

U.S Army Garrison Hawaii
Directorate of Public Works (DPW) Environmental Division

ENVIRONMENTAL COMPLIANCE GUIDE



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DOCUMENT INFORMATION

The U.S. Army Garrison Hawaii Environmental Compliance Guide is a simple "A to Z" informational and "how-to" guide organized into single pages-per-topic fact sheets. It provides answers to most frequently asked environmental questions at a glance, and prescribes responsibilities and instructions for managing environmental issues in accordance with applicable federal, state, Army and installation regulations.

These fact sheets and guides are not meant to be an SOP or policy. It is one of the many tools available to help U.S. Army Hawaii commanders, directors and personnel manage their environmental programs to sustain the environment for a secure future.

If the information you are looking for is not contained in this guide, do not hesitate to contact the Directorate of Public Works' Environmental Division at (808) 656-2878.

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ABANDONED VEHICLES

GENERAL INFORMATION

Personal abandoned vehicles are a common issue on base and throughout Hawaii. Cars, boats, mopeds, etc. should not be abandoned on base or off base. There are alternatives available for military personnel to properly dispose of or sell their vehicles.

WASTE CHARACTERIZATION

Most vehicle parts can be recycled, from the oil to the metal. Fully functional cars can be sold or donated to other families on Hawaii that are in need of a vehicle.

HANDLING AND DISPOSAL PROCEDURES

- If you are PCSing then you can use the convenient [Vehicle Turn-in Service](#) offered through MWR and the Autoskills Center. They will take your vehicle for only \$25.
- You also have the option of selling your vehicle used to a dealer or to a friend.
- Charitable organizations are available that will take your car (working or not) for free, and this is tax-deductible. A simple Google search will direct you to local companies.

Reporting an abandoned vehicle on base: Call the Military Police at (808) 655-5555 and provide the location, make, model, color and license plate number of the abandoned vehicle.



For more info contact: DPW Environmental Solid Waste and Recycling Program at

(808) 656-5411

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ABOVEGROUND STORAGE TANKS (Fuel Storage)

GENERAL INFORMATION

Aboveground Storage Tanks (ASTs) are regulated by 40 CFR Part 112 and are managed by DPW under the installation Spill, Prevention, Control and Countermeasures (SPCC) Plan. A copy of the SPCC plan can be obtained from the DPW Intranet web site and DPW Environmental Division SPCC Program Contacts.

POTENTIAL HAZARDS

Fuel is a hazardous material that can cause harm to human health and the environment. If fuel is spilled from an AST, it may contaminate land and water resources. Fuel is a highly flammable liquid that can easily ignite by heat, sparks or flames. Runoff to sewers and storm drains may also create fire or explosion hazard.

GENERAL REQUIREMENTS

AST's are inspected frequently to monitor the physical condition of the tanks. By law, all ASTs are required to have secondary containment, corrosion protection and leak detection. All fuel handlers must be trained annually. Contact your unit transportation officer for a training schedule.

INSPECTION PROCEDURES

Step 1: Each facility must follow the specific Best Management Practice (BMPs) requirements for their respective AST system. Make sure there is an updated version of the SPCC plan on site for reference.

Step 2: Conduct regular visual inspections of the AST and associated piping/equipment. Inspection documents must be maintained for 3 years. Notify DPW Emergency Spill Response Line at (808) 656-1111 in the event of a spill.

Step 3: Don't ignore visual alarms or silence audible alarms. Call the spill line at (808) 656-1111 if you need help troubleshooting the cause of the alarm.

Step 4: Valves to secondary containment berms should always be kept closed except when draining accumulated rain water.

Step 5: Secondary containment must be kept free of water. Be sure to absorb any visible sheen with absorbent pads before releasing the water.



Step 6: Record any visible sheens in a maintenance logbook and the associated corrective actions taken.

Step 7: Call DPW Environmental Division or the **Waste Pickup Request Line (808) 656-0867** for guidance on how to properly dispose of contaminated absorbent pads.

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ABSORBENTS with Petroleum, Oil & Lubricants (POL) from Motorpool Operations (Used rags, pads, booms)

GENERAL INFORMATION

Absorbents include Used Rags, Pads and Booms. Keep absorbents contaminated with other hazardous materials separate from absorbents with POL. Absorbents with gasoline or mogas must be handled differently. Aviation maintenance rags are Hazardous Waste and must be managed separately.

POTENTIAL HAZARDS

Absorbents *saturated* with POL or gasoline may be flammable and/or toxic.

WASTE CHARACTERIZATION

Non-saturated used absorbents that are contaminated with POL products from motorpool operations are considered NON-REGULATED WASTE and must be turned in to the DPW TAP.

HANDLING AND DISPOSAL PROCEDURES

Step 1: Use/Re-use absorbents to their fullest extent without becoming saturated (dripping).

Step 2: Place used absorbents into a closable metal container marked “USED POL RAGS”. Always use the rags in the “USED POL RAGS” container first before reaching for a new rag. Re-using rags reduces waste and saves money.

Step 3: When absorbents are no longer usable, place them in a clear plastic bag and contact the ECO to transfer the bag of rags to the RMSSP.

Step 4: The ECO can call the *Waste Pickup Request Line (808) 656-0867* for pickup.



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ADHESIVES, SEALANTS and EPOXIES

GENERAL INFORMATION

Most adhesives, sealants, and epoxies are flammable and must be stored in an approved flammable storage cabinet. Many adhesives also have an expiration date. Check each item to see if it has expired or if it is no longer useable.

POTENTIAL HAZARDS

Adhesives and sealants are made of combinations of chemicals suspended in a solvent that partially evaporates during use. Two-part epoxies are typically stored in separate containers and react with each other when mixed in order to harden. Refer to the SDS for specific hazards.

WASTE CHARACTERIZATION

Expired adhesives and sealants may be HAZARDOUS WASTE. Spent adhesives, sealants and wastes generated from the application of these materials such as stir sticks, containers and old material removed during replacement, may also be considered HAZARDOUS WASTE. Consult the Aviation Maintenance Rags and Debris Fact Sheet for more information or call the DPW Environmental Division Compliance Inspections Program for guidance.

HANDLING AND DISPOSAL PROCEDURES

Step 1: Use proper PPE when handling – refer to the SDS.

Step 2: If material is no longer usable, contact the ECO who can refer to the SDS for each item and determine if Hazardous or Non-hazardous Waste. Contact your DPW Environmental Division Inspector if further assistance is needed.

Step 3: Mark and label each item according to the waste determination (“HAZARDOUS WASTE” or “NON-REGULATED WASTE”). Hazardous Waste must be managed IAW the IHWMP in the HWSSP (see HWSSP Fact Sheet) and Non-Regulated Waste should be managed in the RMSSP (see RMSSP Fact Sheet).

Step 4: Arrange disposal by contacting the *Waste Pickup Request Line (808) 656-0867*.



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AEROSOL CANS

GENERAL INFORMATION

Maintenance procedures require the use of many aerosol products which include paint, solvents, lubricants and adhesives.

POTENTIAL HAZARDS

Many of these products are flammable and must be stored in an approved storage cabinet with the SDS.

WASTE CHARACTERIZATION

Aerosol hazardous materials are under pressure and may be flammable, reactive, corrosive and/or toxic depending on the contents of the cans. Most aerosols are HAZARDOUS WASTE.

HANDLING AND DISPOSAL PROCEDURES

Aerosol cans that are no longer serviceable (i.e.: broken nozzle), but that are still under pressure and/or still contain their contents may be a HAZARDOUS WASTE and must be collected and turned-in to the TAP.



Step 1: Separate all aerosol paints from other aerosols.

Step 2: All aerosol paint cans must be placed into a closeable metal container marked “Used Aerosol Paint Cans” in the RMSSP. Call the *Waste Pickup Request Line (808) 656-0867* for pick-up.

Step 3: For aerosols that do not contain paint: If the can is completely empty (i.e. it does not contain any material or propellant and there is no pressure in the can) and it has a Hazardous Materials Control Point (HMCP) bar code, it should be turned-in to the HMCP at ER Bldg

6040- (808) 656-0720.

Step 4: If any material, propellant or pressure remains in the can, then the ECO must determine whether the material is Hazardous or Non-Regulated Waste (e.g. Flammable aerosol materials are Hazardous Waste). Contact your DPW Environmental Division Compliance Inspector if assistance is needed.

Step 5: Mark and label each item according to the waste determination (“HAZARDOUS WASTE” or “NON-REGULATED WASTE”). Hazardous Waste must be managed IAW the IHWMP in the HWSSP (see HWSSP Fact Sheet) and Non-Regulated Waste should be managed in the RMSSP (see RMSSP Fact Sheet). Call the *Waste Pickup Request Line (808) 656-0867* for pick-up.

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ANTIFREEZE / COOLANT

GENERAL INFORMATION

Antifreeze/coolant typically contains ethylene glycol. However, other formulations have been developed recently using less toxic chemicals such as propylene glycol.

POTENTIAL HAZARDS

Used antifreeze may contain low concentrations of toxic metals such as copper, zinc, lead, cadmium and chromium.

WASTE CHARACTERIZATION

Used antifreeze is managed as a RECYCLABLE MATERIAL and is collected and recycled by a service contractor.

HANDLING AND DISPOSAL PROCEDURES

Step 1: Transfer used antifreeze from drip pans into an accumulation drum in the unit/activity's RMSSP. Make sure the drum is closed (wrench-tight) when done. The drum must be marked "USED ANTIFREEZE", and the entire middle third of drum must be painted green.

Step 2: Enter the amount transferred into the drum onto a RMSSP Collection Log. The log must be kept in the RMSSP or in a central location (ECO Book) in case of emergency. Manage the Used Antifreeze in the RMSSP IAW the IHWMP (See RMSSP Fact Sheet).



Step 3: Used antifreeze is pumped out from the RMSSP on a monthly basis by appointment. Call the *Waste Pickup Request Line (808) 656-0867* to schedule a pickup.

NOTE: Do not mix antifreeze with used POL (e.g. oil, fuel). If antifreeze is contaminated with oil, contact your DPW Environmental Division Compliance Inspector for guidance.

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ASBESTOS CONTAINING SAFES / CABINETS

GENERAL INFORMATION

Some manufacturers of file cabinets/safes, used asbestos as a fireproofing in the past. File cabinets/safes manufactured by Remington Rand should be considered to contain asbestos unless proven otherwise through analysis.

POTENTIAL HAZARDS

Asbestos presents a risk to human health as a result of air emissions. It is toxic by inhalation and is an active carcinogen. Asbestos-containing products, asbestos-containing material (ACM) and non-friable and friable asbestos waste are regulated for use and disposal by the Toxic Substances Control Act (TSCA) 40 CFR 763, Subpart I, OSHA 29 CFR 1910.1001, and Clean Air Act (CAA) 40 CFR 61. The exposure effects of asbestos are dangerous and can be fatal. There may be increased health risks associated with exposure by not following the recommended handling procedures.

WASTE CHARACTERIZATION

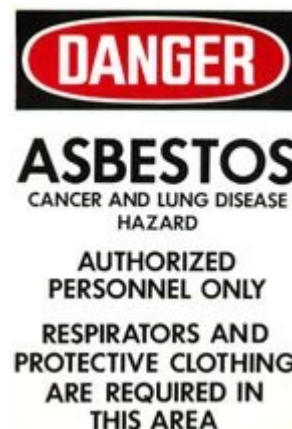
Asbestos containing materials are managed as **SPECIAL WASTES** which require controlled disposal to prevent releasing the toxic substance to the environment.

HANDLING AND DISPOSAL PROCEDURES

Step 1: Determine if the safe is suspected to have ACM via manufacturer's information.

Step 2: If safe has asbestos, then wrap it in plastic and contact:

Mr. Kirk Buckner
Disposition Services Pearl Harbor (DSPH)
(808) 473-9535



For more info contact: DPW Environmental asbestos and lead based paint program,

(808) 656-0619 / (808) 656-3106

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ASBESTOS CONTAINING MATERIALS AND LEAD-BASED PAINTS

GENERAL INFORMATION

Asbestos & Lead-Based Paint may be found at any building on the USAG-HI installations. Typical asbestos containing materials (ACM) include old floor tile, flooring mastics/glues, drywall joint-compound, pipe/tank insulation, window caulking, and coatings. Lead is commonly found in the paint on the installation's older facilities; most commonly used prior to 1979.

POTENTIAL HAZARDS

These toxic materials are safe to be around as long as they are in good condition. Activities such as sanding, grinding, drilling or sawing of asbestos containing materials or lead based paint are ***not allowed*** because they could release asbestos fibers into the air. Self-help removal of asbestos containing materials is prohibited. Only trained and certified abatement workers may disturb or remove these materials (asbestos, lead). The exposure effects of asbestos and lead are dangerous and can be fatal. There may be increased health risks associated with exposure by not following the recommended handling procedures.

WASTE CHARACTERIZATION

Asbestos containing materials are managed as SPECIAL WASTES. Lead based paint waste is managed as HAZARDOUS WASTE.

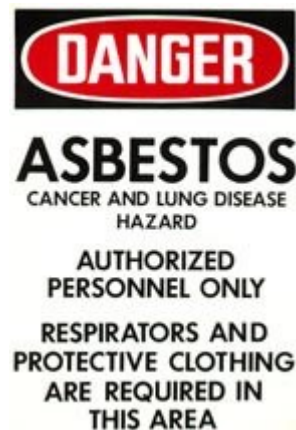
HANDLING AND DISPOSAL PROCEDURES

Step 1: Submit a Facilities Engineering Work Request (FEWR), DA Form 4283, to DPW for approval on any work you plan to do to your facilities.

Step 2: Contact the DPW Environmental Division Asbestos and Lead Based Paint program before beginning your self-help project to determine if asbestos or lead based paint is present. A survey or laboratory testing may be required by qualified personnel.

Step 3: If asbestos containing materials and/or lead-based paints are present and must be disturbed during the proposed work, then the work cannot be performed by in-house Civilian or Military personnel.

Step 4: Disturbance or removal of lead paint and asbestos must be done by qualified workers using specialized work practices in order to keep the workers and building occupants safe from exposure. The work must be contracted.



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AUTHORIZED USE LIST (AUL)

GENERAL INFORMATION

All units, down to the company level, are required to identify all Hazardous Material (HM) necessary to meet daily mission requirements through their AUL in accordance with Policy Memorandum USAG-HI-8, Authorized Use List (AUL). The AUL reflects a 30-day HM supply based on the unit's Unit Basic Load (UBL) and must be approved and signed by the unit commander and the Logistics Readiness Center (LRC) Hazardous Material Control Point (HMCP).

ADDITIONAL INFORMATION

- The AUL must be established and updated annually or as changes occur.
- All HM must be ordered electronically through the Army supply system.
- The HMCP will not issue HM not listed on, or in excess of, the unit AUL without written authorization by the unit commander and the LRC HMCP.
- All HM containers must be issued by the HMCP and have a Enterprise Environmental, Safety and Occupational Health-Management Information System (EESOH-MIS) bar-code.
- To receive new material, units/activities must show that previously issued HM was used by turning in empty HM containers with barcodes.
- Requests to temporarily increase the AUL quantities for training and/or service requirements or to locally purchase items not available through the HMCP must be approved by the LRC HMCP.
- The AUL is a tool to help units manage their HM. Failure to properly manage excess and expired materials may result in EPA fines and/or penalties.

Step 1: Establish your AUL by contacting the LRC HMCP at (808) 656-0720.

Step 2: Ensure all HM used at the facility is approved and listed on the AUL. Never purchase or use HM until it has been approved and added to the AUL.

Step 3: Monitor HM inventory to ensure AUL is accurate. Update as needed.

NOTE: Civilian activities do not order materials through Army supply and are not required to have HM bar-coded through the HMCP, however, they must still establish and maintain an approved AUL through DPW ENV for tracking purposes. Contact (808) 656-0867 for more information.

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AVIATION MAINTENANCE DEBRIS (Mixing Cups & Applicators)

GENERAL INFORMATION

Aircraft maintenance procedures use many different paints, adhesive and sealants. Some of these materials consist of a base component and a catalyst which must be mixed prior to use by pouring a measured amount of the materials into cups and mixing them with applicator sticks. The materials used in this process must be disposed of properly.

POTENTIAL HAZARDS

Some of the hazardous materials used in the maintenance processes contain Chromium and Cadmium.

WASTE CHARACTERIZATION

All waste aviation maintenance debris is considered HAZARDOUS WASTE. This includes the mixing cups, applicator sticks, brushes, gloves, etc. used in the mixing and application process of the paint, adhesives and/or sealants.

HANDLING AND DISPOSAL PROCEDURES

Step 1: Mix smallest amount of material as possible. Label cup with name of material/FSC, date & time mixed.

Step 2: Leave remaining amount on mixing table for possible reuse.



Step 3: The mixing table must be checked, at a minimum, at the end of each work shift. Any mixing cups and applicators that are no longer usable must be collected and turned in to the ECO immediately. **DO NOT PLACE AVIATION MAINTENANCE DEBRIS IN THE USED AVIATION RAGS CONTAINERS!**

Step 4: The ECO will place the cups and applicators in the HAZARDOUS WASTE AVIATION MAINTENANCE RAGS & DEBRIS collection drum at the Hazardous Waste Shop Storage Point (HWSSP).

Step 5: The ECO can call the *Waste Pickup Request Line (808) 656-0867* for pickup.

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AVIATION MAINTENANCE RAGS and TECH WIPES

GENERAL INFORMATION

Aircraft maintenance procedures use many different hazardous materials including POL, adhesives, sealants, epoxies, solvents and paint. The application of these materials generate waste products that are regulated by federal and/or state environmental regulations.

POTENTIAL HAZARDS

Some of the hazardous materials used in the maintenance processes contain Chromium and other toxic constituents. Cadmium, which is used in corrosion protection of the airframe is also toxic and typically present on the rags generated from working on the aircraft.

WASTE CHARACTERIZATION

All waste aviation maintenance rags and tech wipes are considered HAZARDOUS WASTE. This includes rags contaminated with POL, alcohol, acetone and corrosion conversion coatings (e.g. alodine).

HANDLING AND DISPOSAL PROCEDURES

Step 1: Use/re-use rags to their fullest extent without becoming saturated (dripping).

Step 2: Store used rags in the hangar in closable metal containers, separated by the process for which the rags are used (e.g. Used POL Rags, Used Alcohol Rags, Used Acetone Rags) and re-used as much as possible.

Step 3: When rags are no longer usable, place them in a clear plastic bag and contact the ECO to transfer the bag of rags to the HWSSP. **DO NOT LEAVE BAGS OF WASTE RAGS AROUND THE HANGAR!**



Step 4: The ECO can accumulate the POL and Alcohol rags together in a container in the HWSSP marked "HAZARDOUS WASTE AVIATION MAINTENANCE RAGS & DEBRIS". Waste Acetone Rags must be stored in a separate container marked "HAZARDOUS WASTE ACETONE RAGS".

Step 5: The ECO can call the *Waste Pickup Request Line (808) 656-0867* for pickup.

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BATTERIES – (Absorbed Glass Mat (AGM)): e.g. Hawker Armasafe Plus and Optima

GENERAL INFORMATION

AGM batteries are non-spillable. They have no caps that can be opened, do not leak acid and are maintenance free because they do not require water or electrolyte to be added. Consequently, they are safer to use than the typical “wet” lead acid batteries. Contact the DPW Environmental Division Sustainability Program at (808) 656-3103 for assistance in establishing an AGM battery program.



