Administrative Environmental Compliance Officer Training

For questions or problems contact: Lisa McKnight
Environmental Awareness Training Coordinator
DPW-ENV
751-5971
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Note: You will need to take and pass an exam upon completion of this training course. Please read the last slide for further instructions.

Mandatory Requirement

The Environmental Compliance Officer Course (ECOC) is a requirement under **Army Regulation (AR) 200-1, Environmental Protection and Enhancement, 13 Dec 2007**. This regulation requires that each organization must appoint, in writing, an Environmental Compliance Officer (ECO) and an alternate to ensure compliance with this regulation and other environmental directives. All ECOs and their alternates will attend training as required in section 1.13 Environmental Training of this regulation. Environmental personnel will provide training for ECOs and their alternates bi-monthly. ECOs will be responsible for providing environmental awareness training to the personnel within their unit or activity. For military units, the ECO and alternate will be appointed down to company level. The ECO must be a commissioned officer at BN and higher levels, or comparable rank at similarly sized civilian organizations. The ECO must be the rank of Staff Sergeant or higher at Company levels, or comparable rank at similarly sized civilian organizations. They must be trained within 90 days of their Appointment Orders.

This online administrative ECOC will allow those employees that remain within the cantonment area to receive only the necessary portions of the ECO training rather than the full two day version required for units.

Responsibilities of the ECO:

As the ECO of your organization, you are responsible for ensuring the following requirements are met:

•ECO "green" binder documents must be up to date. Green, 3-ring binders have been designated as the ECO book and will be what the environmental inspectors will look for when entering your organization. The binder should be kept in a location that is assessable to all employees.

•Documents that are required to be in your ECO binder are:

* Fort Jackson Environmental Guidebook (June 2014);
* Hazardous Substance Management Plan (HSMP – September 2014)
* FJ 200-9 Qualified Recycling Program (QRP – August 2014)
* AR 200-1 and FJ 200-8 can be hard copies, or on disc, or saved to a local computer as an icon. You need to be able to show that you have it available if asked by inspectors.
* Monthly Environmental Compliance Checklist. This must be completed monthly and placed in your binder. Checklist must be kept 3 years.
* Sustainability Management Systems (SMS) is an annual required training for everyone. You need to log the date and attendees. The log must be kept in your binder for 3 years.
* Environmental Awareness Training is an annual required training for everyone. You need to log the date and attendees. The log must be kept in your binder for 3 years.
* A copy of all RECs/Work Orders must be kept in your binder for 3 years.
* A copy of all EPAAS Assessments/Findings/Corrective Actions must be kept in your binder for 3 years.
* Ensure that the primary and alternate ECO slots are always filled and the individual receives training within 90 days of the appointment orders. If you are the ECO, please remind your Commander/Supervisor that this position will need to be refilled if you leave.

The required documents above can be found at the following link:

http://jackson.armylive.dodlive.mil/units/usag/dpw/env/emb/

If you do not have access to a printer, come to the ENV DIV at 2563 Esssayons Way for a preprinted packet.

Legal Considerations and Environmental Laws

NEPA

- National Environmental Policy Act (NEPA)
- Requires the Decision Maker to consider the environmental impacts of proposed federal actions before implementing action.
- Failure to comply can result in a Federal Court stopping the action, such as training.
- At Fort Jackson a proposed federal action analyzed by use of the Record of Environment Consideration (REC).

NEPA

- Although NEPA does not include criminal or administrative penalties, other environmental laws do include such sanctions.
- Benefit of the REC process is learning of potential laws and regulations that can result in criminal and administrative violations and sanctions.

Clean Air Act

- Clean Air Act (CAA) regulates emissions of certain materials into the air, such as asbestos fibers, harmful gases, etc.
- Violations can result in criminal prosecutions (federal court and UCMJ), administrative penalties (fines), and General Officer Reprimands.
- Fort Jackson Units have paid thousands of dollars in penalties and reprimands have been given.

