

Advanced Environmental Management (AEM)

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- ◆ CED/CEIE:
www.jble.af.mil/library/environmentalinformation.asp

Advanced Environmental Management (AEM)

GREEN CLASS - PLEASE DO NOT WRITE ON THE HANDOUTS

- ◆ ALL PACKETS WILL BE TRUNED-IN WITH YOUR TEST AT THE END OF TRAINING.
- ◆ WE ARE GUESS OF THE ARMY EDUCTAION CENTER (AEC) - PLEASE COMPLY WITH THE FOLLOWING WHILE USING THE FACILITIES.
- ◆ DO NOT USE THE CLASS ROOM COMPUTERS!
- ◆ THERE WILL BE NO FOOD OR DRINKS IN THE CLASSROOMS!
- ◆ DO NOT TALK IN THE HALLS, AS THERE ARE OTHER CLASSES IN SESSION
- ◆ BREAK AREA IS LOCATED BY THE FRONT DESK OUT BACK.
- ◆ NO ONE WILL BREAK IN HALL WAYS TO USE CELL PHONE
- ◆ RESTROOMS ARE LOCATED AT THE END OF THE HALLWAY BY FRONT DESK.

TODAY'S AGENDA

- ◆ Introduction
- ◆ Environmental Management
- ◆ Environmental Management System (EMS)
- ◆ Legal Aspects of Environmental Compliance
- ◆ JBLE-I 32-101 & EMPs
- ◆ National Environmental Policy Act (NEPA)
- ◆ Cultural Resources Management
- ◆ Natural Resources & Pest Management
- ◆ Solid Waste Management
- ◆ Contingency Plans & Spill Response
- ◆ Tanks
- ◆ Hazardous Materials & EPCRA
- ◆ Hazardous Waste Management (HWM)
- ◆ Waste Water & Storm Water
- ◆ Exam - Multiple Choice - Open Book & Notes

Environmental Management



AEM Initial Training

Jennifer Guerrero

Agenda

- ◆ Sustainability
- ◆ Environmental Management System

What Is SUSTAINABILITY?

“Sustainability” and “sustainable” means to create and maintain conditions, under which human and nature can exist in productive harmony, that fulfills the social, economic, and other requirements of present and future generations.

Executive Orders 13423 & 13514,
AFI 32-7001

Global Challenge



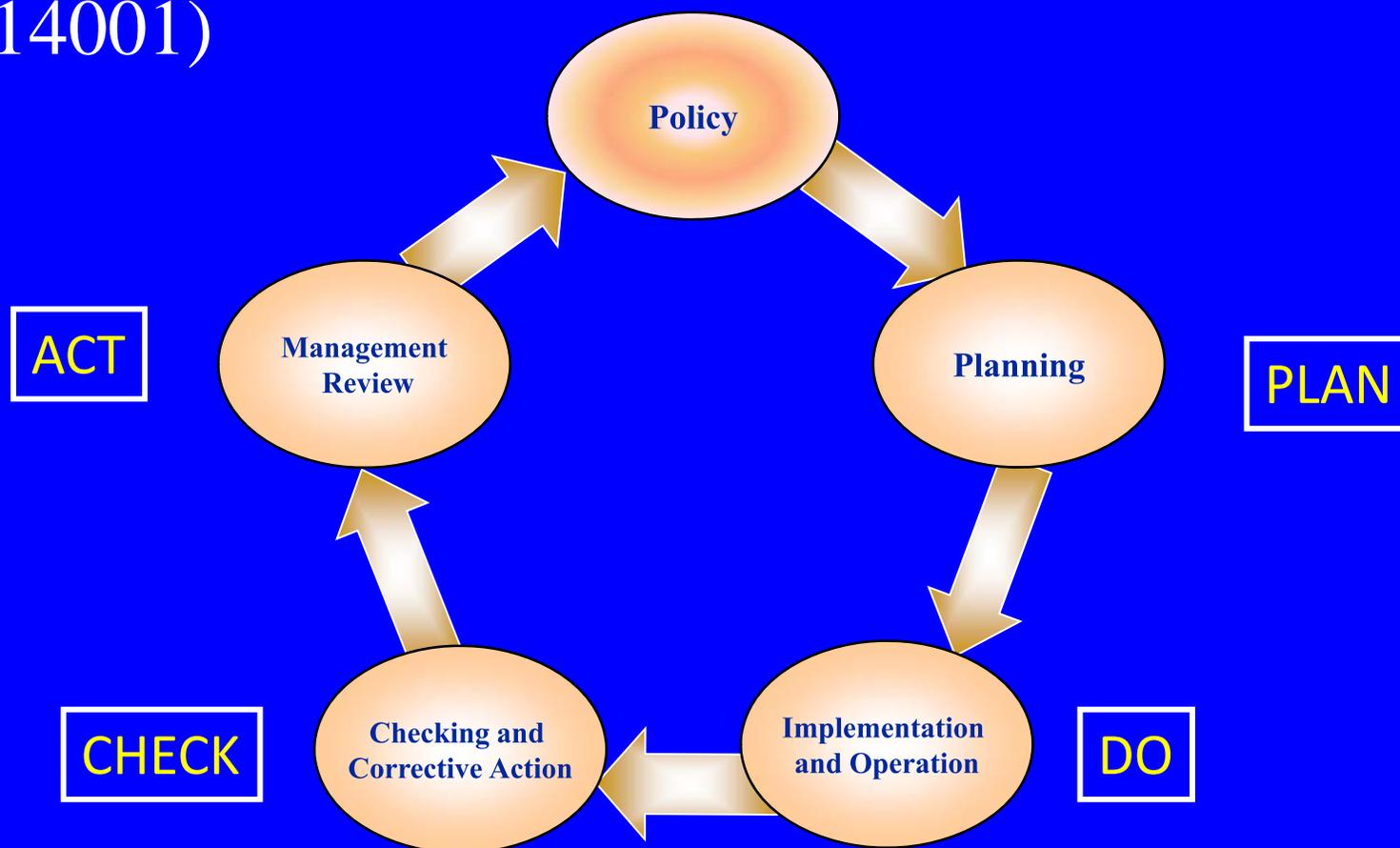
Federal Government Directives

- ◆ Executive Orders (EO) signed by the President apply to Federal Agencies
- ◆ EOs geared toward Sustainability:
 - 13423, “Strengthening Federal Environmental, Energy & Transportation Management,” dtd 24 Jan 2007
 - 13514, “Federal Leadership in Environmental, Energy, & Economic Performance,” dtd 5 Oct 2009
 - 13693, “Planning for Federal Sustainability in the Next Decade,” dtd 19 Mar 2015

Environmental Management System (EMS)

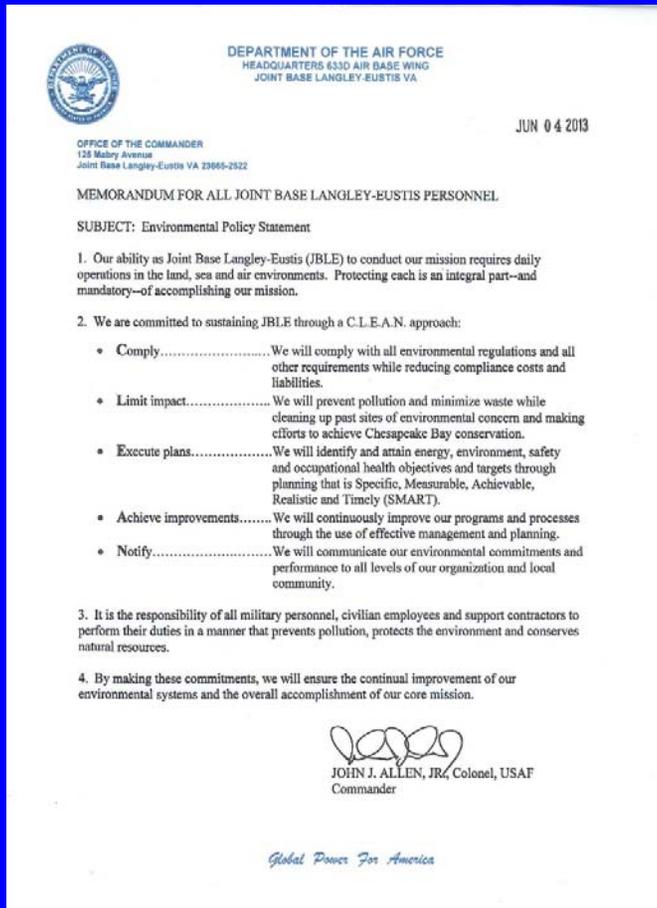
What is EMS?

- ◆ How JBLE manages the environmental program
- ◆ International Organization of Standardization 14001 (ISO 14001)



Key Document - Policy

Posted at work site



All are committed to sustaining JBLE through a C.L.E.A.N. approach:

- Comply: with all environmental regulations and other requirements
- Limit impact: prevent pollution and minimize waste
- Execute plans: identify and attain energy, environment, safety, and occupational health objectives and targets
- Achieve improvements: continuously improve programs and processes
- Notify: communicate environmental commitments and performance to organization and community



CED /CEIE

<http://www.jble.af.mil/library/environmentalinformation.asp>

Plan



Environmental Laws

- Clean Air Act (CAA)
- Clean Water Act (CWA)
- Oil Pollution Act (OPA)
- Comprehensive Environmental Response, Compensation & Liability Act (CERCLA)
- Resource Conservation and Recovery Act (RCRA)
- Federal Facilities Compliance Act (FFCA)
- Toxic Substances Control Act (TSCA)
- National Environmental Policy Act (NEPA)

Other requirements

- EO 13423; EO 13514; EO 13693
- Virginia/state regulations
- Local city/county ordinances
- DODIs
- U.S. Air Force AFIs

JBLE I 32-101 Environmental Management

Plan



JBLE-I 32-101



- One stop document for Environmental Management
- Mirrors ISO 14001

ISO 14001

Section 4.2 – Policy
Section 4.3 – Planning (Plan)
Section 4.4 – Operations (Do)
Section 4.5 – Checking (Check)
Section 4.6 – Review (Act)

- Targeted at Leaders/Managers
 - Who, What, and Why

JBLE I 32-101

Section 4.2 – Policy
Section 4.3 – Planning (Plan)
Section 4.4 – Operations (Do)
Section 4.5 – Checking (Check)
Section 4.6 – Review (Act)

Do



Environmental Management Procedures

- “Part of” and “Companion to” JBLE-I 32-101
- Mirrors ISO 14001
- Linked to the basic regulation (numbering)
- 110+ EMPs to date
- Targeted at operators
 - What, where, when, and how
- “Controlled Documents” – “Official Document” is on the ESOHTN website
 - **ESOHTN: Should be Checked Often to Verify and Ensure Paper Copies are current**
 - **ALL EMPs Should be dated 31 Aug 15 or later**

DO - EXAMPLE OF LINKAGE

Hazardous Waste Management (HWM)

JBLE I 32-101

Section 4.4.6.8 HWM

Policy: Fort Eustis will efficiently and effectively manage the generation, collection, storage, and disposal of hazardous waste. Fort Eustis will actively analyze hazardous waste data and information to identify opportunities and new methodologies to reduce hazardous waste volumes.

Requirements:

Comply with all applicable Federal, State, and local Hazardous Waste (HW), Universal Wastes (UW), and Non-Hazardous Waste (NHW) regulations. Manage these wastes IAW EMP 4.4.6.8, Hazardous Waste Management (HWM).

Fort Eustis is a Large Quantity Generator (LQG) of hazardous waste and operates a Hazardous Waste Accumulation Facility (HWAF). All hazardous wastes (i.e. manifest wastes) must be sent to an approved Treatment, Storage, & Disposal Facility (TSDF) with 90 days of the Accumulation Start Date (ASD) in accordance with EMP 4.4.6.8.1.

Activities will minimize the toxicity and quantity of HW, UW, and NHW generation through pollution prevention actions, for example, source reduction, material substitution, and recycling or reuse.

Implementing Procedures



EMP 4.4.6.8.3 Container Management

EMP 4.4.6.8.2 Storage & Accumulation Sites

EMP 4.4.6.8.1 HWAF Operations

EMP 4.4.6.8 HW Management

Do - Key Parts of JBLE-I 32-101

- ◆ Section 4.4.1.2 – Roles and Responsibilities
- ◆ Section 4.4.2.1 – Training, Awareness, and Competence
- ◆ Section 4.4.4 – Documentation
- ◆ Section 4.4.6 – Operational Controls

Do - Key Parts of JBLE-I 32-101

◆ Section 4.4.1.2 – Roles and Responsibilities



– EMP 4.4.2 Tab 1 – Job Titles, Duty Descriptions, and Responsibilities of Key Positions

- » Activity Environmental Coordinator (AEC)
- » Unit Environmental Coordinator (UEC)
- » Hazardous Waste Coordinator (HWC)
- » Hazardous Materials Manager (HMM)
- » Building Recycling & Energy Monitor (BREM)

Do - Key Parts of JBLE-I 32-101

◆ Section 4.4.2 – Training: Awareness and Competency



- ◆ Section 4.4.2.1 & EMP 4.4.2.1 – Environmental Management Awareness Training
 - **Basic Environmental Management Awareness (BEMA)**
 - » All Military E-4s and below
 - » All Civilian Non-Managerial & Non-Supervisory personnel
 - **Leadership Environmental Management Awareness & Competency (LEMAC)**
 - » All Military E-5s and higher
 - » All Civilian Managers & Supervisors

Do - Key Parts of JBLE-I 32-101

◆ Section 4.4.2– Training: Awareness and Competency



◆ Section 4.4.2.2 – Competency Training

- HazCom – Personnel Handling: HM, HWs, or UWs
- Specific Environment related training for job
 - » Air Pollution Control requirements for generators
 - » Confined space training
 - » Hazardous material storage
 - » Hazardous waste requirements
 - » Storm Water requirements for construction sites
- Environmental Management (AEM)

◆ Activities maintain training records



Do - Key Parts of JBLE-I 32-101

◆ Section 4.4.4 – Documentation



– EMP 4.4.4 – Environmental Documentation

» 3 Levels

- ◆ Level 1 – Specific ISO 14001 documents
- ◆ Level 2 – Documents essential for environmental management
- ◆ Level 3 – Records – documents that are the result of environmental management

» Why is “documentation” important?