HAWKER

NSN 6140-01-485-1472

P/N 9750N7025



OPTIMA

NSN 6140-01-374-2243

P/N 800 U



Redi-Pulse Pro HD

NSN 6130-01-500-3401

P/N 746x800

POTENTIAL HAZARDS

AGM batteries may vent explosive hydrogen gas if they are improperly charged with excessive voltage.

WASTE CHARACTERIZATION

Unserviceable AGM batteries are considered UNIVERSAL WASTE. Broken batteries may be HAZARDOUS WASTE. Check with the DPW Environmental Division Compliance Inspections Program for the proper management of broken batteries.

HANDLING AND DISPOSAL PROCEDURES

Step 1: AGM batteries need a higher quality charger for optimal maintenance and recovery. Be sure to use a “Redi-Pulse Pro HD” (NSN:6130-01-500-3401) or similar auto sensing 12/24V pulse charger.

Step 2: AGM batteries can be recovered from a “dead” state to full charge almost indefinitely. Do not turn-in AGM type batteries for recycling until all attempts to recharge and reuse them have failed.

Step 3: Once it is determined that a battery is no longer recoverable, mark the battery with the words “**USED BATTERY**” and with the “**DATE**”, (the date the battery became a waste). Use a Universal Waste Collection Log to account for battery accumulation.

Step 4: Return the battery to your Supply Support Activity (SSA) or Hazardous Materials Control Point (HMCP) for recycling. If you do not have a SSA, call the DPW Environmental Division Compliance Inspections Program for assistance.

IMPORTANT: All batteries must be turned-in within 6-months of the “**DATE**” the battery became a waste.



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BATTERIES (Alkaline)

GENERAL INFORMATION

Americans purchase over 4 billion dry cell batteries each year. Non-rechargeable alkaline batteries are very commonly used in household items. When alkaline batteries were introduced in the 1960s, they contained a small amount of mercury, however, since 1993, domestically made alkaline batteries contain no added mercury and are essentially mercury free.



Photo Source: www.wikipedia.com

POTENTIAL HAZARDS

Over time, alkaline batteries are prone to leaking potassium hydroxide, a caustic agent that can cause respiratory, eye and skin irritation. This can be avoided by not mixing different battery types in the same device, replacing all of the batteries at the same time, storing in a dry place and removing batteries for storage of devices.

WASTE CHARACTERIZATION

Used batteries are considered UNIVERSAL WASTE. Broken batteries may be HAZARDOUS WASTE. If you need to dispose of a battery but are unsure what type of battery it is, please contact your DPW Environmental Compliance Inspector for assistance.

HANDLING AND DISPOSAL PROCEDURES

Step 1: Try to replace non-rechargeable alkaline batteries with rechargeable batteries to minimize the generation of waste batteries.

Step 2: Tape all terminals and place in a cardboard box with the inventory written on the top of the box. Mark and/or label the box “**USED BATTERIES**” and the “**DATE**” indicating the date the batteries were collected as unserviceable, on the front of the box. Use a Universal Waste Collection Log to account for battery accumulation.



Step 4: Broken batteries may be HAZARDOUS WASTE. Check with the DPW Environmental Division Compliance Inspections Program for the proper management of any broken battery.

Step 5: Contact the *Waste Pickup Request Line (808) 656-0867* for pick-up.

IMPORTANT: All batteries must be turned-in within 6-months of the “**DATE**” the battery became a waste.

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BATTERIES – (Lead Acid) (Vehicles, UPS Batteries)

GENERAL INFORMATION

Most vehicles batteries and Uninterruptible Power Supply (UPS) battery you use as backup for your computer are lead-acid batteries. “Wet” lead-acid batteries contain cells made of lead and lead dioxide and an acidic electrolyte solution of sulfuric acid. The electrolyte is a strong corrosive agent.

POTENTIAL HAZARDS

The Lead-acid batteries may also vent explosive hydrogen gas. Batteries should be stored in a cool dry place on a plastic secondary containment pallet.

WASTE CHARACTERIZATION

Most standard vehicle-type lead-acid batteries and UPS batteries are recycled and are managed as a UNIVERSAL WASTE. Broken batteries may be HAZARDOUS WASTE. Check with the DPW Environmental Division Compliance Inspections Program or the TAP for the proper management of broken batteries.

HANDLING AND DISPOSAL PROCEDURES

Step 1: Before disposing of any battery, make every attempt to recharge and reuse it.

Step 2: Once it is determined that a battery is no longer usable, mark the battery with the words “**USED BATTERY**” and with the “**DATE**” the battery became a waste. UPS batteries must be removed from their casing and marked in the same manner. “Wet” lead-acid batteries must be stored on secondary containment. Use a Universal Waste Collection Log to account for battery accumulation.

Step 3: Return the battery to your Supply Support Activity (SSA) for recycling. If you do not have a SSA, call the Hazardous Material Control Point (808) 656-0720 for assistance.



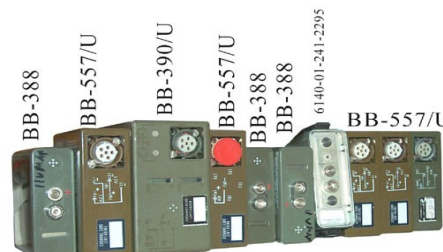
IMPORTANT: All batteries must be turned-in within 6-months of the “**DATE**” the battery became a waste.

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BATTERIES (Tactical)

GENERAL INFORMATION

Tactical rechargeable and non-rechargeable batteries, such as Lithium Sulfur Dioxide, Nickel-Cadmium, Nickel Metal Hydride, etc. have hazardous chemicals which require special consideration for their disposal. Some common examples are BA-5590, BA-5800, BA-5600, BB-390, BB-388.



POTENTIAL HAZARDS

All batteries should be stored in a cool dry place because some batteries react violently or may even explode when exposed to water or high temperatures. Failure to properly manage and dispose of batteries is harmful to the environment and is a violation of environmental regulations which could result in serious penalties and fines. Some Lithium batteries have a discharge device which should not be activated. **DO NOT DISCHARGE LITHIUM OR ANY OTHER BATTERIES.**

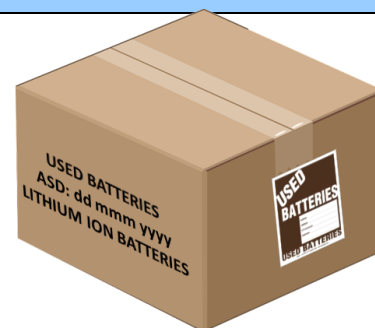
WASTE CHARACTERIZATION

Used batteries are considered UNIVERSAL WASTE. Broken batteries may be HAZARDOUS WASTE. Check with the DPW Environmental Division Compliance Inspections Program or the TAP for the proper management of any broken battery.

HANDLING AND DISPOSAL PROCEDURES

Step 1: DO NOT DISCHARGE ANY BATTERY. Separate batteries according to type (i.e. Lithium Sulfur Dioxide, Lithium Ion, Nickel-Cadmium, Nickel Metal Hydride).

Step 2: Tape all terminals and place in a cardboard box with the inventory written on the top of the box. Mark and/or label the box “USED BATTERIES” and the “DATE” indicating the date the batteries were collected, on the front of the box. Use a Universal Waste Collection Log to account for battery accumulation.



Step 4: Broken batteries may be HAZARDOUS WASTE. Check with the DPW Environmental Division Compliance Inspections Program for the proper management of any broken battery.

Step 5: Contact the *Waste Pickup Request Line (808) 656-0867* for pick-up.

IMPORTANT: All batteries must be turned-in within 6-months of the “DATE” the batteries became a waste.

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BULK WASTE

(Government Owned Furniture, Appliances and Others)

GENERAL INFORMATION

Bulk waste are larger waste items like furniture and appliances. Most bulk waste are banned or restricted from City and County landfills. Dumpsters that contain bulk items will not be picked up by the solid waste contractor.

Military Furniture and Appliances (government property) require special handling and disposal procedures. Excess and surplus property is regulated by the Department of Defense Manual (DoDM) - [DoDM 4160.21](#).

WASTE CHARACTERIZATION

Bulk waste include: unusable furniture, appliances, wood waste, pallets, batteries, tires, building/construction debris, cardboard, large scrap metal, large green waste, etc.

HANDLING AND DISPOSAL PROCEDURES

- **DO NOT ILLEGALLY DUMP** any bulk waste items in or around garbage dumpsters.



- Cardboard, scrap metal, and green waste are recyclable materials. Take these items to the Army Recycling Center (ARC) or call (808) 656-9911 for pick-up options. See individual A-Z Fact Sheet for more information.
- For usable furniture see individual A-Z Fact Sheet.
- For batteries and tires see individual A-Z Fact Sheet.
- For government owned bulk waste, take to supporting unit Supply Support Activity (SSA) or contact [DLA](#) determine requirements for turn in.
- For other bulk waste including wood pallets and crates, request roll-off container from DPW Service Contract Branch (808) 656-4131. Specify the type of waste items to be disposed.
- For IPC residents call your community center for the bulk pickup schedule.

For more info contact: DPW Environmental Solid Waste and Recycling Program at

(808) 656-5411

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CALCIUM HYPOCHLORITE

GENERAL INFORMATION

Calcium hypochlorite is commonly used in water purification operations.

POTENTIAL HAZARDS

Calcium hypochlorite (e.g. water purification tablets) is an oxidizer which poses a great fire and inhalation risk. It should be handled and stored carefully. It is generally available as a white powder and/or pellets and decomposes in water to release chlorine and oxygen gases. It is toxic by oral and dermal routes and can react to release chlorine or chloramines, which can be inhaled.

WASTE CHARACTERIZATION

Discarded, expired and/or contaminated calcium hypochlorite is a HAZARDOUS WASTE.

HANDLING AND DISPOSAL PROCEDURES

Step 1: Obtain correct SDS and use required PPE when handling this item.

Step 2: If the material is expired or no longer usable, mark/label it “HAZARDOUS WASTE – Calcium Hypochlorite”.

Step 3: All hazardous waste must be placed in the HWSSP as soon as it determined to be a HW. Manage all HW in accordance with the IHWMP (see HWSSP Fact Sheet).

Step 4: Contact the *Waste Pickup Request Line (808) 656-0867* to request a pickup.



Photo Source: www.campbell.army.mil

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CARDBOARD

GENERAL INFORMATION

Corrugated cardboard is recyclable and is accepted at the Army Recycling Center (ARC) at 1087-B McMahon Road, Schofield Barracks.

WASTE CHARACTERIZATION

It is made of a sheet of corrugated fiber paper between sheets of cardboard; commonly used to make shipping boxes. All dry corrugated cardboard is recyclable. Cardboard contaminated with cooking oil, wax, food, oil and fuel stains can't be recycled and should be disposed of in an appropriate garbage container.

HANDLING AND DISPOSAL PROCEDURES

Recycle corrugated cardboard at the ARC. Cardboard should NOT be placed in or around dumpsters. Breakdown cardboard boxes, flatten and place in the designated recycling containers or bins labeled "cardboard." If cardboard containers or bins are not available, keep stacked in dry place and request pick-up by calling the ARC at (808) 656-9911 or bring flattened, dry cardboard boxes to the ARC at SB 1087-B on McMahon Road.



For more info contact: DPW Environmental Solid Waste and Recycling Program at
(808) 656-5411 or (808) 656-3085

U.S. Army Garrison Hawaii – Environmental Compliance Guide

CELL PHONES

GENERAL INFORMATION

There are more than 500 million used cell phones in the U.S. sitting in people's drawers or worse, in our landfills, and another 130 million will be added this year alone!

Don't Trash Your Cell Phone -- Recycle It! Help us keep toxic metals out of the waste stream and the environment by recycling your old cell phones.

WASTE CHARACTERIZATION

Cell phones are considered an electronic waste and contain toxic metals that can pollute the environment and threaten human health. When recycled responsibly, the metals can be put back into circulation, decreasing the need for new metal mining.

HANDLING AND DISPOSAL PROCEDURES

- Government cell phones must go back to the person or Supply Support Activity (SSA) who issued it.
- The Army Recycle Center does not accept electronic waste, including cell phones for recycle. They can be recycled through several local electronic [waste recyclers](#). Contact the DPW-Environmental Solid Waste Program (808) 656-9911 for more information.
- Qualified recyclers are able to either refurbish and reuse the phones or dismantle and recycle them appropriately.
- There are no security or privacy concerns as long as your phone has been deactivated, reset to factory settings or the SIM card has been removed. When the phones are refurbished, they are completely cleared and reprogrammed.



For more info contact: DPW Environmental Solid Waste and Recycling Program at
(808) 656-5411// (808) 656-3085

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CHEMICAL, BIOLOGICAL, RADIOLOGICAL, NUCLEAR and EXPLOSIVE (CBRNE) DEFENSE EQUIPMENT

GENERAL INFORMATION

Chemical, Biological, Radiological, Nuclear and Explosive (CBRNE) defense equipment is used to respond to CBRNE attacks or incidents. CBRNE items may be protective items (e.g. gas mask filters) or used for decontamination.

POTENTIAL HAZARDS

Most CBRNE equipment requires special handling. Some of the items contain chemicals that detect, filter or neutralize CBRNE materials. Only CBRNE trained soldiers should manage, handle and dispose of these items.

WASTE CHARACTERIZATION

Some CBRNE items are considered Hazardous Waste for disposal purposes while others just need to be demilitarized prior to disposal.

The following items must be managed and disposed of as HAZARDOUS WASTE: C-2/C2A1 Canisters with NSN: 4240-01-119-2315 or 4240-21-871-7842, DS-2, STB, M-256/M-256A1 kits, M-258/M-258A1 kits.

The following items require Demilitarization: M-291/ M-291-A2, M-295, M-272, M-8 Paper and M-9 Paper.

HANDLING AND DISPOSAL PROCEDURES

Step 1: Always check with the CBRNE item manager or the DPW Environmental Division Compliance Inspections Program prior to the disposal of any CBRNE items.

Step 2: For Hazardous Waste CBRNE items, turn-in to the ECO who must place the items in a closed container marked “Hazardous Waste (item name)” and “Toxic” (for C2A1), “Corrosive” (for DS2 and STB), and “Flammable/Toxic” (for M-256/M-258 kits). Manage in the HWSSP IAW the IHWMP and contact the **Waste Pickup Request Line (808) 656-0867** for disposal.

Step 3: Contact the unit/activity Supply Support Activity for any items requiring Demilitarization.



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CHIP BAGS

(Snack wrappers and soft plastic/mixed packaging)

GENERAL INFORMATION

Many snack bags are made from mixed materials, usually consisting of plastic and metal (aluminum). This makes it nearly impossible to recycle these items. There are “upcycling” opportunities where companies or individuals turn chip bags into new items like wallets, clipboards, or reusable bags.

WASTE CHARACTERIZATION

Chip bags and other soft plastic/composite snack packaging are NOT recyclable in your single-stream recycling bins and cannot be brought to the Army Recycle Center (ARC)

HANDLING AND DISPOSAL PROCEDURES

- **Reduce:** Where possible, reduce the items that you purchase with this type of packaging. Buying in bulk may also reduce packaging vs. buying chips in portion size.
- **Trash:** Chip bags and other snack wrappers must be placed into a trash bin. These items CANNOT be placed in the single-stream recycling bins and CANNOT be brought to the ARC.



(needpix.com)

For more info contact: DPW Environmental Solid Waste and Recycling Program
at (808) 656-5411 / (808) 656- 3085

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CLASSIFIED DOCUMENTS DISPOSAL

GENERAL INFORMATION

Information contained in classified documents needs to be properly destroyed utilizing an NSA-approved shredder for classified documents. **Army Garrison, HI does not have a classified document incinerator and open burning is not permitted on the installation per Hawaii State Law.**

All bagged shredded paper is accepted for recycling at the Army Recycling Center and can be dropped off at 1087-B McMahon Road on Schofield Barracks, or call (808) 656-9911 to request a pick-up.



HANDLING AND DISPOSAL PROCEDURES

Step 1: Do not use burning as an option for disposing of your classified documents on the installation. While this method may be acceptable at deployed locations, it is strictly prohibited by Hawaii State Law. Violation of this regulation could lead to enforcement actions and monetary penalties for unauthorized fires.

Step 2: Classified documents may require different disposal methods, i.e., FOUO, confidential, classified, secret, top secret. Refer to AR 380-5 Department of the Army Information Security Program or contact your Security Officer for instructions on the proper disposal method.

Step 3: There are several document destruction companies servicing Hawaii. Many offer mobile truck services where documents are destroyed behind a locked security screen at your location. Once your documents are destroyed, you are given a certificate of destruction please share recycled paper weight with the Recycling Program (808) 656-9911.

Step 4: The unit is responsible for selecting a provider for this service and the Army does not endorse any particular company. Prices will vary depending on the service provided, so it will be up to the unit to find the best value. Call the Recycling Program at (808) 656-5411 or (808) 656-3085 with any questions .



CONSERVATION (Energy)

Page 1 of 2

GENERAL INFORMATION

Conservation is the careful management, use and preservation of natural resources and the environment. It requires using what we need to perform our jobs and live healthy, comfortable lives without being wasteful.

In Hawaii, over 70% of our electricity is generated from non-renewable sources. The economic and environmental impacts associated with the importation and the burning of fossil fuels requires that we alter our lifestyles to reduce our dependence on fossil fuel.

Did you know that USAG-HI is the 2nd largest consumer of electricity on the island? In FY 19 USAG-HI spent \$73 million on electricity. Think about this; even if we only save 5 percent on our utility bill - that's over 3.6 million we can use to meet other mission and quality of life needs.

Energy conservation is based on two factors: technology and human behavior. From a technology stand point, USAG-HI is making a concerted effort to build its new and retrofit its older facilities to ensure that energy systems are operating as efficiently as possible in accordance with the Leadership in Energy and Environmental Design (LEED) standards whenever possible.

From a human factor stand point, each of us have the responsibility to make a concerted effort to reduce our energy consumption and adhere to the USAG-HI energy policy by turning lights, air conditioning and office equipment off when not in use.

BUILDING ENERGY MONITOR (BEM) PROGRAM

Each military unit, directorate, contractor and tenant is required to appoint a Unit Energy Conservation Officer (UECO) and Building Energy Monitor (BEM) and to fully participate in the Garrison's conservation program.

The appointed BEM is responsible for ensuring energy-saving measures are being enforced in each building and to conduct monthly energy conservation inspections.

The following practices will help conserve energy:

WHAT YOU MUST DO

Step 1: Appoint a UECO at the Battalion, Brigade, and Division levels.

Step 2: UECO appoint BEMs to all buildings.

Step 3: BEMs conduct monthly inspections of designated buildings.

Step 4: DPW provides monthly UECO and BEM training. Call (808) 656-3289 for class schedule.



For more info contact: DPW Engineering Branch (Energy & Water Conservation)

Continued on next page...