Hazardous/Universal Waste

- The Resource Conservation and Recovery Act (RCRA) regulates the generation, storage and disposal of hazardous waste.
- Again, violations can result in criminal prosecutions (federal court and UCMJ), administrative penalties (fines), and General Officer Reprimands.

Endangered Species Act

- The Endangered Species Act (ESA) prohibits causing “harm” to endangered species.
- “Harm” is broadly defined to include killing or damaging the species’ habitat.
- Criminal and civil penalties. Intent to harm the species not required for violations, merely the intent to do the act that resulted in harm.
- Enforced by U.S. Fish and Wildlife Service

National Historic Preservation Act

- The National Historic Preservation Act (NHPA) and other laws protect cultural resources.
- Examples of protected resources include historic buildings and landscapes, artifacts such as arrowheads, and archaeological sites (foundations, pottery, and other artifacts).
- Criminal, Civil and Administrative Penalties

South Carolina Solid Waste Policy and Management Act of 1991

- Developed to recover resources which have potential for reuse in the most environmentally safe, economically feasible and cost-effective manner.
- Criminal, Civil, Administrative Penalties, and Imprisonment.

State Law Enforcement

- Ordinarily State law and State law enforcement does not apply to Army operations and within Fort Jackson.
- However, certain Federal environmental laws, such as RCRA and the CAA, provide specific authorization for State agencies to regulate and enforce those laws.

Other Environmental Laws

- There are numerous other Federal laws and regulations concerning the environment, such as the Clean Water Act, Toxic Substance Control Act, Federal Insecticide, Fungicide, and Rodenticide Act, etc.
- Best way to avoid violations is to submit a REC for any proposed action and comply with the approval conditions.
- Beware of “self help” and the “good idea fairy.”

National Environmental Policy Act (NEPA) Process

- The following steps/forms are required for all construction and/or renovation projects:
- Complete a DA 4283 (Work Order) for proposed work.
- Submit to Debra Alexander, debra.j.alexander10.civ@mail.mil, at the Work Order desk for review.
- Complete a Record of Environmental Consideration (REC) and submit to Patrick Metts, william.p.metts@us.army.mil.
- REC Forms are available at the following:
  - http://www.jackson.army.mil/sites/garrison/docs/790
- The Environmental Division coordinates with the Work Order Desk on whether proposed work will be approved.

Record of Environmental Consideration (REC) Project Examples

- Replacing or removing floor tiles, ceiling tiles, lighting fixtures, carpet, serving line equipment, natural gas unit, or soundproofing material
- Installing interior doors, windows, partitions, or security cameras
- Installing patios, a storage shed, or landscape screening
- Sandblasting breezeways
- Rerouting ductwork
- Minor renovation or construction projects
- Digging or excavating

REC Links

- **Work Order (4283)**
  http://www.apd.army.mil/pub/eforms/pdf/a4283.pdf

- **Policy Memorandum - Facilities Engineering Work Request Procedures (15 October 2010)**
  http://www.jackson.army.mil/sites/garrison/docs/387

FORT JACKSON

Sustainability Management System (SMS)

General Awareness Training

What is SMS?

Fort Jackson's Sustainability Management System (SMS) integrates environmental controls into overall planning and business decisions. Its purpose is to address mission requirements, environmental accountability, and community concerns in a sustainable way. SMS strives to…

- Control environmental impacts
- Meet legal and other requirements
- Avoid current/future environmental issues

How SMS Operates

- **Continual improvement process**
- **Plan-Do-Check-Act:**
  - **<u>Plan</u>: assess processes and decide on improvements**

    "Say and document what you're going to do"
  - **<u>Do</u>: integrate environmental components through procedures, training, and other means**

    "Do what you said you would do"
  - **<u>Check</u>: ensure actions are meeting the goals of the initial plans**

    "Verify what you planned or said you would do"
  - **<u>Act</u>: make changes or improvements to meet the plans**

    "Decide if changes are needed. What can be changed? What can be improved?"