- ◆ Environmental Management is audited annually
- ◆ Documents verify management system

– EMP 4.4.4 Tab 1 – Continuity Book

Do - Key Parts of JBLE-I 32-101

◆ Section 4.4.6 – Operational Control



- EMPs 4.4.6.x – EMPs for media, actions, programs
- Examples
 - » EMP 4.4.6.8.3 – Container Management
 - » EMP 4.4.6.7 – Solid Waste and Recycling Management
 - » EMP 4.4.6.1 – Air Pollution Management
 - » EMP 4.4.6.7.1.1 – Electronic Waste and Recycling
 - » EMP 4.4.6.10 – Natural Resource Management
 - » EMP 4.4.6.5.2 – Energy and Water Conservation

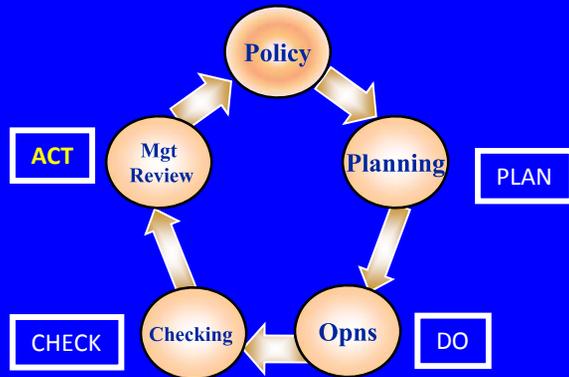
Check



- Section 4.5.2 – Inspections

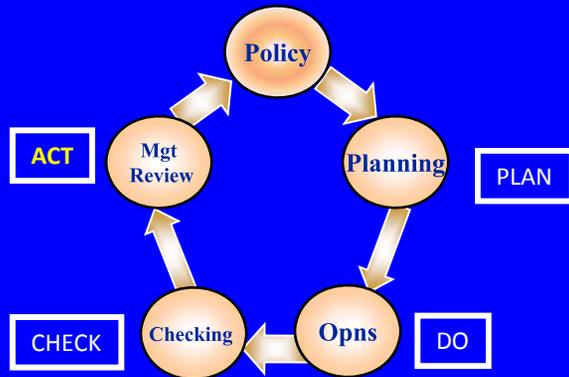
- EMP 4.5.2.1 – Annual Activity Inspections (CED/CEIE)
- EMP 4.5.2.3 – Quarterly Inspections (Conducted by Activities)
- EMP 4.5.2.3 Tab 1 – Checklist
- EMP 4.5.2.3 Tab 2 – Operations Inventory
- EMP 4.5.3.2.1 – Activity Corrective Action Plan

Act



- Activities – Correct findings from inspections and audits
- EMS Working Groups – Develop and track objectives/targets
 - Land Management
 - Installation Hazardous Materials Management
 - Stormwater Pollution Prevention
 - Energy & Water Conservation
 - Petroleum, Oil, and Lubricant Tanks

Act – Cont'd



- Quarterly Cross Functional Team Meetings
- Biannual ESOH Council Meetings
 - Purpose – Address challenges
 - Report accomplishments of EMS teams
 - Provide mission and base guidance for improvement actions

Websites

- ◆ The Environmental Element public website and the JBLE - Eustis Intranet provide information on Environmental programs, training, as well as publications for download.

CED/CEIE:

<http://www.jble.af.mil/library/environmentalinformation.asp>

Training:

<https://www.esohtn.com/start>

Environmental Management System (EMS) & Sustainability

- ◆ CED/CEIE **Position currently vacant**
- ◆ 878-7378, 878-4589 (Fax)
- ◆ **JBLE-I 32-101**
 - EMP 4.2 Environmental Policy
 - EMP 4.3.1 Environmental Aspects
 - EMP 4.3.2 Legal and Other Requirements
 - EMP 4.3.3 Objectives, Targets, and Programs
 - EMP 4.4.2 Environmental Awareness & Competency Training
 - EMP 4.4.3 Environmental Communication
 - EMP 4.4.4 Environmental Documentation
 - EMP 4.4.5 Environmental Document Control
 - EMP 4.5.5 Internal EMS Audits
 - EMP 4.6 Environmental Management Reviews

Questions

Environmental Impact Analysis Process (EIAP)

- ◆ **Tracey Sugg**
- ◆ EIAP Manager, CED/CEIE
- ◆ 878-7375, 878-4589 Fax
- ◆ Email: tracey.l.sugg.civ@mail.mil
- ◆ **JBLE-I 32-101: Section 4.4.6.9,**
Environmental Impact Analysis Process

Why Do We Have EIAP?

Purpose

- Evaluate impact of federal government “projects/actions” or use of federal resources on the human/natural environment.

Regulations & Guidance

- National Environmental Policy Act (NEPA)
- 32 Code of Federal Regulations (CFR) 989, *Environmental Impact Analysis Process (EIAP)*: Air Force’s implementation of NEPA
- AFI 32-7061

What Are We Looking For in EIAP?

Evaluate potential impacts by comparing project tasks to environmental resources or issues.

Environmental Resources:

- ◆ Air quality
- ◆ Water quality and permitting
- ◆ Asbestos-containing materials and Lead-based paint
- ◆ Hazardous materials & waste
- ◆ Noise
- ◆ Natural resources (wildlife, fisheries, soils, habitats)
- ◆ Historical/cultural/archaeological resources
- ◆ Restoration sites
- ◆ Endangered/threatened species
- ◆ USTs/ASTs
- ◆ Sedimentation & erosion
- ◆ Soil/sediment deposition & disposal

Project tasks:

Excavation/Digging
Deposition of soil or other material.
Equipment operation & maintenance.
Fueling operations.
Live fire/munitions use.
Type & number of vehicles used.
Off-road vehicular movement.
Painting/paint removal.
Construction.
Demolition of structures/buildings.
Renovation of structures/buildings.
Tree/Vegetation removal.
Aircraft operations.
Need for pest control.

EIAP Levels of Documentation

- **Categorical Exclusion (CATEX):** No significant impacts from the proposed action are likely to occur. A list of CATEXs are found in 32 CFR 989. Usually documented on AF IMT 813. Timeframe: 10-14 days
- **Environmental Assessment (EA):** Proposed action has potential adverse environmental impacts. Additional evaluation is needed to determine whether impacts will be significant. Results in either a Finding of No Significant Impact (FONSI) or preparation of an Environmental Impact Statement. Timeframe: 6 months to 1 year
- **Environmental Impact Statement (EIS):** Required for major Federal actions with significant environmental impacts. Includes irreparable damage and lost resources and requires mitigation. Timeframe: > 1 year

EIAP Procedures

- ◆ Project proponent submits Base Civil Engineer Work Request (AF IMT 332) and Request for Environmental Analysis (AF IMT 813) to CED. The proponent fills out Section I and digitally signs Section I, 6a of AF IMT 813.
- ◆ Submit AF IMT 813 directly to Tracey Sugg for projects that do not require AF IMT 332.
- ◆ Include pertinent information, e.g., location of proposed project, site plans, photos, etc. with the AF IMT 813
- ◆ The Environmental Element reviews the project for potential environmental impacts. Once the analysis is complete, the form is signed by the Environmental Element Chief.
- ◆ Signed copy is sent to the proponent for their records.

Blank AF IMT 813:

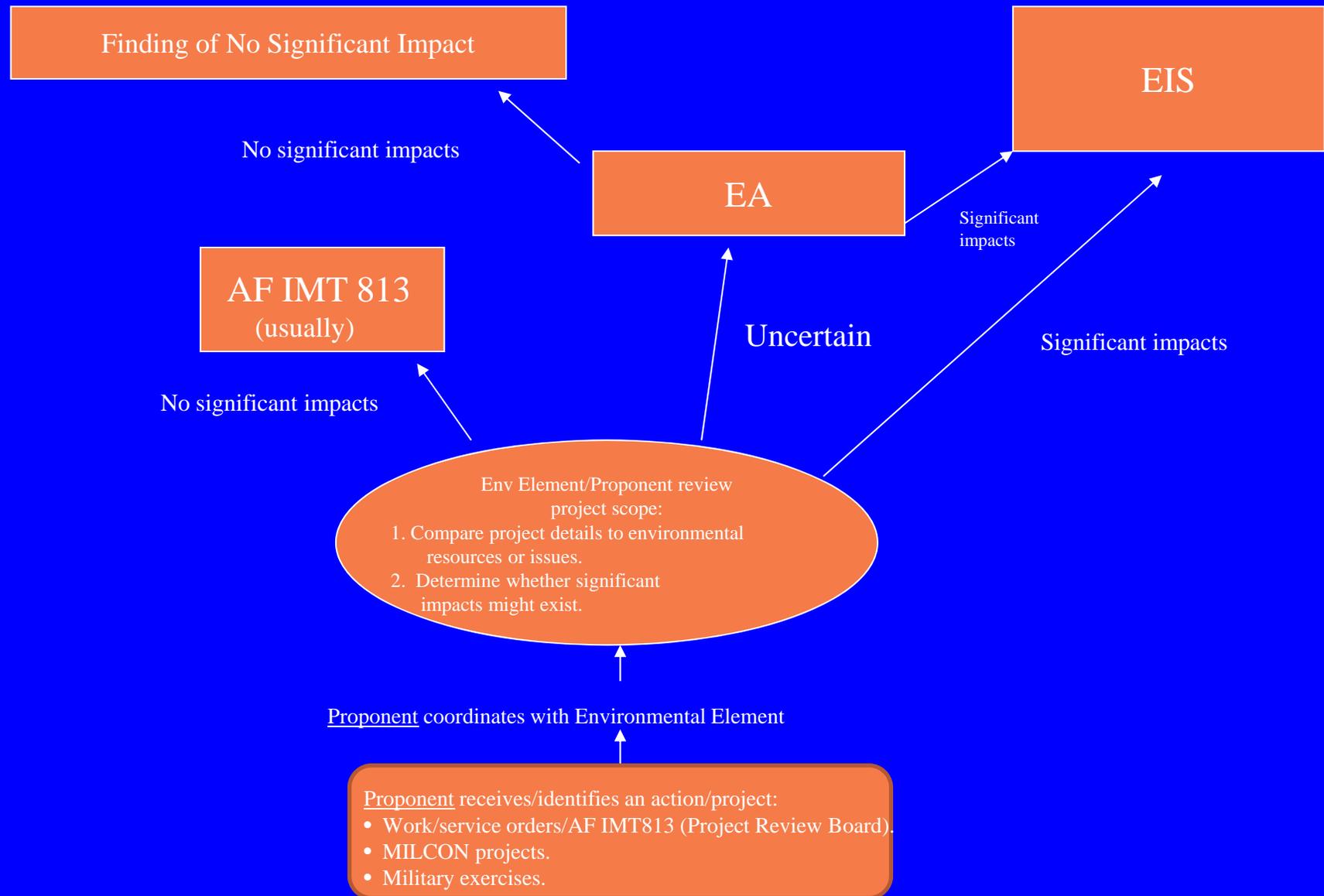
This section to be
filled out by Proponent



REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS			Report Control Symbol RCS:			
INSTRUCTIONS: Section I to be completed by Proponent; Sections II and III to be completed by Environmental Planning Function. Continue on separate sheets as necessary. Reference appropriate item number(s).						
SECTION I - PROPONENT INFORMATION						
1. TO (Environmental Planning Function) 733 CED/CEA/EE		2. FROM (Proponent organization and functional address symbol)		2a. TELEPHONE NO.		
3. TITLE OF PROPOSED ACTION						
4. PURPOSE AND NEED FOR ACTION (Identify decision to be made and need date)						
5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES (DOPAA) (Provide sufficient details for evaluation of the total action.)						
6. PROPONENT APPROVAL (Name and Grade)		6a. SIGNATURE			6b. DATE	
SECTION II - PRELIMINARY ENVIRONMENTAL SURVEY. (Check appropriate box and describe potential environmental effects including cumulative effects.) (* = positive effect; 0 = no effect; - = adverse effect; U= unknown effect)						
7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE (Noise, accident potential, encroachment, etc.)			+	0	-	U
8. AIR QUALITY (Emissions, attainment status, state implementation plan, etc.)						
9. WATER RESOURCES (Quality, quantity, source, etc.)						
10. SAFETY AND OCCUPATIONAL HEALTH (Asbestos/radiation/chemical exposure, explosives safety quantity-distance, bird/wildlife aircraft hazard, etc.)						
11. HAZARDOUS MATERIALS/WASTE (Use/storage/generation, solid waste, etc.)						
12. BIOLOGICAL RESOURCES (Wetlands/floodplains, threatened or endangered species, etc.)						
13. CULTURAL RESOURCES (Native American burial sites, archaeological, historical, etc.)						
14. GEOLOGY AND SOILS (Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.)						
15. SOCIOECONOMIC (Employment/population projections, school and local fiscal impacts, etc.)						
16. OTHER (Potential impacts not addressed above.)						
SECTION III - ENVIRONMENTAL ANALYSIS DETERMINATION						
17. <input type="checkbox"/> PROPOSED ACTION QUALIFIES FOR CATEGORICAL EXCLUSION (CATEX) # _____ ; OR <input type="checkbox"/> PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED.						
18. REMARKS						
19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION (Name and Grade)		19a. SIGNATURE			19b. DATE	

*Use this page for any additional information that does not fit on the first page or additional information that is relevant to the project.