CONSERVATION (Energy)

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USAG-HI ENERGY CONSERVATION TIPS

Please continue to follow and enforce USAG-HI's low cost, no cost energy tips:

1. Close all windows and doors for air conditioned spaces. Set thermostats to 74° Fahrenheit for cooled areas (USAG-HI standard).
2. Turn off window A/C units in unoccupied rooms. Each unit can cost the Army up to \$2,400 for year round use.
3. Turn off lights and HVAC units (window A/C units included) when not in use, particularly during: weeknights, weekends, deployments, and Holidays. Aircraft Hangar lights included.
4. Unit arms room exterior lights should be on at night, however off during the day.
5. Minimize the number of refrigerators and coffee pots – consolidate usage.
6. Turn off all office and shop equipment – printers, copiers, computers, battery chargers, and shredders at the end of the day. During work hours when practical.
7. Consolidate rear detachments (personnel administrative areas, work areas, etc.) into as few buildings as possible. Use the least amount of living and work space when possible.
8. Practice full load washing and drying. Turn off utility lights when not in use.
9. Ensure surrounding grounds are watered between the hours of 1700 to 0900 – only water during hours of limited visibility. Sprinklers should be limited to 15 minutes of watering and directed only at green space.
10. Submit work orders for broken doors or glass, non-functioning AC controls and equipment, broken light timers/sensors and leaking water fixtures.
11. When practical consolidate trips – carpool. Walk or ride a bike when practical.
12. Shutoff vehicles when not in use (GSA TMP/NTV and Tactical Vehicles included).
13. Additional tips can be located online at <https://www.hawaiianelectric.com/save-energy-and-money/household-tips-and-resources>.

Do not tolerate energy waste and abuse. Report faulty equipment to your Building Energy Monitor (BEM) and emergency work orders to the DPW help desk, (808) 656-1275. For BEM training, or to request energy audits, contact the DPW energy conservation manager at (808) 656-3289 (office), or (808) 864-1079 (cell). Energy theft should be reported immediately to the Military Police.

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CONSERVATION (Fuel)

GENERAL INFORMATION

Conservation is the careful management, use and preservation of natural resources and the environment. It requires using what we need to perform our jobs and live healthy, comfortable lives without being wasteful.

Oil is not a renewable fuel source. As fuel prices spiral ever upwards, it is important USAG-HI take action to sustain its mission by lowering its fuel consumption and expenditure. Conservation of fuel now will also slow down the depletion of this natural resource.

Executive Order 13693, Planning for Federal Sustainability in the Next Decade calls for a reduction of petroleum product consumption by 2 percent annually, to increase the total fuel consumption that is non-petroleum based by 10 percent annually, and to purchase/use plug-in hybrid (PIH) vehicles when PIH vehicles are available at comparable prices to non-PIH vehicles.

WHAT YOU MUST DO

The following practices will help conserve fuel:

- **Give your GSA vehicle a break.** Carpool, share rides to meetings and combine trips whenever possible to cut down on driving time.
- **Travel light, right-size your fleet and vehicle types.** Lighter cars get better fuel economy. Walk or bike if you can. Don't haul extra weight in the passenger compartment, trunk, or cargo area of your vehicle. A heavier vehicle uses more gasoline.
- **Drive smart.** Slow down. The faster a vehicle travels, the more gas it burns. On the highway wind resistance is your enemy, and the faster you go the tougher the battle. Avoid jackrabbit starts and lead-footed stops-this kills fuel economy as well as your brakes.
- **Tune your ride.** A well-maintained car is more fuel-efficient and produces lower greenhouse gas emissions. Fully inflated tires give you better gas mileage. Follow your monthly GSA vehicle maintenance and oil changes schedule.
- **Time it right.** Leaving for work earlier in the morning or later in the evening will reduce fuel burned in bumper-to-bumper traffic.
- **Reduce idling.** Turn off your engine if your vehicle will be idling in an off-street area for more than 5 minutes. Idle reduction is an easy and effective way to reduce your fuel use, air emissions, and unnecessary wear and tear on engines.

Reduce Fuel
Use by 2%



Save Our Air; Save our
Health; Save our Money

U.S. Army Garrison Hawaii – Environmental Compliance Guide

CONSERVATION (Paper)

GENERAL INFORMATION

You're probably thinking, "What's the big deal, my office doesn't spend much on paper." But what most people don't realize is that for each sheet of paper used, we incur not only purchasing costs, but also equipment maintenance, storage, copying, printing, disposal, and recycling costs - which adds up! By some estimates, the indirect cost associated with paper consumption is 10 times higher than the original purchase price of the paper itself.

Even with recycling efforts, paper results in a significant portion of USAG-HI's garbage thereby adding collection, transportation and processing costs.

The average U.S. Government office worker uses 10,000 sheets of copier paper annually, which is equal to 20 reams of paper per person annually. Even with the current standard 30 percent post-consumer recycled paper, each government worker requires nearly one half of a tree per year for his or her paper use.

It is estimated that USAG-HI spends close to 1 million dollars every year in paper cost alone. The expenses are much higher if we add the indirect cost associated with paper consumption.

WHAT YOU MUST DO

The following practices will help conserve paper:

- Always print double-sided.
- Promote an office culture of printing on both sides.
- Use the print preview feature before printing.
- Avoid unnecessary pages by adjusting the margins.
- Share reports and other documents via email, instead of printing.
- If you must print web pages, look for a "printer-friendly" version that removes advertisements and saves paper.
- Make copies as needed rather than in large batches at one time. Extra copies frequently become outdated or unusable.
- Test, by running a sample copy, before copying big jobs.
- Reduce the amount of junk mail. It costs money to dispose of garbage in the landfill. Call (888) 567-8688 to have your office's business address removed from lists sold to others.

Set up desk-side collection. Have employees sort their recyclable paper into special containers beside their desk. You will find that participation increases when collection begins at each desk. Call the Recycling Program at (808) 656-9911 to request recycling supplies.



For more info contact:

DPW Environmental Solid Waste and Recycling Program at

(808) 656-5411 or (808) 656-3085

CONSERVATION (Water)

GENERAL INFORMATION

Conservation is the careful management, use, and preservation of natural resources and the environment. It requires using what we need to perform our jobs and live healthy, comfortable lives without being wasteful.

Fresh water is the most finite of Earth's resources. There is no more water on Earth now than there was 2,000 years ago when the human population was less than 3 percent of its current size. In Hawaii, the primary drinking water supply comes from underground aquifers fed by rainfall. One of the most important ways to help meet our water supply needs for today and in the future is through conservation. Water conservation means finding ways to use less water. It includes engineering practices based on modifications in plumbing fixtures and water supply operating procedures as well as behavioral practices based on changing water use habits.

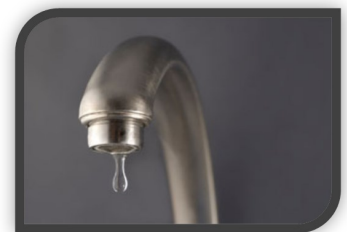
USAG-HI pumps about 5 million gallons of water per DAY. Pumping the water out of the ground and distributing it to the end users cost the Garrison approximately \$150,000 per day in electricity.

We all have a responsibility to help the installation reduce these numbers by taking actions to conserve water.

BEST MANAGEMENT PRACTICES

The following practices will help conserve water:

- Keep your eyes open! Report broken pipes and sprinklers, open hydrants. Don't be shy about pointing out leaks to your coworkers, friends, and family members. They might have tuned out the dripping sound a long time ago.
- Irrigation is the #1 place the water goes for outdoor use. Don't over-water your lawn, use a nozzle when washing your car, use a broom instead of a hose to clean driveways and parking areas.
- A dripping faucet can waste 20 gallons of water a day. A leaking toilet can use 90,000 gallons of water in a month. Don't let go of the flow - Report leaking water fixtures!
- Don't use toilets as ashtrays or trashcans. Each unnecessary flush wastes water.
- Take showers instead of baths. Even a one or two minute reduction can save up to 90 gallons per month.
- Teach your children to turn off faucets tightly after each use.
- Wash only full loads of laundry and dishes.



For more info contact: DPW Engineering Branch (Energy & Water Conservation)

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BEVERAGE CONTAINERS (HI-5 REDEEMABLE) (Aluminum Cans, Plastic Bottles, Glass Bottles)

GENERAL INFORMATION

Each year, over 900 million beverage containers are sold in Hawai'i. Consumers can help to prevent these containers from ending up in the waste stream or as litter in our community by recycling all of their beverage containers.

As an incentive, the Hawaii Deposit Beverage Container Program places a 5¢ redeemable deposit on each beverage container. Consumers are charged a 5¢ refundable deposit on labeled beverage containers, plus a non-refundable 1¢ container fee. Consumers are refunded their 5¢ deposit when they return the labeled container to a redemption center. The 1¢ container fee is used to pay recyclers for redemption center operations.

WASTE CHARACTERIZATION

Redeemable beverage containers include aluminum cans, plastic bottles and glass bottles labeled "HI 5¢".

HANDLING AND DISPOSAL PROCEDURES

- Remove lids from containers and take to the Army Recycling Center (ARC) at 1087-B McMahon Road, Schofield Barracks or a HI-5 convenience center.
- Pick ups can also be arranged at your military building, call (808) 656-9911
- Note that the ARC is not a deposit refund center. HI-5 containers taken to the ARC are considered donation.
- For a deposit refund, containers must be taken to a HI-5 convenience center
 - *On Schofield Barracks, a mobile redemption center is located in the Commissary parking lot on Saturdays (10 am-4 pm)
 - *For other off post facilities, visit https://opala.org/solid_waste/HI5_plus.html



For more info contact: DPW Environmental Solid Waste and Recycling Program at
(808) 656-5411 or (808) 656-3085

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CONTAINERS (Glass)

GENERAL INFORMATION

Glass containers are 100 percent recyclable and can be recycled endlessly. Recovered glass is used as the majority ingredient in new glass containers. In fact the typical glass container is made up of as much as 70% of recycled glass.

WASTE CHARACTERIZATION

Most glass beverage bottles are eligible for a cash refund. Refer to the Beverage Container A-Z Fact Sheet for more information on redeemable beverage containers.

Glass containers come in four different colors: clear, blue, brown and green.

Clear glass is most often found in everyday places, such as the grocery store. Pasta sauce or peanut butter jars and some beer and spirits bottles use colorless glass as well.

Blue glass was much more popular in the U.S. prior to the 1920s and is now used mainly for clear liquids such as liquors or ink bottles.

Green glass is better at keeping sunlight and temperature from affecting the contents inside, which explains why this form of glass is most often used for wine bottles.

Brown glass is the most common color for beer bottles, because of the necessity for light protection for the beer inside.

Drinking glasses, light bulbs, mirrors and Pyrex are treated with contaminants when manufactured and are NOT accepted at the recycling center.

- Remove lids from containers.

HANDLING AND DISPOSAL PROCEDURES

- Drop off your glass containers at the ARC, 1087-B McMahon Road, Schofield Barracks.
- Note that the Army Recycling Center is not a deposit refund center. HI-5 containers taken to the ARC are considered donation.
- For a deposit refund, containers must be taken to a HI-5 convenience center, located at Schofield Barracks or at any off post facility of your choice. For more information, refer to the beverage container fact sheet or visit the State of Hawaii's Deposit Beverage Container Program.

For more info contact:

DPW Environmental Solid Waste and Recycling Program at

(808) 656-5411 or (808) 656-3085

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CONTAINERS, OIL (Empty)

(Engine oil, gear oil, hydraulic fluid, transmission fluid, brake fluid and synthetic oil containers of any size)

GENERAL INFORMATION

Empty oil cans and empty oil plastic containers, that have the #'s 1-5 symbol on the bottom, are recyclable and should **never** be thrown into the dumpster.

POTENTIAL HAZARDS

Oil containers that are not properly drained and thrown in the trash can release oil into the environment. Just one quart of oil can affect an area the size of three football fields and one gallon can pollute 250,000 gallons of water.

WASTE CHARACTERIZATION

Oil cans and plastic containers #1-5 must be completely drained prior to being collected for recycling.



HANDLING AND DISPOSAL PROCEDURES

Step 1: Make sure the oil container is emptied as completely as possible into the equipment. ***Partially drained cans will not be accepted by the recycler.***

Step 2: Cut the top off the oil can or remove the lid of the recyclable plastic container as applicable. Plastic lids should be discarded in regular trash bins. *(Note: Kevlar or any other cut resistant gloves are highly recommended when handling cut cans).*

Step 3: Rinse the can or plastic container in an approved solvent parts washer, making sure that the oil residue from the sides of the container is completely rinsed out. Drain all solvent out of the container.

Step 4: Visually inspect the container to ensure that all oil and solvent has been removed.

Step 5. Once completely emptied place the metal oil can in the scrap metal bin and the plastic oil container #1-5 in the single-stream recycling bin. (Contact the DPW Environmental Solid Waste and Recycling Program for pick-up at (808) 656-9911). If the container was procured and bar-coded through the Hazardous Material Control Point (HMCP (808) 656-0720), return the empty container to the HMCP for inventory accountability.



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PLASTIC #1-5 (Recyclable)



GENERAL INFORMATION

The first plastics made from fossil fuels are just over a century old. They came into widespread use after World War II and are found today in everything from cars to medical devices to food packaging. Their useful lifetime varies. Once disposed of, they break down into smaller fragments that linger for centuries.

The largest market for plastics today is for packaging materials. That trash now accounts for nearly half of all plastic waste generated globally; most of it never gets recycled or incinerated. (source [National Geographic](#))

WASTE CHARACTERIZATION

Plastic containers are usually marked with a number that indicates the type of plastic. Plastics the [#1 - #5](#) are currently recycled by the USAG-HI Recycling Program.

This includes HI-5 plastic bottles as well as non-deposit plastic containers like shampoo and detergent bottles. Refer to the beverage container fact sheet for more information on redeemable beverage containers.

Plastics [#6 - #7](#) are not recyclable and are considered solid waste and should be disposed of in an appropriate garbage container.

HANDLING AND DISPOSAL PROCEDURES

Note: Plastic bags are NOT accepted at the ARC but they are accepted at the Commissary on Post.

- Drop off your plastic #1 - #5 at the ARC, 1087-B McMahon Rd., Schofield Barracks or request a recycle pick-up by calling (808) 656-9911.
- Note that the Army Recycling Center is not a deposit refund center. HI-5 containers taken to the ARC are considered donation.
- For a deposit refund, containers must be taken to a [HI-5 convenience center](#), located at Schofield Barracks or at any off post facility of your choice.
- For more information, refer to the beverage container A - Z Fact Sheet or visit the [State of Hawaii Deposit Beverage Container Program](#).



For more info contact:

DPW Environmental Solid Waste and Recycling Program at (808) 656-5411.

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COOKING OIL

GENERAL INFORMATION

Cooking oils, just like petroleum oils, are regulated by the Clean Water Act's Spill Prevention, Controls, and Countermeasures (SPCC) regulation. Oil and grease generated during cooking operations cannot be poured into the sink/ sanitary sewer/storm water drain or be disposed of in the trash as a free liquid.

POTENTIAL HAZARDS

Dumping these items down the drain can clog sewer lines, causing sewage back-ups and flooding.

WASTE CHARACTERIZATION

Cooking oil and grease is a RECYCLABLE MATERIAL. Call the DPW Recycling Program at (808) 656-5411 or (808) 656-3085 for recycling options.

HANDLING AND DISPOSAL PROCEDURES

DO NOT pour grease into the sink/sanitary sewer or storm water drain.

Garrison Operations:

Step 1: Food service operations at USAG-HI facilities must dispose of cooking oil/grease in the containers provided by the contractor at dining facilities. Make sure the container is clearly marked "USED COOKING OIL/GREASE".

Step 2: Use caution when transferring oil/grease into containers. Thoroughly cleanup all spills. Use secondary containment, overhead protection, and have spill cleanup materials available.

Field Operations:

Step 1: Bring cooking oil back to your dining facility and pour into the cooking oil container. Do not pour on the ground. Clean up any spills and discard in the trash container.

Cooking oil spills are reportable. Notify DPW Emergency Spill Response Line at (808) 656-1111 in the event of a spill or the DPW Environmental Division Clean Water program.

ADDITIONAL INFORMATION

If you live in housing, you may solidify your grease and oil with newspaper or paper towels and place in the trash. Do not dispose of free liquids down the drain or in the general refuse container.

For more info contact: DPW Environmental Clean Water program.

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CULTURAL RESOURCES

GENERAL INFORMATION

U.S. Army Garrison Hawaii has responsibility for cultural resources within Army jurisdiction on Oahu, and provides support to Pohakuloa Training Area on the Island of Hawaii. The cultural resources program provides environmental stewardship while supporting readiness by meeting compliance requirements and effectively managing cultural resources. Cultural resources are defined by the Army as historic properties, cultural items, archaeological resources, sacred sites and archaeological collections.

Army lands contain numerous historic properties, these include prehistoric and historic archaeological sites, historic buildings and districts. Districts include National Historic Landmark Districts; Wheeler Field and Palm Circle at Fort Shafter and Historic Districts; Schofield Barracks, Wheeler Garden City, Hawaii Ordnance Depot, Tripler Army Medical Center, Fort DeRussy Archaeological District, and Kilauea Military Camp on the Island of Hawaii.

THREATS TO HAWAII'S CULTURAL RESOURCES

Both natural occurrences and human activities threaten fragile historic properties. Threats include being impacted by naturally occurring erosion, pedestrian and animal traffic and aggressive vegetation.

Human activities that cause ground disturbance can alter or destroy archaeological sites. Activities include but are not limited too the development of new facilities, construction of underground utilities, clearing of vegetation, detonation of explosives, military training exercises and live fire activity, vandalism, looting, theft and hazardous waste remediation.

CONSERVATION PROCEDURES

Step 1: Without approval you should not engage in activities that could potentially alter the historical integrity and / or value of a significant building, archeological or cultural site. Cultural resources are “**non-renewable**”; once lost they can not be replaced.

Step 2: To avoid costly mistakes, be sure to consult with the DPW Environmental Division *before* you begin any self help or digging projects. Preservation of historical buildings may range from the paint color of the facility to the type of roof, windows, or doors used for replacement.

Step 3: When training on ranges, pay attention to signage and Seibert Stakes. Seibert Stakes delineate off-limit areas because of physical hazards, excess erosion, or to protect environmentally or culturally sensitive areas.



For more info contact: DPW Environmental Cultural Resources Program at usarmy.hawaii.cmp@mail.mil

Or visit us at <https://home.army.mil/hawaii/index.php/garrison/dpw/cultural-resources>

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DRINKING WATER

GENERAL INFORMATION

In Hawaii, the primary drinking water supply comes from underground aquifers fed by rain-fall. Drinking water may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. EPA sets standards and testing requirements for over 100 contaminants in drinking water.

U.S. ARMY GARRISON HAWAII WATER SYSTEMS

USAG-HI obtains its drinking water through a combination of public systems and privately owned and operated systems:

Systems that the Army Maintains:

- Aliamanu – (Water comes from the Navy – Army maintains pumps and tanks)
- Fort Shafter
- Tripler Army Medical Center
- Schofield Barracks/Wheeler Army Airfield/East Range
- Helemano - (Water comes from Schofield and Navy systems)

Other Systems:

- PTA – Privatized system
- KMC – Privatized system

WATER QUALITY

As mandated under Federal and State law, water samples are taken at various points within the distribution system for all drinking water systems serving USAG-HI. A summary of these results, called a Consumer Confidence Report (CCR), is distributed to all customers by July 1st of each year. The most recent CCR for each water system can be accessed at the U.S. Army Garrison Hawaii website: <https://home.army.mil/hawaii/index.php/news/environmental-releases-water-quality-reports>

Aside from the drinking water contaminants detected the previous year, the CCR also contains a wealth of information about your water system including information about origin of the water and the sources of potential water quality problems.



