and stay at a safe distance from the incident area until relieved by the installation spill response personnel. Assist response team personnel upon request.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

APPENDIX A

REFERENCES

1. Title 26, Code of Maryland Regulations, Subtitle 13, Chapter 03, Section 05E (Title 26 COMAR 13.03.05.E), 1 November 2002, Accumulation Time.

2. U.S. Army Audit Agency, Available on the Internet at: www.aaa.army.mil , October 2004.

3. Title 26 COMAR 3.02.03, 1 November 2002, Definition of Hazardous Waste (HW).

4. Title 26 COMAR 13.02.03.A (2) (b), 1 November 2002, Listed Wastes.

5. Title 26 COMAR 13.02.03.A (2) (c), 1 November 2002, Mixture that Exhibits Characteristic of HW.

6. Title 26 COMAR 13.02.07.B, 1 November 2002, Definition of Empty.

7. Title 26 COMAR 13.02.07.B (1) (d), (2), and (3); 1 November 2002; Definition of Empty.

8. Title 26 COMAR 13.03.05.E (3), 1 November 2002, Satellite Accumulation.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

IMNE-MEA-PWE
SUBJECT: Installation Hazardous Waste Management Plan, No. 37-NE-7390-05, Fort George G. Meade, Maryland, March 2011

APPENDIX B

DPW-ED AND PROGRAM AREAS OF RESPONSIBILITY

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

SUBJECT: Installation Hazardous Waste Management Plan, No. 37-NE-7390-05, Fort George G. Meade, Maryland, March 2011

Program Area		Phone #		
General Info/Admin Support		7-9648		
Air Quality		7-9167		
Agronomy		7-9167		
Asbestos		7-9171		
Chief DPW-ED		7-9188		
Drinking Water		7-9179		
EMS		7-9170		
Environmental Documentation/ NEPA		7-9185		
Environmental Sampling		7-9171		
EPCRA Reporting		7-9167		
Fish/Wildlife		7-9372		
Hazardous Waste		7-9674		
Historic Sites		7-9179		
Installation Restoration		7-9365		
Lead		7-9171		
Mold/Indoor Air Quality		7-9648		
Noise		7-9648		
Oil Water Separators		7-9648		
PCBs		7-9674		
Pest Control		7-6023		
Pollution Prevention		7-9855		
Recycling		7-9674		
Soil/ Erosion		7-9372		
Solid Waste		7-9674		
Solid Waste Management Units		7-7999		
Storm Water		7-9171		
Training		7-9674		
USTs/ ASTs		7-9855		
Wastewater		7-9171		
Wetlands		7-9372		
Chesapeake Bay Programs		7-9185		
Watersheds Restoration/Streams		7-9372		

*This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

APPENDIX C

ADDITIONAL INSTALLATION AND TENANT SUPPORT ACTIVITIES

1. Fort George G. Meade, Installation Safety Office**,** (301) 677-4231. Safety Office personnel provide assistance in the following areas: personal protective equipment (PPE), respiratory protection, material safety data sheet (MSDS), hazard communication (HAZCOM), training, confined space entry, Radioactive Waste, and others.

2. Kimbrough Ambulatory Care Center, Preventive Medicine Service (PVNTMED SVC), (301) 677-8661/8102. PVNTMED SVC personnel provide guidance in the areas of: regulated medical waste (RMW) management, water quality, waste water, occupational health, and industrial hygiene.

3. Dispositions Services-FGGM (301) 677-3286. personnel will take accountability (not physical custody) of regulated expired shelf life items for reutilization of the chemical. If the chemical cannot be reutilized it may be turned-in for disposal.

4. U.S. Army Public Health Command-North (USAPHC-North),
(301) 677-6205/6502. The USAPHC-North personnel can provide guidance and support in the areas of: HW and RMW management, water and wastewater, environmental sampling, industrial hygiene, and entomology.

a. Environmental Program Support, 7-3668.
b. Industrial Hygiene Support, 7-3426.
c. Entomological Sciences Support, 7-3466.

---

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

APPENDIX D
DEFINITION OF TERMS

1. **Activity Spill Contingency Plan**. The Installation Spill Contingency Plan provided by DPW-ED to all installation activities that generate HW.

2. **Acutely toxic chemicals**. Those chemicals listed by regulations which require special handling. The complete "P-list" of acutely toxic chemicals is found in 40 CFR 261.33.

3. **CERCLA**. Comprehensive Environmental Response, Compensation, and Liability Act.

4. **CFR**. Code of Federal Regulations.

5. **CHSSF**. Controlled Hazardous Substance Storage Facility. The building DPW-ED uses to receive, consolidate, temporarily store, and ship hazardous and non-regulated wastes.

6. **COMAR**. Code of Maryland Regulations.

7. **Corrosive**. According to RCRA (see below), an aqueous solution having a pH less than or equal to 2, or greater than or equal to 12.5.

8. **DOT**. Department of Transportation.

9. **DPW**. Directorate of Public Works.

10. **DS-FGGM**. Disposition Services – Fort George G. Meade.

11. **EC**. Environmental Coordinator.

12. **DPW-ED**. Directorate of Public Works – Environmental Division.

13. **EPAS**. Environmental Performance Assessment System.

14. **Empty container**. A container that contained hazardous material must meet certain criteria regarding the amount of residue before it is determined to be empty. Containers used to store acutely toxic materials must meet special requirements.

15. **Generator**. The organization (see below) who by nature of ownership, management, or control is responsible for causing or allowing the generation of a HW.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

16. **Hazardous chemical**. Hazardous chemicals are those chemicals determined to be harmful to personnel during use. See Title 29 CFR Part 1910.1200 for a complete definition.

17. **Hazardous Material**. Hazardous materials are those chemicals which present an unreasonable risk to health or property during transport. See 49 CFR Part 171.8 for a complete definition.

18. **HW**. Hazardous waste, defined as any waste, (solid, liquid, or contained gas) that may pose a hazard to human health or may pollute the environment due to its quantity, concentration, or characteristics. A waste is a hazardous waste if it is listed or meets any of the characteristics as a HW. See Title 26 Code of Maryland Regulation Part 13.02 for a complete definition.

19. **HWC**. Hazardous Waste Coordinator.

20. **IC**. Installation Commander.

21. **Ignitable**. A solid waste having a flashpoint below 140 degrees F.

22. **IHWMP**. Installation Hazardous Waste Management Plan.

23. **ISCP**. Installation Spill Contingency Plan.

24. **Leader**. The leader of an organization (see below) is defined as the military unit commander, the garrison activity director, or the contracting firm manager.

25. **Listed waste (toxic and acute HW)**. Known substances which affect the proper functions of a human organism, where prolonged exposure may result in harmful health effect or death [e.g., methyl ethyl ketone (MEK), trichlorethylene (TCE), lindane].

26. **Manifest**. The shipping document, EPA Form 8700-22 or equivalent, used to identify the quantity, composition, origin, routing, and destination of hazardous waste during its transportation from the point of generation to the point of treatment, storage, or disposal.

27. **MSDS**. Material safety data sheet.

28. **Operator**. The individual responsible for the overall operation of a facility, process, or piece of equipment.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

29. **Organization**. Military unit, garrison activity, tenant organization or contracting firm.

30. **Pollution prevention**. The act of reducing the amount of pollution generated through material
substitution, reduction, process engineering modification, and any other changes.

31. **POL**. Petroleum, oils, and lubricants.

32. **PPE**. Personal protective equipment.

33. **RCRA**. Resource Conservation and Recovery Act.

34. **Reactive**. Wastes that can react spontaneously, react violently with water or air, be unstable to shock or heat, generate toxic gasses, or explode (e.g., picric acid and explosives).

35. **RMW**. Regulated medical waste.

36. **SAP**. Satellite accumulation point.

37. **SPCCP**. Spill Prevention, Control, and Contingency Plan.

38. **TID**. Turn-in documentation. This documentation includes DD Form 1348-1A, DPW Form 182 (Internal Hazardous Waste Manifest), and MSDS for wastes turned in.

39. **Toxic**. Wastes that may release toxic substances or cause a poison hazard to human health or the environment (e.g., heavy metals such as lead, cadmium, chromium, barium, or pesticides).

40. **Toxicity**. A characteristic HW as determined by the concentration of a contaminant when using the Toxicity Characteristic Leaching Procedure test method.

41. **TSDF**. Treatment Storage and Disposal Facility.

42. **Universal waste**. Waste that is not considered HW by COMAR 26.13.10. Universal waste must still be properly stored and disposed of within one calendar year of its generation.

43. **USEPA**. U.S. Environmental Protection Agency.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

APPENDIX E

ENVIRONMENTAL LAWS AND LIABILITY

1. All personnel must ensure that activities for which they have responsibility are conducted in accordance with all applicable environmental laws. Directors, Commanders, Supervisors, Managers, and Operators must ensure that tenant activities and contractors are in compliance.

2. Certain environmental statutes contain provisions for civil as well as criminal penalties for violations. Federal employees are not subject to state criminal prosecution which interferes with the performance of Federal duties when their actions are necessary, proper, and within the scope of their Federal duties. Actions are proper when they are taken with due regard for the safety, well-being, and property interests of others.

3. All personnel should ensure that any instance of noncompliance with environmental laws and permits is identified and corrected immediately. When corrections depend on major construction, budget submission, or other long-range requirements, the options are limited. Cessation of the activity or negotiation for an exemption with the appropriate state or Federal authority is required to avoid continued violation of applicable criminal statutes. In circumstances where national security interests mandate continued operation without correction, an exemption on such grounds must be sought through channels. The President is the sole authority to grant such an exemption. Funding considerations are not a basis unless the Congress has been asked to appropriate funds for this purpose and has not done so.

4. The Federal Facilities Compliance Act of 1992 requires all Federal facilities to comply with all applicable Federal, state, and local regulations.

5. Summary of Penalties. Under various Federal environmental regulations (Resource Conservation and Recovery Act (RCRA), Toxic Substances Control Act, Water Pollution Control Act, Safe Drinking Water Act, Hazardous Materials Transportation Act), criminal penalties can rise as high as $250,000 per day and 15 years imprisonment for any violation that places another person in imminent danger of serious bodily injury or death (a RCRA provision). The maximum civil penalty of $37,500 per day of violation is also highest under RCRA.

---

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

APPENDIX F

SAMPLE CERTIFICATION STATEMENTS

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

IMNE-MEA-PWE
SUBJECT: Installation Hazardous Waste Management Plan, No. 37-NE-7390-05, Fort George G. Meade, Maryland March 2004

DEPARTMENT OF THE ARMY
ACTIVITY NAME
FORT GEORGE G. MEADE, MARYLAND 20755-5225

Office Symbol *date*

MEMORANDUM FOR Directorate of Public Works, ATTN: Hazardous Waste Program Manager

SUBJECT: Installation Hazardous Waste Management Plan Certification Statement

1. This memorandum serves as a record that the following personnel have read and understand the FGGM Installation Hazardous Waste Management Plan.

2. *name of 1st individual* *date* *signature*

name of 2nd individual *date* *signature*

3. The activity point of contact for hazardous waste management is *Mr./Ms. (Name of EC or HWC)*, (301) 677-XXXX.

Name
Title
Position

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

IMNE-MEA-PWE
SUBJECT: Installation Hazardous Waste Management Plan, No. 37-NE-7390-05, Fort George G. Meade, Maryland, March 2011

DEPARTMENT OF THE ARMY
ACTIVITY NAME
FORT GEORGE G. MEADE, MARYLAND 20755-5225

Office Symbol *date*

MEMORANDUM FOR Directorate of Public Works, ATTN: Hazardous Waste Program Manager

SUBJECT: Activity Spill Contingency Plan Certification Statement

1. This memorandum serves as a record that the following personnel read and understood the Activity Spill Contingency Plan.

2. *name of 1st individual* *date* *signature*

name of 2nd individual *date* *signature*

3. The activity point of contact for hazardous waste management is *Mr./Ms. (Name of EC or HWC)*, (301) 677-XXXX.

Name
Title
Position

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

APPENDIX G

TRAINING REQUIREMENTS

1. REQUIREMENT. The Hazardous Waste Coordinators (HWCs) and alternates, Controlled Hazardous Substance Storage Facility (CHSSF) Manager and alternate, as well as personnel who generate or handle hazardous waste (HW) are required to complete training outlined below within six months of appointment or assignment to the position. Certificates showing proof of course completion must be maintained and all training classes must be listed on DPW Form 198.

a. **HWC, Alternate, and Organization Personnel**. Training requirements for personnel performing the duties of organization HWC, alternate, and personnel who generate or handle HW include:

(1) Defense Hazardous Materials/Waste Handling Course, 40 hours. Personnel are not required to attend the DPW-ED sponsored course if they previously completed the course and are able to present a certificate of completion as proof.
(2) Defense Hazardous Materials/Waste Handling Course, Annual Refresher, 8 hours.

b. **Manager, CHSSF**. The CHSSF Manager and alternate are required to complete the following training:

(1) Defense Hazardous Materials/Waste Handling Course, 40-hour; annual 8-hour refresher course required.
(2) Transportation of hazardous materials course, course must be Department of Defense - approved; refresher required every 2 years.
(3) Hazardous Waste Operations and Emergency Response, 40-hour; annual 8-hour refresher course required.

2. ADDITIONAL TRAINING. Personnel responsible for HW management including handling of HW are encouraged to seek additional classroom training, as well as on-the-job training opportunities as follows:

a. **Classroom Training**. Formal classroom training may include:

(1) Health and Safety Training for Hazardous Waste Workers, available through the U.S. Army Corps of Engineers.

---

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

(2) Hazardous Cargo Certification, offered through the Directorate of Plans, Training, Mobility and Security.

(3) Chemical Hazards Communication, sponsored by the Fort George G. Meade (FGGM), Safety Office.

(4) Safety Orientation Session, available through the FGGM, Safety Office.

b. **On-The-Job Training**.

(1) Unit level shop talks or lectures to include proper transportation.
(2) Studying the contents of the Installation Hazardous Waste Management Plan (this plan) and the Activity Spill Contingency Plan.
(3) On-the-job instruction and/or performance of hazardous waste management procedures from a person trained in those procedures.

3. TRANSPORTATION. Although there are no formal training requirements concerning transportation of HW on FGGM, activity/unit personnel are responsible for the safe delivery of HW from the point of generation to the CHSSF and must abide by all traffic laws and regulations.

4. TRAINING RECORDS. All instances of HW training must be documented on DPW Form 198, dated 1 June 92, (see next page). The training record must be maintained for individuals required to receive training for the duration of their employment. Records should be kept with other required HW records.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

HAZARDOUS WASTE (HW) TRAINING RECORD FOR HW COORDINATOR / HANDLERS

1. NAME:

2. ORGANIZATION:

3. JOB TITLE:

4. JOB DESCRIPTION:
   (DA Form 374 Position Description or equivalent should be attached)

5. TYPE AND AMOUNT OF TRAINING REQUIRED:

   a. INTRODUCTORY: 40 hours within the first six months of entering on duty.

   b. ANNUAL UPDATE: 8 hours.

TYPE OF TRAINING COMPLETED	NUMBER OF HOURS	DATE

DPW FORM 198 (1 JUNE 92) Replace DEH Form 198 (1 Jun 92), which is obsolete.