SMS Aspects

- SMS identifies those activities, products, or services that do or can have a serious impact on the environment if not addressed and managed. These are called **Significant Environmental Aspects**
  - **Examples:**
    - **Disposal of hazardous wastes**
    - **Sediment erosion**
    - **Removal of floor and ceiling tiles**
    - **Construction activities**
- Programs and goals are established to address these aspects

Fort Jackson SMS Policy

"Fort Jackson will execute the mission while promoting continual improvement through established objectives and targets, committing to compliance with legal and other requirements that relate to environmental aspects, working towards the prevention of pollution, managing sustainable programs that can control environmental aspects, and sustaining natural and cultural resources that are Identified on the installation"

SMS Policy Acronym

Promote continual improvement

Always be in compliance

Look to prevent pollution

Manage sustainable programs

Sustain natural and cultural resources

The SMS policy and acronym "PALMS" explains how Fort Jackson protects the environment.

Why is SMS Important?

- Ensures the environmental program requirements and initiatives are met
- Minimizes environmental problems
- Helps avoid violations and fines
- Keeps the environment healthy for soldiers, civilians, and their families
- SMS is required by Army Regulation and Executive Order

How You Impact the SMS…

We only have one environment and it is our responsibility to make it useful for mission requirements, the surrounding community, and our family's quality of life. Here are examples of how you play a part in making Fort Jackson's SMS successful:

- **Recycling cardboard & aluminum → continually improving**
- **Not dumping paints or fluids → being in compliance**
- **Labeling & reusing chemicals → preventing pollution**
- **Submit RECs for projects → help environmental programs**
- **Training in authorized areas → sustaining natural resources**

Why Should You Care?

- **Sustainability ensures soldiers of today and tomorrow have the resources needed to train (i.e. adequate land and clean water)**
- **It promotes a healthy environment for our families and future generations**
- **It generates continual support from local communities and American citizens**

- ***<u>Bottom Line</u>: Sustainability plans not just for today, but prepares for tomorrow!***

Role of Environmental Compliance Officer (ECO)

- **ECOs provide assistance to organizations by ensuring environmental activities and compliance requirements are met.**

- **Responsibilities include:**
  - **Provide SMS training to new and current people in their organization**
  - **Assist with compliance assessments**
  - **Ensure required documents are correct and up-to-date**
  - **Store products properly and ensure Safety Data Sheets (SDSs) are available**
  - **Promote environmental initiatives (i.e. recycling)**

- **ECOs are vital to the success of the SMS!**

Instructions for Training

Individual

- Review the following SMS General Awareness Training slides
- Print out and fill-in the "Certificate of Completion" (next slide)
- Retain a copy for yourself and provide one to the POC for training records

POC/Supervisor/ECO:

- If you are responsible for providing the SMS training to your organization, follow these steps:
  - Review the following training slides
  - Print out and fill-in the "Certificate of Completion"
  - Provide the training (hard copy or electronically) to your organization
  - Record their names on a sign-in sheet and retain for your records

*****This training is an annual requirement *****

For Questions/Comments contact Tameria M. Warren, SMS Coordinator 751-9505 or tameria.m.warren.ctr@mail.mil

Certificate of Completion

I, _____, certify that I have reviewed the Fort Jackson Sustainability Management System (SMS) General Awareness Training slides, and will submit this certificate to appropriate personnel for record.

_____ _____

Signature Date

Employing activity:_____

Please provide a copy of this certificate to your supervisor and retain the original for your records.

Toxic Substance Management
for
Environmental Compliance Officers

Toxic Substance Management Program

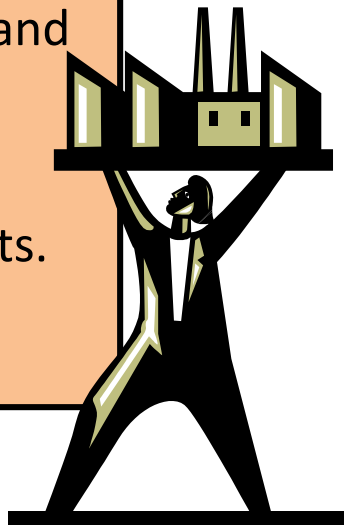
Asbestos is the biggest of the three (3) toxic substance programs on Fort Jackson, but also the easiest to violate.