For more info contact: DPW Environmental Safe Drinking Water Program.

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DRIP PANS

GENERAL INFORMATION

Spills and leaks are one of the largest industrial sources of storm water pollutants. USAG-HI Storm Water Pollution Control Plan (SWPCP) describes and implements best management practices (BMP) to reduce or prevent pollutants in industrial storm water discharges by limiting contact of storm water with source materials (POL, chemicals, solvents, etc.). The proper placement and management of drip pans under vehicles is vital to meeting this requirement.

POTENTIAL HAZARDS

Vehicles and equipment that are parked in motorpools on the installation have the potential to leak fluids onto concrete and asphalt surfaces that lead to the storm water system. Failure to properly use drip pans to prevent releases to the environment could lead to storm water contamination as well as violations and monetary fines by regulatory agencies.

WASTE CHARACTERIZATION

Drip pans under vehicles may contain water, coolant, POL products or a mixture of all of these. Any used oil products in drip pans must be managed as USED OIL (see USED OIL Fact Sheet).

HANDLING AND DISPOSAL PROCEDURES

Step 1: Drip pans must be placed under all leaking vehicles or equipment that are parked or stored outside and exposed to storm water.

Step 2: Water in drip pans must be visually inspected for oil or other contaminants.

Step 3: Do not pour oily water into USED OIL collection drums. Remove any POL from the water using a white oil-only absorbent pad until no POL sheen is visible. Water with no POL sheen can be discarded into a grassy area. Place used absorbent pads in the used POL rag container.

Step 4: A weekly inspection by the ECO should be conducted to ensure that drip pans are being used properly and kept clean. Inspect drip pans after all heavy rain events.



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DRY SWEEP with Petroleum, Oil, or Lubricants (POL)

GENERAL INFORMATION

Dry Sweep and other loose absorbent materials are commonly used to absorb spills and leaks of POL in operational areas. Dry sweep must be purchased by the unit and is available at GSA and other local vendors.

POTENTIAL HAZARDS

Dry sweep that is used to absorb combustible materials must be stored in closed metal containers to prevent it from becoming a fire hazard. Always use gloves when applying dry sweep and handling used dry sweep and ensure that it is applied in a well ventilated area.

WASTE CHARACTERIZATION

Dry sweep that is used to absorb POL products should be reused as much as possible. The used dry sweep with POL is a NON-REGULATED WASTE for disposal.

HANDLING AND DISPOSAL PROCEDURES

Step 1: Dry sweep should be available in operational areas and spill kits to clean up POL spills and leaks.

Step 2: Apply dry sweep to the spill area. The area should be well ventilated and gloves should be worn by the person applying the dry sweep.

Step 3: Used dry sweep should be reused as much as possible. Store the used dry sweep in small (no more than 15 gallon) closable metal containers marked “USED DRY SWEEP WITH POL”.

Step 4: Once the dry sweep has been used to its fullest extent, transfer the used dry sweep to a 55-gallon drum in the RMSSP marked “USED DRY SWEEP WITH POL” with a NON-REGULATED WASTE label. The drum must have a cover secured with a ring and bolt.

Step 5: When the drum in the RMSSP is nearing capacity, contact the *Waste Pickup Request Line (808)656-0867* for disposal.



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ELECTRONIC WASTE (E-Waste)

(Computers, Printers, Monitors and Televisions)

GENERAL INFORMATION

Electronic products contain hazardous or toxic materials which can pollute the environment and threaten human health. Computers, laptops, monitors and peripherals equipment (i.e., cables, printers, scanners, keyboards and speakers) are recyclable and should not be discarded in the trash.

Your Government owned office electronics must be turned in through your Supply Support Activity (SSA) to the Defense Logistics Agency Disposition Services (DLADS).

WASTE CHARACTERIZATION

When computers become obsolete they leave behind lead, cadmium, mercury, hazardous flame-retardants and toxic chemicals. These hazardous materials can contaminate the environment when they are disposed of improperly. However, if they are recycled (referred to as “ecycling”) any hazardous materials they contain are removed and reprocessed or reused in an environmentally responsible manner.

Computers and related electronic equipment also contain substances such as glass, plastics and certain chemical compounds that are highly recoverable, recyclable and reusable.

HANDLING AND DISPOSAL PROCEDURES

- Remember, “Ewaste” can’t be recycled in your blue bin or with your office or household recyclables.
- When purchasing new electronic products make sure they are energy efficient and EPEAT (Electronic Product Environmental Assessment Tool) certified.
- For Government owned obsolete e-waste, take to your supporting unit SSA or contact your DLADS Office to determine requirements for turn-in.
- For personal e-waste contact the manufacturer or a local retailer for recycling instructions, consult the [list of community Ewaste drop off locations](#).
- Several local vendors also accept Ewaste for recycling for a fee.



For more info contact: DPW Environmental solid Waste and Recycling Program at

(808) 656-5411 / (808) 656-3085

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ENVIRONMENTAL COMPLIANCE INSPECTION (ECI)

GENERAL INFORMATION

The environmental compliance inspection (ECI) program is designed to help units/activities maintain compliance within EPA, Hawaii Dept. of Health (HDOH), and Installation regulations. The ECI is conducted weekly and monthly by the ECO using the Environmental Compliance Inspection Checklist (ECIC). The DPW Environmental Division Inspectors conduct quarterly, unannounced inspections of all industrial facilities on USAG-HI installations using the same checklist to simulate an EPA/ HDOH inspection. The inspection is a comprehensive assessment of the compliance status of each facility in various applicable media areas.

Scoring: **EXCELLENT:** Greater than 90% and passing all critical items.

SATISFACTORY: Between 80% and 89% and passing all critical items.

UNSATISFACTORY: Below 80% and/or failing one or more critical items.

Weekly/Monthly inspections conducted by the ECO:

Step 1: Conduct and document weekly inspections of the HWSSP when storing Hazardous Waste using sections C1 and C2 of the ECIC.

Step 2: Conduct and document monthly internal compliance inspections using all applicable sections of the ECIC.

Step 3: Maintain copies of the inspection on file for 3 years.

Quarterly inspections conducted by the DPW Environmental Division:

Step 1: Inspections are unannounced and conducted regardless if the ECO is present.

Step 2: A detailed inspection report will be forwarded to the chain of command after the inspection which will provide details of deficiencies and recommended corrective actions.

Step 3: A written response of corrections is required within 14 days of the inspection.

Step 4: UNSATISFACTORY scores will receive a scheduled re-inspection to ensure the deficiencies have been corrected.

Inspections conducted by EPA/HDOH:

Step 1: Inspections by regulatory agencies are unannounced. Contact DPW Environmental Division Compliance Inspections Program immediately if your unit/activity is visited by an external regulatory agency and wait for assistance.

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EXCAVATION/DIGGING PERMIT

WHO NEEDS PERMIT COVERAGE?

Applies to Military, civilians, tenants, contractors, utility operators or any other entity performing any excavations of soil (no matter how small or shallow) within USAG-HI cantonment area and/or any road and utility right-of ways, training facilities/complexes and range area.

POTENTIAL HAZARD

Failure to locate underground utilities (water/sewer, electric, gas, phone, steam/chill water, control cables, petroleum/POL, cable TV) and environmentally sensitive areas (endangered species, archeological sites, contaminated sites) can cause dangerous situations, work interruptions and could lead to potential fines and penalties from regulatory agencies. Excavation may also generate storm water discharge issues (contact DPW Environmental Storm Water Program for clarification).

PERMIT PROCEDURES

Step 1: Obtain an excavation permit from DPW Engineering Division and complete all required coordination stipulated in the permit prior to begin work.

Step 2: Submit a completed form to the Contracting Officer assigned to the project and to DPW Engineering Division prior to any excavation.

Step 3: The application becomes a certified excavation permit after all utility agencies have approved the appropriate sections and the Contracting Officer or Project Manager has signed the permit.

Step 4: Maintain the permit on site at all times during excavation.



Source: www.campbell.army.mil

For more info contact: DPW Engineering Division (Excavation/Digging Permit): (808) 656-3057

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FILTERS: FUEL

GENERAL INFORMATION

Military fuel filters are generally used with F-24 and diesel fuel while civilian filters are used with gasoline, so they must be handled differently.

POTENTIAL HAZARDS

Fuel filters have volatile organic compounds in varying levels based on the type of fuel they are used with. Refer to the respective SDS's for specific hazards. Fuel filters used with gasoline may contain benzene (a Hazardous Waste) and must be treated differently than other types of filters.

WASTE CHARACTERIZATION

Military-type fuel filters used with F-24 or diesel fuel are NON-REGULATED WASTE once they have been properly drained. Filters used with gasoline may be HAZARDOUS WASTE. Contact the DPW Environmental Division Compliance Inspections Program or the TAP for assistance with these filters.

HANDLING AND DISPOSAL PROCEDURES



Step 1: Used fuel filters must be completely drained into a container marked “USED (indicate type of fuel) ” for at least 72 hrs.

Step 2: Once they are completely drained, inspect to confirm that they are dry. Filters used with F-24 or diesel may be placed in a clear plastic bag marked “NON REGULATED WASTE FUEL FILTERS”.

Step 3: Gasoline filters should be placed in a container marked “Hazardous Waste Gasoline Filters” and placed in the HWSSP.

Step 4: Contact the DPW Environmental Division *Waste Pickup Request Line (808) 656-0867* to schedule a pickup.

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FILTERS: OIL

GENERAL INFORMATION

Metal filters are recyclable and should never be thrown into the dumpster.

Oil filters have volatile organic compounds in varying levels. Refer to the respective SDS's for specific hazards.

POTENTIAL HAZARDS

Used oil filters that are not properly drained and thrown in the trash can release oil into the environment.

WASTE CHARACTERIZATION

Used oil filters must be completely HOT drained for 72-hours prior to being collected for recycling. Used Oil Filters should never be thrown in the trash.



HANDLING AND DISPOSAL PROCEDURES

Step 1: Used oil filters must be HOT drained into a container marked “USED OIL” set on secondary containment for at least 72-hrs or by using an oil filter crusher.

Step 2: The container that the oil filters are draining into must be marked “USED OIL”.

Step 3: After 72 hours, check that no oil remains, then the filters may be turned in to the Army Recycling Center (ARC) as scrap metal.



Proper Used Oil Filter draining station marked “USED OIL” and protected with secondary containment.

Pollution Fact: Just one quart of oil can affect an area the size of three football fields and one gallon can pollute 250,000 gallons of water!

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FIRE EXTINGUISHERS

GENERAL INFORMATION

A variety of different fire extinguishers are present on the installation including ABC, Purple K, CO2, and Halon*.

WASTE CHARACTERIZATION

Halons are used as fire extinguishing agents, both in built-in systems and in handheld portable fire extinguishers. Halon production in the U.S. **ended** on December 31, 1993, because they contribute to ozone depletion. Under the Clean Air Act the content of halon fire extinguishers must be recycled. If your unit finds or has any halon fire extinguishers please contact the DPW Environmental Division Clean Air Program. These extinguishers **SHOULD NOT** be used.

***The Clean Air Program will handle the paperwork and procedures for recycling these extinguishers.**

HANDLING AND DISPOSAL PROCEDURES

Standard Guidance Recommends:

1. Currently, depleted fire extinguishers must be serviced, refilled, and/or recycled through a private contractor. This means that the unit must contact the contractor and pay for the service or disposal on its own. The unit is responsible for selecting a provider for this service and the Army does not endorse any particular company. Prices will vary depending on the type and number of extinguishers, so it will be up to the unit to find the best value. Call (808) 656-0867 for more information.
2. Fire extinguishers that are fully charged (in the green) can be turned in to the TAP (808) 656-0867
3. All portable fire extinguishers should be inspected and maintained at least annually.
4. Access should be maintained at all times to all portable fire extinguishers. This is commonly interpreted to mean a clear and unobstructed path of approximately 2 to 3 feet in width. A sign or symbol should also be posted above the unit to indicate the presence of the unit. In addition, each extinguisher should be mounted at approximately 3' above the ground.
5. The fire extinguishers should be appropriate to fight the type of fire that may occur in the area where they are located.
6. Keep fire extinguishers out of the elements. Effects of the rain and sun on canisters will quickly cause rust and compromise the integrity of the extinguisher. If an extinguisher is showing signs of corrosion on the base or any welds, UV damage to the head caps or is missing parts it should not be used.



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FLUORIDE IN DRINKING WATER

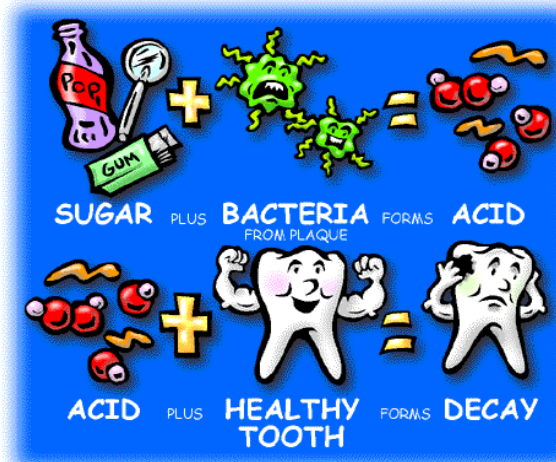
GENERAL INFORMATION

Fluoride is a mineral that prevents tooth decay, and can be naturally present in drinking water at varying concentrations. When fluoride is not naturally present, it is often added to drinking water systems.

USAG-HI water systems are fluoridated. Army regulations require fluoride to promote the dental health of soldiers and families. Fluoride levels are routinely monitored and kept within an optimal range, as required by Army technical guidance and Safe Drinking Water Act regulations.



WHAT ARE THE BENEFITS OF FLUORIDE?



According to the Centers for Disease Control and Prevention (CDC), fluoride inhibits and reverses the tooth decay process.

When sugar or refined carbohydrates are consumed, the bacteria in the mouth produce acid that removes minerals from the surface of the tooth. Fluoride will re-mineralize tooth surfaces, strengthening the tooth enamel.

Fluoride can reduce the amount of decay in children's teeth by as much as 60% (CDC 2006).

WHERE CAN I FIND FLUORIDE DATA?

USAG-HI's fluoride data is reported to the Hawaii Department of Health, and is also available through annual Consumer Confidence Reports posted on the USAG-HI Website (<https://home.army.mil/hawaii/index.php/news/environmental-releases-water-quality-reports>)

ADDITIONAL INFORMATION

The CDC (<http://www.cdc.gov/fluoridation/>) and American Dental Association (<http://www.ada.org/fluoride.aspx>) are both good sources for general information. For fluoride questions specific to USAG-HI, please contact the Directorate of Public Works, Safe Drinking Water Program at (808) 656-3107.

For more info contact: DPW Environmental Safe Drinking Water Program

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FLUORESCENT LAMPS

GENERAL INFORMATION

Fluorescent lamps (light bulbs) are used in most USAG-HI facilities. Many models contain hazardous chemicals, such as mercury, requiring special procedures for the disposal of the lamps. Safer, more environmentally friendly low mercury models have been manufactured in recent years. All light bulbs on the installation should be changed through the DPW Work Order desk. This will ensure that the low mercury bulbs are installed in all facilities.

POTENTIAL HAZARDS

Small quantities of mercury, antimony, cadmium, barium and lead are used to manufacture fluorescent bulbs and mercury vapor lamps, metal halide and high pressure sodium lamps.

WASTE CHARACTERIZATION

Used fluorescent lamps are UNIVERSAL WASTE.

HANDLING AND DISPOSAL PROCEDURES

Step 1: Place used fluorescent lamps in the original container. Box must be able to be closed (do not cut end out of box).

Step 2: Label the box with “UNIVERSAL WASTE LAMPS” and the “DATE”.

Step 3: Enter the number of bulbs on a Universal Waste Collection Log.

Step 4: Always **CLOSE THE BOX** (with tape) after adding bulbs/lamps.

Step 5: Contact the DPW Environmental Division *Waste Pickup Request Line (808) 656-0867* for pickup. The UNIVERSAL WASTE LAMPS must be turned-in within 6-months of the date they were collected as waste.



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FUEL

Diesel/F-24 /Gasoline (MOGAS)/Aviation Gas (AVGAS)

GENERAL INFORMATION

The different types of fuel used on USAG-HI installations are diesel fuel, F-24, motor gasoline (MOGAS) and Aviation Gas (AVGAS).

POTENTIAL HAZARDS

All fuel is potentially dangerous and should be handled in accordance with the proper safety guidelines. Use appropriate PPE according to the SDS.

WASTE CHARACTERIZATION

All used fuel is recycled and managed as a Recyclable Material.

HANDLING AND DISPOSAL PROCEDURES

Step 1: According to Army safety rules – **UNITS CAN NOT USE PLASTIC CONTAINERS/JERRICANS FOR STORING FUEL AT THE WORK-PLACE** (jerricans should only be used to store/transport fuel for training).

Step 2: Use an approved metal safety can (NSNs: ; 7240-00-178-8286; 7240-00-222-3086) if you must temporarily store small quantities of fuel. Fuel for lawn mowers and other gasoline driven power equipment should be maintained at minimum levels.



Step 3: Mark the approved can with its contents and always keep containers closed except when adding or removing fuel.

Step 4: Ensure the containers are in good condition, not leaking and are placed in flammable lockers with secondary containment when not in use.

Step 5: Transfer used recyclable fuel into the accumulation drum at the RMSSP.

Step 6: Close drum, wrench tighten, mark drum with contents (e.g.: Used F-24).

Step 7: Paint the middle third of the drum with the appropriate color:

- F-24/Diesel = yellow;
- MOGAS/AVGAS = fluorescent orange.

Step 8: Update RMSSP log and manage IAW the IHWMP (see RMSSP Fact Sheet).

Step 9: Military grade plastic “sand color” fuel cans are authorized for fuel transfer during field exercises but they cannot be used for long term fuel storage (NSN: 7240-01-337-5268).

NOTE: To dispose of metal can after use, drain upside down for 72 hours, cut off one end of can with non-sparking tools and recycle as scrap metal. To dispose of plastic cans, let drain upside down for 72 hours, cut in half and take to ARC to be recycled as a hard plastic.

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FUEL TRUCKS (F-24) STORAGE (Fuel Tankers/HEMTT/MFS-TRM/PODS)

GENERAL INFORMATION

When in Garrison and not in active use for daily mission operations, or for overnight parking, mobile refuelers, pods and bladders must be stored empty in accordance with the USAG-HI Spill Prevention, Control and Countermeasures Plan (SPCCP). In order to maintain capability of recirculating fuel, HEMTTs and MFS-TRM are allowed to keep 300 gallons of fuel or less in their storage compartment. TPUs can keep 50 gallons. Storing fuel greater than the de minimis volumes, and fuel transfer operation must be approved by the DPW Environmental Division by submitting a waiver request to the SPCC Program coordinator.