APPENDIX H

SAP/CHSSF INSPECTION LOG

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

SAP/CHSSF INSPECTION LOG	
HAZARDOUS WASTE STORAGE AREA INSPECTION CHECKLIST	INSPECTED BY:_____ DATE:_____

1. Is there any evidence of damage to the drums?
(Includes: deterioration, rusting, expansion, cracking, leaking, puncture, etc)
a. No.
b. Yes. What is the damage?_____
Action Taken:_____

2. Are all drums properly labeled?
a. Yes.
b. No, Drum Numbers/Action Taken_____

3. Is there evidence of any spillage from the drums?
a. No.
b. Yes, Action Taken:_____

4. Are spill plan / cleanup material available at site?
a. Yes.
b. No, Action Taken:_____

5. Is there any evidence that anything has been tampered with in the area?
a. No.
b. Yes, Action Taken:_____

6. Is there any evidence of deterioration in the containment area? (cracks in the concrete, etc.)
a. No.
b. Yes, Action Taken:_____

7. Is the storage area reasonably clean and orderly?
a. No.
b. Yes, Action Taken:_____

8. Is there any evidence of damage to the security of the area? (Includes doors, fences and locks)
a. No.
b. Yes, Action Taken:_____

9. Are all drums properly sealed?
a. Yes.
b. No, Action Taken:_____

10. Storage area warning signs visible? a. Yes.
b. No, Action Taken:_____

MCHB-AN-EH
SUBJECT: Installation Hazardous Waste Management Plan, No. 37-NE-7390-05, Fort George G. Meade, Maryland, December 2004 H- 2
Comments:

DPW FORM 197 (1 MAY 92) Replace DEH Form 197 (1 May 92), which is obsolete - H- 2

APPENDIX I

EXAMPLES OF HAZARDOUS WASTE (HW) GENERATED ON FORT GEORGE G. MEADE (FGGM)

1. Spent Hazardous Chemicals. Chemicals that are no longer usable because they are spent. Examples include: paint thinners, paint strippers/removers, solvents, and petroleum based paints.

2. Contaminated Fuels. Motor fuels that cannot be reclaimed due to excessive contamination.

3. Mixtures. Mixtures of waste to include petroleum products such as used oil contaminated with solvents, or fuels.

4. Hazardous Cleaners. That are corrosive, flammable, contain other listed waste or hazardous characteristics.

5. Waste Photographic Fixer. Waste fixer contains elevated levels of silver.

6. Hazardous material spills. Absorbents, debris or PPE contaminated from hazardous material spills e.g., gasoline, alcohol, petroleum based paint, listed waste or hazardous characteristics.

7. Excess and Expired Shelf Life Chemicals. Excess hazardous chemicals and chemicals that have exceeded their shelf life date, are no longer usable, and are listed or meet characteristic(s) of a HW.

---

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

APPENDIX J

OVERPACK GUIDELINES

1. CONDITION OF CONTAINERS. Containers of hazardous waste (HW) must be kept closed at all times. If a container has an opening; hole; missing bung, cap, or lid; or is sufficiently degraded (leaking, rusting, bulging, or buckling), the contents must be transferred or over packed to ensure they do not leak.

2. OVERPACK REQUIREMENTS.

a. **Container Compatibility**. All containers requiring over packing must be moved to over packs that are compatible with the waste chemical stored in the original container. As an example, steel drum over packs cannot be used to over pack containers of nitric acid.

b. Size. Containers selected for use in over packing should be sized closely to the container being over packed, i.e., when over packing a single 5-gallon container, use a 10-gallon over pack, not a 55- gallon container.

3. OVERPACKING PROCESS. Prior to selecting an over packing procedure, a thorough evaluation of the container's condition must first ensure it does not rupture in the process. Containers must not be thrown, dropped, or handled in such a way as to compromise their structural integrity, or to create a situation that threatens human health or the environment.

a. Personal Protective Equipment (PPE). Prior to performing over packing procedures, wear appropriate PPE including, but not limited to: steel toe shoes, gloves, apron, and respirator. Containers requiring over packing may lack integrity and pose a human and environmental health threat.

b. **Container Handling**.

(1) Sufficiently small containers may be lifted by hand and placed in the overpack container.
(2) Drums that are 55-gallon in size and filled with liquid weigh in excess of 400 lbs. and require special equipment or several persons in order to lift, lay down, tilt, or roll them during over packing.

(a) Drums that are structurally capable, may be lifted (from the lid) with the use of a set of chains with hooks and equipment (forklift, loader, cherry picker) and lowered into an over pack drum.

---

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

(b) When lifting equipment is not available or drums are not structurally capable of being lifted at the lid, the drum may be laid down and one end of the drum lifted so as to start the over pack drum over the end of the drum to be over packed. Once the over pack is started, the drum and over pack can be rolled together while working the drum into the over pack. This procedure should only be performed by personnel physically capable and on containers that are of sufficient structural integrity.

c. **Absorbent**. Once the container is lowered into the over pack, place an absorbent material compatible with the liquid waste around the container. The absorbent should be of sufficient quantity to fill the void space between the container and the over pack two-thirds of the distance up the side of the container.

4. LABELING.

a. **Original Container**. Containers originally used to contain wastes and requiring over packing must be labeled with a completed HW label.

b. **Over packs**. The over pack container must be labeled with a properly completed HW label stating the words “Hazardous Waste”; the generic words describing the type of waste (i.e. “used naphtha”, “waste anti-freeze”); the accumulation start date (date on container inside over pack, not the date the waste was over packed); and the number and size of containers in the over pack (containers over packed together must contain waste from the same waste generating process and or have the same waste characteristics).

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

APPENDIX K
STORAGE COMPATIBILITY CHART

BACKGROUND: When some hazardous materials come in contact with each other, they may react producing heat, corrosion, toxic vapors, fires, explosions, or other problems. These reactions are called incompatible reactions and the reacting chemicals incompatible materials.

SEGREGATION OF INCOMPATIBLE HAZARDOUS MATERIAL. Incompatible hazardous materials must be segregated or isolated from each other to minimize the danger of accidents. Segregation or isolation includes both maintaining distance between incompatible groups of hazardous materials and preventing spilled materials from mixing. Incompatible materials should be isolated by some type of containment system. For large amounts, an arrangement of sections or compartments each isolated by curbs, berms, or sloping floors can provide containment. For small amounts, hazardous materials can be contained in plastic tubs, cabinets with spill wells, or boxes with nonreactive absorbents.

Consult a technical expert when constructing or renovating a storage area, especially if the hazardous materials may emit vapors or are extremely unstable.

Hazardous Waste (HW) Compatibility Chart Method. This chart was developed by the California Department of Health Services as part of a research study conducted for the Environmental Protection Agency's Solid and Hazardous Waste Research Division.

The purpose of this method is to aid people involved in generating, transporting, processing, and disposing of HW. It can also be used for hazardous materials. The method basically compares chemical groups to determine if an incompatible reaction may occur. To develop a manageable method, a number of assumptions were used -- (a) waste interactions are due to reactions of pure chemicals in the wastes, (b) chemicals react at ambient temperature and pressure, (c) only basic chemical reactions are covered, and (d) the reactions are not influenced by concentration, synergistic, and antagonistic effects.

The method cannot predict all reactions or all hazardous wastes/materials, but with reasonable precaution it can be useful in determining general incompatibilities. The primary advantage of this method is that compatibility can be determined based on a chemical name. The method involves two parts--Reactivity Group Numbers (RGN) and a Compatibility Chart. The RGN table (pages K-6 through K-68) is a list of pure chemicals known or expected to be present in hazardous waste and material. It is not inclusive, but based on a literature review. It contains most chemicals commonly encountered in Army operations. The chemicals are classified under 41 different groupings based on chemical reactivity and similar chemical type. Each group is assigned a number (i.e., RGN). The Compatibility Chart (page K-5) lists the 41.

____* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

reactivity groups/numbers and the basic types of reactions that can occur between two incompatible hazardous materials.

To determine if two hazardous materials are compatible, first determine their RGNs (pages K-6 through K-68). Then follow the procedure for using the chart outlined on page K-4.

A practical exercise to learn how to use the EPA Compatibility Chart is found at the end of this appendix starting on page K-69.

HAZARDOUS WASTES COMPATIBILITY CHART

The Compatibility Chart is the central part of the EPA method for determining compatibility. The Compatibility Chart is a quick and ready reference for determining the compatibility reactions of most binary combinations of hazardous wastes. It is used in conjunction with the RGN table that starts on page K-6.

The 41 reactivity group classifications of hazardous wastes are presented on the chart. Also, the Reaction Codes (RCs) are listed in the legend in the upper right-hand corner of the chart. The RCs represent a reaction between binary combinations of wastes that are *NOT COMPATIBLE*. RCs describe the following undesirable and hazardous consequences:

RC	Reaction Consequences
H	Generates heat by chemical reaction.
F	Produces fire from extremely exothermic reactions, ignition of reaction mixtures or of the reaction products.
G	Generates innocuous gases such as nitrogen (N2) or carbon dioxide (CO2) but can cause pressurization and rupture of closed containers. GT Generates toxic gases such as hydrogen cyanide (HCN) or hydrogen disulfide (H2S).
GF	Generates flammable gases such as hydrogen (H2) or acetylene (C2H2).
E	Produces explosion due to extremely vigorous reactions or reactions producing enough heat to detonate unstable reactants or products.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

P	Produces violent polymerization resulting in the generation of extreme heat and sometimes toxic and flammable gases.
S	Solubilizes toxic substances including metals.
U	Waste combinations are believed to be incompatible but no sufficient supporting data have been found in the literature.

For many binary combinations, multiple RCs are used to denote the reaction consequences. The order in which these letter codes appear corresponds to the order in which the consequences can occur. For example, in RC reaction HFE, the first letter denotes the initial or primary hazardous consequence of a binary reaction, which in this case is HEAT generation. The second and third letters denote the resulting secondary consequences of the production of FIRE and EXPLOSION from the heat generated by the primary reaction. In some cases the third letter code refers to a resulting tertiary consequence such as the evolution of a toxic gas from a fire caused by excessive HEAT generation (HFGT). Where the codes GT GF appear, the GASES evolved are TOXIC and FLAMMABLE such as hydrogen sulfide, hydrogen cyanide, and carbon disulfide. The relative positions of the letter codes to one another in this case bear no significance.

DESCRIPTION OF THE CHART

The first column of the chart lists the reactivity groups by RGN. The first 34 RGN (based on chemical classes or molecular functional groups) are listed consecutively from 1 to 34. The last 7 RGN (based on general chemical reactivities) are listed consecutively from 101 to 107. The second column lists the corresponding reactivity group names. The first 34 group names are each followed by a number of reaction squares equal to their respective RGN. In other words, RGN 1 is followed by 1 square, RGN 2 by 2 squares, and so on. The group names designated by RGN 101 to 107 are followed by 34, 36, 37, 38, 39, 40 and 41 squares, respectively. The squares form rows as well as columns of squares on the chart. A terminal square of a row represents a binary combination of one reactive group with itself and is labeled with its RGN. The terminal squares serve as headings for the columns of squares and as a whole appear as a diagonal row of squares on the chart. An additional bottom row of squares is correspondingly labeled as the diagonal row of squares. The RGN on the first column of the chart and those on the diagonal and bottom rows of squares provide the reference coordinates for locating the potential hazardous reaction consequences of any binary combinations of the wastes reactivity groups.

The rest of the squares on the chart are either blackened or filled in with the RC. The RCs are identified in the legend on the upper hand of the chart. When a square is blackened, the wastes in the binary combination represented by that square are compatible. Conversely, any RCs specified in the squares indicate potential incompatible reactions. The predicted reactions are based on the combinations of the most reactive chemicals in the respective reactivity groups.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

PROCEDURES FOR USING THE CHART

Step 1: For the combination of any two hazardous materials, first locate the higher Reactivity Group Number (RGN) on the column of the chart.

Step 2: Locate the lower RGN on the bottom row of the chart.

Step 3: Find the intersecting reaction square for the two RGNs.

Step 4: Note the Reaction Code(s) (RC) in the square. When no RC is found on the reaction square, the two groups of wastes are compatible. When any RC is noted on the square, the wastes are incompatible when mixed or allowed to come in contact with one another.

Step 5: Refer to the legend on the chart for the explanation of the RC.

Example: Determine if you should store Acetic Acid with Acetyl Azide.

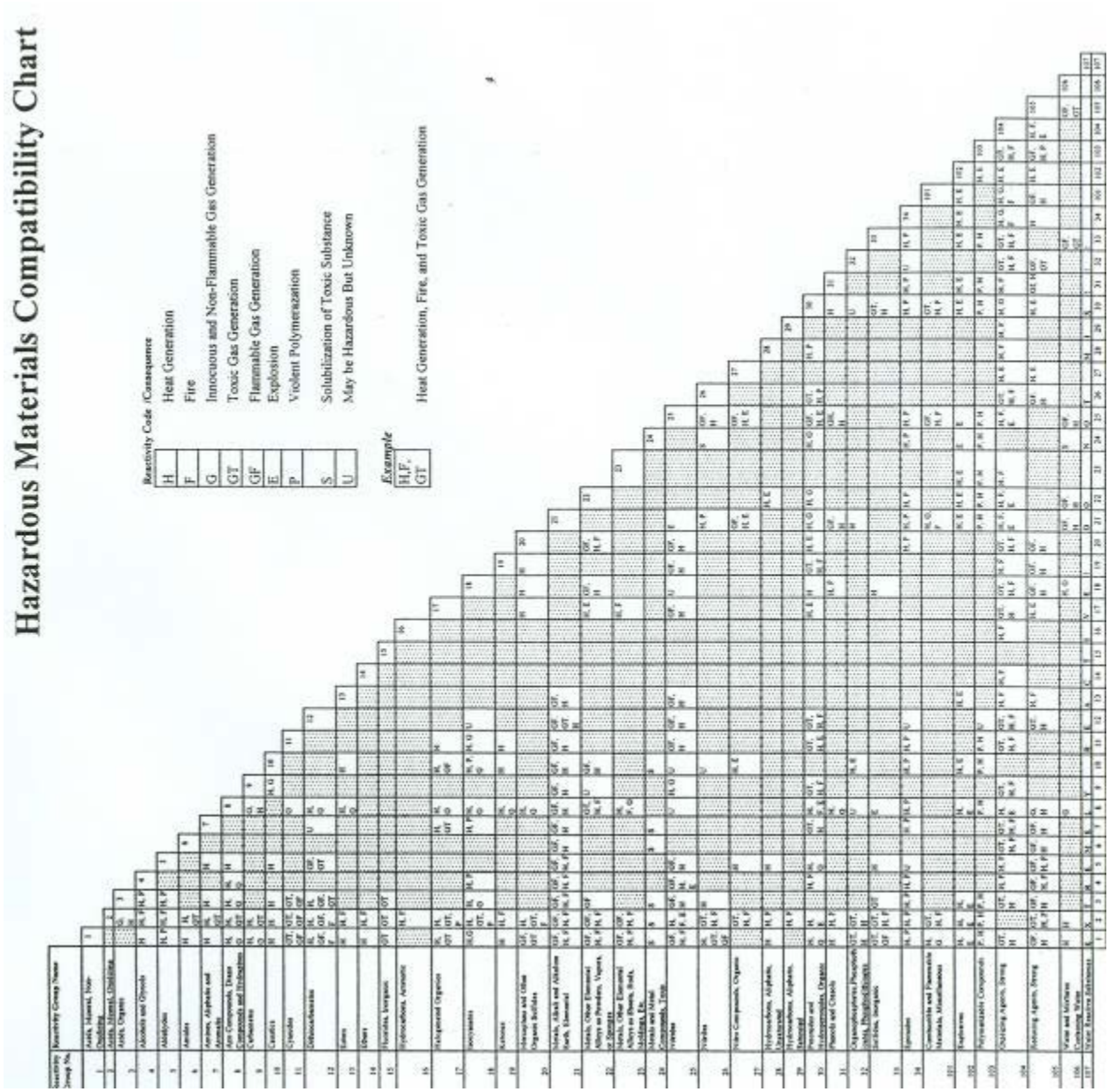
(1) Find the RGN for Acetic Acid and Acetyl Azide from the RGN table (page K-6 through K-68). The RGN for Acetic Acid is 3. The RGN for Acetyl Azide is 102.

