



U.S. Army Garrison, Hawaii Environmental Compliance Program



Quarterly Environmental Compliance Training



U.S. Army, Hawaii Environmental Compliance Program



Internal Quarterly Environmental Compliance Training Objectives:

- ✓ Environmental Compliance Program
- ✓ Army Sustainability
- ✓ Hazard Communication
- ✓ Hazardous Materials Management
- ✓ Hazardous Waste Management
- ✓ Hazardous Waste Minimization
- ✓ Spill Contingency Procedures
- ✓ Aboveground Storage Tanks
- ✓ Oil Water Separator

**Training must be
conducted and
documented by the ECO
EVERY QUARTER!**



U.S. Army, Hawaii Environmental Compliance Program



Environmental Compliance is **EVERYONE'S** responsibility!

- The **Environmental Compliance Officer (ECO)** is responsible for managing the program, doing inspections, managing waste and training personnel. **KNOWLEDGE and RESOURCES!**
- The ECO is **not responsible** for cleaning up after everyone!
- Everyone** is responsible for properly managing, storing using and disposing of the hazardous materials that they use.
- Leaders** (not the ECO) are responsible for holding personnel accountable for their environmental responsibilities.



Army Sustainability



Triple Bottom Line of Sustainability:

Mission, Environment, and Community.

Sustainability means providing these necessary, interdependent components to meet the missions of today as well as those of tomorrow.

Environmental Compliance with the many laws and regulations helps us meet this goal.





30 Jun 2010

U.S. ARMY HAWAII ENVIRONMENTAL POLICY

While always balancing the unique considerations of Mission, Community and the Environment, U.S. Army Hawaii will continuously strive to improve its environmental performance and seek to:

- **Lessen our Environmental Footprint and Prevent Pollution;**
- **Minimize our Impact on the Hawaiian Land;**
- **Conserve, Preserve and Protect our Natural and Cultural Resources;**
- **Comply with All Applicable Environmental Laws and Regulations.**



Our Guiding Principles

We will instill a sustainable ethic in everything we do, acknowledging the Army's global responsibility for environmental stewardship.

We will act locally to perpetuate a harmonious balance with Hawaii's unique economic, natural and cultural resources by educating our workforce to perform their everyday duties in a Pono manner.

We will preserve and protect today's resources for tomorrow.

We will nurture the trust of the Hawaiian Community, working in concert for the benefit of all in Hawaii.

We will do this in concert with our solemn obligation to the American People to prepare combat ready forces capable of deterring conflict, defending our homeland, and winning our Nation's wars.

Our Commitment

- **Conserve Energy and Water**
- **Reduce Waste, Reuse Materials and Increase Recycling**
- **Lower Fuel Consumption and Air Pollution**
- **Protect Hawaii's Ground and Surface Waters**
- **Purchase Green Products When Available and Economically Reasonable**


COL Douglas S. Mulbury
Commander, USAG - Hawaii




MG Michael J. Terry
Senior Commander, US Army Hawaii

Be Pono Everyday. Do What is Right for the Life of the Land.