Environmental Impact Assessment Process



Questions?

Cultural Resources on Fort Eustis

Dr. Christopher L. McDaid
christopher.l.mcdaid.civ@mail.mil

Why Does a Military Installation have Cultural Resources Managers?

◆ *Laws*

- *The Antiquities Act*
- *The Historic Sites Act*
- *The National Historic Preservation Act*
- *The Archaeological Resources Protection Act*
- *The Abandoned Shipwreck Act*
- *The Native American Graves Protection and Repatriation Act*
- *National Environmental Policy Act*
- *Archaeological and Historic Preservation Act*

◆ *Quantity*

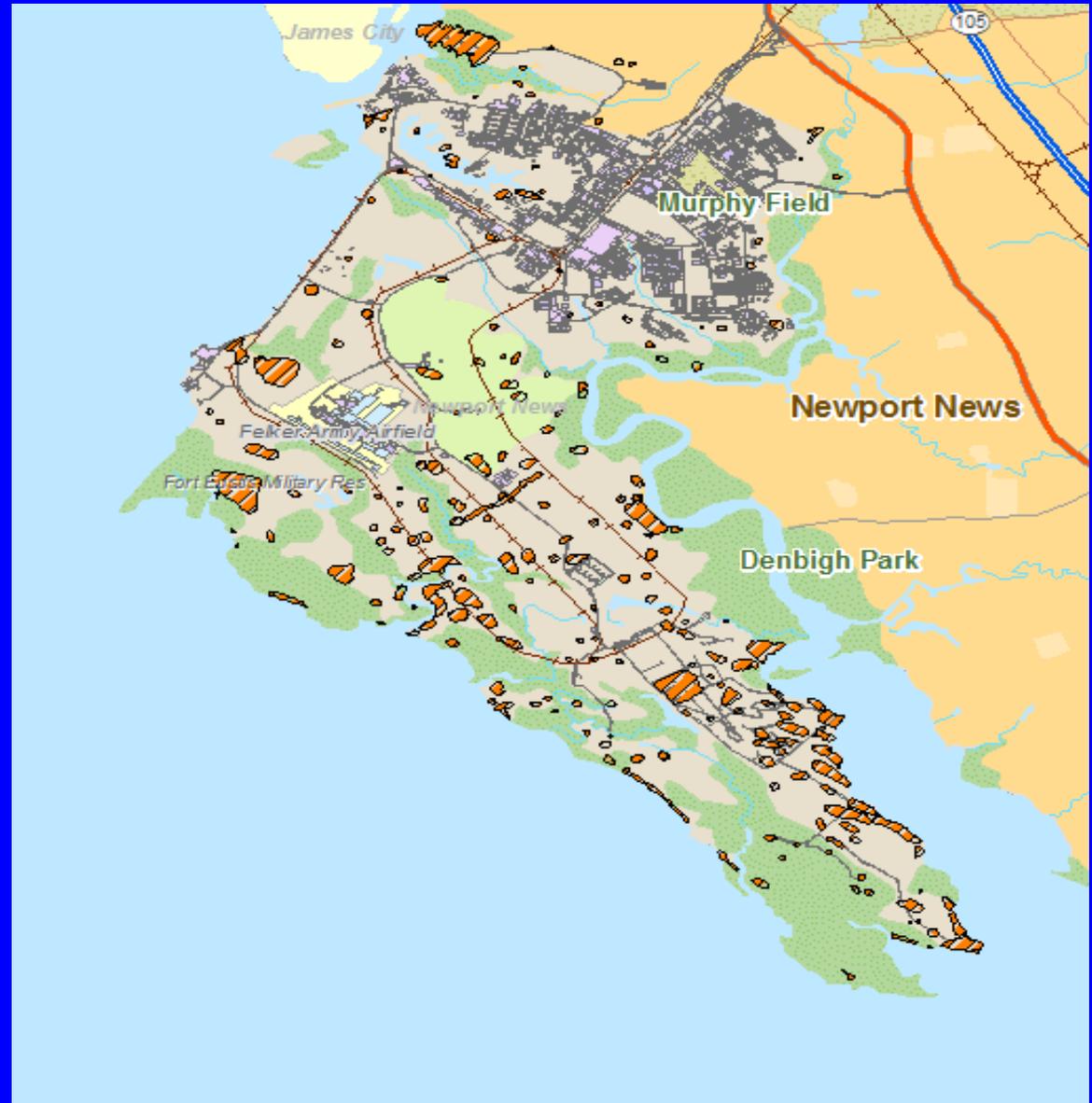
- *232 sites on Ft. Eustis, over 110,000 on DoD land*

◆ *Really owned by the People*

9/23/2015

Known Archaeological Sites

- Oldest over 10,000 years old
- Occupied by Native Americans until 17th Century
- Sites from Early 17th Century
- Civil War Earthworks
- 17th, 18th, and 19th Century farms



Items to Note

Siebert Stake marks boundaries



Soldiers working to preserve a Civil War earthwork



Archaeological Sites can be Dangerous



Tours Available

Contact the Cultural Resources Program



Questions?

**Natural Resources
&
Integrated Pest Management**

**Tim Christensen
Environmental Element (CEIE)
Civil Engineer Division (CED)
733d Mission Support Group (MSG)
JBLE - Eustis
(757)878-4231
Timothy.p.christensen.civ@mail.mil**

Natural Resources (NR) Management

- ◆ Natural resources include game & non-game wildlife, forestry products, land and habitats.
- ◆ Habitats include wetlands, commercial forests, urban forests, shorelines/riparian corridors, open fields/early successional habitats, lakes/ponds and streams.
- ◆ These resources are managed/conserved in a manner to meet military missions.
- ◆ Integrated Natural Resources Management Plan (INRMP).
 - = Required by the Sikes Act.
 - = Is the installation's policy & procedures document for NR management.
 - = Required by virtually all military installations.
 - = Covers 5-year period but reviewed annually.
 - = Fort Eustis INRMP was revised for 2014-2019.
 - = Prepared by Environmental Element staff and based on mission requirements.
 - = Requires concurrence and signature by US Fish and Wildlife Service and Virginia Department of Game and Inland Fisheries.
 - = Approved by the 633 Air Base Wing Commander.
 - = Accessible from the Environmental Element webpage.

Wildlife

- ◆ **Wildlife documented on Fort Eustis to date:**

- = Mammals: 27
- = Birds: 173
- = Reptiles: 23
- = Amphibians: 14
- = Fish: 35

- ◆ **Native bird species:**

- = Protected under the Migratory Bird Treaty Act (MBTA).
- = Do NOT capture, kill or harass any bird species nor remove or collect nests, feathers, bird parts or eggs.

- ◆ **Federally Endangered or Threatened Species:**

- = Protected under the Endangered Species Act.
- = None documented on Fort Eustis property.
- = Atlantic sturgeon listed as endangered in Feb 2012 and exists in James and possibly Warwick Rivers.

- ◆ **Bald eagles:**

- ◆ = Were removed from the List of Federally Endangered and Threatened Species in 2007.
- = Protected under Bald & Golden Eagle Protection Act and MBTA.
- = Seven active nests to date on Fort Eustis.

- ◆ **Other wildlife:**

- = Do NOT capture, kill, harass, collect, remove or relocate ANY wildlife species (excluding authorized hunting, fishing and trapping).
- = Do NOT feed wildlife and do NOT release non-native species onto Fort Eustis.
- = Many wildlife diseases exist on post that can be transmitted to people including rabies and tick-borne diseases.
- = No venomous snakes have been documented on Fort Eustis to date.
- = Nuisance and non-native wildlife issues must be addressed directly to the Environmental Element.
or through the Civil Engineer Division Help Desk (878-HELP).
- = Other wildlife questions can also be addressed to the Environmental Element natural resources staff for assistance.
- = Fishing is prohibited from Browns Lake.
- = Fishing in Eustis Lake is a “catch and release” only.



Wetland & Adjacent Habitats

- ◆ Fort Eustis contains approximately 3,000 acres of wetlands.
- ◆ Includes tidal, non-tidal and ephemeral pools.
- ◆ Constitute important habitats that:
 - = Function as natural flood control systems.
 - = Function as contaminate filtering systems.
 - = Contribute to biodiversity and ecosystem productivity.
 - = Serve as part of the training area landscape.
- ◆ Regulated by the Clean Water Act.
- ◆ Federal, State and local jurisdictions exist.
- ◆ Loss of, placement of fill material into or other impacts to wetlands or surface waters require permits from respective jurisdictional authorities.
- ◆ Permitting process accomplished via preparation/submission of a Joint Permit Application. Processing may take 3-6 months.
- ◆ The installation goal is to protect a 100-foot upland, vegetated buffer around wetlands to the extent practical (referred to as a Resource Protection Area under the Chesapeake Bay Preservation Act).



Unpermitted wetland damage from widening an existing trail (considered fill material).

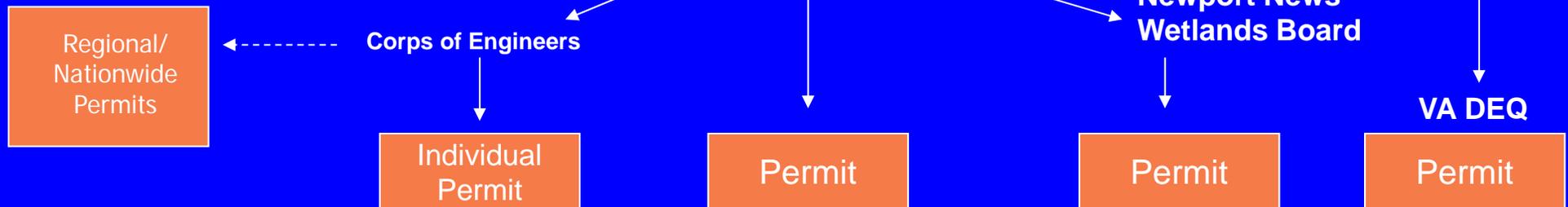
Wetlands/Surface Waters Permitting - Joint Permit Application (JPA) Process



Proponent:
Identifies the project that impacts these resources & coordinates with the Environmental Element.

Environmental Element:
Prepares JPA

VA Marine Resources Commission (VMRC):
Processes the JPA & forwards to agencies for jurisdictional determinations/issuance of permits.



Forestry Products and Forest Habitats

- ◆ ~ 2,700 acres of commercial forested land valued at \$4.2 million.
- ◆ Primarily mixed hardwood-pine.
- ◆ Considered real property; timber must be assessed & offered for sale as opposed to disposal.
- ◆ Proceeds go into the 57F3875.0003 Air Force forestry account.
- ◆ Contact the Environmental Element to obtain firewood permits and availability of mulch.
- ◆ Hazard trees and limbs should be reported to the CED Help Desk (878-HELP).



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Poor drainage from construction leading to tree mortality

Integrated Pest Management

- ◆ What is a pest? Any plant or animal species that can cause illness or damage crops, trees, ornamental plants, food, stored products or materials or be of a nuisance that is disruptive to activities (ie, weeds, invasive vegetation, mosquitoes, ticks, rodents, termites and wasps) .
- ◆ DOD Instruction 4157.07 and Air Force Instruction 32-1053.
- ◆ Federal Insecticide, Fungicide & Rodenticide Act (FIFRA).
- ◆ Pest Management follows an integrated approach – use of biological, chemical, physical/mechanical techniques as feasible.
- ◆ Pest control service is provided by the Civil Engineer Division (CED) and is requested by calling 878-HELP.
- ◆ Only DOD or VA certified pesticide applicators (in respective categories) can apply pesticides on Fort Eustis.
There are no exceptions!
- ◆ All pest control/pesticide use must be approved by Installation Pest Management Coordinator (Environmental Elements, CED).
 - = Verification of certified applicators.
 - = Monthly and annual pesticide use monitoring & reporting requirements.
 - = Annual Air Force/DOD pesticide reduction goals.
 - = Compliance with VPDES General Permit for Discharges Resulting From the Application of Pesticides to Surface Waters.
 - = Only approved pesticides can be used.
 - = Pest control/pesticides are only used after a pest status has been confirmed by pest control professionals.
- ◆ The term pesticide includes insecticides, herbicides, rodenticides, algacides, acaricides, nematocides, etc.

Integrated Pest Management

- ◆ Pest management includes preventive actions that begin with the individual:
 - = Exercise good sanitation and eliminate clutter.
 - = Close exterior doors and windows.
 - = Use of personal protection (i.e, appropriate attire, blouse clothing, DEET, Permethrin).
 - = Perform good lawn/grounds & interior building maintenance.
 - = Avoid attracting feral domestic animals & wildlife.
 - = Avoid bringing pets into work areas.
 - = Avoid transferring pests from home to work environment.
 - = Avoid bringing potted plants and soils into work areas that may contain insects/eggs.

Pesticides

Indiscriminate, unmanaged use & misuse of pesticides leads to:

- ◆ Resistance of target organisms to pesticides,
- ◆ Destruction of non-target and beneficial organisms (plants & animals),
- ◆ Cumulative contamination of environmental media – not something that is immediately visible, obvious or understood,
- ◆ Potential health and safety complications,
- ◆ Wastes time, money & manpower, and
- ◆ Legal implications and potential clean-up costs.

**Why DOD Policy Requires
Certification &
Program Management!**



Special Topics

- ◆ Snakes.
- ◆ Rabies awareness.
- ◆ Ticks.
- ◆ Spiders.
- ◆ Red imported fire ants.
- ◆ Biting flies.