(2) Use the Compatibility Chart (page K-5). Compare a 102 (reading across) with a 3 (reading up), and you'll find the letters "H" and "E". From the key, "H" stands for "heat" and "E" stands for explosion. Acetic Acid and Acetyl Azide are incompatible and should be stored separately. Note that in the RGN Table more than one RGN may be listed. If a hazardous material has more than one RGN, check each RGN against all the other RGNs to determine compatibility. If **any** combination indicates incompatibility, the hazardous materials should be segregated.
Example: Determine if you should store Acetone Cyanohydrin with Acrylic Acid.

(1) Find the RGN for Acetone Cyanohydrin and Acrylic Acid from the RGN table (pages K-6 through K-68). The RGNs for Acetone Cyanohydrin are 4 and 26, while Acrylic Acid has RGNs of 3 and 103.

(2) Use the Compatibility Chart (page K-5). Compare RGN 4 to both RGN 3 and 103, and then compare the RGN 26 to both RGN 3 and 103. RGN 103 is compatible with both 4 and 26, **but** RGN 3 is not compatible with either (gives an "H" and "P" = heat generation and violent polymerization). Acetone Cyanohydrin and Acrylic Acid are incompatible and should be stored separately. Had you just compared the first combination you might have stored them together. Check all combinations of RGNs.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004



* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

TABLE D-1 - REACTIVITY GROUP NUMBERS (RGN) BY CHEMICAL NAME

This table lists chemical substances that may be found in hazardous wastes. The list is not inclusive but represents the data compiled through a literature survey and examination of hazardous waste management practices.

The table consists of three columns. The first column lists the chemical or trade names in alphabetical order. The trade names are denoted by asterisks (*). The second column lists the synonyms or common names of the chemical substances when available. The third column lists the reactivity group numbers (RGN) assigned to the substances. A compound may be assigned more that one RGN.

The table is used to obtain the RGN of waste constituents when known specifically. The RGN is used with the Compatibility Chart to predict the compatibility of wastes.

The chemical substances listed were compiled from several sources. The list of Hazardous Wastes and Hazardous Materials and List of Extremely Hazardous Wastes and Extremely Hazardous Materials in California's Industrial Waste Law of 1972 served as the starting reference.

Names	Synonyms	RGN
Abate*		32
Acenaphthene		16
Acetamide		6
Acetaldehyde		5
Acetic acid		3
Acetic anhydride		107
Acetone	Dimethyl ketone	19
Acetone cyanohydrin	Hydroxyisobutyronitrile	4, 26
Acetonitrile	Methyl cyanide	26
Acetophenone		19
Acetoxybutane	Butyl acetate	13
Acetoxypentane	Amyl acetate	13
Acetyl acetone		19
Acetyl azide		102

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Acetyl benzoyl peroxide		30
Acetyl bromide		17, 107
Acetyl chloride		17, 107
Acetylene		28
Acetyl nitrate		27, 102
Acetyl peroxide		30
Acrolein	Aqualin	5, 103
Acrylic acid		3, 103
Acrylonitrile		26, 103
Adipic acid		3
Adiponitrile		26
Agallol	Methoxyethylmercuric chloride	24
Agaloaretan	Methoxymethylmercuric chloride	24
Aldicarb	Temik*	9, 20
Aldrin		17
Alkyl aluminum chloride		107
Alkyl resins		101
Allene		28
Allyl alcohol	2-Propene-1-o1	4
Allyl bromide	Bromopropene	17
Allyl chloride	Chloropropene	17
Allyl chlorocarbonate	Allyl chloroformate	13, 17
Allyl chlorformate	Allyl chlorocarbonate	13, 17
Allyl trichlorosilane		107
Aluminum		22, 23
Aluminum aminoborohydride		107

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Aluminum borohydride		105, 107
Aluminum bromide		107
Aluminum carbide		105
Aluminum chloride		107
Aluminum diethyl monochloride	Diethylaluminum chloride	105, 107
Aluminum fluoride		15, 107
Aluminum hydride		105
Aluminum hypophosphide		107
Aluminum phosphide		107
Aluminum tetraazidoborate		8
Aminobenzene	Aniline	7
Aminobutane	Butylamine	7
Aminochlorotoluene	Chlorotoluidine	7, 17
Aminodiphenyl		7
Aminoethane	Ethylamine	7
Aminoethanol		4, 7
Aminoethanolamine		7
Aminohexane	Hexylamine	7
Aminomethane	Methylamine	7
Aminopentane	Amylamine	7
Aminophenol		7, 31
Aminopropane	Isopropyl amine	7
Amino propionitrile		7, 26
Aminothiazole		7, 8
Aminotoluene	Toluidine	7
Ammonia		10

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Ammonium aresenate		24
Ammonium azide		102
Ammonium bifluoride		15
Ammonium chlorate		102, 104
Ammonium dichromate		24, 102
Ammonium fluoride		15
Ammonium hexanitrocobaltate		24, 102
Ammonium hydroxide		10
Ammonium hypophosphide		105
Ammonium molybdate		24
Ammonium nitrate		102
Ammonium nitridoosmate		24, 104
Ammonium nitrite		102
Ammonium perchlorate		104
Ammonium periodate		102, 104
Ammonium permanganate		24, 102, 104
Ammonium persulfate		104
Ammonium picrate		102
Ammonium sulfide		33, 105
Ammonium tetrachromate		24, 104
Ammonium tetraperoxychromate		24, 102, 104
Ammonium trichromate		24, 104
Amyl acetate	Acetoxy pentane	13
Amyl alcohol		4
Amyl chloride	Chloropentane	17
Amyl cyanide		26
Amylamine	Aminopentane	7

Names	Synonyms	RGN
Amylene	Pentene	28
Amyl mercaptan	Pentanethiol	20
Aniline		7
Animert* V-101	Tetrasul	20
Anisole		14
Anisole chloride		107
Anthracene		16
Antimony		23, 24
Antimony chloride	Antimony trichloride	107
Antimony fluoride	Antimony trifluoride	24, 107
Antimony nitride		24, 25
Antimony oxychloride		24
Antimony oxide	Antimony trioxide	24
Antimony pentachloride		24
Antimony pentafluoride		24
Antimony pentasulfide		24, 33, 105
Antimony perchlorate		24, 104
Antimony potassium tartrate		24
Antimony sulfate	Antimony trisulfate	24
Antimony sulfide	Antimony trisulfide	24, 33, 105
Antimony tribromide		24, 107
Antimony trichloride	Antimony chloride	24, 107
Antimony trifluoride	Antimony fluoride	24, 107
Antimony triiodide		24, 107
Antimony trioxide	Antimony oxide	24
Antimony trisulfate	Antimony sulfate	24

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Antimony trisulfide	Antimony sulfide	24, 33
Antimony trivinyl		24, 107
Aqualin	Acrolein	5, 103
Aqueous solutions & mixtures		106
Aretan*	Methoxyethylmercuric chloride	24
Aroclor*	Polychlorinated biphenyl	17
Arsenic		24
Arsenic bromide	Arsenic tribromide	24, 107
Arsenic chloride	Arsenic trichloride	24, 107
Arsenic dislufide	Arsenic sulfide	24, 33, 105
Arsenic iodide	Arsenic triiodide	24, 107
Arsenic oxide	Arsenic pentoxide	24
Arsenic pentaselenide		24
Arsenic pentasulfide		24, 33
Arsenic pentoxide	Arsenic oxide	24
Arsenic sulfide	Arsenic disulfide	24, 33, 105
Arsenic tribromide	Arsenic bromide	24, 107
Arsenic trichloride	Arsenic chloride	24, 107
Arsenic trifluoride		24
Arsenic triiodide	Arsenic iodide	24, 107
Arsenic trisulfide		24, 33, 105
Arsine		24, 105
Askarel	Polychlorinated biphenyl	17
Asphalt		101
Azidocarbonyl guanidine		8, 102
Azido-s-triazole		8
Azinphos ethyl		32

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Aziridine	Ethyleneimine	7, 103
a,a'-Azodiisobutyronitrile		8, 26
Azodrin*	Monocrotophos	32
Bakelite*		101
Banol	Carbanolate	9
Barium		21, 24, 107
Barium azide		24, 102
Barium bromate		24, 104
Barium carbide		24, 105, 107
Barium chlorate		24, 104
Barium chloride		24
Barium chromate		24, 104
Barium fluoride		15, 24
Barium fluosilicate		24
Barium hydride		24, 105
Barium hydroxide		10, 24
Barium hypophosphide		24, 105
Barium iodate		24, 104
Barium iodide		24
Barium monoxide	Barium oxide	10, 24, 107
Barium nitrate		24, 104
Barium oxide	Barium monoxide	10, 24, 107
Barium perchlorate		24, 104
Barium permanganate		24, 104
Barium peroxide		24, 104
Barium phosphate		24

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Barium stearate		24
Barium sulfide		24, 33, 105, 107
Barium sulfite		24
Bassa*	BPMC	9
Bayer 25141	Fensulfothion	32
Baygon*		9
Benzadox	Topcide*	6
Benzal bromide		17
Benzal chloride		17
Benzaldehyde		5
Benz-a-pyrene		16
Benzene		16
Benzene diazonium chloride		8, 102
Benzene phosphorus dichloride		107
Benzidine		7
Benzoic acid		3
Benzonitrile		26
Benzophenone		19
Benzoquinone	Quinone	19
Benzotriazole		8, 102
Benzotribromide		17
Benzotrichloride		17
Benzotrifluoride	Trifluoromethylbenzene	17
Benzoyl chloride		107
Benzoyl peroxide	Dibenzoyl peroxide	30, 102
Benzyl alcohol		4
Benzylamine		7

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Benzyl benezene	Diphenylmethane	16
Benzyl bromide	Bromotoluene	17
Benzyl chloride	Chlorotoluene	17
Benzyl chlorocarbonate	Benzyl chloroformate	17
Benzyl chloroformate	Benzyl chlorocarbonate	17
Benezyl silane		105, 107
Benzyl sodium		105
Beryllium		24
Beryllium copper alloy		24
Beryllium fluoride		15, 24
Beryllium hydride		24, 105, 107
Beryllium hydroxide		10, 24
Beryllium oxide		24
Beryllium sulfide		33, 105
Beryllium tetrahydroborate		24, 105, 107
Bidrin*		32
Bismuth		22, 23, 24
Bismuth chromate		24
Bismuthic acid		24
Bismuth nitride		24, 25, 102
Bismuth pentafluoride		24, 107
Bismuth pentaoxide		24
Bismuth sulfide		24, 33, 105
Bismuth tribromide		24
Bismuth trichloride		24
Bismuth triiodide		24

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Bismuth trioxide		24
Bismuth trisulfide		24, 33, 105
Blada-fum*	Sulfotepp	32
Blue vitriol	Copper sulfate	24
Bomyl		32
Borane		24, 107
Bordeaux arsenites		24
Boric acid		1
Boron arsenotribromide		24, 105
Boron bromodiiodide		24, 107
Boron dibromoiodide		24, 107
Boron nitride		24, 25
Boron phosphide		24, 107
Boron triazide		24, 102
Boron tribromide		24, 107
Boron trichloride		24, 107
Boron trifluoride		24, 107
Boron triiodide		24, 107
Boron trisulfide		24, 33, 105
BPMC	Bassa*	9
Brass		23
Bromic acid		2
Bromine		104
Bromine azide		102
Bromine cyanide	Cyanogen bromide	11
Bromine monofluoride		104, 107
Bromine pentafluoride		104, 107

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Bromine trifluoride		104, 107
Bromoacetylene		17
Bromobenzoyl acetanilide		6, 19
Bromobenzyl trifluoride		17
Bromdiborane		105
Bromodiethylaluminum		107
Bromodimethoxyaniline		14
Bromoform	Tibromomethane	17
Bromomethane	Methyl bromide	17
Bromophenol		17, 31
Bromopropene	Allyl bromide	17
Bromopropyne		17
Bromosilane		105
Bromotoluene	Benzyl bromide	17
Bromotrichloromethane		17
Bromotrifluomethane		17
Bromoxynil	3,5-dibromo-4 hydroxybenzonitrile	17, 26, 31
Bronze		23
Buna-N*		101
Bunker fuel oil		101
Butacarb		9
Butadiene		28, 103
Butadiyne	Diacetylene	28
Butanal	Butyraldehyde	5
Butane		29
Butanediol		4

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Butanethiol	Butyl mercaptan	20
Butanetriol trinitrate		102
Butanol	Butyl alcohol	4
Butanone	Methyl ethyl ketone	19
Butenal	Crotonaldehyde	5
Butene		28
Butene-2-one	Methyl vinyl ketone	19
Butyl acetate	Acetoxybutane	13
n-Butyl acrylate		13, 103
Butylamine	Aminobutane	7
Butyl alcohol		4
t-Butyl azidoformate		
Butyl benzene	phenylbutane	16
Butyl benzyl phthalate		13
Butyl cellusolve*		4
Butyl dichloroborane		105
Butyl ether	Dibutyl ether	14
Butyl formate		13
Butyl fluoride		17
Butyl glycidyl ether		34
Butyl hydroperoxide		30
t-Butyl hypochlorite		102, 104
n-Butyl lithium		105, 107
Butyl meracaptan	Butanethiol	20
Butyl peroxide		30
Butyl peroxyacetate	t-Butyl perbenzoate	30

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Butyl peroxybenzoate		30
Butyl peroxypivalate		30
t-Butyl perbenzoate	Butyl peroxyacetate	30
t-Butyl-3-phenyl oxazirane		34
Butyl trichlorosilane		107
Butyramide		6
Butyraldehyde	Butanol	5
Butyric acid		3
Butyronitrile		26
Bux*		9
Cacodylic acid	Dimethylarsenic acid	24
Cadmium		23, 24
Cadmium acetylide		24, 105, 107
Cadmium amide		24, 10, 107
Cadmium azide		24, 102
Cadmium bromide		24
Cadmium chlorate		24, 104
Cadmium chloride		24
Cadmium cyanide		11, 24
Cadmium fluoride		15, 24
Cadmium hexamine chlorate		24, 102
Cadmium hexamine perchlorate		24, 102
Cadmium iodide		24
Cadmium nitrate		24, 102, 104
Cadmium nitride		24, 25, 102
Cadmium oxide		24
Cadmium phosphate		24