Lead-based paint is the forgotten toxic substance in self-help projects.

Polychlorinated biphenyls (PCBs) are mainly a concern for those individuals working with high voltage.

Toxic Substance Management Program

- ***Hazard Management Plan:*** Describes the program approach and identifies individual responsibilities for key personnel.
- ***Toxic Management Team:*** Provides compliance oversight. (DPW, Safety, SJA, AAFES, DFMWR, PM, DoDEA, NEC)
- ***NEPA Review Program:*** Performs environmental review for project planning and coordination.
- ***Asbestos/LBP Building Inspection & Survey Program:*** Provides material analysis and hazard assessment. (Asbestos - every 3 years, LBP & PCB - as needed)
- ***Environmental Compliance Officer (ECO) Program:*** Provides and maintains environmental oversight at the unit level.
- ***Awareness Training Program:*** Provides awareness training based upon individual and organizational training requirements.



PRISON AND FINES FOLLOWING ASBESTOS REMOVAL FRAUD

A demolition and salvage company out of Tennessee was indicted on 11 counts of violating the Clean Air Act's Asbestos Handling Rules at a demolition site within the Nashville area. The following violations were cited:

- Failed to remove Asbestos Containing Material (ACM) before demolition;
- Failed to properly dispose of ACM debris; and,
- Failed to provide proper documentation and lied to cover up the illegal act.

Penalty: The owner received **70 years** in prison and fined **$250,000** for each count in the indictment.

Not following mandatory requirements for renovations can result in civil penalties that can be deducted from your units funds.

2 NOAVs issued to Fort Jackson in the past 10 years (Each violation resulted in fines, disciplinary actions, and the issuance of a regulatory Consent Order.)

$20,000 fine (2004)
Violation: Improper removal and disposal practices

$12,000 fine (2008)
Violation: Improper notification and demolition procedures

Regulatory Interpretation

FINES & PENALTIES CAN BE VERY COSTLY

There is no umbrella clause – individuals can be fined!

Calculations depend mainly on the intent to disturb.

- How severe is the disturbance?
- How long did it take to perform corrective actions?
- What was the potential for harm to human health and the environment?
- How much did we deviate from the regulations?

Fines can range from $250 to $25,000 per day per count

Hidden Asbestos Hazards: All Self-Help Projects Are Prohibited

- **Floors – multiple layers of tile, carpet, linoleum, plywood, mastic**
- **Ceilings – acoustic tiles, fire proofing, pipe insulation**
- **Walls – joint compound, skim coating, wall board, pipe runs**
- **Note – All suspect asbestos building materials are POSITIVE until laboratory analysis says otherwise!!!**

The Wrong Way vs. The Right Way

- Provide notification prior to starting any renovation/demolition project.
- Submit a copy of current asbestos building survey or scope specific hazard assessment.
- Receive approval permits from SCDHEC.
- Use EPA certified, SCDHEC licensed workers.
- Use proper removal techniques – no emissions outside work area.
- No cutting, sanding, grinding or any method that will make the material friable.
- Use proper cleanup and disposal procedures i.e. HEPA vacuum, 6 mil poly bags, identification and labeling requirements.
- Use DOT approved containers.
- Transport material to a landfill that receives asbestos/LBP waste.

Loose or Broken Floor Tiles

- Pick-up loose or broken floor tile. Manage in Place – Safety Hazard vs. Asbestos Exposure.
- Only ECOs have been trained to properly pickup and dispose of loose floor tiles.
- DO NOT dispose of Asbestos Containing Materials (ACM) in the regular garbage receptacles.
- Collect all loose floor tiles in 6-mil poly bags, and
  - Call 751-3838 for bags and additional disposal information.