POTENTIAL HAZARDS

F-24 fuel is a flammable liquid as defined by OSHA, DOT, and EPA and should be handled appropriately. Storage of large quantities of F-24 presents a potential risk to natural waters. Preventive measures (i.e. secondary containment and spill response supplies) must be in place prior to conducting any fuel storage or transfer operations.

WASTE CHARACTERIZATION

Used, or off-spec, F-24 is a RECYCLABLE MATERIAL. Non-saturated absorbent pads and rags contaminated with F-24 are NON-REGULATED WASTE that must be turned for disposal by calling the **Waste Pickup Request Line at (808) 656-0867**.

HANDLING AND DISPOSAL PROCEDURES

- 1) Contact the DPW Environmental Division SPCC Program for authorization to store fuel in quantities greater than 300 gallons in fuel trucks, HEMTTs, MFS-TRMs, 50 gallons in TPUs, or to conduct fuel transfer operations.
- 2) Fuel trucks containing any amount of fuel must be protected with a secondary containment system.
- 3) Used F-24 and used F-24 rags/pads should be managed in the facility's RMSSP.



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FURNITURE

GENERAL INFORMATION

Furniture is considered a bulk waste item and cannot be placed in or near dumpsters/recycling areas. Most bulk waste are banned or restricted from City and County landfills. Dumpsters that contain bulk items will not be picked up by the solid waste contractor.

Military Furniture and Appliances (government property) require special handling and disposal procedures. Excess and surplus property is regulated by the Department of Defense Manual (DoDM) - [DoDM 4160.21](#).

WASTE CHARACTERIZATION

Furniture is considered a bulk waste if it is no longer usable. Certain items can be recycled if they're all metal (metal filing cabinets, book cases, etc.).

Usable furniture can be reused by other units on base or turned into DLA .

HANDLING AND DISPOSAL PROCEDURES

DO NOT ILLEGALLY DUMP any bulk waste items in or around garbage dumpsters.

Furniture Reuse (usable furniture):

- The Army Recycle Program developed a new platform for listing and claiming gently used office furniture on the [Garrison Sharepoint](#). This is for government purposes only*
- Usable furniture can also be turned in to DLA

Furniture Disposal/Recycling (for unusable items):

- Recycling: **Entirely metal** broken and unusable furniture can be dropped off at the Army Recycle Center (ARC), call (808) 656-9911 for more info.
- Trash: For broken, unusable furniture, request a roll-off container from DPW Service Contract Branch (808) 656-4131. Specify the type of waste items to be disposed.



For more info contact: DPW Environmental Solid Waste and Recycling

Program at (808) 656-5411 / (808) 656-3085

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GENERATORS

GENERAL INFORMATION

Generators are utilized on the Army Garrison-HI to combust fuel and provide electricity during emergencies and temporary events (i.e. power outages, maintenance testing, training exercises, etc.).

POTENTIAL HAZARDS

The exhaust emitted by generators contains hazardous air pollutants that can cause respiratory damage and even lead to cancer.

These air emissions also contain greenhouse gases such as carbon dioxide, which is a known cause of global warming. As part of the Clean Air Act, the State of Hawaii requires the Garrison to carry two air permits which also encompass generator air emissions.



LEGAL REQUIREMENTS

In order to remain in compliance with our permits and the Army Generator Control Policy, DPW-Environmental must maintain an accurate inventory of all generators on the installation and the activities associated with each one.

If a unit, Directorate, tenant or contractor is about to purchase a new generator or plans to begin utilizing an existing one for prime power, the DPW-Environmental Division must be notified for permit evaluation in order to avoid potential fines from the State.

USAG-HI is inspected for permit compliance annually by a representative of the Clean Air Branch, and could be audited at any time by the EPA.



PENALTIES AND VIOLATIONS

Facilities found in violation of the Clean Air Act concerning illegal emissions may be fined upwards to \$25,000 per day per violation.

For more info contact: DPW Environmental Clean Air Program

GREEN PURCHASING

GENERAL INFORMATION

Green procurement is the purchase of environmentally preferable products and services. These products are preferred because they conserve resources, create less pollution and waste, or eliminate health and safety risks. Buying green also includes the policy and practice of purchasing products made with recycled materials instead of virgin materials.

WHAT YOU MUST DO

DoD Instruction 4105.72 Procurement of Sustainable Goods and Services, establishes a policy promoting sustainable acquisition and procurement by ensuring that each of the following environmental performance and sustainability factors are included to the maximum extent practicable for all applicable procurements in the planning, award, and execution phases of the acquisition:



EPA Designated Products — Purchase sustainable products and services identified by EPA programs. Give preference to products and services identified by EPA's Significant New Alternatives Policy (SNAP), WaterSense, Safer Choice, and SmartWay programs.



Purchase environmentally preferable products or services that — (A) meet or exceed specifications, standards, or labels recommended by EPA that have been determined to assist agencies in meeting their needs and further advance sustainable procurement goals of this order; or (B) meet environmental performance criteria developed or adopted by voluntary consensus standards bodies consistent with section 12(d) of the National Technology Transfer and Advancement Act of 1995 (Public Law 104-113) and OMB Circular A-119.



Comply — Until an agency achieves at least 95% compliance with the BioPreferred and biobased purchasing requirement: (A) establish an annual target for the number of contracts to be awarded with BioPreferred and biobased criteria and dollar value of BioPreferred and biobased products to be delivered and reported under those contracts in the following fiscal year.



Reduce copier and printer paper use — Pursuant to 10 U.S.C. § 2378, DoD Components shall procure copying machine paper that is **at least 50% post-consumer recycled content**, unless such paper does not meet price, performance, or availability requirements.



Implement—Sustainable acquisition requirements are considered practicable, and therefore mandatory, unless there is a documented, allowable exemption based on cost, performance, availability, or other statutory exemption. DoD Components must establish procedures and approval authorities for determining and documenting sustainable procurement requirements, exemptions, and automatic substitution where appropriate and feasible.

Training—Contracting professionals, Contracting Officer Representatives (CORs), and program and project managers can enroll in DAU "CLC 046 DoD Sustainable Procurement Program" as part of their annual refresher requirements.

For more info contact: DPW Environmental solid Waste and Recycling Program at

(808) 656-5411 / (808) 656-3085

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HAZARDOUS WASTE SHOP STORAGE POINT (HWSSP)

GENERAL INFORMATION

The HWSSP is a satellite accumulation point for the storage of Hazardous Waste (HW). HWSSPs have been established by the DPW Environmental Division Compliance Inspections program at facilities that generate or have the potential to generate HW. Only HW should be placed in the HWSSP which must be located at or near the point of generation of the HW and must be under the control of the generator. For specific requirements for management of the HWSSP see the Installation Hazardous Waste Management Plan and the unit SOP.

POTENTIAL HAZARDS

Improper management of HW could pose a threat to unit personnel and the environment and result in fines by the Hawaii Department of Health and EPA.

MANAGEMENT PROCEDURES

Step 1: Never establish, deactivate or move an HWSSP without prior authorization from the DPW Environmental Division Compliance Inspections Program. All generation of HW must be authorized by the DPW Environmental Division Compliance Inspections Program.

Step 2: Hazardous material becomes a HW as soon as it can no longer be used for its intended purpose and a determination is made that it meets the criteria for HW. Once this determination is made, it must be transferred to the HWSSP immediately.



Step 3: Transfer the HW to the HWSSP. All drums and containers stored in the HWSSP must be marked/labeled with the words “HAZARDOUS WASTE”, the name of the waste and the proper DOT hazard class.

Step 4: Containers of HW may only be opened and closed when transferring HW into the container. If storing HW in a drum, close the drum and ensure it is wrench tightened.

Step 5: Enter the amount of HW added to the HWSSP onto the HW Collection Log in the HWSSP along with a copy of the SDS for the waste.

Step 6: Conduct weekly HWSSP inspections using the HWSSP section of the Environmental Compliance Inspection Checklist *ONLY* while waste is being stored in the HSSWP

Step 7: Call the DPW Environmental Division for pick up prior to exceeding 55-gal of HW or 1-qt of acute HW. If the HWSSP exceeds 55-gal of HW or 1-qt of acute HW, then a start date must be annotated on the container and the ECO must call the *Waste Pickup Request Line (808) 656-0867* to schedule a pickup of the HW within 72 hours .

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IMAGE INTENSIFIER TUBES (IIT) for NIGHT VISION GOGGLES (NVG)

GENERAL INFORMATION

Image intensifier tubes (IIT) are devices used to increase the intensity of available light in Night Vision Goggles (NVG) to increase visual imaging in low light conditions. Second and third generation IITs must be demilitarized and disposed when they have been determined to be beyond their useful life and not covered by warranty.

POTENTIAL HAZARDS

IITs which perform below the Army standard are turned in for disposal; however, these tubes retain some level of useful performance. It has been decided that second and third generation IITs which do not meet the required level of performance must be demilitarized, in order to prevent pilferage/assembly by unauthorized persons.

WASTE CHARACTERIZATION

Demilitarized IITs contain levels of lead and cadmium that exceed the EPA's acceptable levels for disposal in the general refuse so they must be disposed of as a HAZARDOUS WASTE.

HANDLING AND DISPOSAL PROCEDURES

IITs must be demilitarized prior to disposal IAW the CECOM Safety Office's "Operational Guidelines for Demilitarization and Disposal of Image Intensifier Tubes". This instruction can be obtained from the DPW Environmental Inspectors.

Step 1: Contact the unit Supply Support Activity (SSA) to make an appointment to demilitarize the IITs at the SSA.

Step 2: Demilitarize the IITs **at the unit SSA** IAW the demilitarization instructions. Under no circumstances will unit personnel demilitarize IITs at the unit location (e.g. motorpool, company area). Two unit personnel are needed to accomplish the demilitarization procedure.

Step 3: Obtain a demilitarization certification form from the DPW TAP (808) 656-0866. Complete one form for each IIT NSN. One soldier must sign the form as the certifier and the other as the verifier.

Step 4: Turn-in the IITs along with the demilitarization certificates to the SSA ECO who will label them HAZARDOUS WASTE and store them in the HWSSP.

Step 5: The SSA ECO will call DPW Environmental *Waste Pickup Request Line (808) 656-0867* to schedule a pickup of the IITs.



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MAGAZINES

GENERAL INFORMATION

Magazines are recyclable and are accepted at the Army Recycling Center (ARC) as mixed paper.

Magazines and glossy paper can be recycled to make other paper products, saving 60% of the energy it takes to make new paper. (Source: earth911.com)

WASTE CHARACTERIZATION

Magazines are made of paper that has been coated. This glossy coating makes the paper good for color printing, graphics and photographs.

HANDLING AND DISPOSAL PROCEDURES

Recycle magazines along with other paper items in your single-stream bins. Recycling bins can be requested by contacting the Recycling Program at (808) 656-5411 or (808) 656-3085

Drop off glossy paper/magazines at the ARC, 1087-B McMahon Road, Schofield Barracks or schedule a pick-up by calling the ARC at (808) 656-9911.



For more info contact: DPW Environmental Solid Waste and Recycling Program at
(808) 656-5411 or (808) 656-3085

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MEALS, READY TO EAT (MRE) FLAMELESS RATION HEATERS (FRH)

GENERAL INFORMATION

Meals Ready-to-Eat (MRE), which contain Flameless Ration Heaters (FRHs) consist of a plastic bag containing a piece of fiberboard and powdered magnesium or magnesium alloys along with other materials.

POTENTIAL HAZARDS

Powdered magnesium is a water reactive chemical. Never store MREs in closed CONEXs, MILVANs or TRICONs.

WASTE CHARACTERIZATION

Flameless Ration Heaters (FRH) *that have been used to heat the MREs* are considered non-hazardous solid waste. **Unused or damaged** FRHs that are no longer usable, are considered HAZARDOUS WASTE by the Hawaii Department of Health (HDOH).

HANDLING AND DISPOSAL PROCEDURES

Step 1: Whenever possible, use the FRH to heat the MRE.

Step 2: All unused FRHs will be collected by the unit's ECO and turned in to the HMCP (contact the HMCP at (808) 656-0720 for appointment).



Step 3: All FRHs that have been used to heat the MRE can be disposed of as solid waste in the trash.

Step 4: All damaged FRHs will be collected by the unit ECO and managed as a HAZARDOUS WASTE in the HWSSP.

Step 5: If units have excess cases of MREs they may be turned in at TISA, Schofield Barracks building 2071.

Step 6: If cases of MRE are expired or rejected by TISA, open the MRE and remove the FRHs. The FRHs must be turned in to the HMCP. Once the FRH is removed, the MRE can be disposed of in the general refuse.

NOTE: If the FRH is not used to heat the MRE, turn it in to the HMCP. **DO NOT ACTIVATE** the FRH for the sole purpose of disposal. Although this is an acceptable practice on some installations, it is prohibited in the State of Hawaii.

U.S. Army Garrison Hawaii – Environmental Compliance Guide

MEDICAL SUPPLY ITEMS (CLASS VIII) and PHARMACEUTICALS

GENERAL INFORMATION

Class VIII medical supply items and pharmaceuticals (i.e. medications) on the installation are typically managed by the medical support activities such as battalion aid stations and medical companies. Policy Memorandum USAG-HI-45, Management of Class VIII Medical Supply Items establishes the procedures for managing these items on U.S. Army installations in Hawaii. Units and activities with excess and expired Class VIII medical supply items and pharmaceuticals will turn in these items to their Brigade Medical Support Office (BMSO) or the Installation Medical Supply Activity (IMSA) at Tripler Army Medical Center (TAMC) who utilizes a “Reverse Distributor” as part of the Army’s mandatory Guaranteed Returns Contract (GRC).

POTENTIAL HAZARDS

Medical supply items and pharmaceuticals may be dangerous if not handled properly. Only trained medical personnel should handle these items.

WASTE CHARACTERIZATION

The unit/activity must make a hazardous waste determination on any items or pharmaceuticals that are not accepted under the GRC. These items must be managed IAW the IHWMP. Contact the DPW Environmental Division TAP for assistance in making a proper hazardous waste determination.

HANDLING AND DISPOSAL PROCEDURES

Step 1: Turn-in excess and expired Class VIII medical supply items and pharmaceuticals to the BMSO or IMSA. Contact TAMC Logistics for more information.

Step 2: Qualified items will be turned over to the Reverse Distributor under the GRC.

Step 3: Individual non-MEDCOM units must receive approval from their Major Subordinate Command Environmental Science Officer to dispose of unserviceable Class VIII medical supply items and pharmaceuticals at the DPW Environmental Division TAP.

Step 4: Contact TAMC Logistics or DPW Environmental Division Compliance Inspections Program for more information.



U.S. Army Garrison Hawaii – Environmental Compliance Guide

MEDICAL WASTE—Regulated (RMW)

GENERAL INFORMATION

Regulated Medical Waste (RMW) includes human blood, blood products, body fluids, pathological wastes and used/unused sharps. If you handle RMW, you are required by law to have training under OSHA Regulations 29 CFR 1910.1200 (HAZCOM and HAZWOPER) and 29 CFR 1910.1030 (Bloodborne Pathogen Standard).

POTENTIAL HAZARDS

Regulated medical waste (also known as infectious waste) is a waste capable of causing infectious disease in humans.

WASTE CHARACTERIZATION

The handling, treatment, transportation and disposal of RMW is regulated by federal, Army, MEDCOM and Installation regulations.

HANDLING AND DISPOSAL PROCEDURES

Step 1: Only trained personnel should handle RMW.

Step 2: Non-MEDCOM units will follow established RMW management procedures.

Step 3: Ensure proper containers are available for the collection of RMW (i.e. “red bags”, sharps containers).

Step 4: Do not overfill or compress RMW in containers.

Step 5: Contact your unit medical support activity, Schofield Barracks Health Clinic or TAMC Logistics for further information.



U.S. Army Garrison Hawaii – Environmental Compliance Guide

CARTONS (Milk, juice, etc.)

GENERAL INFORMATION

Milk and juice cartons are usually made of a mix of materials such as paper, plastic, and aluminum. Similar to snack wrappers, this makes it difficult to recycle in certain regions. Currently, Hawaii does not accept cartons (milk, juice, etc.) as a recyclable item.

WASTE CHARACTERIZATION

Milk and juice cartons **CANNOT** be recycled in your single-stream recycling bins and are considered trash.

HANDLING AND DISPOSAL PROCEDURES

- Milk and juice cartons are not recyclable in Hawaii or in the USAG-HI installations. Place these items in the trash.

(pixabay.com).



**For more info contact: DPW Environmental Solid Waste and Recycling Program at
(808) 656-5411 / (808) 656-3085**

U.S. Army Garrison Hawaii – Environmental Compliance Guide

MOLD

GENERAL INFORMATION

Molds are part of the natural environment and can be found almost anywhere; they can grow on virtually any organic substance, as long as moisture and oxygen are present. There are molds that can grow on wood, paper, carpet, foods and insulation. When excessive moisture accumulates in buildings or on building materials, mold growth will often occur, particularly if the moisture problem remains undiscovered or unaddressed.

(EPA's website: <http://www.epa.gov/mold/>)

U.S. ARMY GARRISON MOLD RESPONSE AND MANAGEMENT

- If the area contaminated with mold is less than 10 square feet, the tenant/unit/building occupants are responsible for cleaning the mold with water and detergent as well as routinely cleaning all A/C supply and return registers of mold.
- If the area contaminated with mold is greater than 10 square feet, please contact an Industrial Hygienist (IH) (Schofield Barracks: (808) 655-7742 Tripler Army Medical Center: (808) 433-9942) for an indoor survey to determine if mold is present and the cause of the mold growth.
- If repair/remediation is required, please submit a Facilities Engineering Work Request (FEWR) along with the Indoor quality report (IAQ) if one is provided by the IH to DPW Work Management (808) 787-1275.

WHAT YOU CAN DO

- When water leaks or spills occur indoors - **ACT QUICKLY**. If wet or damp materials or areas are dried 24-48 hours after a leak or spill happens, in most cases mold will not grow.
- Report all plumbing leaks and moisture problems immediately to DPW Work Order Desk (808) 787-1275. If residing in AHFH, promptly notify your community center about any signs of water leaks, water infiltration or mold.
- Most buildings on USAG-HI installations have central air conditioning. Windows and doors should remain closed to prevent condensation that can occur when warm moist air from the outside mixes with the conditioned air inside.
- Run the bathroom fan when showering. Use exhaust fans whenever cooking, running the dishwasher, washing dishes, etc.
- Keep your home/office clean. Regular vacuuming, mopping, dusting and using a household cleaner to clean hard surfaces are important to remove the household dirt and debris that harbors mold or provides food for mold.

Some of these suggestions came from: <http://www.epa.gov/mold/>

For more info contact: DPW Clean Air Program or TAMC Industrial Hygiene Service.

U.S. Army Garrison Hawaii – Environmental Compliance Guide

MUNITIONS, WASTE MILITARY

GENERAL INFORMATION

Training exercises generate expended and excess live ammunition. The ammunition and residue must be returned to the LRC Ammunition Supply Point (ASP). Ammo/Brass/ Unexploded ordinance (UXO) **MUST NOT** be discarded into the dumpster or trash.