Sustainable US Army-Hawaii



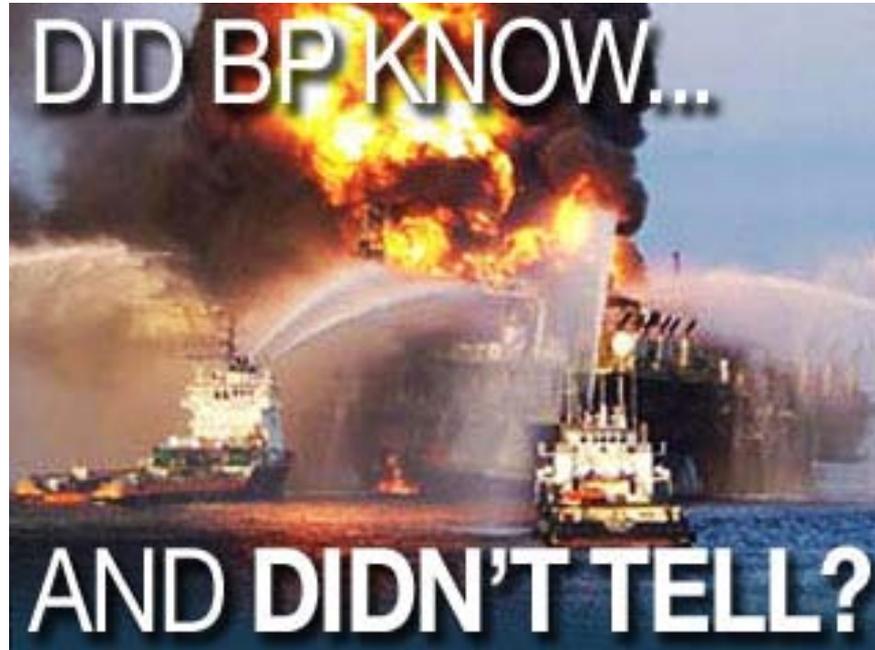
- **The Right Way** – our obligation is to preserve and protect our Environment - do what is right; legally, ethically and morally
- **The Green Way** – each and everyone of us can contribute to a Sustainable US Army Hawaii
 - do the ‘little things’ – conserve, preserve, prevent
- **All The Way** – Sustainable US Army Hawaii is a ‘mind-set’
 - it will take time, persistence and commitment from everyone
 - make Sustainability a consideration in all you do!

Our Goals

- *Responsible, Efficient, & Effective Use of Resources*
- *Sustaining the Environment for a Secure Future*



Why Environmental Compliance?



12 May 2010



Why Environmental Compliance?



- July 1999: Safeway, Inc. (CA) fined \$200,000 for dumping 10,500 gallons of milk into storm drains!
- October 2005: HI DOT receives NOV/fine of over \$1,000,000 (million) and must spend \$50,000,000 to comply with Clean Water Act violations for a total of ~ **\$52 million dollars!**
- September 2006: Beachside Roofing was cited \$15,000 for keeping an inspector from conducting a hazardous waste compliance inspection.
- March 2008: Kiyō's transmission in Kakaako fined \$12,000 for not labeling containers "USED OIL".



Why Environmental Compliance?



• September 2008: Del Monte fined \$190,000 for open HW violations:

- Open, unlabeled containers of HW which included paint and fluorescent light bulbs.
- Improper management of lead-acid batteries
- Failure to keep HW training records for its staff
- Improper storage and labeling of used oil containers
- Failure to cleanup oil spills and comply with pollution-control requirements

• September 2008: 2 Honolulu men indicted on illegal storage, transportation and disposal of hazardous waste.

• May 2010: Wal-Mart fined \$27.6 million dollars for improper hazardous waste management.



Common Errors for Returning Units



•Error: Failure to properly manage Haz Mat storage and waste collection points.

•*Result: Improper HazMat/Waste management. UNSAT inspection/possible HDOH fines of up to \$37,500 per violation..*

•Error: Failure to limit Haz Mat supply orders to the required Authorized Use List (AUL) 30-day quantities.

•*Result: Non-Compliance with USAG-HI AUL Policy.*

•*Generate excess waste material. UNSAT inspection/possible HDOH fines.*

•Error: Failure to properly label containers of used oil, “USED OIL”

•*Result: UNSAT inspection/possible HDOH fines of up to \$12,000 per violation.*

•Error: Failure to properly manage/label used batteries, “USED BATTERIES , date”