UNSERVICEABLE SAFE or SECURITY BOX

- Do not rip apart a safe or fire security box. Asbestos materials are what make the item fire proof.
  - Inner material (pictured above) may contain “friable” Asbestos Containing Materials (ACM)

- Safes are considered to be a controlled item
  - Must be turned in to DLA-DSJ (formally DRMO) with proper paperwork. Call 751-7698 to schedule an appointment.

EQUIPMENT ROOM USAGE

- Do not use equipment rooms as storage closets
- Area is restricted to DPW employees only
- May contain friable asbestos materials (i.e. thermal system insulation)

RESTRICTED ASBESTOS PROJECT AREAS

- DO NOT allow unit personnel to enter posted “Asbestos/LBP Work Areas”
  - Prior to the start of the project, remove all personal and work related items.
  - Entrance by unauthorized personnel may create a regulatory violation and/or potential asbestos related health hazard.
  - Work area is reserve for “Only Authorized Personnel”
    - EPA certified, SCDHEC licensed Asbestos Worker, Supervisor, or Inspector
- Asbestos Awareness training does not qualify you for authorized entrance.
  - Minimum requirement is Asbestos Abatement Workers Training.

LEAD-BASED PAINT

The Major Concerns:
Lead dust from projects that require sanding, grinding, and scraping on surfaces that contain lead.

Considerations for Painting Projects

- Get a lead hazard evaluation prior to starting any repainting project. Call 751-3838 to schedule hazard evaluation.
- Always use wet methods when removing paint.
  - Hand sanding using wet methods is the safest.
  - Broom brushing of flaking or peeling paint is allowed, but debris disposal is regulated if it contains lead.
- Pregnant women must be notified and removed from areas where lead abatement activities are being conducted. Fetuses are more susceptible to lead poisoning.
- For disposal of lead-based paint, call the Hazardous Substance Program Manager at 751-4231.

RENOVATION, REPAIR & PAINTING (RRP) RULE

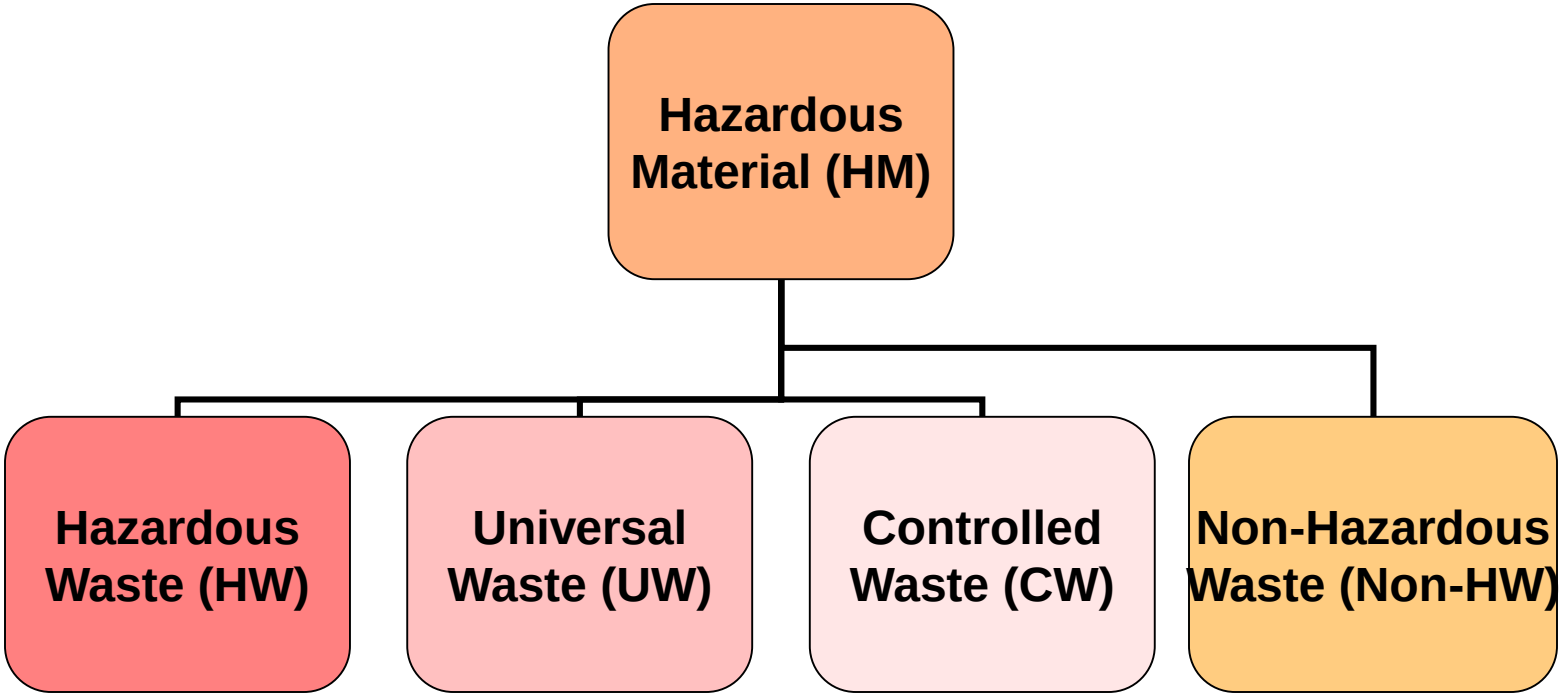
- Established in 2010
- Extended regulatory compliance to Federal commercial and industrial facilities.
- RRP requires mandatory training for anyone who performs modifications, restorations, repairs and repainting on surfaces that contain lead.
- Training must be performed by an EPA certified Lead Abatement Training Instructor and the certification is good for five (5) years.