CONTACTS

Conservation Branch Environmental Element (EE)

Tim Christensen

Branch Chief

Integrated Pest Management Coordinator

Forestry/Hazard Trees

878-4231

cell: 880-6111 (Bldg 1409)

Chris McDaid: Cultural Resources = 878-7365 (Bldg 1407)

James Dolan: Wildlife, wetlands = 878-4152/cell 817-1510 (Bldg 1409)

Questions

Solid Waste Management (SWM)
& Recycling (B1407)
Solid Waste & Recycling Center
(SWRC), B1209
878-1387, 2692 or 4232

Solid Waste Management (SWM) & Recycling

Donald L. Johnson

Solid Waste/Recycle Compliance Manager

CED/CEIE

878-7364

878-0732 Fax

Email donald.l.johnson1.civ@mail.mil

Thomas Gunther

Solid Waste and Recycle Center (SWRC) COR

CED/CEO

878-7392

E-mail thomas.l.gunther.civ@mail.mil



EMP 4.4.6.7 Tab 1

◆ Solid Waste & Recycling Disposition Guide

- Keep in Continuity Book
- Helps to determine the disposition of commodity
- Educational tool for workforce
- Saves time (knowing what to do with commodity)
- Ensures compliance with local and DOD guidelines
- Improves Sustainability

Special Solid Wastes

- ◆ Non-Hazardous Wastes (NHWs)
- ◆ Used Oil
- ◆ Asbestos
- ◆ Compressed Gas Cylinders
- ◆ Containers of Liquids
- ◆ Rubber Tires
- ◆ Containers – Steel & Plastic Drums

Single-Stream Recycling

•Fort Eustis uses a single stream recycling system throughout its offices. All items placed into one totter:

- Paper of all types (except shredded)
- Plastic Bottles (#1 & #2 only– Empty, Tops removed– Tops can also go in the totters)
- Steel/Tin cans (small food cans- less than 1 gal.; rinsed)
- Fiber Board (cereal boxes)
- Paper Bags
- Magazines/Catalogs
- Phone Books
- Newspapers
- Aluminum Cans
- Glass Bottles (Tops Removed)



For more information, please contact Tom Gunther, 878-7392 or Donald L. Johnson, 878-7364.

****TOTTERS WILL BE PICKED UP ON Tuesday****

Do NOT Place the Following in the Totters:

- ◆ Trash, Garbage, Refuse
- ◆ Wood Products
- ◆ E-Wastes (CDs/DVDs, Magnetic Media, etc.)
- ◆ Fluorescent or Projector bulbs
- ◆ Plastic bags
- ◆ Yard Waste
- ◆ Shredded Paper*
- ◆ Batteries
- ◆ Cardboard Boxes



- * Shredded paper (DO NOT shred CDs or DVDs with paper) – Pickups will be on Tuesday. Activities must schedule with the SWRC NLT 1200 hrs on Monday (878-2692 or 878-4232)

House Hold Trash – Never in Post Dumpsters



Municipal Solid Waste (MSW)

Garbage Rubbish Trash



Most of our MSW is sent to steam plants for energy recovery which reduces landfill

Not a Award Winning Recycling Programs



Not Award Winning Recycling Programs



QUIZ – What Is It??



This was all found in Cardboard Containers

E - Wastes

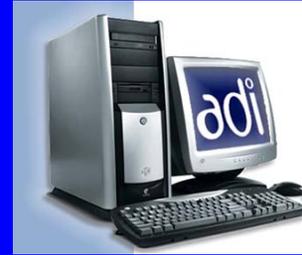


E - Wastes

- ◆ **EMP 4.4.6.7.4 E - Wastes & E – Recycling**
- ◆ **E-Wastes:** General term which includes discarded electronic products and related equipment/products
 - Electronic Products
 - Electronic Media
 - Associated Equipment
 - E - Materials
- ◆ **Disposal of E - Products are usually considered Hazardous Wastes**

Electronic Products

- ◆ Components and devices (semiconductors)
- ◆ Electronic data processing
- ◆ Office equipment
- ◆ Consumer electronics
- ◆ Telecommunication
- ◆ Communication and radar
- ◆ Control and instrumentation
- ◆ Medical /industrial instrumentation
- ◆ Automotive electronics



E – Wastes

General Term for Discarded Electronic Products & Related Equipment
Electronic Products contain Integrated Circuits or Semiconductor Materials
Disposal of E - Products is usually considered Hazardous Waste Disposal

- ◆ Components and devices
- ◆ Electronic data processing
- ◆ Office equipment
- ◆ Consumer electronics
- ◆ Telecommunication
- ◆ Communication and radar
- ◆ Control and instrumentation
- ◆ Medical & industrial instrumentation
- ◆ Automotive electronics



**Contact Your Activity Environmental Coordinator (AEC)
for Proper Disposition of E-Wastes**



Questions

Environmental Assessments

- ◆ Donald Johnson
- ◆ Assessments & Inspections Program Manager
- ◆ 733D Mission Support Group (MSG)
- ◆ Civil Engineer Division/Environmental Element (CED/CEIE)
- ◆ 878-7364
- ◆ 878-4589 Fax
- ◆ Email donald.l.johnson1.civ@mail.mil

Environmental Assessments

NEW JBLE I 32-101:

- ◆ Section 4.5 - Checking and Corrective Action
- ◆ Section 4.5.1 - Monitoring and Measurement
- ◆ Section 4.5.2 - Evaluation of Compliance
- ◆ Section 4.5.2.1 - External Assessments
- ◆ Section 4.5.2.2 - Internal Assessments
- ◆ Section 4.5.2.3 - Activity Level Assessments
- ◆ Section 4.5.2.3 - Nonconformity and Corrective Actions

External Environmental Assessments

External to the Installation Assessments:

◆ The Assessors:

- Environmental Protection Agency (EPA)
- Virginia Department of Environmental Quality (VDEQ)
- Hampton Roads Sanitation District (HRSD)
- Department of the Army/Air Force (Air Force)

◆ Types of Assessment, Audits, or Inspections:

- Multimedia – All environmental areas or selected groups of areas
- Waste Water – HRSD
- EMS Audits
- Air Force Environmental Compliance Assessment and Management Program (ESOHCAMP)

◆ Installation Corrective Action Plan (ICAP)

- All Findings must be recorded in the ICAP
- All Findings must be tracked to resolution
- All Non-resolved Internal Findings must be recorded and tracked

Internal Environmental Assessments

- ◆ Assessments and Inspections by EE:
 - **EMP 4.5.2.1 Activity Assessments conducted by EE**
 - EMP 4.5.2.2 Regulatory and Permit Inspections
 - EMP 4.5.2.4 Environmental Media Assessments
- ◆ Inspections by Activities:
 - **EMP 4.5.2.3 Internal Inspections Conducted by Activities**
 - **EMP 4.5.2.3 Tab 1 Form - Activity Assessment Multimedia Checklist**
 - **EMP 4.5.2.3 Tab 2 Form - Activity Facilities and Operations Inventory**
- ◆ **Frequency of Activity Conducted Inspections:**
 - **AEC Conducts Quarterly Assessments of All Activity Areas**
 - **TSS, SAS, or NHS – Weekly (less than 7 calendar days)**
 - *Universal Waste Sites* – **Monthly**
 - *Hazardous Material Storage Areas* – **Monthly**
- ◆ **Activity Corrective Actions:**
 - EMP 4.5.2.3.1 Activity Corrective Action Plans (ACAP)
 - » **Root Cause – Why Did It Happen?**
 - » **Corrective Action Taken**
 - » **Preventive Measures Taken**
 - EMP 4.5.2.3.1 Tab 1 Form - ACAP Summary Report

Environmental Program Assessments

- ◆ *TSS, SAS, or NHS* – **Weekly (less than 7 calendar days)**
- ◆ *Universal Waste Sites* – **Monthly**
- ◆ *Hazardous Material Storage Areas* – **Monthly**
- ◆ **AEC Conducts Quarterly Assessments of All Activity Areas**
- ◆ **AEC MUST complete an Activity Corrective Action Plan – ACAP – EMP 4.5.2.3.1 Tab 1**
 - **Root Cause – Why Did It Happen?**
 - **Corrective Action Taken**
 - **Preventive Measures Taken**

Installation Assessments:

- ◆ Environmental Compliance Assessment and Management Program (ESOH CAMP)
- ◆ Installation Corrective Action Plan – ICAP

To Prevent This!



Questions

Spills, Contingency Plans (CP) & Emergency Response

Spills, Contingency Plans (CP) & Emergency Response

- ◆ Paul James
- ◆ Spill Program Manager
- ◆ CED/CEIE
- ◆ Phone: 878-7362
- ◆ Fax: 878-4589
- ◆ Email: paul.a.james8.civ@mail.mil
- ◆ **JBLE I 32-101: Section 4.4.7 Emergency Preparedness and Response**
 - EMP 4.4.7 Spill Response
 - EMP 4.4.7. Tab 1 Form - Site Specific Contingency Plan Template

Objectives:

- ◆ Define Spill
- ◆ Why Spills Happen
- ◆ Reasons for Spill Response
- ◆ How to Prevent Spills
- ◆ Spill Response Procedures
- ◆ Penalties

What is a Spill?

- ◆ Leakage, seepage, or other release
- ◆ The unintentional or intentional spilling, leaking, pumping, pouring, emptying, or dumping of hazardous waste, material or petroleum product into or on any land, water or air.



How do spills occur?

- ◆ Refueling
- ◆ Vehicle and Vessel Maintenance/Movement
- ◆ HazMat Storage/Handling/Transporting
- ◆ Auto accidents
- ◆ Equipment Malfunctions/Breakage
- ◆ Human error

What do I need to know?

Trained Individuals Should:

Understand the Role of the First Responder

Understand What HMs & Wastes Are

Understand Potential Risks and Outcomes Associated with a Release of HMs & Wastes

Recognize the Presence and Identify the HM or Waste in an Emergency

Have the Ability to Recognize the Need for Additional Resources

What do I need to know?

Five Levels of HAZWOPER Training

First Responders - Awareness (Level 1)

Witness or discovers , and reports the release or spill, and Assist Emergency Personnel as requested

First Responders - Operational (Level 2)

Protects nearby persons, property, or the environment from the effects of the release/spill

Hazardous Materials Technicians (Level 3)

Stops the release at its source

Hazardous Materials Specialists (Level 4)

Supervise and supports the HM Technicians

Incident Commander (Level 5)

Assumes control of the incident



What do I do?

◆ Protect Yourself

- Utilize Proper PPE
- Proper ID of released material

◆ Stop the Flow

- If **SAFE** to do so!

◆ Contain The Spill

- Different Adsorbents for different spills (oil-only, universal & acid/bases)

◆ Call the Fire Department

- 878-1008 or 911

What do I do?

◆ **ALL spills must be reported to Fire and Emergency Services!**

- For Emergencies, Large Spills or any release into water or storm drains, dial:
 - » 911
- For small spills, controlled situations or if calling from a mobile phone, dial:
 - » 878-1008 – JBLE Eustis

◆ **Includes:**

- All hazardous materials
- Chemicals
- Petroleum, Oil & Lubricants (POLs)
- **ANY** quantity released into **any** body of water, storm drains

Why Respond?

◆ **May Affect:**

- Human Health and/or Life
- Wildlife (on land and in the water)
- Environment (I.E. Drinking Water)

◆ **Aesthetics**

◆ **Mandated by Federal and State Regulations**

- Oil Pollution Act of 1990 (OPA '90)
- Federal Water Pollution Control Act (Clean Water Act)
- Superfund Amendments & Reauthorization Act (SARA)
- Resource Conservation & Recovery Act (RCRA)

If I don't Respond???

What are the Consequences of a Spill

- ◆ Notice of Violation (NOV)

- ◆ Costs

- Financial
 - » Cleanup
 - » Disposal
 - » Remediation

- ◆ Legal Consequences

- Fines:
 - » **\$250,000** per individual
 - » **\$500,000** per organization
- Jail: Up to 15 years in prison.



Responsible parties at onshore facilities and deepwater ports are liable for up to \$350 million per spill

What can I do to prevent spills?

- ◆ Provide secondary containment
- ◆ Use funnels when filling
- ◆ Keep clear of water sources/drains
- ◆ Use Drip Pans
- ◆ Use proper materials
- ◆ Follow Written SOPs



Animal Fats and Vegetable Oil (AFVO's)

- ◆ Effective Nov, 2010
 - 40 CFR 112
 - All vegetable and animal fat/oil/grease containers require secondary containment
 - Employees require spill training
 - Spills must be reported to the Fire Department and cleaned up by facility personnel



Site Specific Contingency Plans

- ◆ Site Specific Contingency Plans
 - Must contain certain information
 - » Emergency Response Numbers
 - » Verbal Notification for Evacuation
 - » Site Specific Assembly Points
 - Location of Emergency Equipment
 - » Eyewash
 - » Fire Extinguishers
 - » Spill Kits
 - » PPE
 - Reviewed, Dated and Signed Annually
 - » No “penciling in” of review dates
 - Posted at the Site

EMP 4.4.7 Tab 1
30 Oct 12

JBLE - EUSTIS
[NAME of YOUR FACILITY]
[DATE]

HAZARDOUS MATERIALS & WASTE CONTINGENCY PLAN

1. Scope: The primary purpose of this contingency plan is to minimize hazard to human health and the environment from fires, explosions, unplanned sudden and non-sudden releases of hazardous waste to the air, soil or surface waters. The scope of this plan is limited to hazardous materials & waste spills and emergencies at or adjacent to the [Name of Your Facility].

2. Location: The [Name of Your Facility] is located at Building [Bxxx] [Physical Address] [Installation], Virginia.

3. Emergency Procedures:

a. Notifications: SIGNS ARE POSTED WITH EMERGENCY RESPONSE NUMBERS.