•*Result: UNSAT inspection/possible HDOH fines.*





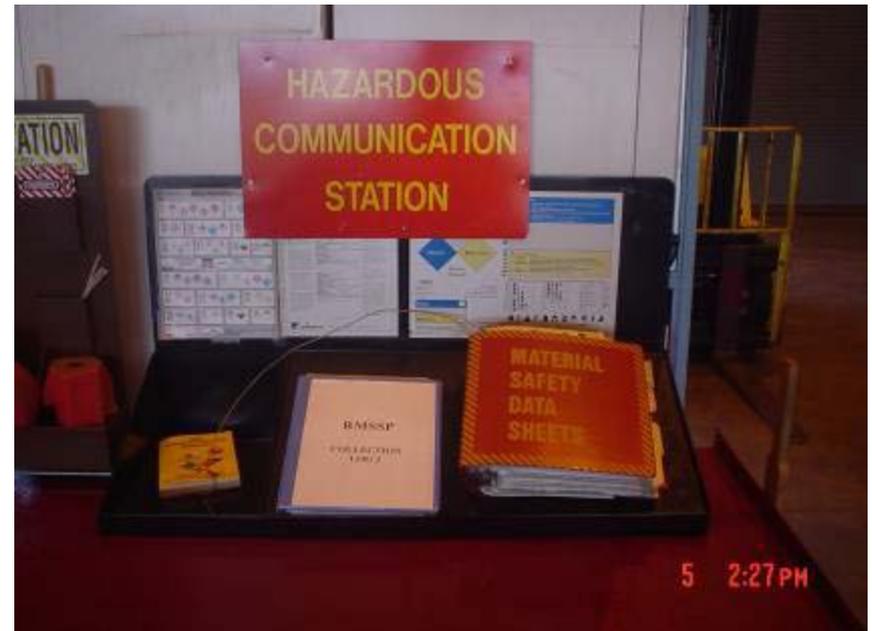
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Hazard Communication



Hazard Communication



- The HAZCOM station must include copies of MSDSs for hazardous materials being used in the unit/activities operational area.



Hazard Communication



Use proper PPE in accordance with the MSDS



U.S. Army Garrison, Hawaii Environmental Compliance Program



Hazardous Material Management



Proper HM Storage



HM properly stored in approved cabinet with **SECONDARY CONTAINMENT**

Only compatible materials

All HM on unit AUL

No more than a 30-day supply

No excess/expired materials

All HM from HMCP with proper labels and barcodes

NO HOUSEHOLD HAZ MAT!





HM “mis” Management



Improper labeling:

Two different products in same type of container

Labeling:

- All HM containers must be properly labeled for identification.
- HM transferred to smaller containers must be labeled with product identification and hazardous warnings.



HM “mis” Management



- Batteries stored improperly and without secondary containment (spill containment pallet) causes acid spill.



U.S. Army Garrison, Hawaii Environmental Compliance Program



Hazardous Waste Management



HW Identification



HW Identification:

ALWAYS CONTACT YOUR ECO WHEN ANY WASTE IS GENERATED IF YOU ARE NOT SURE HOW TO PROPERLY MANAGE IT!



HW Storage: HWSSP



This is the only storage area authorized to store Hazardous Waste. The ECO should be the only person to place HW in the HWSSP.



Improper HW Storage



- On top of/around the HWSSP is still not proper storage!
- Unlabeled bags of Hazardous Waste will result in serious violations and fines!





Improper HW Storage



- Unidentified waste stored in trash bags.
- These bags contained Hazardous Waste rags and will end up in the dumpster if not labeled and managed properly!
- Must be labeled **HAZARDOUS WASTE!**
- Not in proper containers – must be in a labeled, closed metal container.



Improper HW Storage



- Unidentified waste stored in the RMSSP
- Not labeled **HAZARDOUS WASTE**
- Way over the 55-gallon limit
- Not in proper containers
- **DO NOT** place rags in unmarked bags around the motorpool
- Contact the ECO for proper storage



Typical Motorpool Waste Streams



- Used Oil : **RECYCLABLE MATERIAL**
- Used Batteries: **UNIVERSAL WASTE**
- Used Rags: **NON-REGULATED WASTE**
- Used Dry Sweep: **NON-REGULATED
WASTE**



USED OIL MANAGEMENT



CONTAINERS USED FOR THE COLLECTION AND STORAGE OF USED OIL MUST BE LABELED:

“USED OIL”



USED OIL “*mis*” MANAGEMENT



- Not properly labeled “USED OIL”
- This violation could lead to a \$10,000 fine by the HI DOH!
- No secondary containment



Used Oil Management



CORRECT!



INCORRECT!



Used Oil Management



Recyclable Material Shop Storage Point (RMSSP)

• Mixing POL products may result in contaminated oil which cannot be recycled and must be managed as a Hazardous Waste.