POTENTIAL HAZARDS

Expended and live ammunition, simulators, brass casings and other range residue can contain explosive and/or toxic material that can present a serious safety hazard and be extremely harmful to people and the environment if not managed properly.

WASTE CHARACTERIZATION

Unexpended ammunition and unexploded ordinance (UXO) are considered to be very dangerous and must be handled by trained personnel. Expended, inert brass residue is collected at the ASP for recycling. Some range residue, e.g. burn ash residue from the burning of excess propellant charges, may be considered a **HAZARDOUS WASTE**. Contact the DPW Environmental Division Compliance Inspections Program for guidance.

If you discover live or expended ammunition or unexploded ordinance (UXO) **DO NOT GO NEAR IT!** Do not consider any items safe to move.

HANDLING AND DISPOSAL PROCEDURES

If the item is discovered on one of the installation's ranges, immediately notify **Range Control**, and the **Military Police** who will notify **Explosive Ordinance Disposal** personnel for proper removal/disposal.

For 24-hour emergency for UXO's call **911** or (808) 655-7112.



U.S. Army Garrison Hawaii – Environmental Compliance Guide

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

GENERAL INFORMATION

32 CFR 651, Environmental Analysis of Army Actions, complies with the National Environmental Policy Act (NEPA) and requires the Army to assess actions that have the potential to impact human health and the environment. One of the main purposes of NEPA is to provide the public an opportunity for input on actions that may have environmental consequences on Army lands as well as enable Army decision makers to make informed decisions.

REVIEW PROCESS

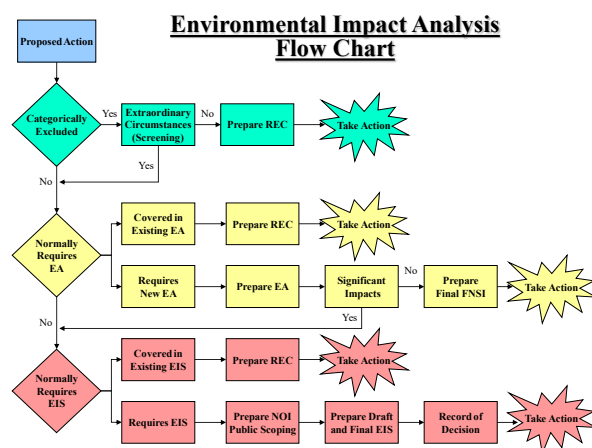
Step 1: The NEPA process requires that all installation proposed actions or projects be included as early as possible in the decision making process so that all relevant environmental concerns can be considered before a final decision is made.

Step 2: To ensure compliance with NEPA, consult with the DPW Environmental NEPA Program Manager when an action is proposed to determine if environmental documentation is required. Start the process early. The NEPA process can be time consuming depending on the environmental impacts of the proposed action. Early NEPA consideration prevents costly delays.

Step 3: For actions that could impact historic structures or cultural and natural resources, or involve new construction, introduce new training vehicles or weapons, complete a record of environmental consideration (REC) and submit it to the DPW NEPA section for evaluation.

Step 4: The depth of required analysis depends on many things, including but not limited to the significance of the project, its effects on the public, and the degree of environmental impact. There are essentially 3 levels of environmental impact analysis, and each requires a specific type of documentation as follows:

- **Record of Environmental Consideration (REC):** The REC briefly describes the proposed action and explains why further environmental analysis is not needed.
- **Environmental Assessment (EA):** An EA is conducted for proposed actions that are expected to have environmental impacts and to evaluate possible alternatives. If the EA cannot describe a "finding of no significant impact" (FNSI) then an EIS needs to be prepared.
- **Environmental Impact Statement (EIS):** The EIS is an extensive analysis of direct, indirect and cumulative environmental impacts as well as alternatives to the proposed project. A Record of Decision (ROD) will be signed when the process is completed.



For more info contact: DPW Environmental NEPA Program at (808) 656-3075.

U.S. Army Garrison Hawaii – Environmental Compliance Guide

NATURAL RESOURCES

GENERAL INFORMATION

USAG-HI Natural Resources program promotes the preservation of rare plants and animals found on Oahu and Pohakuloa Army training areas, and the ecosystems upon which they depend. USAG-HI is responsible for conserving over 120 federally-listed endangered species on Oahu and the Big Island. Of the 120 endangered species managed, most are plant species that are found nowhere else in the world.

THREATS TO HAWAII'S NATURAL RESOURCES

Both invasive species and human activities threaten fragile endangered species and their habitats. Endangered species can be impacted by non-native plants and animals, erosion, pedestrian and animal traffic, and fire.

Human activities such as clearing of vegetation, military training exercises, tactical vehicle maneuvers, and live fire activity impact endangered species in Hawaii. ***Fire and invasive species introduction and spread are the major Army related threat to endangered species.***

Step 1: You need to know your responsibilities and keep within the boundaries designated for your particular training exercise. Follow proper procedures such as Range SOPs and FRAGOS.

CONSERVATION PROCEDURES

If you have questions regarding endangered species located nearby the training areas, **ASK**, because after-the-fact forgiveness provisions do not exist within the endangered species laws. Individuals who impact endangered species can be held personally liable for a \$50K fine for each species impacted.

Step 2: Sustaining the quality of the natural environment will enable us to support Army training for years to come. Listed below are actions you are expected to take with regard to conserving our land:

- Properly clean your gear and vehicles before moving between training areas, ***use the wash-racks.***
- Do not engage in risky behavior that can start fires. ***Smoke only in designated areas.***
- Do not cut trees >15 ft without prior approval
- Report all snake sightings
- Avoid areas marked by Seibert Stakes
- Share available published information



For more info contact: DPW Environmental Natural Resources Program.

U.S. Army Garrison Hawaii – Environmental Compliance Guide

NEWSPAPER

GENERAL INFORMATION

Newspaper is recyclable and is accepted at the Army Recycling Center (ARC).

Newspaper can be recycled to make new news print paper and other paper products like egg cartons and cereal boxes. (*source: earth911.com*)

WASTE CHARACTERIZATION

Recyclable newspaper consist of the “black and white” and glossy sections.

HANDLING AND DISPOSAL PROCEDURES

Newspaper can be placed in the single-stream recycling bins or drop off at the ARC at 1087-B McMahan Rd., Schofield Barracks

Call (808) 656-9911 to request recycling bins or recycle pick-ups.



For more info contact: DPW Environmental Solid Waste and Recycling Program at
(808) 656-5411 or (808) 656-3085

U.S. Army Garrison Hawaii – Environmental Compliance Guide

OPEN BURNING

GENERAL INFORMATION

General Rule: Based on Army Garrison, HI policy and the Hawaii State Law, the burning of any material in an open fire is not allowed anywhere on the Army Garrison, HI. This includes the burning of documents, trash, leaves, wood, etc.

Exceptions: Residential BBQ grilling, up to 2 grills, is allowed on the Garrison without prior notification. When planning for all other outdoor cooking arrangements, coordinate with the Federal Fire Department at 471-8004.



POTENTIAL HAZARDS

Fire hazards may occur if the flame becomes uncontrolled and spreads to other uncontained areas.

The effects of smoke on human health is also detrimental due to the hazardous air pollutants released into the atmosphere. The inhalation of these emissions may cause cancer or lead to other adverse health effects.

BURNING ALTERNATIVES

- Utilize an NSA-approved shredder for classified documents.
- Residents can utilize IPC's recycling and green waste curbside pickup.
- Soldiers can deliver accepted materials to the Army Recycling Center.
- The Garrison's website, *Sustainability and Environmental Topics from A to Z*, provides disposal information by material:

<https://home.army.mil/hawaii/index.php/garrison/dpw/environmental-a-z>

ADDITIONAL INFORMATION

Notify us (808) 656-3107 if you see any open burns on the Garrison since we are subject to monetary fines for unauthorized fires. Call 911 for any burning that is uncontrolled or spreading.

For additional information, please refer to the following websites:

USAG-HI Open Burn Policy

<https://home.army.mil/hawaii/index.php/about/command-pubs>

U.S. Army Garrison Hawaii – Environmental Compliance Guide

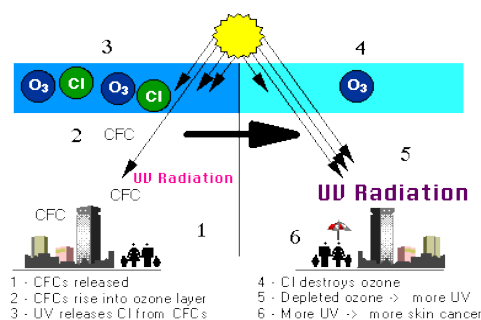
OZONE DEPLETING SUBSTANCES (ODS)

GENERAL INFORMATION

Ozone depleting substances (ODS) can be found in many appliances and products utilized on this installation. Chiller systems, refrigerators, freezers, air conditioners, water coolers, dehumidifiers, and fire suppression systems may contain ODS.

POTENTIAL HAZARDS

Ozone depleting substances are man made compounds that include chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs) or halons. When released into the environment, ODS can destroy the protective ozone layer, which can then contribute to global warming. A thinning of the ozone layer allows more harmful UV rays to reach the earth's surface which can lead to adverse human health and environmental effects.



WASTE CHARACTERIZATION

Before the disposal of an appliance, the EPA requires the removal of an ODS by a trained and certified technician. The ODS must be captured and containerized utilizing certified equipment and canisters and then must be recycled, reclaimed or destroyed, and recorded. The known release or venting of an ODS is prohibited under the Clean Air Act, and failure to comply may result in **substantial fines and penalties**.

HANDLING AND DISPOSAL PROCEDURES

Do not attempt to remove the refrigerant from your appliance. Be advised that Army Policy requires that recovered Class I and R-22 refrigerants remain in Army ownership. Please contact the Environmental Division Clean Air Program to obtain information regarding the proper disposal procedures of your ODS containing appliances.

ADDITIONAL INFORMATION

Appliances purchased from off post suppliers **should not** contain Class I, Class II and some substitute refrigerants. These refrigerants have been or are in the process of being phased out of production and appliances containing these substances will eventually be unserviceable. Please contact the Environmental Division Clean Air Program (808) 656-3107 if you are unsure if the appliance you are purchasing contains an unacceptable type of refrigerant.

For more info contact: DPW Environmental Clean Air Program.

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PAINT & PAINT RELATED MATERIAL

GENERAL INFORMATION

Paint and paint related material includes: oil-based and latex (water-based) paint and stain and aerosol paint cans. Paint and paint related materials must meet AUL inventory and storage requirements.

POTENTIAL HAZARDS

Paint and paint related material may contain heavy metals and chemicals that may be flammable. Refer to the SDS for specific hazards. Mismanagement of paints could result in harm to personnel and the environment and fines by the EPA and HDOH.

WASTE CHARACTERIZATION

Most excess, unusable latex/water-based paint is not regulated, however oil-based and other paint (e.g. CARC paint) may be considered HAZARDOUS WASTE. Contact the DPW Environmental Division Compliance Inspections Program for guidance.

HANDLING AND DISPOSAL PROCEDURES



NEVER deliberately leave cans of paint open to dry if they contain any more than a slight residue in the can.

Step 1: Latex/water-based paint tarps, rollers, brushes, gloves and stir sticks that have dried may be placed in the trash.

Step 2: Empty, dry metal cans of latex and oil paint with barcodes will be taken to the HMCP.

Step 3: Wastewater from latex paint cleanup can only be put into the sanitary sewer with prior approval from the DPW Environmental Division Clean Water Program. Do not put into storm drains or septic systems.

Step 4: All excess paint (liquid and aerosol) must be turned-in to the DPW TAP. Contact the ***Waste Pickup Request Line (808) 656-0867*** for disposal. Usable paint will be transferred to the Free Issue program.

U.S. Army Garrison Hawaii – Environmental Compliance Guide

PAPER (Mixed)

GENERAL INFORMATION

Paper is recyclable and is accepted at the Army Recycling Center (ARC).

This includes office paper (white and color), newspaper, shredded paper (bagged), glossy paper, non-corrugated cardboard and magazines. Paper can be recycled to make other paper products, saving 60% of the energy it takes to make new paper. (*source: earth911.com*)

WASTE CHARACTERIZATION

Mixed paper includes white and color office paper, post-it notes, newspaper, glossy paper (brochures, catalogs and magazines), and non-corrugated cardboard (e.g. cereal boxes, file folders etc.).

HANDLING AND DISPOSAL PROCEDURES

Recycle mixed paper (whole loose in recycle bins and shredded in bags). Recycling bins can be requested by calling the Recycling Program at (808) 656-9911. If paper is shredded through an outside vendor please contact the Recycling Program with the weight of the paper that was processed (this information goes towards the Army's annual waste diversion rate)

Drop off paper at the ARC, 1087-B McMahan Rd., Schofield Barracks or schedule pick-ups by calling the ARC at (808) 656-9911.



For more info contact: DPW Environmental Solid Waste and Recycling Program at
(808) 656-5411 or (808) 656-3085

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PARTS WASHERS

GENERAL INFORMATION

All parts washers and solvents must be approved by the DPW Env Div HW Program Manager. Do not purchase or use any parts washer without prior approval.

POTENTIAL HAZARDS

All personnel must read and adhere to the SDS, warning labels and information posted on parts washing equipment. Do not contaminate parts washer solvent with other chemicals, i.e. paint, paint cleaning solvents, POL products, gasoline, etc. Ensure that the location of the parts washer has been approved by the Directorate of Installation Safety.

WASTE CHARACTERIZATION

Parts washer solvent is typically recycled by a two (2) stage filter system. Regular PMCS includes changing the filters, removing the sludge and topping off the solvent according to the manufacturer's instructions. Used solvent, sludge and filters may be a HAZARDOUS WASTE when disposed. Contact the DPW Environmental Division Compliance Inspections Program for disposal guidance.

HANDLING AND DISPOSAL PROCEDURES



Step 1: All parts washers and solvents must be approved by DPW Environmental (808) 656-3097. Do not purchase or use any parts washer without prior approval.

Step 2: Personal protective equipment (PPE) (rubber gloves, face shield and rubber apron) must be available and at all times and worn while operating the parts washer. Parts washer lids must be closed and locked when not in use and kept free of foreign debris.

Step 3: Perform regular PMCS in accordance with manufacturer's directions.

Step 4: Contact the DPW Environmental Division *Waste Pickup Request Line (808) 656-0867* for the disposal of used solvent, sludge and filters.

REGULATORY COMPLIANCE

Parts washers using certain solvents may be subject to the EPA's NESHAP regulations for Halogenated Solvent Cleaning. DPW Environmental must be notified when using or planning to use parts washers. Any washers already in use must be inventoried by the Clean Air Program at (808) 656-3107.

U.S. Army Garrison Hawaii – Environmental Compliance Guide

PESTICIDES: INSECTICIDES, HERBICIDES & RODENTICIDES

GENERAL INFORMATION

Pest management at U.S. Army Garrison Hawaii is governed by the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and the Installation Integrated Pest Management Plan (IPM). The plan describes a comprehensive program that uses a wide variety of technological and management practices to achieve long-term and environmentally-sound pest suppression and prevention.

There are two classes (restricted-use and general) of pesticides recognized and registered by the EPA. The application and purchase of restricted-use pesticides is limited to personnel who are DoD/State certified in the operational category in which they are working.

Contact the DPW Work Order Desk for assistance with pest issues in your work area. Call Army Hawaii Family Housing (AHFH) for assistance with pest issues in your home.

POTENTIAL HAZARDS

Many of these products can be HAZARDOUS WASTE and harmful to people and the environment, especially when stored, handled, applied or disposed of improperly.

HANDLING AND DISPOSAL PROCEDURES

Step 1: *Do not apply any pesticides anywhere on the installation. Contact the DPW Work Order Desk to request application by certified personnel.*

Step 2: If unused excess pesticides are discovered in your area, refer to the SDS for each item and determine if they are Hazardous or Non-Regulated Waste. Contact either your DPW Environmental Division Compliance Inspector or the TAP if assistance is needed.



Step 3: Mark and label each item according to the waste determination (“HAZARDOUS WASTE” or “NON-REGULATED WASTE”). Hazardous Waste must be managed IAW the IHWMP in the HWSSP (see HWSSP Fact Sheet) and Non-Regulated Waste should be managed in the RMSSP (see RMSSP Fact Sheet).

Step 4: Contact the DPW Environmental Division *Waste Pickup Request Line (808) 656-0867* for disposal.

For more info contact: DPW Environmental Compliance Inspections Program or the TAP.

U.S. Army Garrison Hawaii – Environmental Compliance Guide

PETS: RESPONSIBLE OWNERSHIP

GENERAL INFORMATION

Take the time to educate yourself and your family before deciding to adopt a pet. The U.S. Army has strict policies on the care, safety and licensing of pets on installations.

All dogs and cats living on installations should be spayed or neutered and are required to have an identification microchip (Policy Memorandum USAG-HI 13). The microchip allows for instantaneous animal and owner identification should a pet become lost or abandoned.

Owners must register pets with the City and County of Honolulu and with the applicable Veterinary Treatment Facility (VTF) on Schofield Barracks or Fort Shafter within 14 days after arrival on an Army installation on Oahu.

In addition, Army Hawaii Family Housing (AHFH) requires all dogs be kept on a leash during walks and cats are required to be kept indoors.

If you are unable to take your pet when you re-locate, allow enough time to research your options for re-homing your dog, cat, reptile or other pet. Do *NOT* release your pets into the wild.

ABADONED PETS THREATEN HAWAII'S NATURAL RESOURCES

The forests around Army Family Housing on Oahu are home to some of Hawaii's rarest native animals. Native birds, tree snails and other unique animals evolved on this island for millions of years without the threat of introduced predators. They are defenseless against cats, dogs and reptiles.

Jackson's Chameleons, a reptile brought in from Africa, do NOT make good pets. They do not fare well in captivity and require a constant supply of live food (crickets, etc.). The Hawaii Division of Forestry and Wildlife have included Jackson's Chameleons on their Injurious Wildlife List and it is against State law to release Chameleons into the wild.

RE-HOMING OPTIONS

Contact one of the following organizations to discuss procedures for re-homing your pet:

- Hawaii Humane Society: (808) 356-2218
- Veterinary Treatment Facilities located on installations (they will allow postings for pet adoptions)
- "No Kill" Animal Shelters (there are several on island)
- Pet stores (some will take reptiles and aquarium fish)



Jackson Chameleons do NOT make good pets and are a threat to Hawaii's native animals.



For more info contact: DPW Environmental Natural Resources Program.

U.S. Army Garrison Hawaii – Environmental Compliance Guide

PLASTIC BAGS

GENERAL INFORMATION

The first plastics made from fossil fuels are just over a century old. They came into widespread use after World War II and are found today in everything from cars to medical devices to food packaging. Their useful lifetime varies. Once disposed of, they break down into smaller fragments that linger for centuries.

The largest market for plastics today is for packaging materials. That trash now accounts for nearly half of all plastic waste generated globally; most of it never gets recycled or incinerated. An average plastic bag is used for only 15 minutes. (source [National Geographic](#)).

WASTE CHARACTERIZATION

Plastics bags and other plastics films (saran wrap, soft plastic packaging) are NOT recyclable in your single-stream recycling bins.