(1) Any person discovering any potential emergency situations at the facility should notify the Military Police or Fire and Emergency Services for assistance.

(2) The Activity Environmental Coordinator (AEC), Hazardous Waste Coordinator (HWC), Site Supervisor, or trained personnel are present at all times while the facility is conducting routine operations. The Supervisor will notify Fire and Emergency Services when required.

(3) The AEC, HWC, or Site Supervisor shall keep all unauthorized personnel out of the area while awaiting the arrival of the emergency response team or evacuate - see below.

b. Fire and Emergency Services must be notified immediately at **911** (or 878-1008 if calling by cell phone) if any of the following situations occur:

(1) Fire involving Hazardous Materials (HMs), Hazardous Waste (HWs), Universal Waste (UWs), or Non-Hazardous Waste (NHWs).

(2) Explosion involving HMs HWs, UWs, or NHWs.

EMP 4.4.7 Tab 1 Page - 1

Questions

Aboveground Storage Tanks (ASTs) & Underground Storage Tanks (USTs)



Aboveground & Underground Storage Tanks

- ◆ **Paul James**
- ◆ Tank Media Manager
- ◆ CED/CEIE
- ◆ 878-7362
- ◆ 878-4589 Fax
- ◆ Email: paul.a.james8.civ@mail.mil
- ◆ **JBLE-I 32-101: Section 4.4.6.14 Tank Management**
 - EMP 4.4.6.14.1 Aboveground Storage Tanks (AST)
 - EMP 4.4.6.14.2 Underground Storage Tanks (UST)

Aboveground Storage Tanks (ASTs)

EMP 4.4.6.14.1 Aboveground Storage Tanks (AST)

- ◆ (VDEQ) 9 VAC 25-91-10 et seq.: Facility and Aboveground Storage Tank Regulation
- ◆ (EPA) 40 CFR 112: SPCC Regulation
- ◆ Any one or combination of tanks, including pipes used to contain an accumulation of oil at atmospheric pressure, and the volume of which including the volume of the pipes is more than 90% above the surface of the ground.



ASTs

Regulated greater than 660 gallons if the installation total storage capacity is greater than 25,000 gallons.



JBLE - Eustis storage capacity greater than 125,000 gallons with 9 regulated tanks greater than 660 gallons.

Daily Regulated AST Inspections

A complete walk through of the facility property in the areas where the AST is staged to ensure that no hazardous conditions exist.

An inspection of the ground surface for signs of leakage, spillage, or stained or discolored soils.

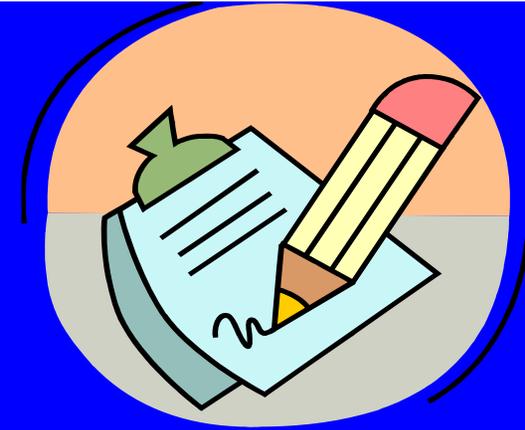
A check of the berm or dike area for excessive accumulation of water and to ensure the dike or berm manual drain valves are secured.



A visual inspection of the exterior tank shell to look for signs of leakage or damage.

An evaluation of the condition of the aboveground storage tank and appurtenances.

Weekly Regulated AST Inspections



- ◆ Containment dike/berm free of cracks
- ◆ Containment area free of standing water or oil
- ◆ Gate valves, fill valves secured and in good condition
- ◆ Containment area/base of tank free of high grass, weeds, dirt, and debris
- ◆ Tank free of rust and other deterioration.
- ◆ Ground surface and fuel transfer areas free of signs of leaks
- ◆ Leak detection equipment operational and in satisfactory condition
- ◆ OWS or drainage tank in satisfactory condition
- ◆ Tank water bottom draw offs not in use are secured
- ◆ Valves inspected for signs of leakage or deterioration
- ◆ All tank gauges are operational

Less than 660 Gallon Tank Items of Concern

- ◆ **Monthly Inspections!!**
- ◆ Any signs of unexplained dead or withered vegetation in area?
- ◆ Ground surface is free of signs of leakage, spillage or stained or discolored soil?
- ◆ Is fill gauge functioning and operating properly?
- ◆ Is fill cap properly secure?
- ◆ Is vent pipe clear?
- ◆ Is the tank labeled indicating its contents and has legible warning labels?
- ◆ Is all piping secure and free of damage and/or wear?

Underground Storage Tanks (USTs)

EMP 4.4.6.14.2 Underground Storage Tanks (UST)

- ◆ **VDEQ Regulation: 9 VAC 25-580, Underground Storage Tanks, Technical Standards and Corrective Action Requirements**
- ◆ **EPA Regulation: 40 CFR Part 280**
- ◆ **An underground storage tank system (UST) is a tank and any underground piping connected to the tank that has at least 10 percent of its combined volume underground.**



Regulated USTs

- ◆ Capacity greater than 110 gallons
- ◆ Does not include heating oil
- ◆ Requires Operators to Receive Training as a “Class A, B, or C Operator”



AAFES UST Upgrades

JBLE - Eustis has 6 regulated USTs

Monthly UST Inspections

The monthly inspection should include the following:

- ◆ **Complete walk through of the facility property in the area where the UST is staged to ensure that no hazardous condition exist**
- ◆ **Inspection of the ground surface for signs of leakage, spillage, or stained or discolored soils**
- ◆ **Check of the spill containment manhole (catchment basin) for excessive accumulation of water**
- ◆ **Visual inspection of the fill pipe and surrounding areas to look for signs of leakage or damage**
- ◆ **Evaluation of the condition of the UST**

AST's and UST's

- ◆ All tanks are regulated in one way, shape or form!
- ◆ Help identify spills from overfills, damaged siphon lines, etc.
- ◆ **Spills Must Be Reported Like Any Other Spill!**



Questions

Hazardous Materials Management
(HMM)
&
Emergency Planning and Community
Right to Know Act (EPCRA)

Advanced Environmental Management (AEM)

- ◆ Jim McKown
- ◆ Chief, Compliance Branch
- ◆ james.e.mckown2.civ@mail.mil
- ◆ **JBLE I 32-101: Section 4.4.6.6 Hazardous Materials Management**
 - EMP 4.4.6.6 Installation Hazardous Materials Program (IHMP)
 - EMP 4.4.6.6 Tab 1 Hazardous Materials Storage and Container Management
 - EMP 4.4.6.6 Tab 2 Monthly Hazardous Material Site Inspections FEVA Form 32-680
 - EMP 4.4.6.6 Tab 3 Installation Hazardous Materials Management Process (IHMMMP) Team Charter
 - EMP 4.4.6.6.1 HazMart Operations
 - EMP 4.4.6.6.1 Tab 1 HazMart Authorization and Order Form FEVA Form 32-681
 - EMP 4.4.6.6.1 Tab 2 Shop Codes & Names
 - EMP 4.4.6.6.1 Tab 3 Process Codes
 - EMP 4.4.6.6.1 Tab 4 Contractor HazMart Registration Form FEVA Form 32-682
 - EMP 4.4.6.6.1 Tab 5 HazMart Inspection Checklist FEVA Form 32-683

What are Hazardous Materials?

◆ OSHA/HazCom Definition:

- Any element, chemical compound, or mixture of elements and compounds that is a physical or health hazard. SDSs (Safety Data Sheets) are required for these materials.

◆ Department of Transportation (DOT) Definition:

- A substance or material which has been determined by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and which has been so designated.

JBLE-I 21-101 Definition:

- **Any serviceable product As defined by OSHA or DOT.**
- **DO NOT CONFUSE With a Hazardous Waste:** A waste that poses a potential hazard to human health or the environment when not properly managed due to its ignitable, corrosive, reactive, or toxic properties.

◆ Examples:

- Gasoline/Jet A/Diesel Fuel
- Petroleum/Oils/Lubricants (POLs)
- Antifreeze
- Paints/ Thinners/Solvents
- Methanol
- Sulfuric Acid Electrolyte

What is EPCRA?



Emergency Planning and Community Right to Know Act

- ◆ EPA Mandates Annual Reporting Requirement:
 - Submitted to EPA; VDEQ; LEPC's; Post and City Fire Departments
 - 01 March: Emergency and Hazardous Chemical Inventory
 - 01 July: Toxics Release Inventory
- ◆ HazMart provides the data required for EPCRA reports

Where Do I Get Hazardous Materials?

HazMart Approved FIRST

- ◆ **All Hazardous Materials MUST be approved through the HazMart BEFORE PURCHASE!**

Military, Government & Contractors

- ◆ May be purchased from any source – On or Off Base by Credit Card, GPC, Contract, etc.
- ◆ Basic Must Haves:
 - Safety Data Sheet – Manufacture & Product Specific
 - Shop Code – Issued by HazMart
 - Authorized Use List (AUL) – HazMart Approved before purchase
 - Each Container Bar Coded – Issued by HazMart

Safety Data Sheets (SDS's)

◆ Sources of SDSs

- Manufacturer
 - » *Websites*
 - » Email
 - » In Person
 - » Must be Manufacture & Product Specific
- Internet Resources
- HazMart – Does Not Issue
- **EESOH-MIS**
 - » **Activity must setup an Account – Read Only**
 - » **Must Complete and submit DD Form 2875**
 - » **HazMart - Approves**

◆ **SDSs – Formerly MSDSs - Full compliance – June 2015**

◆ **Required & Inspected by:**

- **Safety Office**
- **Industrial Hygiene**
- **CED – Environmental**
- **HazMart**

◆ **Housekeeping**

- **Keep Organized**
- **Maintain – Up to date**
- **SDS's for HMs**

◆ Current Procedures:

- Must Complete HazMart Authorization and Order Form FEVA Form 32-681 for each Initial & Reorder of HMs
- Initial Submissions add the HM to your AUL when approved by HazMart
- Must have SDS
- **AECs, HWC, UECs are responsible for the accuracy**
- Any Issues are sent to the Coordinator for resolution not the Supply function.
- **Your approval is required on ALL HM orders**

◆ New Procedures: Coordinators & Hazardous Materials Managers (HMM)

- Must establish a EESOH-MIS account:
 - » Must get a AF Portal ID
 - » EMP 4.4.2 Tab 7 AF Portal and eDASH Access Procedures
 - » Must submit a DD Form 2875 SYSTEM AUTHORIZATION ACCESS REQUEST (SAAR) to the HazMart
- HMMs must take AEM Phase I training

◆ HazMart will provide training on the use of EESOH-MIS

Hazardous Materials Containers & Storage

◆ Containers:

- Label must match SDS
- Must be bar coded

◆ Storage Areas

- EMP 4.4.6.6 Tab 1 & Tab 2

◆ Inspect HM Sites Monthly



Storage Gone Wrong – Inspections??



Storage Gone Wrong – Inspections??



Questions

Hazardous Waste Management (HWM)

Hazardous Waste Management

- ◆ Paul James
- ◆ Hazardous Waste Program Manager
- ◆ 733D Mission Support Group (MSG)
- ◆ Civil Engineer Division/Environmental Element (CED/CEIE)
- ◆ 878-7362
- ◆ 878-4589 Fax
- ◆ Email paul.a.james8.civ@mail.mil
- ◆ ESOHTN: <https://acc.esohtn.com/>

Resource Conservation & Recovery Act

- ◆ RCRA Defines Solid Wastes & Hazardous Wastes
- ◆ Establishes Hazardous Waste Management System
 - ◆ Generators
 - ◆ Transporters
 - ◆ Treatment, Storage, & Disposal Facilities (TSDFs)
- ◆ Authorizes States to run their own HWM Programs
 - ◆ Virginia Department of Environmental Quality - VDEQ
- ◆ Requires Pollution Prevention (P2) Programs
- ◆ Requires Affirmative Procurement – RCRA 6002
- ◆ Universal Waste Management
- ◆ USED Oil Management
- ◆ Underground Storage Tanks

Solid Wastes

- ◆ Can be any physical state: solids, liquids, or gaseous
- ◆ Discarded Materials:
 - Abandoned
 - Recycled
 - Reclaimed
 - Accumulated Speculatively
- ◆ 2 Main Subdivisions of Solid Wastes
 - Hazardous Solid Wastes
 - Non Hazardous Solid Wastes
- ◆ Hazardous Determination
 - Before generation
 - Post generation

Hazardous Waste Generators

- ◆ Conditionally Exempt Small Quantity Generator (CESQG)
 - ◆ Less than 100 Kg (220 lbs.) per month
- ◆ Small Quantity Generator (SQG)
 - ◆ Greater than 100 Kg (220 lbs.) but Less than 1000 Kg (2200 lbs.) per month
- ◆ Large Quantity Generator (LQG)
 - ◆ Greater than 1000 Kg (2200 lbs.) per month
 - ◆ Most Regulated
 - ◆ 90 Day Clock

Hazardous Waste Management (HWM) for LQGs: Basic Requirements

- ◆ Requires Training
- ◆ Waste Identification and Classification
- ◆ Accumulation Sites
 - ◆ Less than 90-day Sites – Temporary Storage Sites (TSS)
 - ◆ Satellite Accumulation Sites - SAS
- ◆ Proper Containers and Labels
- ◆ Contingency Plans and Emergency Response
- ◆ Inspections
- ◆ 90 Day Clock – Accumulation Start Date (ASD)

RCRA Criminal Provisions

RCRA (Resource Conservation and Recovery Act) - Felonies

- ◆ Knowingly make false statement or representation in any document filed, maintained, or used for Hazardous Waste compliance, e.g. **training records, inspection forms, waste identification, etc.**
- ◆ Knowingly transport HW to an un-permitted facility.
- ◆ Transport, treat, store (more than 90 days from the Accumulations Start Date), or dispose of HW without a permit.