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Cadmium sulfide		24, 33, 105
Cadmium trihydrazine chlorate		24, 102
Cadmium trihydrazine perchlorate		24, 102
Calcium		24, 102
Calcium arsenate		24
Calcium arsenite		24
Calcium bromate		104
Calcium carbide		105, 107
Calcium chlorate		104
Calcium chlorite		104
Calcium fluoride		15
Calcium hexammoniate		105
Calcium hydride		105, 107
Calcium hydroxide	Hydrated lime	10
Calcium hypochlorite	Calcium oxychloride	104
Calcium hypophosphide		105
Calcium iodate		104
Calcium-maganese-silicon alloy		23
Calcium nitrate	Lime nitrate, nitrocalcite	104
Calcium oxide	Slaked lime	10, 107
Calcium oxychloride	Calcium hypochlorite	104
Calcium perchromate		104
Calcium permanganeate		104
Calcium peroxide		104
Calcium phosphide		107
Calcium sulfide		33, 105

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Camphor oil		101
Capric acid		3
Caproic acid	Hexanoic acid	3
Caprylic acid		3
Caprylyl peroxide	Octyl peroxide	30
Carbacrol		31
Carbaryl		9
Carbetamide		6
Carbanolate	Banol	9
Carbofuran	Furadan*	9
Carbolic acid	Phenol	31
Carbolic oil		31
Carbon, activated, spent		101
Carbon bisulfide	Carbon disulfide	20
Carbon disulfide	Carbon bisulfide	20
Carbon tetrachloride	Tetrachloromethane	17
Carbon tetrafluoride		17
Carbon tetraiodide		17
Castrix	Crimidine	7
Catechol		31
Caustic potash	Potassium hydroxide	10
Caustic soda	Sodium hydroxide	10
CDEC		12
Celluose		101
Cellulose nitrate	Nitro celluose	27, 102
Cerium		22
Cerium hydride		105

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Cerium trisulfide		33, 105
Cerous phosphide		105
Cesium		21
Cesium amide		107
Cesium azide		102
Cesium carbide		105
Cesium fluoride		15
Cesium hexahydroaluminate		105
Cesium hydride		105, 107
Cesium phosphide		107
Cesium sulfide		33, 105
Chloral hydrate	Trichloroacetaldehyde	5
Chlordane		17
Chlorestol	Polychlorinated biphenyl	17
Chlorfenvinphos		32
Chloric acid		2, 104
Chlorine		104
Chlorine azide		102
Chlorine dioxide		102, 104, 107
Chlorine fluoroxide		102, 104
Chlorine monofluoride		104, 107
Chlorine monoxide		104
Chlorine pentafluoride		104, 107
Chlorine trifluoride		104, 107
Chlorine trioxide		102, 104
Chloroacetaldehyde		5, 17

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Chloracetic acid	Monochloroacetic acid	3, 17
Chloroacetone	Monochloroacetone	17, 19
Chloroacetophenone	Phenyl chloromethyl ketone	17, 19
Choroacetyl chloride		107
Chloroacetylene		102
Chloroacrylonitrile		17, 26
Chloroazodin		8, 17
Chlorobenzene		17
Chlorobenzotriazole		8, 17
Chlorobenzoyl peroxide		17, 30
Chlorbenzylidene malononitrile		17, 26
Chlorobutyronitrile		17, 26
Chloro chromic anhydride	Chromyl chloride	24, 104, 107
Chlorocreosol		17, 31
Chlorodiborane		105
Chlorodiisobutyl aluminum		105, 107
Chlorodimethylamine diborane		105
Chlorodinitrobenzene	Dinitrochlorobenzene	17, 27
Chloro dinitrotoluene		17, 27
Chlordipropyl borane		105
Chloroethane	Ethyl chloride	17
Chloroethanol		4, 7
Chloroethylenimine		17
Chloroform	Trichloromethane	17
Chlorohydrin		17
Chloromethan	Methyl chloride	17
Chloromethyl methyl ether		17

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Chloromethyl phenoxyacetic acid		3, 17
Chloronitroaniline		17, 27
Chloronitrobenzene	Nitrochlorobenzene	17, 27
Chloropentane	Amyl chloride	17
Chlorophenol		31
Chlorophenyl isocyanate		17, 18, 107
Chloropicrin	Chlorpicrin, Trichloronitromethane	17, 27, 102
Chloropropane	Isopropyl chloride	17
Chloropropene	Allyl chloride	17
Chloropropylene oxide	Epichlorohydrin	17, 34
Chlorosilane		105
Chlorosulfonic acid		1
Chlorothion*		17, 32
Chlorotoluene	Benzyl chloride	17
Chlorotoluidine		7, 17
Chlorotrinitrobenzene	Picryl chloride	17, 27, 102
B-Chlorovinyldichloroarsine	Lewisite	24
Chlorpicrin	Trichloronitromethane	17, 27, 102
Chromic acid	Chromic anhydride, Chromium trioxide	2, 24, 104
Chromic anhydride	Chromium trioxide, Chromic acid	2, 24, 104
Chromic chloride	Chromium trichloride	24
Chromic fluoride	Chromium trifluoride	15, 24
Chromic oxide		24
Chromic sulfate	Chromium sulfate	24

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Chromium		23, 24
Chromium sulfate	Chromium sulfate	24
Chromic sulfide		24, 33, 105
Chromium trichloride	Chromic chloride	24
Chromium trifluoride	Chromic fluoride	15, 24
Chromium trioxide	Chromic acid, Chromic anhydride	2, 24, 104
Chromyl chloride	Chloro chromic anhydride	24, 104, 107
Chrysene		16
CMME	Methyl chloromethyl ether	14, 17
Coal oil		101
Coal tar		31
Cobalt		22, 23, 24
Cobalt bromide	Cobaltous bromide	24
Cobalt chloride	Cobaltous chloride	24
Cobalt nitrate	Cobaltous nitrate	24, 104
Cobaltous bromide	Cobalt bromide	24
Cobaltous chloride	Cobalt chloride	24
Cobaltous nitrate	Cobalt nitrate	24, 104
Cobaltous resinate	Cobalt resinate	24
Cobaltous sulfate	Cobalt sulfate	24
Cobalt resinate	Cobaltous resinate	24
Cobalt sulfate	Cobaltous sulfate	24
Collodion	Pyroxylin	27
Copper		23, 24
Copper acetoarsenite	Paris Green	24
Copper acetylide		24, 102, 105, 107

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Copper arsenate	Cupric arsenate	24
Copper arsenite	Cupric arsenite	24
Copper chloride	Cupric chloride	24
Copper chlorotetrazole		24
Copper cyanide	Cupric cyanide	11, 24
Copper nitrate	Cupric nitrate	24, 104
Copper nitride		24, 25
Copper sulfate	Cupric sulfate, Blue vitriol	24
Copper sulfide		23, 33, 105
Compound 1836	Diethyl chlorvinyl phosphate	17, 32
Coroxon*		32
Coumafuryl	Fumarin	19
Coumatetralyl		19
Cresol		31
Cresol glydicyl ether		34
Cresote		31
Crimidine	Castrix	7
Crotonaldehyde	Butenal	5
Crotyl alcohol		4
Crotyl bromide		17
Crotyl chloride		17
Cumene	Isopropyl benzene	16
Cumene hydroperoxide	Dimethylbenzyl hydroperoxide	30
Cupric arsenate	Copper arsenate	24
Cupric arsenite	Copper arsenite	24
Cupric chloride	Copper chloride	24
Cupric cyanide	Copper cyanide	11, 24

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Cupric nitrate	Copper nitrate	24, 104
Cupric sulfate	Copper sulfate	24
Cupriethylenediamine		7, 24
Cyanoacetic acid	Malonic nitrile	3, 26
Cyanochloropentane		17, 26
Cyanogen		26
Cyanogen bromide	Bromine cyanide	11
Cyanophenphos	Surecide*	26, 32
Cyanuric triazide		102
Cycloheptane		29
Cyclohexane		29
Cyclohexanol		4
Cyclohexanone		19
Cyclohexanone peroxide		30
Cyclohexylamine		7
Cyclohexenyl trichlorosilane		107
Cyclohexyl phenol		31
Cyclohexyl trichlorosilane		107
Cyclopentane		29
Cyclopentanol		4
Cyclopentene		28
Cyclopropane		29
Cyclotrimethylene trinitraamine	RDX	27, 102
Cymene		16
Cyolan*	Phospholan	20, 32
2,4-D	Dichlorophenoxyacetic acid	3, 17

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Dasanit*	Fensulfothion	32
DBCP	Dibromochloropropane	17
DCB	Dichlorobenzene	17
DDD		17
DDNP	Diazodinitrophenol	8, 27, 102
DDT		17
DDVP	Dichlorovos, Vapona*	17, 32
DEAC	Diethylaluminum chloride	105, 107
Decaborane		107
Decahydronaphthalene	Decalin	29
Decalin	Decahydronaphthalene	29
Decane		29
Decanol		4
Decene		28
Decyl benzene		16
Delnav*	Dioxanthion	32
Demeton-s-methyl sulfoxid	Metasystox R*	32
Diacetone alcohol		4, 19
Diacetyl		19
Diacetylene	Butadiyne	28
Diamine	Hydrazine	8, 105
Diaminobenzene	Phenylene diamine	7
Diaminohexane	Hexamethylenediamine	7
Diazidoethane		8, 102
Diazinon		32
Diazodinitrophenol	DDNP	27, 102
Dibenzoyl peroxide	Benzoyl peroxide	30, 102

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Diborane	Diboron hexahydride	105, 107
Diboronhexahydride	Diborane	105, 107
Dibutyl ether	Butyl ether	14
Dibutyl phthalate		13
3,5-Dibromo-4-hydroxybenzonitrile	Bromoxynil	17, 26, 31
Dibromochloropropane	DBCP, Fumazone*, Nemagon*	17
Dibromoethane	Ethylene dibromide	17
Dichloroacetone		17, 19
Dichloroamine		104
Dichlorobenzene	DCB	17
Dichlorobenzidine		7, 17
Dichlorodimethylsilane	Dimethyl dichlorosilane	107
Dichloroethane	Ethylene dichloride	17
Dichloroethene	Dichloroethylene	17
Dichlorether	Dichloroethyl ether	14, 17
Dichlorethylarsine		24, 107
Ethyl dichlorosilane		107
Ethyl ether	Dichloroether	14, 17
Dichloroisocvanuric acid	Dichloro-s-triazine-2,4,5-trione	104
Dichloromethane	Methylene chloride	17
Dichlorophene		17
Dichlorophenol		17, 31
Dichlorophenoxyacetic acid	2,4-D	3, 17
Dichloropropane	Propylene dichloride	17
Dichloropropanol		17
Dichloropropene	Dichloropropylene	17

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Dichloropropylene	Dichloropropene	17
Dichloro-s-triazine-2,4,5-trione	Dichloroisocyanuric acid	104
Dichlorovos	DDVP	17, 32
Dicumyl peroxide		30
Dicyclopentadiene		28
Dieldrin		17
Diesel oil		101
Diethanolamine		4, 7
Diethyl aluminum chloride	Aluminum diethylmonochloride DEAL	105, 107
Diethylamine		7
Diethyl benzene		16
Diethyl chlorovinyl phosphate	Compound 1836	17, 32
Diethyl dichlorosilane		107
Diethylene dioxide	Dioxane	14
Diethylene glycol dinitrate		27, 102
Diethylene glycol monobutyl ether acetate		13
Diethylene triamine		7
Diethyl ether		14
Diethyl ketone		19
Diethyltoluamide		6
Diethyl zinc	Zinc ethyl	24, 105, 107
Difluorophosphoric acid		1
Diglycidyl ether	Bis(2,3 epoxypropyl) ether	34
Diisobutylene		28

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Diisobutyl ketone		19
Diisopropanolamine		4, 17
Diisopropylbenzene hydroperoxide		30
Diisopropyl beryllium		24, 104, 107
Diisopropyl ether	Isopropyl ether	14
Diisopropyl peroxydicarbonate	Isopropyl percarbonate	30
Dimecron*	Phosphamidon	32
Dimefox	Hanane*	6, 32
Dimethyl acetylene		28
Dimethyl amine		7
Dimethylamino azobenzene	Methyl yellow	7, 8
Dimethyl arsenic acid	Cacodylic acid	24
Dimethylbenzyl hydroperoxide	Cumene hydroperoxide	30
Dimethyl butane	Neohexane	29
Dimethyl butyne		28
Dimethyl dichlorosilane	Dichlorodimethylsilane	107
Dimethyldithiophosphoric acid		32
Dimethyl ether		14
Dimethyl formal		19
Dimethyl formamide		6
Dimethylhexane dihydroperoxide		30
Dimethyl hydrazine	UDMH	8
Dimethyl ketone	Acetone	19
Dimethyl magnesium		105, 107
Dimethylnitrobenzene	Nitroxylene	27
Dimethylnitrosoamine	N-Nitrosodimethyl amine	7, 27
Dimethyl sulfide	Methyl sulfide	20

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Dimeton		32
Dinitrobenzene		27
Dinitrochlorobenzene	Chloronitrobenzene	17, 27
2,4-Dinitro-6-sec-butylphenol	Dinoseb	27, 31
Dinitrocresol	DNOC, Elgetol 30	27, 31
Dinitrophenol		27, 31
Dinitrophenyl hydrazine		8, 27
Dinitrotoluene		27
Dinoseb	2,4-Dinitro-6-sec-butylphenol	27, 31
Dioxacarb		9
Dioxane	Diethylene dioxide	14
Dioxathion	Delnav*	32
Dipentaerythritol hexanitrate		27, 102
Dipentene		28
Diphenamide		6
Diphenyl	Phenylbenzene	16
Diphenyl acetylene		16
Diphenylamine		7
Diphenylamine chloroarsine	Phenarsazine chloride	7, 24
Diphenyl ethane		16
Diphenyl ethylene	Stilbene	16
Diphenyl methane	Benzylbenzene	16
Diphenylmethane diisocyanate		18, 107
Diphenyl oxide		14
Dipicryl amine	Hexanitrodiphenylamine	7, 27, 102
Dipropyl amine		7

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Disulfoton	Disyston*	32
Disulfuric acid		1
Disulfur dinitride		25, 102
Disulfuryl chloride		107
Disyston*	Disulfoton	32
Dithane* M-45		12
Dithione*	Sulfotepp	32
DNOC	Dinitrocresol	27, 31
Dodecene		28
Dodecyl benzene		16
Dodecyl trichlorosilane		107
Dowco-139*	Mexacarbate	9
Dowicide I	o-Phenyl phenol	31
Dowtherm		16
Durene		16
Dyfonate*	Fonofos	32
Dynes Thinner		101
Elgetol 30	Dinitrocresol	27, 31
Endolsulfan	Thiodan*	17, 20
Endothall		3
Endothion	Exothion	32
Endrin		17
EPN		32
Epichlorohydrin	Chloropropylene oxide	17, 34
Epoxybutane		34
Epoxybutene		34
Epoxyethane	Ethylene oxide	34, 103