HANDLING AND DISPOSAL PROCEDURES

- Reduce: First, politely refuse plastic bags when offered. This reduces the plastic bags that are created and disposed of.
- Reuse: Invest in reusable bags and remember to bring them with you each time. If you do have to take a plastic bag, you can use it again for groceries or as a trash bag.
- Recycle: the Army Recycle Center (ARC) does NOT take plastic bags for recycling. Do not put them in your single-stream recycling bin or bring them to the ARC.
 - The Commissary on post does offer a plastic bag recycling collection point.
- Trash: plastic bags and soft plastic films must go in the trash (if not brought to the Commissary)



(pixabay.com).

**For more info contact: DPW Environmental Solid Waste and Recycling Program at
(808) 656-5411 / (808) 656-3085**

U.S. Army Garrison Hawaii – Environmental Compliance Guide

PLASTIC STRAWS

GENERAL INFORMATION

The first plastics made from fossil fuels are just over a century old. They came into widespread use after World War II and are found today in everything from cars to medical devices to food packaging. Their useful lifetime varies. Once disposed of, they break down into smaller fragments that linger for centuries.

The largest market for plastics today is for packaging materials. That trash now accounts for nearly half of all plastic waste generated globally; most of it never gets recycled or incinerated. (source [National Geographic](#)). Plastic straws are on of the top ten items found on beaches and can kill wildlife.

WASTE CHARACTERIZATION

Plastics straws are NOT recyclable in your single-stream recycling bins and cannot be brought to the Army Recycle Center

HANDLING AND DISPOSAL PROCEDURES

- Reduce: Politely refuse plastic straws when offered. Invest in reusable bamboo or metal straws instead.
- Trash: Plastic single-use straws must be placed in the trash. They CANNOT be placed in your recycling bins or brought to the ARC.

(pixabay.com).



For more info contact: DPW Environmental Solid Waste and Recycling Program at
(808) 656-5411 / (808) 656-3085

U.S. Army Garrison Hawaii – Environmental Compliance Guide

PURGING FUEL TANKS

(Fuel Tankers, Trailers, HEMTT, MFS-TRMs, Fuel Pods)

GENERAL INFORMATION

The term purging as specified in Appendix E of the Army Techniques Publication (ATP) 4-43, entails flushing the fuel storage compartment with water and a degreaser/emulsifier such as CitriKleen to render the tank vapor free. This process is typically not required for shipping fuel trucks by barge during deployments. Draining the fuel compartment to acceptable levels dictated by the Unit's transportation officer is usually sufficient. However, purging fuel tanks in accordance with ATP 4-43 may be required for maintenance, repairs and turn in. USAG-HI does not have a purging facility designed to treat purged wastewater. Units must use their GPC card or contract with a local vendor if purging as specified in ATP 4-43 is required. Purging of fuel tanks is prohibited on unit wash racks.

POTENTIAL HAZARDS

Fuel containers, tanker vehicles or trailer units may contain vapors or a residue that may be dangerous and cause explosion if there is an ignition source nearby.

WASTE CHARACTERIZATION

Fuel in tanks and in containers should first be analyzed to determine if the product is still usable. Contact your unit Fuel Quality Officer to conduct fuel testing for this determination. If the fuel is still usable, it may be possible to make arrangements with another unit to transfer the fuel. If it is no longer usable, it may be recyclable.

HANDLING AND DISPOSAL PROCEDURES

Step 1: Contact the unit's fuel platoon/staff to determine if the fuel is still usable.

Step 2: If the fuel is still usable, contact the DPW Environmental Division Compliance Inspections Program to see if it can be transferred to another unit.

Step 3: If fuel can be recycled, contact the DPW Service Contracts Branch to set up a one time purging contract by a qualified contractor. Unit funds must be used for this service.



U.S. Army Garrison, = Hawaii – Environmental Compliance Guide

QUARTERLY INTERNAL ENVIRONMENTAL COMPLIANCE TRAINING

GENERAL INFORMATION

Quarterly internal environmental compliance training is a critical component of every unit's environmental compliance program. The training must be conducted once every quarter by the unit ECO and attended by all personnel in the ECO's operational area. It must include the following topics (as applicable): hazard communication program, HM/HW management, HW minimization, spill contingency procedures, AST/ UST, OWS.

The training should be site specific and user-friendly, and should include the information unit personnel need to know to conduct industrial operations in a sustainable manner in accordance with all applicable environmental regulations. A copy of the training materials and a sign-in roster must be available in the unit ECO book for historical documentation and inspection.

Training materials and assistance are available by contacting your inspector or the ECO instructor.

Failure to conduct quarterly training will result in an "Unsatisfactory" rating on the facility's unannounced environmental compliance inspection and possible mismanagement of hazardous materials and hazardous waste by unit personnel.

TRAINING REQUIREMENTS

Step 1: Schedule quarterly internal environmental compliance training for all personnel in the operational area. Make sure the training is entered on the unit training calendar. Training may be conducted by DPW Environmental Division Compliance Inspections Program staff by request on a case-by-case basis.

Step 2: Obtain quarterly training documents by contacting your inspector or the ECO instructor.

Step 3: Conduct training and ensure:

- Training is site-specific and covers all applicable areas listed on the Environmental Compliance Inspection Checklist.
- Senior Leaders/supervisors attend training.
- Training is documented on a sign-in roster with the date and topics covered.
- Training materials and roster are kept in the ECO book for inspection.

Step 4: Keep records for 3 years.

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RECYCLABLE MATERIALS

GENERAL INFORMATION

Recycling is mandatory for all Soldiers, Family Members, tenant organizations, Civilians, contractors and others who work on, reside on, or visit and Army installation in Hawaii, per Policy Memorandum USAG-HI-11.

EO 13693 (Planning for Federal Sustainability in the Next Decade) maintains a reduction in the amount of solid waste sent to landfills or incineration to achieve a 50% solid waste diversion rate.

ITEMS ACCEPTED AT THE ARC

The Army Recycling Center (ARC) is located at 1087-B McMahan Road, Schofield Barracks. Recycling bins can be requested by calling the Recycling Program at 656-5411 or (808) 656-3085. Pick-ups requests can be scheduled by calling (808) 656-9911. Recyclable items can also be dropped off at the ARC during regular business hours (M-F 00730-1600).

- Colored paper
- Dry cardboard
- Glossy paper
- Hard plastic containers #1-5 (must be rinsed out; no segregation required)
- HI-5 glass, plastic and aluminum containers
- Magazines
- Scrap metal
- Toner cartridges
- White office paper
- Green waste
- Wood pallets (untreated, unpainted wood waste). Limited quantities only.
- Shredded paper (must be bagged)
- Newspaper

UNACCEPTABLE ITEMS

- Appliances
- Batteries
- Electronic waste
- Fluorescent bulbs
- Furniture
- General refuse (Trash)
- Hazardous waste
- Mattresses
- No flexible plastics (grocery bags, cereal bag liners)
- Vehicle waste, oil, tires, etc.

HANDLING AND DISPOSAL PROCEDURES

Refer to individual A -Z Fact Sheets for more information on recycling procedures for specific items.

**For more info contact: DPW Environmental Solid Waste and Recycling Program at
(808) 656-5411 or (808) 656-3085**

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RECYCLABLE MATERIALS SHOP STORAGE POINT (RMSSP)

GENERAL INFORMATION

The DPW Environmental Division Compliance Inspections Program has established Recyclable Materials shop Storage Points (RMSSP) for units generating used oil, recyclable materials and non-regulated waste. The RMSSP is designed to capture any releases into the environment, is secured and must be under the control of the ECO. A spill kit must be maintained at the RMSSP. For additional requirements for the management of the RMSSP see the Installation Hazardous Waste Management Plan (IHWMP) and the unit SOP.

POTENTIAL HAZARDS

Improper management of used POLs and recyclable materials could pose a threat to the environment and result in fines by the Hawaii Department Of Health and EPA.

MANAGEMENT PROCEDURES

Step 1: Transfer materials into the appropriate drum, marked/labeled and color-coded (around the entire middle third of the drum) as follows:

2-INCH BLACK LETTERING	BAND COLOR
USED OIL	RED
USED ANTIFREEZE	GREEN
USED F-24/DIESEL	YELLOW



Step 2: Close the drum, ensure it is wrench tight and enter the amount transferred onto a separate RMSSP Collection Log for each drum.



Step 3: Used POLs at the RMSSP are picked up on a monthly schedule under a DPW service contract.

Step 4: For pick up of used POL, used rags, used dry sweep and non-regulated waste call the **Waste Pickup Request Line (808) 656-0867**.

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RESTORATION

GENERAL INFORMATION

USAG-HI is responsible for implementing the Defense Environmental Restoration Program (DERP) at all USAG-HI sites. DERP was formally established by Congress in 1986 and provides for the cleanup of Department of Defense sites under the jurisdiction of the Secretary of Defense. The Army has two restoration programs under DERP at USAG-HI, the Installation Restoration Program (IRP) and the Military Munitions Response Program (MMRP).

The IRP is a comprehensive program to identify, investigate and clean up hazardous substances, pollutants and contaminants at active/operating Army installations. The MMRP addresses non-operational range lands that are suspected or known to contain unexploded ordnance (UXO), Discarded Military Munitions (DMM) or Munitions Constituent (MC) contamination. Eligible sites include those contaminated by past defense activities that require clean up under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) as amended by Superfund Amendments and Reauthorization Act (SARA) and certain corrective actions required by the Resource Conservation Recover Act (RCRA).



CONTAMINANTS OF CONCERN

Sites managed by USAG-HI Restoration Program include former landfills, former small arms and larger caliber arms ranges, leaking underground storage tank sites, etc. Common contaminants found include metals, chlorinated solvents, petroleum products, pesticides, and munitions and explosives of concern, and munitions constituents.

INSTALLATION ACTION PLANS

On an annual basis, the USAG-HI Restoration program develops Installation Action Plans (IAPs) for all USAG-HI DERP sites. The purpose of the IAPs is to outline the total multi-year cleanup for the installations. The plan identifies environmental cleanup requirements at each site or area of concern and proposes a comprehensive, installation-wide approach, with associated costs and schedules, to conduct investigations and necessary remedial actions.

For more info contact: DPW Environmental Installation Restoration Program.

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SAFETY DATA SHEET (SDS)

GENERAL INFORMATION

Safety Data Sheets (SDS) are required for any hazardous material stored, used or disposed of on USAG-HI installations. Maintenance of SDSs for all hazardous materials is a requirement of OSHA, DPW Environmental Division and the Installation Safety Office.

SDSs contain information on the chemical components of the hazardous material, storage requirements, personal protective equipment required for use, transportation, disposal and spill response procedures.

MANAGEMENT PROCEDURES

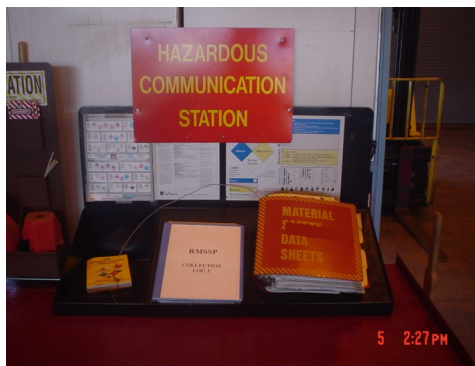
Step 1: All hazardous materials must first be listed on the unit Authorized Use List (AUL) and ordered through the Hazardous Materials Control Point (HMCP). An SDS must accompany any request to add a material to the unit AUL.

Step 2: SDSs will be provided by HMCP personnel for all hazardous material issued to customers. Materials procured through authorized local purchases must be obtained from the vendor.

Step 3: SDSs must be placed in the locations where the hazardous material is both used and stored, and should be organized with a Table of Contents.

Step 4: SDSs must be visible and accessible to all personnel who work in the area.

Step 5: SDS information should be presented to all personnel as part of the unit's Hazard Communication Safety and Quarterly Environmental Training.



For more info contact: The Installation Safety Office.

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SCRAP METAL (Steel, Aluminum, Copper, Wire)

GENERAL INFORMATION

Scrap metal (free of contamination) is recyclable and is accepted at the Army Recycling Center (ARC) at 1087-B McMahon Road, Schofield Barracks.

WASTE CHARACTERIZATION

Recyclable metal cannot contain oil, gasoline, grease, hydraulic fluid, plastic or other or contaminants.

Scrap metal that can be recycled includes metal bandings, wire (concertina/barb wire), oil filters/cans (clean), drums/barrels (clean), steel, aluminum, copper.

HANDLING AND DISPOSAL PROCEDURES

All scrap metal must be drained, empty and cleaned of contaminants before dropping off at the ARC. To request a pick-up of scrap metal hopper call the DPW Recycling Program at (808) 656-9911.

Oil filters: see A-Z Fact Sheet “FILTERS: OIL” for more information.

Concertina wire, barbed wire, and metal banding must be cut to three foot length.



For more info contact: DPW Environmental Solid Waste and Recycling Program at
(808) 656-5411 or (808) 656-3085

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SOLVENT RAGS

GENERAL INFORMATION

Solvents on USAG-HI installations are used for different maintenance operations. Some solvents include harmful chemicals such as acetone, methyl ethyl ketone (MEK), toluene, xylene, tetrachloroethylene, methylene chloride, and 1-1-1-trichloroethane. Solvents must be approved by submitting a request to the DPW Environmental Division to add it to the unit/activity Authorized Use List (AUL). **Do not use any solvent until it has been approved.** For more information contact the DPW Environmental Division Environmental Compliance Inspections program.

POTENTIAL HAZARDS

Rags contaminated with solvents may be hazardous to human health and the environment. Improper management of solvent rags may result in costly fines by the Hawaii Department of Health and/or the EPA.

WASTE CHARACTERIZATION

Used solvent rags may be **HAZARDOUS WASTE**. Consult the DPW Environmental Compliance Inspections Program for assistance.

HANDLING AND DISPOSAL PROCEDURES

Step 1: Ensure that the use of any solvent has been approved by the DPW Environmental Division and is listed on the unit/activity AUL.

Step 2: Never discard solvent rags in the trash.

Step 3: Store all usable solvent contaminated rags in a closable metal container.

Step 4: Mark the used solvent rag container with the words “USED (name of solvent) RAGS”.



Step 5: The rags should be reused to the fullest extent possible. When the rags are no longer usable, place rags in a compatible container (typically a metal drum) in the HWSSP labeled “HAZARDOUS WASTE (name of solvent) RAGS” and with the hazard class of the waste. Always keep the container closed, unless adding rags to the container. Log in any waste solvent added to the container on the HW Collection Log.

Step 6: Contact the *Waste Pickup Request Line (808) 656-0867* to dispose of the rags.

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SOLVENTS

GENERAL INFORMATION

Solvents on USAG-HI installations are used for different maintenance operations. Some solvents include harmful chemicals such as acetone, methyl ethyl ketone (MEK), toluene, xylene, tetrachloroethylene, methylene chloride, and 1-1-1-trichloroethane. Solvents must be approved by submitting a request to the DPW Environmental Division to add it to the unit/activity Authorized Use List (AUL). **Do not use any solvent until it has been approved.** For more information contact the DPW Environmental Division Environmental Compliance Inspections program.

POTENTIAL HAZARDS

Waste solvents may be hazardous to human health and the environment. Improper management of waste solvents may result in costly fines by the Hawaii Department of Health and/or the EPA.

WASTE CHARACTERIZATION

Waste solvents may be HAZARDOUS WASTE.

HANDLING AND DISPOSAL PROCEDURES

Step 1: Ensure that the use of any solvent has been approved by the DPW Environmental Division and is listed on the unit/activity AUL.

Step 2: Never discard waste solvent in the sanitary sewer, storm or floor drains.

Step 3: Collect waste solvent that can't be reused into a compatible container. Always keep the container closed, unless adding solvent to the container.

Step 4: If the waste solvent is hazardous (check with the DPW Environmental Division) label the container, "HAZARDOUS WASTE (name of solvent)" and with the hazard class of the waste. The waste solvent must be stored in the unit/activity HWSSP. Log in any waste solvent added to the container on the HW Collection Log.

Step 5: Contact the *Waste Pickup Request Line (808) 656-0867* for disposal.



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SPILL KIT

GENERAL INFORMATION

Spill kits must be equipped with the type and quantity of spill equipment adequate to respond to a spill of the hazardous material stored or used in an operational area. Spill response materials for cleanup and to restock spill kits may be procured from a local vendor, GSA or through the supply system by NSNs .

The Environmental Compliance Inspection Checklist contains a general inventory for spill kits:

- Granular absorbent in new dry sweep container with lid (50 pounds)
- Absorbent pillows (5 ea) or pads (bundle of 100)
- Straight edge, non-sparking shovel (1 ea)
- Broom (1 ea)
- Used dry sweep container with lid (1 ea)
- Rubber gloves (2 pair)
- Rubber boots (2 pair)
- Absorbent booms, 8 or 10 feet long (2 ea)



HANDLING AND DISPOSAL PROCEDURES

Step 1: Immediately report all spills to the DPW Emergency Spill Response Line at 656-1111.

Step 2: Submit a written USAG-HI Spill Notification Form within 24 hours of verbal notification.

Step 3: Spill kits must be marked/labeled “SPILL KIT”.

Step 4: Comply with USAG-HI Spill Kit Policy # 33 which requires spill kits be kept onboard tactical vehicles while traveling on USAG-HI installations, training ranges and public roads.

Step 5: Used spill response materials become hazardous or non-regulated waste depending on the material that is cleaned up. See spill response fact sheet for clean up and management procedures.

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SPILL RESPONSE

GENERAL INFORMATION

Many hazardous materials are used in the daily maintenance and training operations on US-AG-HI installations. Hazardous material spills pose a risk to personnel safety and the environment. Never attempt to clean a spill unless it is safe to do so.

POTENTIAL HAZARDS

Different hazardous materials pose different threats when spilled or released into the environment. These threats should be assessed based on the material stored at each facility and a spill response plan should be coordinated BEFORE a spill occurs. Make sure your facility is prepared to respond to a spill when it occurs.

WASTE CHARACTERIZATION

Materials used to clean up hazardous spills may be regulated as Hazardous or Non-Regulated Waste. Contact the Environmental Division Compliance Inspections Program or the TAP at (808) 656-0867 for assistance with the disposal of any used spill response materials.

HANDLING AND DISPOSAL PROCEDURES

Step 1: If a spill of an unfamiliar substance occurs or if the safety of personnel is in question, call 911. Never attempt to clean up a hazardous material spill unless it is safe to do so.

Step 2: Immediately notify your Environmental Compliance Officer (ECO) and the DPW Spill Line (808) 656-1111 of ALL SPILLS. Report in writing using the USAG-HI Spill Notification Form within 24 hrs.

Step 3: If it is determined that a spill response is safe, use the unit spill kit to apply the proper spill response equipment. Refer to the product's Safety Data Sheet (SDS) for clean-up procedures.

Step 4: Call the Waste Pickup Request Line at (808) 656-0866 for disposal of used spill response material.



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STORMWATER (Construction Activities)

WHO NEEDS PERMIT COVERAGE?

If your construction project disturbs one (1) or more acres of land through clearing, grading, excavating or stockpiling of fill material, you are required to apply for general permit coverage through Hawaii Department of Health Clean Water Branch.

WHY DO I HAVE TO GET PERMIT COVERAGE?