Transportation of HWs & UWs EMP 4.4.6.8

- ◆ Off Post Transportation
 - ONLY BY LICENSED TRANSPORTERS
- ◆ No HWs or UWs may be brought on Post from any Off-Post site
- ◆ No HWs or UWs may be taken Off Post, except by licensed transporters
- ◆ No HWs or UWs from re-deployments

RCRA Civil Fines at Army Installations

◆ Storage of Hazardous Waste for more than 90 days	\$615,450
◆ No Hazardous Waste determination of containers	\$202,500
◆ Incomplete Emergency Contingency Plan	\$172,075
◆ Improper labeling of Hazardous Waste containers	\$118,039
◆ Discharge of spent photo fixer into sanitary system by a contractor	\$103,410
◆ No weekly inspections of Hazardous Waste storage site	\$72,500
◆ Failure to keep containers tightly closed	\$67,812
◆ Not all Hazardous Waste Handlers had training	\$51,250
◆ No Accumulation Start Date (ASD) on containers	\$49,500
◆ Exceeded 55 gallons of Hazardous Waste in a SAS by Auto Craft Shop	\$49,140
◆ Failure to move waste from SAS within 3 days	\$23,600
◆ 3 Pounds of rags not analyzed	\$22,000
◆ Training; No Job titles & names	\$19,250
◆ Leaking paint cans & unknowns	\$13,000
◆ SAS too far from point of generation	\$11,000
◆ Un-marked containers of Used Oil	\$6,500
◆ No fire extinguishers & spill kits	\$4,000
◆ Absence of Communication/decon equip	\$1,260

U.S. Navy Settles Hazardous Waste Violations at Facility in Virginia Beach, Va.

PHILADELPHIA (August 23, 2012) –

The U.S. Navy has agreed to pay a **\$32,800 civil penalty** to settle alleged violations of **hazardous waste regulations and underground storage tank (UST) regulations** at the Joint Expeditionary Base Little Creek-Fort Story facility in Virginia Beach, Va. , the U.S. Environmental Protection Agency announced today.

EPA cited the U.S. Navy for violating the **Resource Conservation and Recovery Act (RCRA)**, the federal law governing the treatment, storage, and disposal of hazardous waste. RCRA is designed to protect public health and the environment, and avoid costly cleanups, by requiring the safe, environmentally sound storage and disposal of hazardous waste. In addition, RCRA regulates underground storage tanks with the emphasis on preventing releases from USTs which can cause serious contamination to our nation's groundwater.

The U.S. Navy facility, which provides housing and training for the nation's expeditionary forces, allegedly violated RCRA by failing to determine if the **waste was hazardous; storing hazardous waste at the facility, failing to label containers with date and contents; failing to have functioning spill and over fill equipment for two USTs; and failing to notify the state when a new oil-containing UST was installed.**

Hazardous Waste Classification – EMP 4.4.6.8

- ◆ Generally Results from Use of HMs
- ◆ Hazardous Wastes (HWs)
 - Must be listed on 1 of EPA's 4 lists or:
 - » Discarded Commercial Pure Products - P Listed - Acutely Toxic or U Listed
 - » Wastes from Non -Specific Processes - F Listed
 - » Wastes from Specific Processes - K Listed
 - Meet definition of Characteristic Waste
 - ◆ Ignitability D001
 - Liquid with Flash point less than 140 degrees F
 - Flammable compressed gases by DOT or DOT Oxidizer
 - ◆ Corrosivity D002
 - pH less than or equal to 2 or pH greater than or equal to 12.5
 - Corrodes steel SAE 1020
 - ◆ Reactivity D003
 - Water reactive, Explodes
 - Generates cyanide or sulfide gases
 - DOT forbidden, Class A, Class B explosives
 - ◆ Toxicity D004 to D043
 - Concentration equal to or greater than the limit

HAZARDOUS WASTE

FEDERAL LAW PROHIBITS IMPROPER DISPOSAL

IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY
AUTHORITY OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY.

ACCUMULATION
START DATE _____

EPA
WASTE NO. _____

D.O.T. PROPER SHIPPING NAME AND UN OR NA NO. WITH PREFIX

EPA ID. No. VA8213720321
Phone No. 757-878-3915

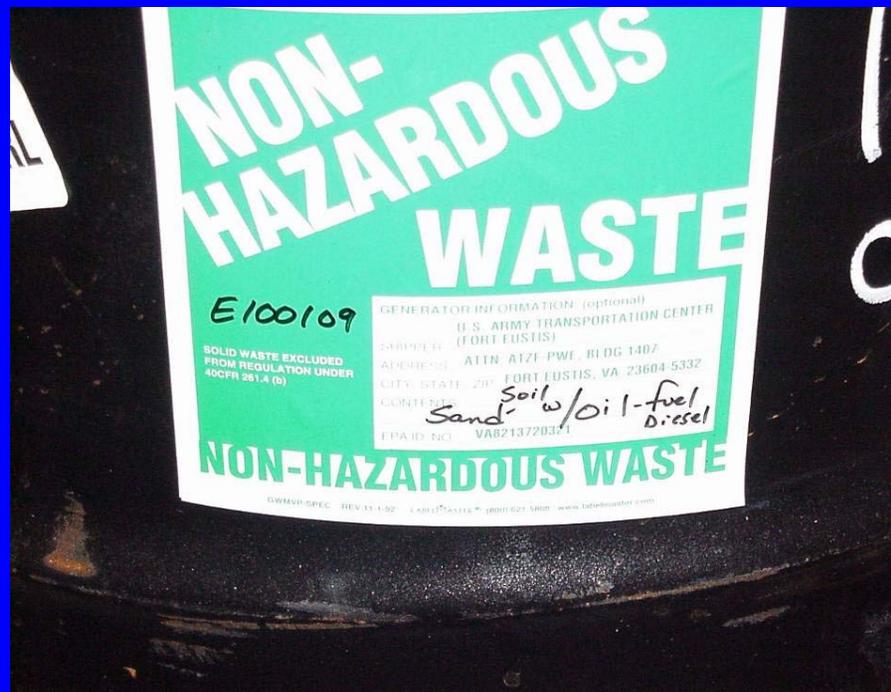
GENERATOR INFORMATION:
Joint Base Langley-Eustis (JBLE)
733d Mission Support Group (MSG)
Civil Engineer Division (CED)
1407 Washington Blvd.
Fort Eustis, VA 23604 – 5332

Manifest No. _____

HANDLE WITH CARE

Non Hazardous Waste Classification

- ◆ Non Hazardous Wastes (NHWs)
- ◆ Any wastes generated from serviceable HMs, and which do not meet the definition of HWs



Universal Waste

FEDERAL LAW PROHIBITS IMPROPER DISPOSAL

**THE FOLLOWING MATERIALS ARE REGULATED AS A
UNIVERSAL WASTE IN ACCORDANCE WITH 40 CFR PART 273.**

UW-BATTERIES
 **UW-MERCURY
CONTAINING EQUIPMENT**

UW-LAMPS
 PESTICIDES

Date: _____ **Cont. No:** _____

D.O.T. PROPER SHIPPING NAME AND UN OR NA NO.
WITH PREFIX (REQUIRED DURING TRANSPORT, WHEN
MATERIAL IS ALSO REGULATED BY 49CFR PARTS 172-180)

HANDLE WITH CARE!

GENERATOR INFORMATION:
Joint Base Langley-Eustis (JBLE)
733d Mission Support Group (MSG)
Civil Engineer Division (CED)
1407 Washington Blvd.
Fort Eustis, VA 23604 – 5332
EPA ID. NO: VA8213720321
757-878-3915

HAZARDOUS WASTE

FEDERAL LAW PROHIBITS IMPROPER DISPOSAL
IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY
AUTHORITY OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY.

ACCUMULATION START DATE _____ EPA WASTE NO. _____

D.O.T. PROPER SHIPPING NAME AND UN OR NA NO. WITH PREFIX

EPA ID. No. VA8213720321
Phone No. 757-878-3915

GENERATOR INFORMATION:
Joint Base Langley-Eustis (JBLE)
733d Mission Support Group (MSG)
Civil Engineer Division (CED)
1407 Washington Blvd.
Fort Eustis, VA 23604 - 5332

Manifest No. _____

HANDLE WITH CARE

Universal Waste

FEDERAL LAW PROHIBITS IMPROPER DISPOSAL

THE FOLLOWING MATERIALS ARE REGULATED AS A
UNIVERSAL WASTE IN ACCORDANCE WITH 40 CFR PART 273.

___ UW-BATTERIES ___ UW-LAMPS
___ UW-MERCURY ___ PESTICIDES
CONTAINING EQUIPMENT

Date: _____ Cont. No: _____

D.O.T. PROPER SHIPPING NAME AND UN OR NA NO.
WITH PREFIX (REQUIRED DURING TRANSPORT, WHEN
MATERIAL IS ALSO REGULATED BY 49CFR PARTS 172-180)

HANDLE WITH CARE!

GENERATOR INFORMATION:
Joint Base Langley-Eustis (JBLE)
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EPA ID. NO: VA8213720321
757-878-3915

AWAITING ANALYSIS

The contents of this container are awaiting analysis
This container must be managed as
Hazardous Waste until determined otherwise

Container# _____

Contents _____

Date Generated: _____ Date Analyzed: _____

Generating Activity: _____

Point of Contact: _____

Phone# _____

Additional Info: _____

GENERATOR INFORMATION:
Joint Base Langley-Eustis (JBLE)
733d Mission Support Group (MSG)
Civil Engineer Division (CED)
1407 Washington Blvd.
Fort Eustis, VA 23604 - 5332
EPA ID. NO: VA8213720321
757-878-3915

NON-HAZARDOUS WASTE

Contents _____

SOLID WASTE
EXCLUDED
FROM REGULATION
UNDER
40CFR 261.4 (b)

GENERATOR INFORMATION:
Joint Base Langley-Eustis (JBLE)
733d Mission Support Group (MSG)
Civil Engineer Division (CED)
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757-878-3915

Hazardous Materials Warning Labels

CLASS 1 Explosive 1.1	CLASS 1 Explosive 1.4	CLASS 1 Explosive 1.5	CLASS 1 Explosive 1.6	CLASS 2 Division 1.1	CLASS 2 Division 1.2	CLASS 2 Division 1.3
CLASS 2 Division 1.4	CLASS 3	CLASS 4 Division 1.1	CLASS 4 Division 1.2	CLASS 4 Division 1.3	CLASS 5 Division 1.1	CLASS 5 Division 1.2
CLASS 6 Division 1.1	CLASS 6 Division 1.2	CLASS 6 Division 1.3	CLASS 6 Division 1.4	CLASS 7	CLASS 7	CLASS 7
CLASS 7	CLASS 8	CLASS 9	SUBSIDIARY RISK LABELS	EMPTY	FOR AIRCRAFT	DANGER Aircraft Only
CLASS 9	CLASS 9	CLASS 9	CLASS 9	CLASS 9	CLASS 9	CLASS 9

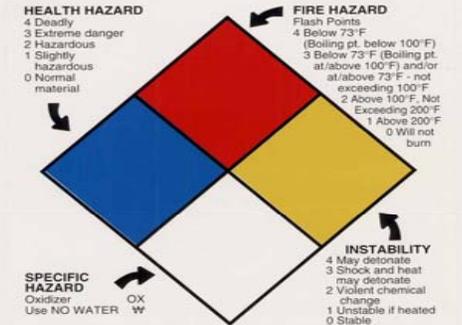
HAZARDOUS MATERIALS MARKINGS

ORM-D	ORM-D-AIR
DANGER	INHALATION HAZARD
HOT	DO NOT ENTER

USED OIL

GENERATOR INFORMATION:
Joint Base Langley-Eustis (JBLE)
733d Mission Support Group (MSG)
Civil Engineer Division (CED)
1407 Washington Blvd.
Fort Eustis, VA 23604 - 5332
EPA ID. NO: VA8213720321
757-878-3915

EMPTY



H-LS - Printed by Labelmaster, An American Labelmark Co., Chicago, IL 60646 (800) 621-5808

HEALTH

FLAMMABILITY

REACTIVITY

PERSONAL PROTECTION

Style NCV5027 © NPCA Printed by Labelmaster, Chicago, IL 60646 (800) 621-5808

Keep a copy of the North American Emergency Response

SL16 - Printed by Labelmaster, An American Labelmark Co., Chicago, IL 60646 (800) 621-5808

Waste Description Logs (WDLs)

FEVA Form 32-697 - EMP 4.4.6.8 Tab 1 Form

- ◆ Must be Updated Annually
- ◆ Must be Approved by the HWAF
- ◆ Block 14 - Hazardous Materials Information
 - HazMart Stock Number (NSN or LPN)
 - Shop Code(s)
 - SDS ID Number & Date
 - Trade Name or Item Name
- ◆ Block 15 - Description of Non Hazardous Materials Used
- ◆ Block 16 - Description of process generating waste
- ◆ Laboratory Analysis Coordination CED/CEIE
 - CEIE Determines When Sampling Needs to Be Done