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Epoxyethylbenzene		34
Bis(2-3-Expoxypropyl)ether	Diglycidyl ether	34
Ethane		29
Ethanethiol	Ethyl mercaptan	20
Ethanol	Ethyl alcohol	4
Ethion*	Nialate	32
Ethoxyethanol		4, 14
Ethyl acetate		13
Ethyl acetylene		28
Ethylacrylate		13, 103
Ethyl alcohol	Ethanol	4
Ethylamine	Aminoethane	7
Ethyl benzene	Phenylethane	16
Ethyl butanoate	Ethyl butyrate	13
Ethyl butyrate	Ethyl butanoate	13
Ethyl chloride	Chloroethane	17
Ethyl chloroformate		13, 17
Ethyl dichloroarsine	Dichloroethylarsine	24, 107
Ethyl dichlorosilane		107
Ethyl ether	Diethyl ether	14
Ethylene		28
Ethylene chromic oxide		24, 104
Ethylene chlorohydrin		4, 17
Ethylene cyanohydrin	Hydroxypropionitrile	4, 26
Ethylene diamine		7
Ethylene dibromide	Dibromoethane	17

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Ethylene dichloride	Dichloroethane	17
Ethylene glycol		4
Ethylene glycol dinitrate	Glycol dinitrate	27, 102
Ethylene glycol monomethyl ether		4, 14, 17
Ethyleneimine	Aziridine	7, 103
Ethylene oxide	Epoxyethane	34, 103
Ethyl formate		13
2-Ethylhexyl acrylate		13, 103
Ethyl mercaptan	Ethanethiol	20
Ethyl nitrate		27, 102
Ethyl nitrite		27, 102
Ethyl propionate		13
Ethyl trichlorosilane		107
Exothion	Endothion	32
Eugenol		31
Fensulfothion	Bayer 25141, Dasanit*	32
Ferbam		12
Ferric arsenate		24
Ferric sulfide		33, 105
Ferrous arsenate	Iron arsenate	24
Ferrous sulfide		33, 105
Fluoranthrene		16
Fluorene		16
Fluorine		104, 107
Fluorine azide		102
Fluorine monoxide	Oxygen difluoride	104, 107
Fluoroacetanilide		6, 17

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Fluoroacetic acid		3
Fluoroboric acid		1, 15
Fluorosulfonic acid	Fluosulfonic acid	1, 107
Fluosulfonic acid	Fluorosulfonic acid	1, 107
Fluosilicic acid		1, 15
Fonofos*	Dyfonate*	32
Formaldehyde	Methanal	5
Formamide		6
Formetanate hydrochloride		6
Formic acid	Methanoic acid	3
Fostion*	Prothoate	32
Freon*		17
Fumaric acid		3
Fumarin	Coumafuryl	19
Fumazone	Dibromochloropropane	17
Furadan*	Carbofuran	9
Furan	Furfuran	14
Furfural		5
Furfuran		14
Gas oil, cracked		101
Gasoline		101
Germanium sulfide		33, 105
Glutaradehyde		5
Glycerin		4
Glycidol		34
Glycol diacetate		13

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Glycol dinitrate	Ethylene glycol dinitrate	27, 102
Glycol ether		14
Glycolic acid		3
Glycol monolactate trinitrate		27, 102
Glycolonitrile		26
Gold acetylide		105, 107
Gold cyanate	Gold fulminate	102
Gold fulminate	Gold cyanate	102
Gold sulfide		33, 105
Grease		101
Guaiacol		31
Guanyl nitrosaminoguanylidene hydrazine		8, 102
Guanidine nitrate		27, 104
Gun cotton	Nitrocellulose	27, 102
Guthion*		32
Hafnium		22
Hanane*	Dimefox	6, 32
Hemimellitene		16
Heptachlor		17
Heptane		29
Heptanal		5
Heptanol		4
Heptanone		19
Heptene		28
Hexaborane		105
Hexachlorobenzene		17

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Hexadecyl trichorosilane		107
Hexaethyl tetraphosphate		32
Hexafluorophosphoric acid		1, 15
Hexahydride diborane	Diborane	105, 107
Hexamethyl benzene		16
Hexamethylenediamine	Diaminohexane	7
Hexamethylenetetraamine		7
Hexanal		5
Hexanitrodiphenylamine	Dipicrylamine	7, 27, 102
Hexanol		4
Hexanoic acid	Caproic acid	3
Hexene		28
Hexylamine	Aminohexane	7
Hexyl trichlorosilane		107
Hexyne		28
HMX		102
Hopcide*		9
Hydrated lime	Calcium hydroxide	10
Hydrazine	Diamine	8, 105
Hydrazine azide		8, 102
Hydrazoic acid	Hydrogen azide	102
Hydriodic acid	Hydrogen iodide	1
Hydrobromic acid	Hydrogen bromide	1, 107
Hydrochloric acid	Muriatic acid	1
Hydrocyanic acid	Hydrogen cyanide	1, 11
Hydrofluoric acid	Hydrogen fluoride	1, 15
Hydrogen azide	Hydrazoic acid	102

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Hydrogen bromide	Hydrobromic acid	1, 107
Hydrogen cyanide	Hydrocyanic acid	1, 11
Hydrogen fluoride	Hydrofluoric acid	1, 15
Hydrogen iodide	Hydroiodic acid	1
Hydrogen peroxide		104
Hydrogen phosphide	Phosphine	105
Hydrogen selenide		24, 105
Hydrogen sulfide		33, 105
Hydroquionone		31
Hydroxyacetophenone		19, 31
Hydroxydibromobenzoic acid		3, 17
Hydroxydiphenol		31
Hydroxyhydroquinone		31
Hydroxyacetophenone		19, 31
Hydroxyisobutronitrile	Acetone cyanohydrin	4, 26
Hydroxyl amine		105
Hydroxypropionitrile	Ethylene cyanohydrin	4, 26
Hypochilorous acid		2
Indene		16
Indium		22, 23, 24
Inerteen	Polychlorinated biphenyl	17
Iodine monochloride		107
Iodine pentoxide		104
Iron		23
Iron Arsenate	Ferrous arsenate	24
Isobutane		29

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Isobutanol		4
Isobutyl acetate		13
Isobutyl acrylate		13, 103
Isobutylene		28
Isodecyl acrylate		13
Isodurene		16
Isoeugenol		31
Isohexane		29
Isooctane	Trimethylpentane	29
Isooctene		28
Isopentane	Methylbutane	29
Isophorone		19
Isoprene	Methyl butadiene	28, 103
Isopropanol		4
Isopropyl acetate		13
Isopropyl acetylene		28
Isopropylamine	Aminopropane	7
Isopropyl benzene	Cumene	16
Isopropyl chloride	Chloropropane	17
Isopropyl ether	Diisopropyl ether	14
Isopropyl mercaptan		20
N-Isopropylmethylcarbamate		9
a-Isopropyl methylphosphoryl fluoride		17, 32
Isopropyl percarbonate	Diisopropyl peroxydicarbonate	30
Isotactic propylene		101
J-100		101

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Jet Oil		101
Kerosene		101
Lacquer thinner		101
Landrin*		9
Lannate*	Methomyl	9, 20
Lauroyl peroxide		30
Lead		23, 24
Lead acetate		24
Lead arsenate	Lead orthoarsenate	24
Lead arsenite		24
Lead azide		24, 102
Lead carbonate		24
Lead chlorite		24, 104
Lead cyanide		11, 24
Lead dinitroresorcinate		24, 27, 102
Lead mononitroresorcinate		24, 27, 102
Lead nitrate		24, 104
Lead orthoarsenate	Lead arsenate	24
Lead oxide		24
Lead styphnate	Lead trinitroresorcinate	24, 27, 102
Lead sulfide		24, 33, 104
Lead trinitroresorcinate	Lead styphanate	24, 27, 102
Lewisite	B-Chlorovinyldichloroarsine	24
Lime nitrate	Calcium nitrate	104
Lindane		17
Lithium		21, 107
Lithium aluminum hydride		105, 107

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Lithium amide		10, 107
Lithium ferrosilicon		107
Lithium hydride		105, 107
Lithium hydroxide		10
Lithium hypochlorite		104
Lithium nitride		25
Lithium peroxide		104, 107
Lithium silicon		107
Lithium sulfide		33, 105
London purple		24
Lye		10
Magnesium	Sodium hydroxide	21, 22
Magnesium arsenate		24
Magnesium arsenite		24
Magnesium chlorate		104
Magnesium fluoride		15
Magnesium nitrate		104
Magnesium perchlorate		104
Magnesium peroxide		104
Magnesium sulfide		33, 105
Malathion		32
Maleic acid		3
Malonic nitrile	Cyanoacetic acid	3, 26
Maneb		12
Manganese		22, 23, 24
Manganese acetate		24

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Manganese arsenate	Manganous arsenate	24
Manganese bromide	Manganous bromide	24
Manganese chloride	Manganous chloride	24
Manganese methylcyclopentadienyl-tricarbonyl		24
Manganese nitrate	Manganous nitrate	24, 104
Manganese sulfide		24, 33, 105
Manganous arsenate	Manganese arsenate	24
Manganous bromide	Maganese bromide	24
Manganous chloride	Manganese chloride	24
Manganous nitrate	Manganese nitrate	104
Mannitol hexanitrate	Nitromannite	27, 102
Matacil*		9
Mayer's reagent	Mercuric potassium iodide	24
Medinoterb acetate		13, 27
Meobal		9
Mercaptobenzothiazole		8, 20
Mercatoethanol		4, 20
Mercarbam		32
Mercuric acetate		24
Mercuric ammonium chloride	Mercury ammonium chloride	24
Mercuric benzoate	Mercury benzoate	24
Mercuric bromide		24
Mercuric chloride	Mercury chloride	24
Mercuric cyanide	Mercury cyanide	11, 24
Mercuric dioxysulfate	Mercuric subsulfate	24
Mercuric iodide	Mercury iodide	24

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Mercuric nitrate	Mercury nitrate	24, 104
Mercuric oleate	Mercury oleate	24
Mercuric oxide		24
Mercuric oxycyanide		11, 24, 102
Mercuric potassium iodide	Mayer's reagent	24
Mercuric salicylate	Salicylated mercury	24
Mercuric subsulfate	Mercuric dioxysulfate	24
Mercuric sulfate	Mercury sulfate	24
Mercuric sulfide		24, 33, 105
Mercuric thiocyanate	Mercury thiocyanide	24
Mercuric thiocyanide	Mercury thiocyanate	24
Mercurol	Mercury nucleate	24
Mercurous bromide		24
Mercurous gluconate		24
Mercurous iodide		24
Mercurous nitrate		24, 104
Mercurous oxide		24
Mercurous sulfate	Mercury bisulfate	24
Mercury		24
Mercury (vapor)		22, 24
Mercury acetate	Mercuric acetate	24
Mercury ammonium chloride	Mercuric ammonium chloride	24
Mercury benzoate	Mercuric benzoate	24
Mercury bisulfate	Mercurous sulfate	24
Mercury chloride	Mercuric chloride	24
Mercury cyanide	Mercuric cyanide	11, 24
Mercury fulminate		24, 102

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Mercury iodide	Mercuric iodide	24
Mercury nitrate	Mercuric nitrate	24, 104
Mercury nucleate	Mercurol	24
Mercury oleate	Mercuric oleate	24
Mercury sulfate	Mercuric sulfate	24
Mesitylene	1,3,5-trimethylbenzene	16
Mesityl oxide		19
Mesurol*		9
Mestasystox-R	Demeton-S-methyl sulfoxid	32
Metham		12
Methanal	Formaldehyde	5
Methane		29
Methanethiol	Methyl mercaptan	20
Methanoic acid	Formic acid	3
Methanol	Methyl alcohol	4
Methomyl	Lannate*	9, 20
Methoxyethylmercuric chloride	Agallolaretan*	24
Methyl acetate		13
Methyl acetone		101
Methyl acetylene	Methyl butyne	28
Methyl acrylate		13, 103
Methyl alcohol	Methanol	4
Methyl aluminum sesquibromide		105, 107
Methyl aluminum sesqichloride		105, 107
Methylamine	Aminomethane	7
Methyl amyl acetate		13

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
N-Methyl aniline		7
Methyl aziridine	Propyleneimine	7
Methyl benzene	Toulene	16
Methyl bromide	Bromomethane	17
Methyl butadiene	Isoprene	28, 103
Methyl butane	Isopentane	29
Methyl butene		28
Methyl butyl ether		14
Methyl t-butyl ketone		19
Methyl butyne	Isopropyl acetylene	28
Methyl butyrate		13
Methyl chloride	Chloromethane	17
Methyl chlorocarbonate	Methyl chloroformate	13, 17
Methyl chloroform		17
Methyl chloroformate	Methyl chlorocarbonate	13, 17
Methyl chloromethyl ether	CMME	14, 17
Methyl cyanide	Acetonitrile	26
Methyl cyclohexane		29
Methyl dichloroarsine		24
Methyl dichlorosilane		107
Methylene chloride	Dichloromethane	17
Methylene diisocyanate		18, 107
4,4-Methylene bis(2-chloroaniline)		7, 17
Methyl ethyl chloride		17
Methyl ethyl ether		14
Methyl ethyl ketone	Butanone	19
Methyl ethyl ketone peroxide		30

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Methyl ethyl pyridine		7
Methyl formate		13
Methyl hydrazine	Monomethyl hydrazine	8
Methyl iodide		17
Methyl isobutyl ketone		19
Methyl isocyanate		18, 107
Methyl isopropenyl ketone		19
Methyl magnesium bromide		105, 107
Methyl magnesium chloride		105, 107
Methyl magnesium iodide		105, 107
Methyl mercaptan	Methanethiol	20
Methyl methacrylate		13, 103
Methyl naphthalene		16
Methyl parathion		32
Methyl Pentanoate	Methyl valerate	13
Methyl propionate		13
Methyl n-propyl ketone		19
Methyl styrene		28, 103
Methyl sulfide	Dimethyl sulfide	20
Methyl trichlorosilane		107
Methyl valerate	Methyl pentanoate	13
Methyl vinyl ketone	Butene-2-one	19
Methyl yellow	Dimethylamino azobenzene	7, 8
Mevinphos	Phosdrin*	32
Mexacarbate	Dowco-139*	9
Mineral spirits		101

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Mintacol*	Paraoxon	32
Mipcin*		9
Mobam*		9
Mocap*		32
Molybdenum		22, 23, 24
Molybdenum anhydride	Molybdenum trioxide	24
Molybdenum sulfide		24, 33, 105
Molybdenum trioxide	Molybdenum anhydride	24
Molybdic acid		24
Monochloroacetone	Chloroacetone	17, 19
Monochloroacetic acid	Chloracetic acid	3, 17
Monocrotophos	Azodrin*	32
Monoethanol amine		4, 7
Monofluorophosphoric acid		1
Monoisopropanolamine		4, 7
Monomethyl hydrazine	Methyl hydrazine	8
Morpholine		7
Municipal solid waste	Refuse	101
Muriatic acid	Hydrochloric acid	1
Nabam		12
Nack	Sodium-potassium alloy	21, 107
Nak	Sodium-potassium alloy	21, 107
Naptha		101
Naphthalene		16
Naphthol		31
Naphthylamine		7
Naphthyl mercaptan		20