USAG-HI holds a National Pollutant Discharge Elimination System (NPDES) permit that regulates stormwater runoff from Army installations. Construction site operators must prepare and submit an application called a Notice of Intent Form C (NOI-C), available at the Hawai'i Department of Health (HDOH) website: <http://health.hawaii.gov/cwb/permitting/>

STORMWATER EROSION AND SEDIMENT CONTROL PLAN

It is the responsibility of the construction site operator (s) to implement the erosion and sediment control plan and to maintain all best management practices (BMPs) during each stage of the project. The erosion and sediment control plan must be completed before applying for a NOI Form C. Both documents must be up-to-date and available on-site, for review during inspections by DPW Clean Water Program personnel or HDOH regulators.

IMPLEMENTATION AND INSPECTION PROCEDURES

Step 1: Complete an erosion and sediment control plan specific to the intended construction project **PRIOR TO** beginning construction. Make sure the plan is up-to-date and available on-site for review during inspections.

Step 2: Submit a completed copy of the NOI-C and the erosion and sediment control plan to the DPW Environmental Stormwater Program Manager and ensure that a copy of the NOI-C is retained at the construction site.

Step 3: All BMPs must be inspected and maintained regularly. Inspections are required once every 7 days and within 24 hours following the end of a rain event when 1/4-inch or more of rain has fallen. (Please Note: within 24 hours always applies, 7 days a week, without regard for work schedules).

Step 4: The erosion and sediment control plan must be updated as site conditions and BMPs change. Records of maintenance activities and any plan modifications must be available for review during inspection.

Step 5: Construction sites of ALL sizes are subject to Clean Water inspections as deemed appropriate by Clean Water Team.

For more info , please contact: DPW Environmental Clean Water Program.

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STORMWATER (Stormwater Runoff)

GENERAL INFORMATION

Stormwater runoff occurs when precipitation from rain flows over the ground. Impervious surfaces like parking lots, sidewalks and streets prevent stormwater from naturally soaking into the ground. Runoff drains from installation into lake, streams, wetland and the ocean.

POTENTIAL HAZARDS

Stormwater will pick up and carry contaminants including oil from overflowing drip pans, spilled chemicals, trash, soil and other pollutants along its path to the storm sewer system

GENERAL REQUIREMENTS

USAG-HI holds a National Pollutant Discharge Elimination System (NPDES) permit and prepares and implements a Stormwater Pollution Prevention Control Plan (SWPCP) regulating stormwater runoff from many activities conducted on the installation. A copy of the SWPCP may be obtained from the DPW Environmental Clean Water Program and the ECO website below. Keep an updated version of the SWPCP on-site for reference.

IMPLEMENTATION PROCEDURES

Step 1: Each facility must follow the site-specific Best Management Practice (BMPs) applicable to their operation.

Step 2: Wash vehicles only at AUTHORIZED washracks. Vehicles can leak fuel, oil and other harmful fluids that would be washed directly into the storm water system.

Step 3: Apply good housekeeping practices: sweep up litter, dirt and debris from paved areas, sidewalks and parking lots.

Step 4: Cover POL and chemical storage areas; safeguard them using secondary containment as required for fluid materials.

Step 5: Clean up spills immediately and properly dispose of cleanup materials.

Step 6: Notify the DPW Environmental Division of all spills (808) 656-1111. Any spills over one (1) gallon or directly to storm drain must be reported in writing using the USAG-HI Spill Notification Form.

Step 7: Do not allow mud from vehicles to enter the storm drains.

Step 8: Do not park unauthorized POVs or other vehicles on the grass.



For more info please contact: DPW Environmental Clean Water Program.

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STYROFOAM

(Takeout containers, Packaging materials, etc.)

GENERAL INFORMATION

Styrofoam is expanded polystyrene foam, and is used in many takeout containers and shipping materials. As a # 6 plastic and due to its low density nature, it is very difficult to recycle, and usually must be disposed of in the trash.

WASTE CHARACTERIZATION

Styrofoam products CANNOT be recycled in your single-stream recycling bins and are considered trash.

HANDLING AND DISPOSAL PROCEDURES

- Styrofoam is not recyclable in Hawaii or at USAG-HI installations. Place these items in the trash.



(pixabay.com).

For more info contact: DPW Environmental Solid Waste and Recycling Program at
(808) 656-5411 / (808) 656-3085

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TIRES

GENERAL INFORMATION

Tires are banned from disposal in City and County landfills and the Construction & Demolition (C&D) landfill in Waianae. About 290 million tires are disposed of annually in the United States. Sources: Opala.org, Earth911.org

WASTE CHARACTERIZATION

Tire material is very durable and does not break down easily. Stockpiling of tires can be a safety and environmental issue. They can become possible breeding grounds for mosquitoes and rodents that carry diseases. Source: Earth911.org

Tires are highly flammable that catches fire is very difficult to extinguish and releases toxins into the air in addition to creating oil residue on the ground.

HANDLING AND DISPOSAL PROCEDURES

- DO NOT place tires in or around any dumpsters, recycling areas, or roll-off containers.
- For tactical tires, follow LRC's turn-in procedures.
- For POV tires, take to the Schofield Barracks Auto Craft Shop (808) 655-9368. Call for tire disposal fee.



For more info contact: DPW Environmental Solid Waste and Recycling Program at
(808) 656-5411 or (808) 656-3085

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TONER & INK CARTRIDGES

GENERAL INFORMATION

Every year an estimated 300 million inkjet and 70 million laser cartridges are sold in the US and each year over 300 million cartridges are thrown away contributing an estimated 75,000 tons to US landfills.

Keep these recyclable cartridges out of Oahu's precious landfills by recycling and buying remanufactured cartridges. Buying recycled cartridges drastically reduces the virgin materials and energy required for manufacturing when compared to buying new ones.

WASTE CHARACTERIZATION

The plastics used in printer cartridges are made of an engineering grade polymer that have a very slow decomposing rate ranging between 450 to 1000 years depending on the cartridge type. Ink cartridges may also leak printer ink polluting the surrounding environment.

- Up to 97 percent of the materials that make up a printer cartridge can be recycled or re-used.

HANDLING AND DISPOSAL PROCEDURES

- Printer cartridges can be refilled up to 5-7 times before reaching the end of their life.
- Place your empty toner cartridges in their original boxes, marked "recycle", next to your recycling bins—call (808) 656-9911 to request a pickup or drop them off at the ARC, 1087-B McMahan Road, Schofield Barracks.
- All brands of inkjet and laser toner cartridges accepted.

Sources: EPA, Clover Technology's Sustainability Report and Earth911.org



For more info contact: DPW Environmental Solid Waste and Recycling Program at
(808) 656-5411 or (808) 656-3085

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TRANSFORMERS, CAPACITORS, AND OTHER OIL FILLED ELECTRICAL EQUIPMENT

GENERAL INFORMATION

Oil filled electrical equipment such as transformers, capacitors, and florescent light ballasts have safety, spill prevention, and disposal regulations. Dielectric fluid is used to help cool the equipment and is essential to its proper operation; mineral oil is commonly used. In the past a highly carcinogenic chemical called polychlorinated biphenyl (PCBs) was used. PCBs were banned from manufacture and use in the United States in 1979. Equipment manufactured prior to 1980 is highly suspect to contain PCB.

POTENTIAL HAZARDS

Do not allow PCB oil to contact skin or clothing. It can cause a variety of adverse health effects and is very bio-persistent. It has been shown to cause cancer in animals and studies support evidence for potential carcinogenic and non-carcinogenic effects of PCBs in humans. Oil spills from leaking transformers (even the ones without PCB) harm the soil and water resources. The high voltage of electrical equipment presents a severe electrocution/shock hazard. Some capacitors retain deadly amounts of voltage even when disconnected.

WASTE CHARACTERIZATION

Oil filled electric equipment manufactured prior to 1980 must be assumed to contain PCBs unless analyzed by a lab. After 1979 manufacturers began marking the equipment with the words “No PCB”. Non PCB equipment can be recycled as used oil and scrap metal.

HANDLING AND DISPOSAL PROCEDURES

Waste PCB containing equipment is characterized as regulated waste by 40 CFR 761 and requires specialized disposal much like hazardous waste. If PCB waste is generated or discovered, contact USAG-HI Environmental at (808) 656-3106.

Step 1: Determine the manufacture date of the equipment. Refer to manufacturer name-plates. Visually inspect florescent light ballasts for the words “No PCB”.

Step 2: If the manufacture date is before 1980 or the equipment label does not contain the words “No PCB”, then assume it contains PCB. Contact USAG-HI Environmental for storage and disposal guidance.

PCB-Free equipment can be recycled as used oil and scrap metal. Non-PCB florescent light ballasts can be recycled as scrap metal. The oil from high voltage transformers of any age is required to be tested for PCB prior to recycling (the DPW High Voltage transformer recycling contract does this).

Report any spills to (808) 656-1111. From a safe distance, periodically check transformers for leaks. Report leaks to DPW Environmental.

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UNDERGROUND STORAGE TANKS (Regulated Fuel Storage)

GENERAL INFORMATION

Underground Storage Tanks (USTs) are regulated by 40 CFR Part 281 and the Hawaii Administrative Rules (HAR) Chapter 11-280.1. A copy of the regulations can be obtained from the DPW Environmental UST Program Manager.

POTENTIAL HAZARDS

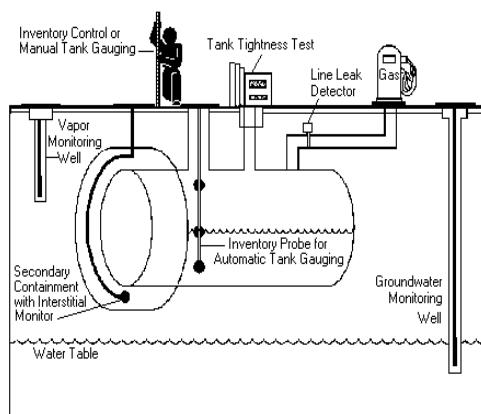
Fuel spills can be hazardous to human health and can potentially contaminate the land, storm and ground water. Fuel is a highly flammable liquid that can easily ignite by heat, sparks or flames. Vapors may form explosive mixture with air. Runoff to sewer may also create fire or explosion hazard.

GENERAL REQUIREMENTS

UST's require regular visual inspection, release detection for tanks and lines, overfill/spill protection and corrosion protection.

UST operators must maintain A,B and/or C certifications depending on their level of responsibilities. The training must be provided by a State of Hawaii Department of Health (HODH) approved vendor. Class A,B certification must be renewed every five years. A class C operators must always be onsite during operating hours. Class C certification must be renewed every year.

UST COMPLIANCE PROCEDURES



Step 1: Facility with UST's must maintain annual Class C operators certification current.

Step 2: UST operators must conduct monthly facility walkthroughs of spill prevention equipment.

Step 3: Facility operators must post release detection results for tanks and lines at least every 30 days. Report failures to the DPW Environmental UST Program Manager.

Step 4: The Automatic Tank Gauging (ATG) system must be tested annually by a qualified technician.

Step 5: Facilities with steel UST's or components in contact with the soil must have a corrosion protection system. The corrosion protection system must be inspected every three years by a qualified technician.

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UNEXPLODED ORDNANCE (UXO)

GENERAL INFORMATION

The Department of Defense (DoD), DENIX, defines military munitions (ammo) as “projectiles, bombs, hand grenades, and other types of ammo that the military use in training and combat. Ammo that did not work as it was supposed to work is called UXO or unexploded ordnance.”

In the past century, all shapes, sizes and types of explosive ordnance have been used in the United States for weapons system testing and troop training activities. The following types of UXO are those most likely to be encountered on an active DoD site: small arms munitions, hand grenades, rockets, guided missiles, projectiles, mortars, projected grenades, rifle grenades, submunitions and bombs.

UXO poses a risk of injury or death to anyone in the vicinity. To lessen the danger of UXO hazards and to help prevent placing others at future risk, certain precautions and steps should be taken by anyone who encounters UXO.

UXO SAFETY AND REPORTING PROCEDURES

UXO Safety Warnings:

- When you see UXO, stop. Do not move closer.
- Never transmit radio frequencies (walkie talkies, citizens' band radios) near UXO.
- Never attempt to remove anything near a UXO.
- Never attempt to touch, move or disturb a UXO.
- Clearly mark the UXO area, but do not go near the UXO.
- Avoid any area where UXO is located.
- If the item is discovered on one of the installation's ranges, immediately notify **Range Control** and the **Military Police** who will in turn then notify **Explosive Ordnance** personnel for proper removal/disposal.
- For 24-hour emergency for UXO's call 911 or (808) 655-7112.

REMEMBER THE “3 R's”



Remember the “3 R's” of explosives safety:

RECOGNIZE—when you may have encountered a munition.

RETREAT—do not touch, move or disturb it.

REPORT—call 911 or (808) 655-7112 and advise the police what you saw and where you saw it.

For more info contact: Range Control or the Installation Safety Office.

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UNKNOWN MATERIALS

GENERAL INFORMATION

Every effort should be made to properly mark/label containers of hazardous materials. Unmarked/unlabeled containers and chemicals pose a great risk to personnel and the environment. Unmarked/unlabeled containers are a violation of safety and environmental regulations and may result in safety and environmental violations and fines.

POTENTIAL HAZARDS

Chemical identification/characterization must be made prior to proper disposal. Analytical testing of unknown materials is expensive. Every effort must be made to properly identify the contents of any unmarked/unlabeled containers to avoid this unnecessary expense.

WASTE CHARACTERIZATION

Unknown materials must be managed as a HAZARDOUS WASTE until a proper identification can be made.

HANDLING AND DISPOSAL PROCEDURES

Step 1: Make every attempt to identify possible contents.

Step 2: If unable to identify the material/chemical, manage the material as a HAZARDOUS WASTE and immediately contact the *Waste Pickup Request Line (808) 656-0867* for analytical testing.



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USED OIL

(Motor Oil, Diesel Fuel, Transmission, Brake, Hydraulic Fluids, Synthetic and Heating Oils)

GENERAL INFORMATION

Used oil includes all of the following items: Motor Oil, Diesel Fuel, Transmission Fluid, Brake Fluid, Hydraulic Fluid, Synthetic Oils and Heating Oil. Used oil is generated by vehicle/aircraft repair and maintenance services. Used oil is regulated by used oil regulations and always must be properly marked “USED OIL”.

POTENTIAL HAZARDS

Mismanagement of used oil could be harmful to the environment and may result in fines by the Hawaii Department of Health and EPA. Never mix solvents, antifreeze or other hazardous waste with used oil.

WASTE CHARACTERIZATION

Used oil, when managed properly, is a RECYCLABLE MATERIAL.

HANDLING AND DISPOSAL PROCEDURES

Step 1: Ensure that your facility is authorized to collect used oil by contacting the Environmental Division Compliance Inspections Program.

Step 2: All containers containing free flowing used oil must be marked with the words “USED OIL”. This includes drums and drain pans.

Step 3: Transfer used oil to the appropriate drum in the RMSSP and enter the amount transferred on the RMSSP Collection Log.

Step 4: Do not mix used oil with antifreeze or any other material. If used oil becomes contaminated, contact the Environmental Division Compliance Inspections Program for assistance.

Step 5: Drip pans with oil and water should not be poured in used oil container, see Drip Pans fact sheet for disposal procedures.

Step 6: Contact the DPW Waste Pickup Request Line (808) 656-0867 for used oil pickup.



For POV used oil , take to the Schofield Barracks (808) 655-9368 or Fort Shafter Auto Craft Shop (808) 438-9402. Call for disposal fee.

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WASHRACKS

GENERAL INFORMATION

Washing equipment of any kind outside of the approved wash facilities is not authorized. There are four approved wash facilities on Army Installations: Kahuku Training Area, East Range, Schofield Barracks Central Vehicle Wash Facility and Fort Shafter Flats Wash Facility.

POTENTIAL VIOLATIONS

Washing in unauthorized areas is considered a Clean Water Act violation and could potentially lead to fines up to \$25K/day/violation.


General Requirements

USAG-HI holds a National Pollutant Discharge Elimination System (NPDES) permit that allows only water to be discharged into the Garrison's storm water system. A copy of the NPDES permit can be obtained from the DPW Environmental Clean Water Program. Wastewater from normal washing operations at an authorized wash rack is sent to and treated at a Wastewater Treatment Plant.


Wash Rack Reference Card



Wash Facility Reference Card




Prevent the spread of invasive species while ensuring our water resources are protected. Washing vehicles and equipment in harmony with the Clean Water Act is essential to the Army's training mission. **Find the best wash rack option for your training needs on the reverse side of this card.**




Scan this code with your smartphone camera to watch the safety video.

Wash Rack Dos and Don'ts

-  Wash rack use is **MANDATORY** when moving from one training area to another. In-
-  **NEVER** wash a vehicle or equipment in motor pools.
-  Remember to  Helmets if Soldiers will be climbing up on vehicles
-  Personal gear
-  Tactical vehicles, government-owned vehicles, tarps, netting, and covers may be

Wash Facility: (808) 655-5947 **Clean Water Program:** (808)656-2878
Spill Notification: (808) 656-1111 **Spill (After Hours):** (808)656-3272
<https://home.army.mil/hawaii/index.php/garrison/dpw>



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U.S. Army Garrison Hawaii – Environmental Compliance Guide

WOODEN PALLETS

GENERAL INFORMATION

Wooden pallets are constructed using different tree species, usually pine or oak. These species are chosen for their durability and resistance to pests and mold. Most wood used in making wooden pallets are sourced as a surplus from the construction industry.

(rosepallet.com)

WASTE CHARACTERIZATION

Wooden pallets are common on base and must be reused or disposed of properly. Wooden pallets cannot be placed inside/in front of permanent trash dumpsters, recycling bins, and cannot be abandoned on post.

HANDLING AND DISPOSAL PROCEDURES

1. Usable wooden pallets can be turned into [DLA](#) or reused through the LRC (call for more info: (808) 656-0739).
2. Unpainted and untreated (only HT) can be accepted for recycling at the Army Recycle Center (in small quantities). Call (808) 656-5411 or (808) 656-3085 for more info
3. All other wooden pallets can be disposed of in a special request roll off dumpster through the DPW Service Contract Branch (808) 656-4131. Ensure you have enough to fill an entire dumpster before ordering as a fee does apply per bin per day of use. A GPC will be required to pay for the roll off container.



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WOOD WASTE

GENERAL INFORMATION

Wood waste such as pallets and crates are mission waste and must be disposed of properly.

WASTE CHARACTERIZATION

Wood waste includes pallets, crates, plywood, pressboard etc. The Army Recycling Center (ARC) can only accept small quantities of heat treated and unpainted wood pallets that are in good condition for re-use (see the Wooden Pallets sheet in this guide for more info). All other wood must be disposed of.

Wood waste does **NOT** include green waste (branches, leaves, tree stumps etc.) Green waste is accepted at the ARC for recycling.

HANDLING AND DISPOSAL PROCEDURES

To dispose of large amounts of wood waste, request a roll off dumpster through the DPW Service Contract Branch (808) 656-4131. Ensure you have enough to fill an entire dumpster before ordering as a fee does apply per bin per day of use. A GPC may be used to pay for the roll off container.



For more info contact: DPW Environmental Solid Waste and Recycling

Program at (808) 656-5411 or (808) 656-3085