• Used POL/Antifreeze must be properly segregated to ensure that it can be recycled:

- “USED OIL”: Includes ENGINE OIL, GEAR OIL, BRAKE FLUID, TRANS, PWSTR FLUID, SYNTHETIC OIL
- USED ANTIFREEZE
- USED JP-8/DIESEL
- USED MOGAS (if necessary)



USED OIL FILTER/CONTAINER MANAGEMENT



1. Empty oil completely into equipment.
2. Cut lid off of container.
3. Rinse container in solvent tank to ensure that all the oil has been removed.
4. Collect containers as scrap metal and turn in to the SB Recycle Center.
5. Oil filters must be drained for at least 72 hours, and then they can be collected and turned in as scrap metal.



Used Battery Management



EVERY battery must have the words **“USED BATTERY”** marked on it along with the **“DATE”** the battery was taken out of service.



Keep the batteries on secondary containment (non-AGM) with a collection log and make sure the batteries are turned in to the SSA within 6 months of the date marked.



Used POL Rags/Dry Sweep



Proper storage of “USED RAGS” and “USED DRY SWEEP” in closable metal containers

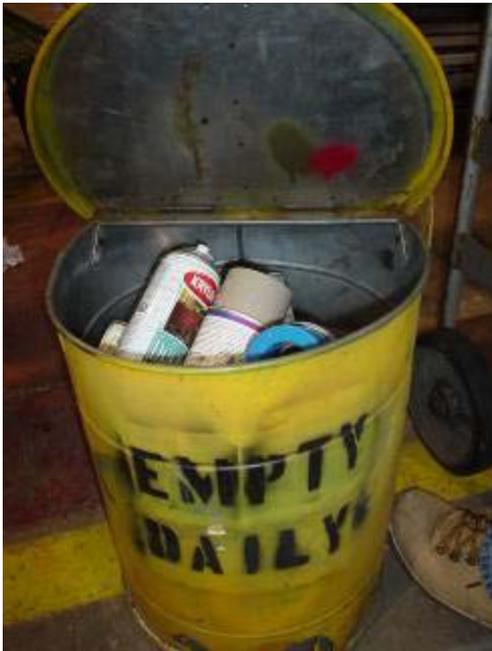
- Reuse USED rags/dry sweep first before NEW rags/dry sweep!

- **NO SATURATED, DRIPPING RAGS/DRY SWEEP!**





Used Aerosol PAINT



- Place all unusable aerosol paint cans in the proper collection container in the maintenance bay
- Must be emptied daily into a collection drum at the RMSSP
- **AEROSOL PAINTS ONLY!**
- **NO OTHER AEROSOL HM!**
- Aerosol paint containers are taken to the ER TAP by the ECO
- Empty containers are taken back to the unit for recycling



Special Consideration



Refuse Container Management

Items that require special handling, including HW, are sometimes improperly discarded with the general refuse.

Some commonly improperly discarded HW items include:

- Paint
- Lithium Batteries
- Flameless Ration Heaters (FRHs)



Special Consideration



Refuse Container "MIS" Management





Environmental Compliance Inspections



Paint Management:

- Never dispose of paint in the trash!
- Used aerosol paint cans **ONLY** should be placed in proper container in maintenance bay and emptied into the RMSSP.
- All excess, unusable paint must be taken to the ER TAP.
- No special paperwork necessary. Call for appointment.
- DO NOT leave partially full cans of paint out to dry.
- DO dry out the residue from cans that have been emptied to the fullest extent possible with only a residue remaining, prior to recycling the can.



Special Consideration



Lithium Batteries:

- **DO NOT DISCHARGE LITHIUM BATTERIES!**
- *No* lithium batteries are permitted to be disposed of in the dumpsters.
- Lithium batteries must be managed as UNIVERSAL WASTE IAW the USAG-HI *Rechargeable Battery Implementation Policy, 29 DEC 2003*.
- Lithium Batteries must be labeled “Universal Waste Batteries” and marked with the Accumulation Start Date and stored in waterproof containers.
- ECO will coordinate with DPW for disposal.