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Naphtite	Trinitronaphthalene	27, 102
Nemagon*	Dibromochloropropane	17
Neohexane	Dimethyl butane	29
4-NBP	Nitrobiphenyl	27
Niacide*		12
Nialate	Ethion	32
Nickel		22, 24
Nickel acetate		24
Nickel antimonide		24, 107
Nickel arsenate	Nickelous arsenate	24
Nickel arsenite	Nickelous arsenite	24
Nickel carbonyl	Nickel tetracrabonyl	24
Nickel chloride	Nickelous chloride	24
Nickel cyanide		11, 24
Nickel nitrate	Nickelous nitrate	24, 104
Nickelous arsenate	Nickel arsenate	24
Nickelous arsenite	Nickel arsenite	24
Nickelous chloride	Nickel chloride	24
Nickelous nitrate	Nickel nitrate	24, 104
Nickel selenide		24
Nickel subsulfide		24, 33, 105
Nickel sulfate		24
Nickel tetracarbonyl	Nickel carbonyl	24
Nitraniline	Nitroaniline	7, 27
Nitric acid		2
Nitroaniline	Nitraniline	7, 27

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Nitrobenzene	Nitrobenzol	27
Nitrobenzol	Nitrobenzene	27
Nitrobiphenyl	4-NBP	27
Nitrocalcity	Calcium nitrate	104
Nitrocellulose	Celluose nitrate, gun cotton	27, 102
Nitrochlorobenzene	Chloronitrobenzene	17, 27
Nitrogen dioxide		104
Nitromannite	Mannitol hexanitrate	27, 102
Nitrogen mustard		7, 17
Nitrogen tetroxide		104
Nitroglycerin	Trinitroglycerin	27, 102
Nitrohydrochloric acid		2
Nitrophenol		27, 31
Nitropropane		27
Nitrosodimethylamine	Dimethylnitrosiamine	7, 27
Nitrosoguanidine		27, 102
Nitrostarch	Starch nitrate	27, 102
Nitroxylene	Nitroxylol, Dimethylnitrobenzene	27
Nitroxylos	Nitroxylene, Dimethylnitrobenzene	27
N-Nitrosodimethylamine	Dimethylnitrosoamine	7, 27
Nonyl phenol		31
Nonyl trichlorosilane		107
Nonane		29
Nonene		28
Nonanone		19

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Nonanal		5
Nonanol		4
Octadecyl trichlorosilane		107
Octadecyne		28
Octamethylpyrophosphoramide	Schradan	6, 32
Octanal		5
Octane		29
Octanone		19
Octanol		4
Octene		28
Octyl peroxide	Caprylyl peroxide	30
Octyl trichlorosilane		107
Oil of bergamot		101
Oil of vitriol	Sulfuric acid	1
Oleum	Sulfuric acid	2, 24
Orris root		101
Orthozenol	o-Phenyl phenol	31
Osmium		23, 24
Osmium amine nitrate		24, 104
Osmium amine perchlorate		24, 104
Oxamyl		9
Oxalic acid		3
Oxygen difluoride		104, 107
PCB	Polychlorinated biphenyl	17
Paper		101
Paraoxon	Mitacol*	32
Parathion		32

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Paris green	Copper acetoarsenite	24
PETD	Polyram combi*	12
PETN	Pentaerythrityl tetranitrate, Pentaerythritol tetranitrate	27, 102
Pentaborane		105
Pentachlorophenol		17, 31
Pentaerythritol tetranitrate	Pentraerythrityl tetranitrate, PETN	27, 102
Pentamethyl benzene		16
Pentane		29
Pentanethiol	Amyl mercaptan	20
Pentanal	Valeraldehyde	5
Pentanone		19
Pentene	Amylene	28
Pentylamine		7
Pentyne		28
Peracetic acid	Peroxyacetic acid	3, 30
Perbromic acid		2
Perchloric acid		2
Perchloroethylene	Tetrachloroethylene	17
Perchloromethyl mercaptan	Trichloromethysulfenylchloride	17, 20
Perchlorous acid		2
Perchloryl fluoride		104
Periodic acid		2
Permonosulfuric acid		1
Peroxyacetic acid	Peracetic acid	3, 30
PETD	Polyram combi*	12

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Petroleum naptha		101
Petroleum oil		101
Phenanthrene		16
Phenarsazine chloride	Dephenylamine chloroarsine	7, 24
Phenol	Carbolic acid	31
Phenyl acetic acid		3
Phenyl acetonitrile		26
Phenyl acetylene		16
Phenylaniline	Diphenylamine	7
Phenylbenzene	Diphenyl	16
Phenylbutane	Butylbenzene	16
Phenylchloromethyl ketone	Chloroacetophenone	17, 19
Phenyl dichloroarsine		24
Phenylene diamine	Diaminobenzene	7
Phenylethane	Ethylbenzene	16
Phenyl hydrazine hydrochloride		8
o-Phenyl phenol	Orthozenol, Dowicide I	31
Phenyl trichlorosilane		107
Phenyl valerylnitrile		26
Phenylpropane	Propylbenzene	16
Phloroglucinol		31
Phorate	Thimet*	32
Phosdrin*	Mevinphos	32
Phosphamidon	Dimecron*	32
Phosphine	Hydrogen phosphide	105
Phospholan	Cyolan*	20, 32
Phosphonium iodide		105, 107

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Phosphoric acid		1
Phosphoric anhydride	Phosphorus pentoxide	107
Phosphoric sulfide	Phosphorus pentasulfide	33, 105, 107
Phosphorus (Amorphous red)		105, 107
Phosphorus (White-Yellow)		105
Phosphorus heptasulfide		33, 105
Phosphorus oxybromide	Phosphoryl bromide	104, 107
Phosphorus oxychloride	Phosphoryl chloride	104, 107
Phosphorus pentachloride	Phosphoric chloride	107
Phosphorus pentasulfide	Phosphoric sulfide	33, 105, 107
Phosphorus pentoxide	Phosphoric anhydride	107
Phosphorus sesquisulfide	Tetraphosphorus trisulfide	33, 105, 107
Phosphorus tribromide		107
Phosphorus trichloride		107
Phosphorus trisulfide		33, 105, 107
Phosphoryl bromide	Phosphorus oxybromide	104, 107
Phosphoryl chloride	Phosphorus oxychloride	104, 107
Phthalic acid		3
Picramide	Trinitroaniline	7, 27, 102
Picric acid	Trinitrophenol	27, 31, 102
Picridine		7
Picryl chloride	Chlorotrinitrobenzene	17, 27, 102
Piperidine		7
Pirimicarb		9
Polyglycol ether		14
Polyamide resin		101

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Polybrominated biphenyl		17
Polybutene		28
Polychlorinated biphenyls	PCB, Askarel, Arochlor*, Chlorextol, Inerteen	17
Polychlorinated triphenyls		17
Polyethylene		101
Polyester resin		101
Polymeric oil		101
Polyphenyl Polymethylisocyanate		18, 107
Polypropylene		28, 101
Polyram combi*	PETD	12
Polysulfide polymer		20, 101
Polystyrene		101
Polyurethane		101
Polyvinyl acetate		101
Polyvinyl chloride		101
Polyvinyl nitrate		27, 102
Potasan		32
Potassium		21, 107
Potassium acid fluoride	Potassium fluoride	15
Potassium aluminate		10
Potassium arsenate		24
Potassium arsenite		24
Potassium bifluoride	Potassium fluoride	15
Potassium bichromate	Potassium dichromate	24, 104
Potassium bromate		104
Potassium butoxide		10

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Potassium cyanide		11
Potassium dichloroisocyanurate		104
Potassium dichromate	Potassium bichromate	24, 104
Potassium dinitrobenzfuroxan		27, 102
Potassium fluoride	Potassium acid fluoride	15
Potassium hydride		105, 107
Potassium hydroxide	Caustic potash	10
Potassium nitrate	Saltpeter	102, 104
Potassium nitride		25
Potassium nitrite		104
Potassium oxide		107
Potassium perchlorate		104
Potassium permanganate		24, 104
Potassium peroxide		104, 107
Potassium sulfide		33, 105
Promecarb		9
Propanal	Propionaldehyde	5
Propane		29
Propanethiol	Propyl mercaptan	20
Propanoic acid	Propionic acid	3
Propanol	Propyl alcohol	4
Propargyl bromide		17
Propargyl chloride		17
2-Propen-1-o1	Allyl alcohol	4
Propiolactone		13
Propionaldehyde	Propanoic acid	5
Propionamide		6

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Propionic acid		3
Propionitrile	Propanol	26
Propyl acetate		13
Propyl alcohol	Phenyl propane	4
Propylamine	Dichloropropane	7
Propyl benzene		16
Propylene dichloride		17
Propylene glycol		4
Propylene glycol monomethyl ether		4, 14
Propylene oxide		34, 103
Propyleneimine	Methyl aziridine	7
Propyl ether		14
Propyl formate		13
Propyl mercaptan	Propanethiol	20
Propyl Trichlorosilane		107
Prothoate	Fostion*	32
Pseudocumene	1,2,4 trimethylbenzene	16
Pyridine		7
Pyrogallol		31
Pyrosulfuryl chloride	Disulfuryl chloride	107
Pyroxylin	Collodion	27
Quinone	Benzoquione	19
Raney nickel		22
RDX	Cyclotrimethylene trinitramine	27, 102
Refuse	Municiple solid waste	101
Resins		101

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Resorcinol		31
Rubidium		21
Salicylated mercury	Mercuric salicylate	24
Saligenin		31
Saltpeter	Potassium nitrate	102, 104
Schradan	Octamethyl pyrophosphoramide, OMPA	6, 32
Selenious acid	Selenous acid	1, 24
Selenium		22, 23, 24
Selenium diethyldithiocarbamate		12, 24
Selenium fluoride		15, 24
Selenous acid	Selenious acid	1, 24
Silicochloroform	Trichlorosilane	107
Silicon tetrachloride		107
Silicon tetrafluoride		15, 107
Silver acetylide		24, 102, 105, 107
Silver azide		24, 102
Silver cyanide		11, 24
Silver nitrate		24, 104
Silver nitride		24, 25, 102
Silver styphnate	Silver trinitroresorcinate	24, 27, 102
Silver sulfide		24, 33, 105
Silver tetrazene		24, 102
Silver trinitroresorcinate	Silver styphnate	24, 27, 102
Slaked lime	Calcium oxide	10, 107
Smokeless powder		102
Sodamide	Sodium amide	10, 107

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Soda niter	Sodium nitrate	104
Sodium		21, 105, 107
Sodium acid fluoride	Sodium fluoride	15
Sodium aluminate		10, 105
Sodium aluminum hydride		105, 107
Sodium amide	Sodamide	10, 107
Sodium arsenate		24
Sodium arsenite		24
Sodium azide		102
Sodium bichromate	Sodium dichromate	24, 104
Sodium bifluoride	Sodium flouride	15
Sodium bromate		104
Sodium cacodyloate	Sodium dimethylarsenate	24
Sdoium carbonate		10
Sodium carbonate peroxide		104
Sodium chlorate		104
Sodium chlorite		104
Sodium chromate		24
Sodium cyanide		11
Sodium dichloroisocyanurate		104
Sodium dichromate	Sodium bichromate	24, 104
Sodium dimethylarsenate	Sodium cacodylate	24
Sodium fluoride	Sodium acid fluoride	15
Sodium hydride		105, 107
Sodium hydroxide	Caustic soda, Lye	10
Sodium hypochlorite		10, 104
Sodium hyposulfite	Sodium thiosulfate	105

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Sodium methylate	Sodium methoxide	10, 107
Sodium methoxide	Sodium methylate	10, 107
Sodium molybdate		24
Sodium monoxide	Sodium oxide	10, 107
Sodium nitrate	Sodium niter	104
Sodium nitride		25
Sodium nitrite		104
Sodium oxide	Sodium monoxide	10, 107
Sodium pentachlorophenate		31
Sodium perchlorate		104
Sodium permanganate		24, 104
Sodium peroxide		104, 107
Sodium phenolsulfonate		31
Sodium picramate		27, 102
Sodium polysulfide		101
Sodium potassium alloy	Nak, Nack	21, 107
Sodium selenate		24
Sodium sulfide		24, 33, 105
Sodium thiosulfate		105
Stannic chloride	Tin tetrachloride	24, 107
Stannic sulfide		33, 105
Starch nitrate	Nitrostarch	27, 102
Stilbene	Diphenyl ethylene	16
Stoddard solvent		101
Strontium		24
Strontium arsenate		24

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Strontium dioxide	Strontium peroxide	24, 104
Strontium monosulfide		24, 33, 105
Strontium nitrate		24, 104
Strontium peroxide	Strontium dioxide	104
Strontium tetrasulfide		24, 33, 105
Styphnic acid	Trinitroresorcinol	27, 31, 102
Styrene	Vinylbenzene	16, 28, 103
Succinic acid		3
Succinic acid peroxide		30
Sulfonyl chloride	Sulfuryl chloride	107
Sylfonyl flouride		107
Sulfotepp	Dithione*, Blada-Fum*	32
Sulfur chloride	Sulfur monochloride	107
Sulfur (elemental)		101
Sulfuric acid	Oil of Vitriol, Oleum	2, 107
Sulfuric anhydride	Sulfur trioxide	104, 107
Sulfur monochloride	Sulfur chloride	107
Sulfur mustard		20
Sulfur oxychloride	Thionyl chloride	107
Sulfur pentafluoride		15, 107
Sulfur trioxide	Sulfuric anhydride	104, 107
Sulfuryl chloride	Sulfonyl chloride	107
Sulfuryl fluoride	Sulfonyl fluoride	107
Supracide*	Ultracide*	32
Surecide*	Cyanophenphos	32
Synthetic rubber		101
TCDD	Tetrachlorodibenzo-p-dioxin	14, 17

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
TEDP	Tetrethyl dithionopyrophosphate	32
TEL	Tetraethyl lead	24
TEPA	Tris-(1-aziridinyl) phosphine oxide	6, 32
TEPP	Tetraethyl pyrophosphate	32
THF	Tetrahydrofuran	14
TMA	Trimethylamine	7
TML	Tetramethyl lead	24
TNB	Trinitrobenzene	27, 102
TNT	Trinitrotoluene	27, 102
Tall oil		101
Tallow		101
Tar		101
Tellurium hexafluoride		15, 24
Temik*	Aldicarb	9, 20
Tetraborane		105
Tetrachlorodibenzo-p-dioxin	TCDD	14, 17
Tetrachloroethane		17
Tetrachloroethylene	Perchloroethylene	17
Tetrachloromethane	Carbon tetrachloride	17
Tetrachlorophenol		14, 17
Tetrachloropropyl ether		14, 17
Tetradecene		28
Tetraethyl dithionopyrophosphate	TEDP	32
Tetraethyl lead	TEL	24
Tetraethyl pyrophosphate	TEPP	32
Tetrahydro furan	THF	14

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Tetramethylenediamine		7
Tetramethyl lead	TML	24
Tetramethyl succinonitrile		26
Tetranitromethane		27, 102
Tetraphenyl ethylene		16
Tetraphosphorous trisulfide	Phosphorous sesquisulfide	33, 105, 107
Tetraselenium tetranitride		24, 25, 102
Tetrasul	Anivert* V-101	20
Tetrasulfur tetranitride		25, 102
Tetrazene		8, 102
Thallium		24
Thallium nitride		24, 25, 102
Thallium sulfide		24, 33, 105
Thallous sulfate		24
Thimet*	Phorate	32
Thionyl chloride	Sulfur oxychloride	107
Thiocarbonyl chloride	Thiophosgene	107
Thiodan*	Endosulfan	17, 20
Thionazin	Zinophos*	32
Thionyl chloride	Sulfur oxychloride	107
Thiophosgene	Thiocarbonyl chloride	107
Thiophosphoryl chloride		107
Thiram		12
Thorium		22, 23, 24
Tin tetrachloride	Stannic chloride	24, 107
Titanic chloride	Titanium tetrachloride	24, 107