Accumulation Site Management

- ◆ **All TSS, SAS, NHS Actions: Must Be Approved Using FEVA Form 32-699**
- ◆ Site Approval Actions- New - Closing - Relocation
- ◆ Site Approvals - **FEVA Form 32-699**, EMP 4.4.6.8.2 Tab 1 Form
- ◆ Temporary Storage Sites – TSSs - **Must meet all TSS requirements prior to approval**
- ◆ Accumulation Sites – SASs & NHSs – **Must notify EE within 3 days of establishment**
- ◆ **Must have:** Site Map, Site Specific Contingency Plan, Waste Description Log
- ◆ Universal Waste Sites – UWSs
 - UW Lamps
 - UW Batteries
 - UW Pesticides
 - UW Thermostats
- ◆ CED – AMF - EE Grants final approval on all actions
- ◆ Fire Department approval of site location
- ◆ Safety Office approval of site location
- ◆ EE Notification – Inactivation/Reactivation
- ◆ **FEVA Form 199 signed by Commander or Director**

EMP 4.4.6.8.2 Tab 1 TSS, SAS, NHS Site Approval FEVA Form 32-699

Hazardous and Non Hazardous Waste Accumulation Site Approval

Forms Must Be Typed	
1. Request Date: _____ 2. Type of Accumulation Site: <input type="checkbox"/> TSS <input type="checkbox"/> SAS <input type="checkbox"/> NHS	
Type of Approval being requested: (Check Only One)	
<input type="checkbox"/> 3. Initial Notification of New SAS	<input type="checkbox"/> 5. Relocation of an Existing Site
<input type="checkbox"/> 4. New Accumulation Site	<input type="checkbox"/> 6. Closure of an existing site
7. Temporary Action: <input type="checkbox"/> Inactivation <input type="checkbox"/> Reactivation Date by Activity: _____	
Generating Activity: _____ 8. Building Number of Site: _____	
** Activity Names from EMP 4.4.2 Tab 3 9. DODAC: _____	
10. **MACOM/Wing Name (Column C): _____	
11. **Group/Brigade Name (Column E): _____	
12. **Squadron/Battalion Name (Column G): _____	
13. **Unit Name (Column I): _____	
14a. Name and Grade of HWC: _____ Telephone: _____	
14b. Name and Grade of AEC: _____ Telephone: _____	
New Accumulation Site Requirements:	
<input type="checkbox"/> 15. Copy of Site Map	
<input type="checkbox"/> 16. Copy of Site Specific Contingency Plan (CP)	
<input type="checkbox"/> 17. Copy of Waste Description Logs (WDL)	
Closure of an Existing Site Requirements: 18. Existing Site Number: _____	
Date Closed by Activity: _____	
19. Certification that no wastes are stored or will be stored at the site. <input type="checkbox"/> Certified	
20. Has there ever been a spill at this site? <input type="checkbox"/> Yes <input type="checkbox"/> No	
21. If a spill has ever occurred, has the site been decontaminated? <input type="checkbox"/> Yes <input type="checkbox"/> No	
22. Copy of the last "Weekly Site Inspection" Checklist <input type="checkbox"/> Included	
23. I certify that the above information is complete and accurate.	
Date: _____ Signature: _____	
Telephone: _____ Name of Battalion Commander or Director: _____	
Title and Rank/Grade: _____	
Approvals:	
24. Post Safety Office: _____ Name and Title: _____ Date: _____	
25. Post Fire Department: _____ Name and Title: _____ Date: _____	
CED/EE Approval:	
26. Date of Final Approval: _____ 27. Authorized Site Number: _____	
28. Date of Inact/React: _____ 29. Date of Final Closure: _____	
Signature of CED/EE Personnel: _____	

HAZARDOUS WASTE

**TEMPORARY STORAGE
SITE – TSS**

**UNAUTHORIZED
PERSONNEL KEEP OUT**

NO SMOKING

TSS - Temporary Storage Sites

- ◆ Located at Distance from Generation Point
- ◆ Receive Wastes from Multiple Sites
- ◆ Any Quantity of Wastes
- ◆ Accumulation Start Date (ASD) - First Drop in Container
- ◆ Must be Turned-in to HWAF within 14 Days
- ◆ Site Specific Contingency Plan Part of Installation Plan

HAZARDOUS WASTE

**SATELLITE ACCUMULATION
SITE - SAS**

**UNAUTHORIZED
PERSONNEL KEEP OUT**

NO SMOKING

TODCO

SAS - Satellite Accumulation

- ◆ Wastes From, At, or Near the Point of Generation
- ◆ Under Control of Operator Generating Waste
- ◆ Only One Generator
- ◆ Quantity Limitation
 - One Quart of P - Listed Waste
 - 55 Gallons of Hazardous Wastes
- ◆ Accumulation Start Date
 - When Quantity Limit is Reached
 - Container is Full & Ready for Turn-in
 - Container has been accumulating wastes for 1 year
- ◆ Must be Turned-in Within 3 Days to:
 - TSS
 - HWAF

NON - HAZARDOUS SITE

**SATELLITE ACCUMULATION
AREA - NHS**

**UNAUTHORIZED
PERSONNEL KEEP OUT**

NO SMOKING

TSS, SAS, NHS Common Items

◆ Signs

- Hazardous Waste or Non – Hazardous Site
- Type of Accumulation Site
- No Smoking
- Unauthorized Personnel Keep Out

◆ Emergency Response Information

- ◆ Container Contents Logs (Each Container)
- ◆ Inspected Weekly – EMP 4.4.6.8.2 Tab 2 Form
- ◆ DO Not Store Serviceable Materials with Wastes
- ◆ NHWs will be kept in TSSs or SASs or NHSs

◆ Containment

◆ Protection from the Elements

- ◆ Security
- ◆ Communications Equipment
- ◆ Fire Extinguisher – Two 10 lb ABC or One 20 lb ABC
- ◆ Spill Kit & Decontamination Equipment
- ◆ Containers on Pallets

Labels & Containers EMP 4.4.6.8.3

- ◆ **Containers will be stored so labels are readable without moving the container**
- ◆ Materials in unserviceable containers will be transferred to serviceable container
- ◆ **Containers will be closed except for adding or removing materials**
- ◆ Containers will be compatible with the contained materials
- ◆ **Labels must be in good condition or replaced**
- ◆ Containers of incompatible materials will be separated from other containers of incompatible materials
- ◆ Containers will be kept on pallets
- ◆ **Containers protected from environment**
- ◆ **Containers must have containment**
- ◆ Must have adequate aisle space
- ◆ Containers will not be reused until DOT/OSHA Empty



INCOMPATIBLE MATERIALS CHART

MATERIAL GROUP	EXAMPLES	INCOMPATIBLE MATERIALS	EXAMPLES	REACTION IF MIXED
HMUG GROUP 1	ACIDS Battery Acid Paint Removers De-Rust Sprays	FLAMMABLES/COMBUSTIBLES ALKALIES/BASES/CAUSTICS OXIDIZERS (HMUG GROUPS 2, 3, 6, 7, 9, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 22)	Degreasers, Carbon Removers Antifogging Compounds	HEAT GAS GENERATION VIOLENT REACTION
2	ADHESIVES Epoxies Isocyanates Diethyleneetriamine	ACIDS ALKALIES/BASES/CAUSTICS (HMUG GROUPS 1, 3, 18)		HEAT FIRE HAZARD
3	ALKALIES/BASES/CAUSTICS Ammonia Sodium Hydroxide Sodium Bicarbonate Cleaners/Detergents	ACIDS/CAUSTICS FLAMMABLES/COMBUSTIBLES OXIDIZERS (HMUG GROUPS 1, 2, 6, 8, 9, 10, 11, 12, 14, 15, 17, 18, 19, 20, 22)	Battery Acid Paint Removers De-Rust Sprays Paints/Solvents	HEAT GAS GENERATION VIOLENT REACTION
4	CLEANING COMPOUNDS Degreasers Carbon Removers Antifogging Compounds	DETERGENTS/SOAPS OXIDIZERS (HMUG GROUPS 7, 18)	Calcium Hypochlorite Sodium Nitrate Hydrogen Peroxide	HEAT FIRE HAZARD
5	COMPRESSED GASES Acetylene Helium Propane Ammonia Oxygen	HEAT SOURCES CONSULT OSHA/NIOSH 5100.19 (SERIES) AND NSTM 670 FOR SPECIFIC HANDLING AND STORAGE GUIDANCE		FIRE HAZARD EXPLOSION HAZARD
6	CORROSION PREVENTIVE COMPOUNDS Corrosion Inhibitors Chemical Conversion Compounds	ACIDS BASES OXIDIZERS IGNITION SOURCES (HMUG GROUPS 1, 3, 18)		FIRE HAZARD
7	DETERGENTS/ SOAPS Detergents, Disinfectant, Scouring Powders, Sodium Hydroxide, Trisodium Phosphate, Potassium Hydroxide, (Alkalies/Bases/Caustics)	ACID-CONTAINING COMPOUNDS (HMUG GROUPS 1, 4, 5)	Battery Acid Paint Removers De-Rust Sprays	VIOLENT REACTION HEAT
8	GREASES Graphite Silicone Molybdenum	OXIDIZERS ALKALIES/BASES/CAUSTICS (HMUG GROUPS 3, 18)		FIRE HAZARD HEAT
9	HYDRAULIC FLUIDS Petroleum-Based Synthetic Fire-Resistant	CORROSIVES (HMUG GROUPS 1, 3) OXIDIZERS (HMUG GROUP 18)		VIOLENT REACTION
10	INSPECTION PENETRANTS Petroleum-Based Dyes	CORROSIVES (HMUG GROUPS 1, 3) OXIDIZERS (HMUG GROUP 18)	Battery Acid Chlorine Laundry Bleach Calcium Hypochlorite Calcium Oxide Hydrogen Peroxide OBA Cleaners Lithium Hydroxide Ammonia Paint Removers	EXPLOSION HAZARD
11	LUBRICANTS/ OILS Gen. Purpose, Turbine, Gear, Vacuum, Weapon	CORROSIVES (HMUG GROUPS 1, 3) OXIDIZERS (HMUG GROUP 18)		EXPLOSION HAZARD
12	PAINTS Primers, Enamels, Lacquers, Strippers, Varnish, Thinners	OXIDIZERS (HMUG GROUP 18) CORROSIVES (HMUG GROUPS 1, 3)		HEAT FIRE HAZARD
13	PHOTO CHEMICALS Color and B/W Developers, Bleaches/Stopbath Replenishers, Toners	ACIDS HEAVY METALS (HMUG GROUPS 1, 20)		HEAT FIRE HAZARD
14	POLISH/WAX COMPOUNDS Buffing Compound Metal Polish Gen. Purpose Wax	CORROSIVES OXIDIZERS (HMUG GROUPS 1, 3, 18)		HEAT, FIRE HAZARD VIOLENT REACTION
15	SOLVENTS (HYDROCARBONS) Acetone, Methyl Ethyl Ketone (MEK), Toluene, Xylene, Alcohols	CORROSIVES OXIDIZERS BATTERIES (HMUG GROUPS 1, 3, 18, 21)	Battery Acid Calcium Hypochlorite Sodium Nitrate Hydrogen Peroxide Sodium Hydroxide	HEAT FIRE HAZARD
16	THERMAL INSULATION Asbestos Fibrous Glass Man-Made Vitreous Fibers	MATERIAL IS NOT REACTIVE KEEP DRY		NO REACTION
17	WATER TREATMENT CHEMICALS Tri-Sodium Phosphate Caustic Soda Chlorine Acid Hardness Buffer Titrating Solutions	CORROSIVES OXIDIZERS HEAVY METALS (HMUG GROUPS 1, 3, 18, 20)		HEAT VIOLENT REACTION
18	OXIDIZERS Chlorine Laundry Bleach Calcium Hypochlorite Calcium Oxide Hydrogen Peroxide OBA Cleaners Lithium Hydroxide	PETROLEUM BASED MATERIALS FUELS, SOLVENTS, CORROSIVES, HEAT (HMUG GROUPS 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 14, 15, 17, 18, 20, 21, 22)		FIRE HAZARD TOXIC GAS GENERATION
19	FUELS JP4, JP5, Gasoline	CORROSIVES OXIDIZERS (HMUG GROUPS 1, 3, 18)	Battery Acid Calcium Hypochlorite Sodium Nitrate Sodium Hydroxide	FIRE HAZARD TOXIC GAS GENERATION
20	HEAVY METALS Beryllium, Chromium, Copper, Lead, Magnesium, Mercury, Nickel, Strontium Chromate, Tin, Zinc	CORROSIVES OXIDIZERS WATER TREATMENT/PHOTO CHEMICALS (HMUG GROUPS 1, 3, 6, 13, 17, 18, 21)		VIOLENT REACTION GENERATION OF TOXIC AND FLAMMABLE GAS
21	BATTERIES Lead Acid Alkaline Lithium Dry Cell	SOLVENTS HEAVY METALS (HMUG GROUPS 15, 18, 20)	Xylene Toluene Alcohol Tin Zinc Chromium	HEAT VIOLENT REACTION TOXIC GAS GENERATION
22	PESTICIDES Insecticides Fungicides Rodenticides Fumigants	CORROSIVES OXIDIZERS (HMUG GROUPS 1, 3, 18)		TOXIC GAS GENERATION



1. This Chart is to be used as a *Guide Only!*
2. Compare the desired HMUG Group in the Left Column with the Incompatible Material(s) of that Group in the Center Column, on the same row.
3. Should the Material(s) in the Center Column be mixed with the desired Group in the left Column, the Expected Reactions(s) can be seen in the Right Column.
4. For specific information on storage, contact one of the following offices:

POST SAFETY: 878-3995
 DPW-ENRD: 878-4123
 Hazardous Materials: ext 307
 Hazardous Waste: ext 300 or 308



Universal Wastes

Universal Wastes (UWs)

- ◆ **Universal Waste – A limited number of wastes that would otherwise have to be managed as HWs, e.g., batteries, lamps, pesticides, mercury containing thermostats**
- ◆ Sites Do Not need to be approved
- ◆ UWs will be stored in TSS, SAS or NHS where practical
- ◆ **Will be inspected monthly**
- ◆ **UW labels will have the type UW marked**
- ◆ **ASD will be marked on label**
- ◆ ***UWs excluding UW Lamps will be turned-in within 270 days of ISSUE***
- ◆ UW Lamps will be turned-in within 60 days; Full containers within 10 days of ASD
- ◆ Broken UW Lamps will handled as UWs
- ◆ UWs with liquids will have containment & Spill kits



Fluorescent lamps are energy efficient. They save money & reduce emissions to the air by reducing energy consumption. However, they do contain harmful mercury vapor. So...