Special Consideration



Lithium Battery Storage Hazards



01 MAY 2003 SB Battery Storage area fire:

- **SUSPECTED CAUSE:** improper discharging of lithium batteries
- **DAMAGE:** destroyed entire battery inventory; moderate structural damage to facility
- **INJURIES:** none
- **STORAGE INVENTORY:** lithium-sulfur dioxide, nickel-cadmium, nickel-metal hydride, lead-acid and alkaline batteries



Special Consideration



Flameless Ration Heaters (FRHs):

- *Unused* FRHs are a reactivity characteristic HW (D003) because they react violently with water, generating a flammable vapor.
- *Unused* FRHs must **NEVER** be activated for the sole purpose of disposal. FRHs must be used for their intended purpose: to heat an MRE.
- *Unused* FRHs must be collected and turned-in to the HMCC (IAW Policy Memo USAG-HI-12) and must **NEVER** be disposed of in the dumpster.



Special Consideration



24 SEP 2003 refuse container truck fire.

**Suspected cause: Unused MRE heaters
improperly disposed in the refuse container.**



U.S. Army Garrison, Hawaii Environmental Compliance Program



Hazardous Waste Minimization



HW Minimization

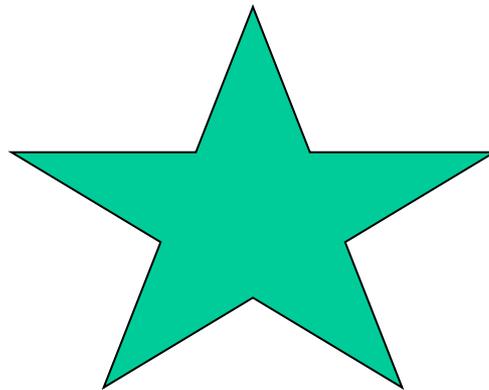


5 Ways to Make a Difference

Inventory Control

Waste Segregation

Product Substitution



**Material Handling
Improvements**

Recycling



HW Minimization “NO” Inventory Control



All excess and expired
HM must be turned-in



HW Minimization “NO” Inventory Control



Found in CONEX



Don't bring items from home or outside supply system and make sure HM is stored in proper storage areas.



HW Minimization “NO” Inventory Control



CY 2006 Deployment Clearance Inspections yielded over 53,000 lbs. of excess or unusable items due to lack of inventory control.



HW Minimization



Recycling. Used oil and oil based products in RMSSP(e.g., diesel, hydraulic and transmission fluid, mogas, etc.). Recycle dry sweep until saturated, reuse rags.

Army Recycle Center

SB 1087A

655-0011

Drop Off Hours: Monday thru Friday

1300-1600

Accepted Recyclable Materials:

- Corrugated Cardboard
- Glass
- Newspapers
- Office Paper
- Aluminum Cans
- Toner Cartridges
- Pallets
- Green waste
- Metals





HW Minimization



Recyclable Materials



Dumpster filled with cardboard



Signs clearly indicate
NO CARDBOARD IN
DUMPSTER!



HW Minimization



Recyclable Materials



Cardboard collection trailer
located right next to dumpster



U.S. Army Garrison, Hawaii Environmental Compliance Program



Spill Contingency Procedures



Spill Prevention and Response



Cleanup Actions for Common Small Spills

Type of Spill	Cleanup actions
POL products (engine oil, hydraulic fluid, transmission fluid, brake fluid, JP-8, diesel)	Absorb with rags, dry sweep, or absorbent pads and place in a marked/labeled closable metal container. Non-saturated absorbents should be kept for re-use.
Antifreeze	Same as above
Paint	Same as above
Battery acid	Small amounts should be neutralized with sodium bicarbonate

DPW Environmental must be notified of ALL SPILLS.

A proper waste determination must be made by the ECO/DPW prior to disposing of any spill cleanup material.



Spill Prevention and Response





Spill Prevention and Response



**Schofield Barracks pesticide spill cleanup by the Installation Response Team.
DO NOT attempt to cleanup dangerous spills on your own.
CALL the DPW SPILL LINE 656-1111!**



Spill Prevention and Response



WAAF acid spill cleanup by Spill Response contractors.