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Titanium		22, 23, 24
Titanium sesquisulfide		24, 33, 105
Titanium sulfate		24
Titanium sulfide		24, 33, 105
Titanium tetrachloride	Titanic chloride	24, 107
TMA	Trimethylamine	7
TNB	Trinitrobenzene	27, 102
TNT	Trinitrotoluene	27, 102
Tolualdehyde		5
Toluene	Toluol, Methylbenzene	16
Toluene diisocyanate		18, 107
Toluic acid		3
Toluidine	Aminotoluene	7
Toluol	Toluene, Methylbenzene	16
Topcide*	Benzadox	6
Tranid*		9, 26
Triamphos	Wepsyn* 155	6, 32
Tribromomethane	Bromoform	17
Tri-n-butylaluminum		107
Tricadmium dinitride		24, 25
Tricalcium dinitride		25
Tricesium nitride		24, 25
Trichloroacetaldehyde	Chloral hydrate	5, 17
Trichloroborane		107
Trichloroethane		17
Trichloroethene	Trichloroethylene	17
Trichloroisocyanuric acid		17

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Trichloromethane	Chloroform	104
Trichloromethyl sulfenyl chloride	Perchloromethyl mercaptan	17, 20
Trichloronitromethane	Chloropicrin	17, 27, 102
Trichlorophenoxyacetic acid		3, 17
Trichloropropane		17
Trichlorosilane	Silicochloroform	107
Tridecene		28
Triethanolamine		4, 7
Triethyl aluminum		105, 107
Triethyl antimony	Triethylstibine	24, 105, 107
Triethyl arsine		24, 107
Triethyl bismuthine		24
Triethylamine		7
Triethylene phosphoramide	Tris(1-aziridinyl) phosphine oxide	6, 32
Triethylene tetraamine		7
Triethyl stibine	Triethyl antimony	24, 105, 107
Trifluoroethane		17
Trifluoromethylbenzene	Benzotrifluoride	17
Triisobutyl aluminum		105, 107
Trilead dinitride		24, 25, 102
Trimercury dinitride		24, 25, 102
Trimethyl aluminum		105, 107
Trimethylamine	TMA	7
Trimethyl antimony	Trimethylstibine	24, 105, 107
Trimethyl arsine		24, 107
1,2,4-Trimethylbenzene	Pseudocumene	16

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
1,3,5-Trimethylbenzene	Mesitylene	16
Trimethyl bismuthine		24
Trimethyl pentane	Isoctane	29
Trimethylstibine	Trimethyl anitimony	24, 105, 107
Tri-n-butylborane		105, 107
Trinitroaniline	Picramide	7, 27, 102
Trinitroanisole	Trinitrophenylmethyl ether	14, 27
Trinitrobenzene	TNB	27, 102
Trinitrobenzoic acid		3, 27, 102
Trinitroglycerin	Nitroglycerin	27, 102
Trinitronaphthalene	Naphtite	27, 102
Trinitrophenol	Picric acid	27, 31, 102
Trinitrophenyl methyl ether	Trinitroanisole	14, 27
Trinitroresorcinol	Styphnic acid	27, 31, 102
Trinitrotoluene	TNT	27, 102
Trioctyl aluminum		105, 107
Triphenyl ethylene		16
Triphenyl methane		16
Tripropylamine		7
Tripropyl stibine		24, 107
Trisilyl arsine		24, 107
Tris-(1-azirdinyl) phosphine oxide	TEPA, Triethylene, phosphoramide	6, 32
Trithion		32
Trithorium tetranitride		24, 25
Trivinyl stibine		24, 107
Tsumacide*		9

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Tungstic acid		24
Turpentine		101
UDMH	Dimethyl hydrazine	8
Ultracide*	Supracide*	32
Undecene		28
Unisolve		101
Uranium nitrate	Uranyl nitrate	24, 104
Uranium sulfide		24, 33, 105
Uranyl nitrate	Uranium nitrate	24, 104
Urea formaldehyde		5
Urea nitrate		27, 102, 104
VC	Vinylidene chloride	17, 103
Valeraldehyde	Pentanal	5
Valeramide		6
Valeric acid		3
Vanadic acid anhydride	Vanadium pentoxide	24
Vanadium oxytrichloride		24
Vanadium pentoxide	Vanadic acid anhydride	24
Vanadium sulfate	Vanadyl sulfate	24
Vanadium tetroxide		24
Vanadium trichloride		24, 107
Vanadium trioxide		24
Vanadyl sulfate	Vanadium sulfate	24
Vapona*	DDVP	32
Vinyl acetate		13, 103
Vinyl azide		102

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Vinyl benzene	Styrene	16, 28, 103
Vinyl chloride		17, 103
Vinyl cyanide		26, 103
Vinyl ethyl ether		14
Vinyl isopropyl ether		17
Vinylidene chloride	VC	17, 103
Vinyl toluene		28, 103
Vinyl trichlorosilane		107
VX		20, 32
Water		106
Waxes		101
Wepsyn* 155	Triamiphos	6, 32
Wood		101
Zectran*	Dowco 139*	9
Zinc		22, 23, 24
Zinc acetylide		24, 105, 107
Zinc ammonium nitrate		24, 104
Zinc arsenate		24
Zinc arsenite		24
Zinc chloride		24
Zinc dioxide	Zinc peroxide	24, 102, 104, 107
Zinc ethyl	Diethyl zinc	24, 105, 107
Zinc cyanide		11, 24
Zinc fluoborate		24, 15
Zinc nitrate		24, 104
Zinc permanganate		24, 104
Zinc peroxide	Zinc dioxide	24, 102, 104, 107

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Names	Synonyms	RGN
Zinc phosphide		24, 107
Zinc salts of dimethyl dithiocarbamic acid		12, 24
Zinc sulfate		24
Zinc sulfide		24, 33, 105
Zineb*		12, 24
Zinophos*	Thioazin	20
Ziram*		12, 24
Zirconium		22, 23, 24
Zirconium chloride	Zirconium tetrachloride	24
Zirconium picramate		24, 104
Zirconium tetrachloride	Zirconium chloride	24

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Practical Exercise

Using the EPA Compatibility Chart

QUESTIONS

(1) Should you store Kerosene and Nitric Acid together?

(2) Are Acetone and Carbon Tetrachloride compatible?

SCENARIO

You have recently been assigned to manage hazardous materials for your activity/unit. Your activity/unit has a hazardous materials storage shed that has six sections with physical separation. Right now, materials are stored as shown below. Your first job is to evaluate potential compatibility problems using the HW Compatibility Chart method.

<u>Section 1</u>
Nitric Acid
Formic Acid DS2
Acetylene

<u>Section 2</u>
Toluene
Calcium Nitrate

<u>Section 3</u>
Ethylene Glycol
Hydrochloric
Sulfuric Acid

<u>Section 4</u>
Trichloroethene
(70% Diethylene triamine)

<u>Section 5</u>
Calcium Hypochlorite
Methyl Ethyl Ketone

<u>Section 6</u>
Diesel Oil
Acid Freon

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

(3) Find the reactivity group number (RGN) for each hazardous material (HM).

HM	**RGN**
Nitric Acid	
Formic Acid	
Acetylene	
Toluene	
Ethylene Glycol	
Hydrochloric Acid	
Trichloroethene	
DS2 (70% Diethylene triamine)	
Calcium Hypochlorite	
Methyl Ethyl Ketone	
Diesel Oil	
Freon	
Sulfuric Acid	
Calcium Nitrate	

(4) As these hazardous materials are stored now, what is likely to happen in each section if there is a spill?

Section 1:

Section 2:

Section 3:

Section 4:

Section 5:

Section 6:

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

(5) Rearrange the above chemicals so that they are stored compatibly.

Section 1	Section 4
Section 2	Section 5
Section 3	Section 6

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

ANSWERS

(1) Kerosene RGN is 101. Nitric Acid RGN is 2. Use the Compatibility Chart on page K-5. Intersecting 101 with 2 shows that an incompatible reaction may cause heat, fire, and toxic gas generation. Do not store together.

(2) Acetone RGN is 19. Carbon Tetrachloride is 17. Use the Compatibility Chart on page K-5. Intersecting 19 with 17 shows that these hazardous materials are compatible. You may store them together.

(3) Find the reactivity group number (RGN) for each hazardous material (HM).

HM	**RGN**
Nitric Acid	2
Formic Acid	3
Acetylene	28
Toluene	16
Ethylene Glycol	4
Hydrochloric Acid	1
Trichloroethene	17
DS2 (70% Diethylene triamine)	7
Calcium Hypochlorite	104
Methyl Ethyl Ketone	19
Diesel Oil	101
Freon	17
Sulfuric Acid	2, 107
Calcium Nitrate	104

(4) As these hazardous materials are stored now, what is likely to happen in each section if there is a spill?

Section 1: 2 + 3 = H – Heat
G – Innocuous and non-flammable gas generation
2 + 28 = H – Heat
F – Fire
3 + 28 = Nothing

Section 2: 16 + 104 = H – Heat
F – Fire

Section 3: 4 + 1 = H – Heat

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Section 4: 17 + 7 = H – Heat
GF – Flammable Gas Generation
Section 5: 104 + 19 = H – Heat
F – Fire
Section 6: 10 + 17 = H – Heat
GF – Flammable Gas Generation
10 + 2 = H – Heat
10 + 107 = Never mix 107 with any other reactivity group
17 + 2 = H – Heat
GT – Toxic Gas Generation
F – Fire
17 + 107 = Never mix 107 with any other reactivity group

(5) Rearrange the above chemicals so that they are stored compatibly. Note: This is one way to store these hazardous materials. Other arrangements may be possible.

<u>Section 1</u>
Nitric Acid
Calcium
Calcium Hypochlorite

<u>Section 2</u>
Formic Acid
Trichloroethene
Freon

<u>Section 3</u>
Toluene
Hydrochloric Acid

<u>Section 4</u>
Ethylene Glycol
Nitrate Acetylene
DS2 (70% Diethylene triamine)
Methyl Ethyl Ketone

<u>Section 5</u>
Diesel Oil

<u>Section 6</u>
Sulfuric Acid

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

IMNE-MEA-PWE
SUBJECT: Installation Hazardous Waste Management Plan, No. 37-NE-7390-05, Fort George G. Meade, Maryland, March 2011

APPENDIX L

TURN-IN DOCUMENTATION

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

99

— Section 1 —
Product Identification

Material Safety Data Sheet

The Sherwin-Williams Co.
101 Prospect Ave. N.W.
Cleveland, OH 44115

Emergency telephone number (216) 566-2917
Information telephone number (216) 566-2902
Date of preparation March 3, 1999

©1999, The Sherwin-Williams Co.

ALL SURFACE ENAMEL - Oil Base Colors A11-200

— Section 2 — CAS No.	Hazardous Ingredients (percent by weight)	ACGIH TLV <STEL>	OSHA PEL <STEL>	Units	Vapor Pressure (mm Hg)	A11G200 Base C	A11T204 Ultradeep Base	A11T214 Low Luster Ultradeep Base	A11B200 Black	A11B201 Low Luster Black	A11R238 Gloss Safety Red	A11W201 Tinting White	A11W210 White Primer	A11Y237 Safety Yellow
107-21-0 §	Ethylene Glycol.	C 50	C 50	PPM	0.1	< 3% may be added due to tinting								
64742-88-7	Mineral Spirits.	100	100	PPM	2.0	43	43	31	44	34	42	39		42
64742-88-7	Mineral Spirits 140-Flash.	100	100	PPM	0.5			5						
100-41-4 §	Ethylbenzene	100 <125>	100 <125>	PPM	7.1								3	
1330-20-7 §	Xylene.	100 <150>	100 <150>	PPM	5.9								16	
64742-95-6	Light Aromatic Hydrocarbons.	Not Established			3.8								4	
108-67-8	1,3,5-Trimethylbenzene	25	25	PPM	10.0								4	
95-63-6 §	1,2,4-Trimethylbenzene	25	25	PPM	2.0								7	
64742-94-5	Medium Aromatic Hydrocarbons.	Not Established			0.1								2	
14808-60-7	Quartz	0.1	0.1	Mg/M3	as Resp. Dust			26						
14807-96-6	Talc	2	2	Mg/M3	as Resp. Dust			6		18		5	3	
471-34-1	Calcium Carbonate.	10	15[5]	Mg/M3 [Resp.	as Dust Fraction]	15	16		8	15	7		18	
13463-67-7	Titanium Dioxide.	10	10[5]	Mg/M3 [Resp.	as Dust Fraction]	0 - 9	0 - 9	0 - 9			3	15	10	13
1333-86-4	Carbon Black.	3.5	3.5	Mg/M3		0.1 - 1	0 - 1	0 - 1	2	1				
	Weight per Gallon (lbs.)					8.44	8.35	9.40	8.07	9.68	8.28	8.84	11.24	8.62
	VOC (Volatile Organic Compounds) - lbs./gal.					3.72	3.74	3.50	3.66	3.40	3.62	3.67	4.14	3.71
	Photochemically Reactive					No	No	No	No	No	No	No	Yes	No
	Flash Point (°F)					101	101	100	101	102	104	101	87	101
	DOL Storage Category					2	2	2	2	2	2	2	1C	2
	Flammability Classification (Flammable - Combustible)					Comb.	Comb.	Comb.	Comb.	Comb.	Comb.	Comb.	Flam.	Comb.
	HMIS (NFPA) Rating (health - flammability - reactivity)					2* - 2 - 0	2 - 2 - 0	2* - 2 - 0	2* - 2 - 0	2* - 2 - 0	2 - 2 - 0	2 - 2 - 0	3 - 3 - 0	2 - 2 - 0

PERCENT BY WEIGHT

§ Ingredient subject to the reporting requirements of the Superfund Amendments and Reauthorization Act (SARA) Section 313, 40 CFR 372.65 C

➔➔➔ *MSDS Text Page Follows* ➔➔➔

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

ALL SURFACE ENAMEL - Oil Base Colors A11-200

Section 3 — Physical Data

PRODUCT WEIGHT	See TABLE	*EVAPORATION RATE*	Slower than Ether
SPECIFIC GRAVITY	0.97-1.35	*VAPOR DENSITY*	Heavier than Air
BOILING RANGE	277-416 °F	*MELTING POINT*	N.A.
VOLATILE VOLUME	53-58 %	*SOLUBILITY IN WATER*	N.A.