Recycle your fluorescent lamps Virginia!

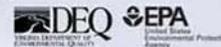
Don't trash fluorescent lamps.

Broken lamps can release mercury to the environment.

If your company is disposing of fluorescent lamps in regular trash, you may be in violation of state & federal regulations.

So just recycle them. It's the right thing to do, Virginia!

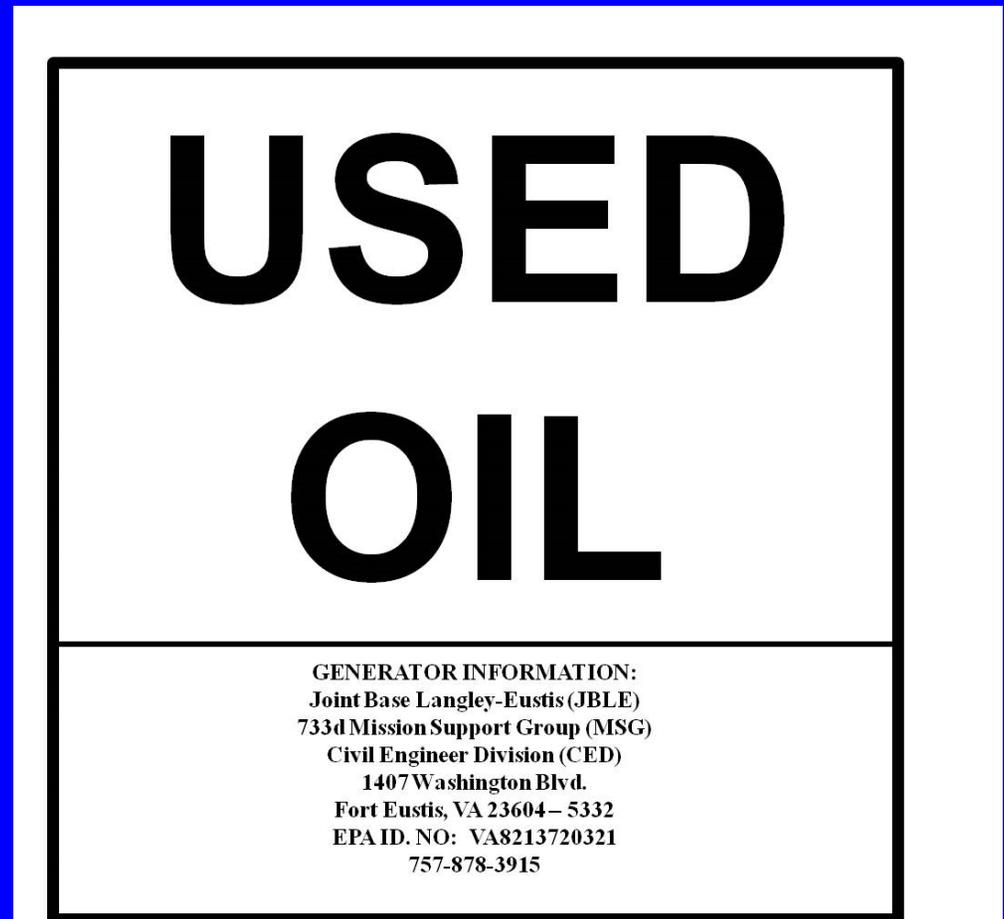
Sponsored by:



For questions about recycling fluorescent lamps, contact your Activity Environmental Coordinator.

Used Oil Containers and Tanks

- ◆ Used oil tanks will be labeled “USED OIL”
- ◆ Containers of used oil will be labeled “USED OIL”
- ◆ Containers of used oil will should not be stored in TSSs or SASs
- ◆ Containers and tanks of used oil should be secured or locked to prevent contamination



Abandon Containers

- ◆ Try to Identify Contents From Labels, Markings
- ◆ Try to Identify Owner
- ◆ Report Abandoned containers to MPs
 - **Failure To Do So – You Just Became the Owner**
- ◆ Containers of Unknown Contents
 - Label as “Awaiting Analysis”
 - Immediately Coordinate with CED/EE





EMPTY

Hazardous Waste Coordinators (HWCs) [EMP 4.4.2]

- ◆ Keep the Unit's chain of command informed on all HW and other environmental matters as required.
- ◆ HWC manages the waste accumulation sites; Temporary Storage Sites (TSSs), Satellite Accumulation Sites (SASs), and Non Hazardous Sites (NHSs).
- ◆ Inspects TSSs, SASs, and NHSs weekly within seven calendar days.
- ◆ Inspect HM and UW sites monthly within 30 days.
- ◆ Ensure turn-ins of HWs & UWs are accomplished within the appropriate time limitations.
- ◆ Coordinate communications between the AEC and Unit.
- ◆ Ensure appointment, training, management oversight, and assistance to the Unit's Hazardous Waste Supervisors (HWSs), Hazardous Waste Handlers (HWHs), Universal Waste Handlers (UWHs), Recycling Coordinators (RCs), and Hazardous Materials Handlers (HMHs).
- ◆ Establish a system to track all inspections conducted at the Unit level and resolve findings.
- ◆ Maintain training and inspection files for at least 3 years.
- ◆ Maintain the Hazardous Material Management program for their Unit.
- ◆ Coordinate new missions, new operations, construction, renovation, new system/equipment deployment, new system/equipment testing and evaluation, and training/exercise actions with the AEC.



HWAF Operations – EMP 4.4.6.8.1

- ◆ Pickup & Delivery of Containers & Wastes Must be Scheduled or Coordinated **3 Days in Advance!!!!**
- ◆ Hours of Operation: Monday through Friday, 0800 to 1500 hrs, except federal holidays
- ◆ Location: Office Bldg 1207; HWAF Bldg 1208
- ◆ Telephone: 878-3915; 878-3384 fax
- ◆ **Turn-in Documents Must be Completed at Time of Scheduling Appointments!!!!**

HW & NHW Containers

- ◆ Only DOT approved containers will be used
- ◆ HW will have appropriate DOT label
- ◆ NHW may require DOT label
- ◆ Container number on label will match CCL
- ◆ Containers of ignitable or reactive wastes will be located at least 50 feet from installation's property line

HAZARDOUS WASTE

FEDERAL LAW PROHIBITS IMPROPER DISPOSAL
IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY
AUTHORITY OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY.

ACCUMULATION START DATE _____ EPA WASTE NO. _____

D.O.T. PROPER SHIPPING NAME AND UN OR NA NO, WITH PREFIX

EPA ID. No. VA8213720321
Phone No. 757-878-3915

GENERATOR INFORMATION:
Joint Base Langley-Eustis (JBLE)
733d Mission Support Group (MSG)
Civil Engineer Division (CED)
1407 Washington Blvd.
Fort Eustis, VA 23604 - 5332

Manifest No. _____

HANDLE WITH CARE

NON-HAZARDOUS WASTE

Contents _____

SOLID WASTE EXCLUDED FROM REGULATION UNDER 40CFR 261.4 (b)

GENERATOR INFORMATION:
Joint Base Langley-Eustis (JBLE)
733d Mission Support Group (MSG)
Civil Engineer Division (CED)
1407 Washington Blvd.
Fort Eustis, VA 23604 - 5332
EPA ID. NO: VA8213720321
757-878-3915

HWAF Turn-ins

- ◆ Wastes must have Waste Description Log prior to turn-in
- ◆ Sites must be approved or have memorandum from Commander or Director appointing AEC
- ◆ Turn-in Documents:
 - DD Form 1348-1A signed by AEC or HWC
 - Container Contents Log (CCL): **Must be Signed by AEC!!!**
- ◆ **Pickups scheduled by AEC or HWC**
- ◆ **AEC or HWC must be available at pickup site**
- ◆ Containers will be inspected by HWAF personnel at pickup
- ◆ Activity will have personnel available for opening and closing containers at the pickup site
- ◆ Activity will have personnel available for loading containers at the pickup site
- ◆ Site evaluation will be accomplished at pickup using FEVA Form 641
- ◆ All Activities will reimburse the installation for HWAF operations

Containers Contents Log

1. Container No : E101006 2. Profile No : 0011 3. HWAF Doc. Reg. No: 12059202 1/3

4. Generating Activity : 7 Gp HHC 3rd Port 5. Building No : 438 TSS

6. Authorized Site No : ET99002 DODAAC: W26AKG 7. Phone Number of HWC SSG Cooper 878-3898

8. DOT Proper Shipping Name : Waste Paint

9. DOT Hazard Class : 3 10. DOT ID No : UN1263 11. Packaging Group : II RQ: 100 lbs

12. DOT Container Type : 1A2 13. Size or Volume : 55

EPA REQUIRED INFO : 14. Waste Description : Paint, Ignitable no metals

15. ASD : 17 JUL 01 16. EPA Waste Codes : D001

17. Origin Code : 1 18. Source Code : A21 19. Form Code : B209

20. Date of Activity	21. Type of Waste (Description of Contents)	22. Process Generating Waste	23. Name of Person Adding Waste	ESTIMATED QUANTITY	
				24. Pounds	25. Gallons
<u>17 JUL 01</u>	<u>WASTE PAINT</u>	<u>EXPIRED</u>	<u>PFC BONENS</u>		<u>10</u>
<u>20 July 01</u>	<u>WASTE PAINT</u>	<u>Expired</u>	<u>SSG LATHROP</u>		<u>6</u>

26. Comments : _____

27. Subtotal of Additional Sheets _____

28. Container Total _____

29. ACTUAL WEIGHT BY HWAF: 234 lbs.

I certify that the contents of this container have been fully and accurately described above and listed IAW all applicable federal, state, and local rules and regulations.

30. Name of HWC : Erik Lathrop Signature : [Signature] Date : 20 JUL 01

31. Name of AEC : Darryl E. Shrewsbury Signature : [Signature] Date : 20 JUL 01

7/16/01

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

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PREVIOUS EDITION MAY BE USED

Questions

Stormwater/Wastewater

Stormwater/Wastewater

- ◆ **Ron Holcomb**
- ◆ Stormwater/Wastewater Media Manager
- ◆ CED/CEIE
- ◆ 878-5218
- ◆ 878-4589 Fax
- ◆ Email: ronald.l.holcomb16.civ@mail.mil
- ◆ **JBLE-I 32-101: Section 4.4.6.2**
- ◆ **Wastewater/Stormwater Management**
- ◆ EMP 4.4.6.2.1 Wastewater Management
- ◆ EMP 4.4.6.2.2 Stormwater Management

Storm Water

- ◆ Regulated by the Clean Water Act – designed to reduce/eliminate polluted storm water runoff
- ◆ Permit allows the installation to discharge storm water from industrial activities into waters of Virginia
 - Permits
 - » VPDES (Department of Environmental Quality)
 - » MS4 (Department of Environmental Quality)
- ◆ No UNAPPROVED discharges to the Storm Drain System. ONLY RAIN DOWN THE DRAIN!!!!!!

CWA Criminal Provisions

Clean Water Acts - Felonies

- ◆ Knowingly make false statement or representation in any document filed, maintained, or used for compliance to include omission of information.
- ◆ Knowingly discharge, cause, or permit oil and hazardous substances in to waters, e.g. surface, ground, sanitary, storm, etc.

PERMITS

◆ VPDES – Phase 1 -

– Industrial Stormwater Discharges

- » Motor pools
- » Airfield
- » 3^d Port

◆ VPDES – Phase 2 –

– Municipal Separate Storm Sewer Systems (small)

- » Best Management Practices (BMPs)
- » Goals

Requirements

◆ Best Management Practices

- Drip pans
- Secondary Containment
- Spill clean up
- Vehicle washing at approved locations only

No UNAPPROVED discharges to the Storm Drain System.

ONLY RAIN DOWN THE DRAIN!!!!

Best Management Practices

- ◆ Ensure each vehicle has a drip pan and pans are not allowed to overflow
- ◆ All washing operations must occur at an approved washing facility (2414* ,2417*, 2705, 2744 and 27601*).
- ◆ Ensure all possible sources of contamination are properly stored and have adequate “secondary containment”
- ◆ Drain protection is important!
- ◆ * these wash racks are designated as aircraft wash facilities and require maintaining a log book





Unpermitted Discharges

Typical Unpermitted Discharges

- ◆ Washing operations in locations other than approved washing facilities, this includes family housing. See BBC residential guide April 2015
- ◆ Disposal of contaminated water
- ◆ Processes not identified in the permits
- ◆ Fuel transfers/overflow
- ◆ Spills which are not remediated



Wastewater

- ◆ HRSD Industrial Wastewater Permit
 - Monthly sampling requirements
 - Regulates any discharges from activities that discharge into the sanitary sewer
 - Discharges must be reported
- ◆ Requires BMPS
 - Secondary containment
 - Spill Kits
 - Drain Covers
 - Restriction of use for some products (certain chemicals disrupt the treatment plant and can be traced back to JBLE)
 - Good Housekeeping Practices

Oil/Water Separators

- ◆ Used to separate a small amount of oil (a sheen) from a larger volume of water
- ◆ Degreasers prohibited
- ◆ CED BOS contractor checks storage tank monthly to determine level and pumping requirements
- ◆ Don't use as a dumping spot
 - Used oil should be properly disposed

Questions