Spill Prevention and Response



The DPW Environmental Division
Emergency Spill Notification Line

656-1111



REPORT ALL SPILLS!



U.S. Army Garrison, Hawaii Environmental Compliance Program



Aboveground Storage Tanks (ASTs)



Aboveground Storage Tanks (ASTs)





Aboveground Storage Tanks (ASTs)



- Drums improperly left outside without overhead protection.
- Severe rust results in holes in the tops of the drums
- Oil overflowing from hole in drum and entering the storm drain.





U.S. Army Garrison, Hawaii Environmental Compliance Program



Oil Water Separators (Wash Rack)



Environmental Compliance Inspections Wash Rack/Oil Water Separator





Oil Water Separator



BEST MANAGEMENT PRACTICES (BMPs):

- Use high-pressure washers with water only whenever possible.
MAKE SURE OWS VALVE IS WORKING! Call DPW ENV if unsure.
- When using detergents, use only those approved for use with the Oil Water Separator (OWS). (see ECO website for list)
- NO “SIMPLE GREEN”!
- Ensure drains are not clogged and all grates are in place.
- Do not pour hazardous materials (e.g. acids, POL, antifreeze, solvents) in the floor drains or wash rack.
- Clean floors using dry sweep only and collect in used dry sweep container.



Environmental Compliance Inspections



The Unannounced Quarterly Compliance Inspection:

- Conducted by the DPW Environmental Division on the UNIT/FACILITY, not the ECO!
- Simulated EPA/HI DOH Inspection
- Inspections can be down to the Company level
- Inspection reports are sent to the Brigade Commander
- Results are presented to the GC at the EQCC



Environmental Compliance Inspections





Environmental Compliance Inspections



Drip pan is not properly placed under the vehicle to contain the leak!



Field Sanitation Items



Containers marked
"Do not open"

Deteriorating HM
containers inside! ↗





Environmental Compliance Inspections



- Full fuel can left on wash rack when wash rack is not in use
- No secondary containment
- A spill will enter the drain and go straight into storm drain
- **This will result in a failure of the quarterly inspection!**



Environmental Compliance Inspections



STORM DRAIN

Batteries-no secondary containment



Illegal dumping of hundreds of gallons of antifreeze

Sustainable Environmental Management (SEM)

U.S. Army-Hawaii



April 2, 2010



HOME

ABOUT US

**ENVIRONMENTAL
TOPICS FROM A TO Z**

ECO WEBSITE

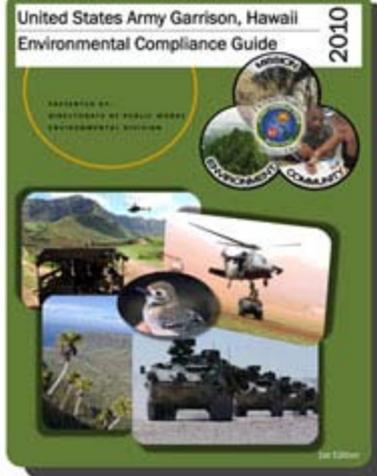
CONTACT US

COMMENTS/
QUESTIONS

USAG-HI

Environmental Topics from A to Z

DISCLAIMER: It should be noted that some waste management or disposal procedures specified in this guide may not apply to certain installation tenants based on contractual relationships, support agreements and scopes of work. Please contact the Hazardous Waste Program Manager if you have questions about your unit's waste management procedures. For more information, visit the USAG-HI website.