Section 4 — Fire And Explosion Hazard Data

FLAMMABILITY CLASSIFICATION *FLASH POINT* See TABLE *LEL* 0.9 *UEL* 7.0
See TABLE
EXTINGUISHING MEDIA
Carbon Dioxide, Dry Chemical, Foam
UNUSUAL FIRE AND EXPLOSION HAZARDS
Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, and open flame. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.
SPECIAL FIRE FIGHTING PROCEDURES
Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

Section 5 — Health Hazard Data

ROUTES OF EXPOSURE
Exposure may be by INHALATION and/or SKIN or EYE contact, depending on conditions of use. To minimize exposure, follow recommendations for proper use, ventilation, and personal protective equipment.
ACUTE Health Hazards
EFFECTS OF OVEREXPOSURE
Irritation of eyes, skin and respiratory system. May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.
SIGNS AND SYMPTOMS OF OVEREXPOSURE
Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.
Redness and itching or burning sensation may indicate eye or excessive skin exposure.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
None generally recognized.
EMERGENCY AND FIRST AID PROCEDURES
If INHALED: If affected, remove from exposure. Restore breathing. Keep warm and quiet.
If on SKIN: Wash affected area thoroughly with soap and water.
Remove contaminated clothing and launder before re-use.
If in EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.
If SWALLOWED: Get medical attention.
CHRONIC Health Hazards
Carbon Black is classified by IARC as possibly carcinogenic to humans (group 2B) based on experimental animal data, however, there is insufficient evidence in humans for its carcinogenicity.
Crystalline Silica (Quartz, Cristobalite) is listed by IARC and NTP. Long term exposure to high levels of silica dust, which can occur only when sanding or abrading the dry film, may cause lung damage (silicosis) and possibly cancer.
Ethylene Glycol is considered an animal teratogen. It has been shown to cause birth defects in rats and mice at high doses when given in drinking water or by gavage. There is no evidence to indicate it causes birth defects in humans.
Prolonged overexposure to solvent ingredients in Section 2 may cause adverse effects to the liver and urinary systems. Prolonged overexposure to solvent ingredients for Primer A11W210 may cause adverse effects to the liver, urinary and reproductive systems.
Rats exposed to titanium dioxide dust at 250 mg./m3 developed lung cancer, however, such exposure levels are not attainable in the workplace.
Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

Section 6 — Reactivity Data

STABILITY — Stable
CONDITIONS TO AVOID — None known.
INCOMPATIBILITY — None known.
HAZARDOUS DECOMPOSITION PRODUCTS — By fire: Carbon Dioxide, Carbon Monoxide
HAZARDOUS POLYMERIZATION — Will Not Occur

Section 7 — Spill Or Leak Procedures

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Remove all sources of ignition. Ventilate and remove with inert absorbent.
WASTE DISPOSAL METHOD
Waste from these products may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.
Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State, and Local regulations regarding pollution.

Section 8 — Protection Information

PRECAUTIONS TO BE TAKEN IN USE
Use only with adequate ventilation. Avoid breathing vapor and spray mist. Avoid contact with skin and eyes. Wash hands after using.
These products may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg./m3 (total dust), 3 mg./m3 (respirable fraction), OSHA PEL 15 mg./m3 (total dust), 5 mg./m3 (respirable fraction).
VENTILATION
Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.
RESPIRATORY PROTECTION
If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.
When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.
PROTECTIVE GLOVES
Wear gloves which are recommended by glove supplier for protection against materials in Section 2.
EYE PROTECTION
Wear safety spectacles with unperforated sideshields.

Section 9 — Precautions

DOL STORAGE CATEGORY — See TABLE
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Keep away from heat, sparks, and open flame.
During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition.
Consult NFPA Code. Use approved Bonding and Grounding procedures.
Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.
OTHER PRECAUTIONS
Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

Section 10 — Other Regulatory Information

CALIFORNIA PROPOSITION 65
WARNING: These products, except for A11W210, contain a chemical known to the State of California to cause cancer. A11W210 contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA CERTIFICATION
All chemicals in these products are listed, or are exempt from listing, on the TSCA Inventory.

The above information pertains to these products as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to these products may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

INTERNAL HAZARDOUS WASTE MANIFEST
GENERATOR USE ONLY DATE SUBMITTED TO
EMO:_____ BLDG
#:_____
PHONE#:_____
GENERATING ACTIVITY:_____
PERSON FURNISHING DATA:_____
TURN IN DOCUMENT NUMBER:_____
FEDERAL STOCK NUMBER:_____
NAME OF WASTE:_____
PROCESSGENERATING WASTE:_____
List all ingredients in waste material by percentage (must total 100%)

SUBSTANCES PERCENTAGE
_____ _____
_____ _____
_____ _____
MANUFACTURER:_____ PHONE #:_____
CITY:_____ STATE:_____ ZIP CODE:_____
CONTAINER TYPE and SIZE:_____
NUMBER of CONTAINERS:_____ PHYSICAL
STATE:_____

ENVIRONMENTAL MANAGEMENT OFFICE USE ONLY

GENERATOR EPA ID#: MD9210020567
DATE PLACED IN STORAGE AT CHSSF:_____ WEIGHT:_____
AREA:_____
PROPER SHIPPING
NAME:_____
_____
HAZARD CLASS:_____ ID NUMBER:_____ RQ
WEIGHT:_____
DOT LABEL REQUIRED:_____
FLASH POINT:_____ PH:_____
EPA WASTE NUMBER:_____
DOES WASTE MEET TREATMENT STANDARDS?: YES:_____ NO:_____
STANDARD REFERENCE:_____
IS WASTE A DIOXIN LISTED WASTE?: YES:_____ NO:_____
IS WASTE RESTRICTED FROM LAND DISPOSAL?: YES:_____ NO:_____
HAS AN EXCEPTION BEEN GRANTED?: YES:_____ NO:_____
SOURCE OF INFORMATION: MSDS:_____ ANALYSIS:_____
_____ DATE:_____
(SIGNATURE OF DPW-ED REPRESENTATIVE)
DIRECTORATE OF PUBLIC WORKS
ATTN: ANME-PWE
PHONE: 301-677-9648/9674

INTERNAL HAZARDOUS WASTE MANIFEST INSTRUCTION

1. The top portion of DPW Form 182 must be completed by the waste generating organization, and the bottom completed by Directorate of Public Works, Environmental Management Office. The first section of the form provides room for the waste generating activity to:

a. Complete the Generating Activity name.

b. The name of person furnishing the data (typically, the name of organization Hazardous Waste Coordinator or Alternate).

c. The Turn-In Document Number (from block 24 on the DD Form 1348-1A).

d. Federal Stock Number of item being turned in (Federal, national and local stock numbers or stock groups are acceptable).

e. Name of waste (provide the generic name of the waste here, i.e. spent solvent).

f. Process generating waste (Provide the name of the process where the waste was generated, i.e. parts cleaner, paint booth).

2. The following section titled “SUBSTANCES” provides space to identify the different constituents that the waste is made of.

a. If the waste is comprised of just one substance, identify its name and list the percentage as 100%.

b. If the waste is composed of more than one substance (materials used in the process generating the waste), list each substance used and the percentage of the total amount accumulated that each represents.

3. In the next section, list the name and location of the manufacturer of the product the waste is from, the physical state of the waste, the type of container, size, and number to turn-in.

4. Information from the DD Form 1348-1A, material safety data sheet, and product label may be useful in completing DPW Form 182.

5. A completed DPW Form 182 is required for each waste disposed and all turn-in documentation must be approved prior to turn-in to the Controlled Hazardous Substance Storage Facility. All questions should be directed to the Manager, Hazardous Waste Program, 7-9674.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

DD FORM 1348-1A, JUL 91 (EG) ISSUE RELEASE/RECEIPT DOCUMENT

1 2 3 4 5 6 7	23 24 25 26 27 28 29	45 46 47 48 49 50	51 52 53 54 55 56	57 58 59 60 61	62 63 64 65 66 67 68 69	70 71 72 73 74 75 76 77 78 79 80
OI OD CN T / RI FROM / M&S	UI NS IT / QUANTITY	SER / SUPPLEMENTARY ADDRESS	SIG / FUND	DISTRIBUTION / PROJECT	PRI / RDD EEA OLT D E / ADV / RI	O/P / COND / MGT
EA	SX1213				NA N	H

1. TOTAL PRICE			2. SHIP FROM	3. SHIP TO
UNIT PRICE DOLLARS	CTS	DOLLARS	CTS	W23A79	SX1213
1	00			4. MARK FOR

5. DOC DATE	6. NMFC	7. FRT RATE	8. TYPE CARGO	9. PS

10. QTY. REC'D	11. UP	12. UNIT WEIGHT	13. UNIT CUBE	14. UFC	15. SL

16. FREIGHT CLASSIFICATION NOMENCLATURE
FLAMMABLE LIQUID

17. ITEM NOMENCLATURE
SEALING COMPOUND

18. TY CONT	19. NO CONT	20. TOTAL WEIGHT	21. TOTAL CUBE
CN	1	3 LB	

22. RECEIVED BY	23. DATE RECEIVED

24. DOCUMENT NUMBER & SUFFIX (30-44)
W23A79-6289-6050

25. NATIONAL STOCK NO. & ADD (8-22)
8030-00-SEALER

THE ENTRIES MADE IN THIS FORM ARE PROVIDED AS AN EXAMPLE.

26. RIC (4-6) UI (23-24) QTY (26-29) CON CODE (71) DIST (65-66) UP (74-80)

ENTRIES YOU MAKE NEED TO BE SPECIFIC TO YOUR TURN-IN

27. ADDITIONAL DATA

BILL TO-
CLIN-
PER. LB-
TOTAL-

STORAGE LOCATION-
ASD-
EPA WASTE CODES-
PROFILES-

PREVIOUS EDITION MAY BE USED

PerFORM (DLA)

TRANSFER TO DEFENSE REUTILIZATION AND MARKETING OFFICE ON DD FORM 1348-1A (SINGLE LINE ITEM TURN-INS)

FIELD LEGEND	RECORD POSITION(S)	ENTRY AND INSTRUCTION
Document Identifier	1-3	Perpetuate from the source document. For locally determined excesses generated at a base, post, camp, or station, assign a DI code as determined by S/A procedures.
Routine Identifier	4-6	Enter the RI of the shipping activity or leave blank when the shipping activity is not assigned an RI
Media and Status	7	Leave blank
Stock or Part Number	8-22	Enter the stock or part number being turned in. For subsistence items, enter the type of pack in rp 21. See Block 25.
Unit of Issue	23-24	Enter the unit of issue of the stock or part number being turned in.
Quantity	25-29	Enter the quantity being turned in to DRMO.
Document Number	30-43	Perpetuate from source document. This cannot be the same document number that was used to receive the material. For locally determined excess generated at base, post, camp, or station, assign as determined by S/A procedures. See Block 24.
Suffix	44	Leave blank
Supplementary Address	45-50	Enter DoDAAC of predesignated consignee DRMO.
Signal	51	For hazardous material and waste turn-ins, enter Signal Code B; otherwise, leave blank
Fund	52-53	For hazardous material and waste turn-ins, enter the MILSBILLS fund code (reference (hh) designating the funds to be charged.
Distribution	54	Perpetuate from source document or leave blank
Retention Quantity	55-61	Enter the quantity to be retained in inventory or leave blank

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

Precious Metals	62	Enter applicable code from appendix B28 (not included)
Automated Data Processing Equipment Identification	63	Enter applicable code from appendix B29 (not included)
Disposal Authority	64	Enter applicable code from appendix B26 (not included)
Demilitarization	65	Enter code assigned as required by DoD 4160.21-M-1 (reference (qq)). NOTE: When demilitarization has been accomplished prior to transfer to DRMO, the appropriate demilitarization certification, as required by reference (qq), must be reflected in Block 27
Reclamation	66	Enter code "Y" if reclamation was performed prior to release to a DRMO. Enter "R" if reclamation is to be performed after turn-in to DRMO. Enter code "N" if reclamation is not required.
Routing Identifier	67-69	Perpetuated from DRMO
Ownership	70	Enter applicable code or leave blank
Supply Condition	71	Enter applicable code from appendix B18. (Not Included)
Management	72	Perpetuated from source document or leave blank
Screening	73	Leave blank
Unit Price	74-80	Enter the unit price for the NSN or part number in rp 8-22

BLOCK (S)	**ENTRIES**
1	Enter the extended value of the transaction.
2	Enter the shipping point identified by DoDAAC; if reduced printing is used, in-theclear address may be entered in addition to the DoDAAC.
3	Enter the consignee DRMO by DoDAAC. This will be the predesignated DRMO and will be entered by the shipping activity; if reduced printing is used, the in-the-clear address may be entered in addition to the DoDAAC.
4	Insert HM, if the turn-in is hazardous material or HW, if the turn-in is hazardous waste.
5	Enter the date of document preparation, if required by the shipper.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

6	Enter national motor freight classification (NMFC) if required by the shipper.
7	Enter the freight rate, if required by the shipper.
8	Enter the code cargo data, if required by the shipper.
9	Enter the applicable controlled inventory item code which describes the security/pilferage classification of the shipment from DoD 4100.39-M (reference (pp)), volume 10, chapter 4, table 61.
10	Enter quantity actually received by the DRMO if different from positions 25-29.
11	Enter the number of units of issue in a package, if required by the shipper.
12	Enter the unit weight applicable to the unit of issue, if required by the shipper.
13	Enter the unit cube applicable to the unit of issue, if required by the shipper.
14	Enter the uniform freight classification, if required by the shipper.
15	Enter the shelf life, if appropriate; otherwise, leave blank.
16	Enter in-the-clear freight classification nomenclature, if required by the shipper.
17	Enter the item nomenclature. For non-NSN items; enter as much descriptive information as possible. Specified additive data or certification from the generating source for specific types of property should be entered.
18	Enter type of container, if required by the shipper.
19	Enter number of containers that makes up the shipment, if required by the shipper.
20	Enter total weight of shipment, if required by the shipper.
21	Enter total cube of shipment, if required by the shipper.
22	Received By- Enter the signature of person receiving the material.
23	Date Received- Enter date material was received and signed for.
24	Document Number- Perpetuate form source document. This cannot be the same document number that was used to receive the material. For locally determined excesses generated at base, post, camp, or station, assign a document number 1/ as determined by Service/Agency procedures. Suffix Code- leave blank.
25	National Stock Number- Enter the stock number or part number being turned in 2/. Additional- For subsistence items, enter the type of pack code in rp 21.
26	For turn-in to DRMO- This block will not contain bar code data, it is reserved for internal DRMO/DRMS use.
27	This block may contain additional data including bar coding for internal use. Enter data in this block as required by the shipping activity or the receiving DRMO. Clearly identify data entered in this block. For hazardous material and waste turn-ins, enter the DoDAAC of the bill-to office, the contract line item number (CLIN for the item, and the total cost of the disposal.

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004

APPENDIX M

HAZARDOUS WASTE GENERATORS

1. Directorate of Public Works
2. Directorate of Logistics
3. Directorate of Community Activities
4. Directorate of Plan, Training, Mobilization and Security
5. Directorate of Resources Management
6. Directorate of Information Management
7. Directorate of Emergency Services
8. IAP World Services (Contractor)
9. Viron / Pepco (Contractor)
10. Headquarters Command Battalion
11. U.S. Army Center of Health Promotion and Preventive Medicine-North
12. Intelligence Material Division
13. Defense Reutilization and Marketing Office
14. U.S. Army Field Band
15. Kimbrough Ambulatory Care Center
16. Forensic Toxicology Drug Testing Laboratory
17. Noncommissioned Officer Academy
18. Naval Security Group
19. 694th Intelligence Group (IG)
20. 902nd Military Intelligence Group
21. 99th Regional Support Command
22. 704th Military Intelligence Brigade
23. 55th Signal Company
24. 744th Ordnance Company (EOD)
25. Army Air Force Exchange Service
26. Commissary
27. U.S. Army 1st Recruiting Brigade
28. Museum
29. DoD Field Research Activity

---

* This publication supersedes Installation Hazardous Waste Management Plan, Fort George G. Meade, December 2004