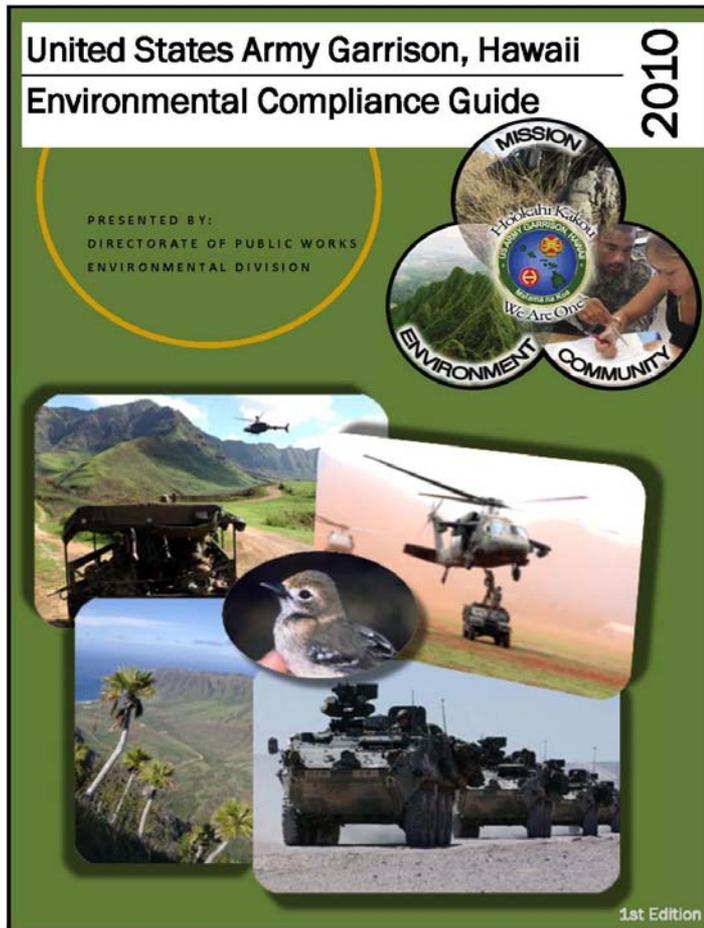
understand the above

**Click here for the
Environmental
Compliance Guide**

<http://www.garrison.hawaii.army.mil/sites/sem/AtoZ.aspx>



Environmental Compliance Program website:



USAG-HI Environmental Compliance Guide:

- An “A to Z” how-to guide for environmental.
- Available on ECO website.
- Contains “Fact Sheets” that answer the most frequently asked environmental questions .
- Points of Contact information.



Environmental Compliance Program website:



“<https://dpwhawaii.army.mil/eco>”

- Environmental POCs
- AUL link
- Environmental Compliance Guide
- Regulatory publications
- Quarterly training guide
- Environmental Compliance Inspection Checklist
- Policy Memos
- ECO class schedule

Directorate of Public Works
US Army Garrison, Hawaii
Service is our job! Excellence is our goal!

DPW Intranet will be intermittent from 7/23/2005 09:00 to 7/23/2005 16:00.

File Location: ECO Publications
Note: Click on a heading name to sort on that heading. Click on the Folder icon to go up one level.

Filename	Size (bytes)	Date
Approved Cleaners Washrack	Folder	7/8/2005 9:12:32 AM
Checklist	Folder	2/24/2005 2:11:05 PM
ECO Deploy Recent Waiver	Folder	6/10/2005 2:20:13 PM
ECO Quarterly Newsletter	Folder	2/24/2005 2:14:41 PM
HW Turn-In documents	Folder	7/20/2005 8:26:10 AM
Policy Memos	Folder	7/8/2005 9:11:58 AM
PTA	Folder	2/24/2005 2:14:24 PM
Publications	Folder	7/8/2005 9:15:59 AM
Quarterly Training	Folder	7/7/2005 8:34:41 AM
Sample Appt Order	Folder	7/13/2005 12:15:29 PM
Sample SOP	Folder	7/8/2005 9:05:24 AM



ECO Points of Contact



Environmental Compliance Points of Contact:

Hazardous Waste Program Manager	Gary Akasaki	656-7001
ECO Training Program	David McBride	655-0854
Environmental Compliance Inspections	Peter Anzalone	656-3088
Authorized Use List	Roberta Barnett	656-1308
Hazardous Materials Control Point	Rey Afaga	656-0720
Emergency Spill Line	656-1111	
ECO website:	https://dpwhawaii.army.mil/eco	