POLYCHLORINATED BIPHENYLS (PCBs)

Considerations for PCBs

- Banned for commercial use in 1978.
- Typically a hazard concern for those who work on high voltage electrical and power generating equipment.
- Used as an oil based additive to cool high voltage transformers, industrial generators, electrical ballasts, and capacitors.
- Call the Toxic Substance Manager, 751-3838, for disposal guidance.

Hazardous Substances



Once a HM can no longer be used for its intended purpose or has exceeded its shelf life it is considered to be a waste and must be disposed of properly. The four types of waste we have here on Fort Jackson are shown above. HW includes oil based paint, paint thinners, and gasoline contaminated spill debris. UW includes fluorescent light bulbs, rechargeable batteries, and mercury containing equipment. CW include used oil and used antifreeze. Non-HW include latex paint and recyclable items.

Ways to Reuse Excess HM

- **REUSE CENTER, BLDG 2558**
  - **Monday thru Friday 1000 to 1400**
    - **Paint**
    - **Adhesives**
    - **Cleaners**
    - **Insecticides**
  - ***No paperwork is required to turn in or obtain excess HM from the Reuse Center***
- **Contact other organizations**
  - **Offer other organizations your excess HM**
  - **Inquire about organizations excess HM**
- **Products turned in MUST be USABLE by others**

What Materials are Hazardous?

Federal Supply Classification	Nomenclature
2910	Starting Fluid
6810	Chemicals
6820	Dyes
6830	Gases, Compressed and Liquefied
6840	Pest Control Agents and Disinfectants
6850	Miscellaneous Chemical Specialties
7930	Cleaning and Polishing Compounds and Preparations
8010	Paints, Dopes, Varnishes, and Related Products
8030	Preservatives and Sealing Compounds
8040	Adhesives
8120	Compressed Gas Cylinders
9130	Liquid Propellants and Fuels, Petroleum Base
9135	Liquid Propellant Fuels and Oxidizers, Chemical Base
9140	Fuel Oils
9150	Oils and Greases, Cutting, Lubricating, and Hydraulic Fluids
9160	Miscellaneous waxes and oils

How is HM Tracked?

- Each organization is required to track their HM usage
- HM usage is tracked on the Hazardous Chemical Inventory Form (HCIF). A sample is located on the following page.
- The HCIF is submitted by the 10th of each month
- For more information, contact Deborah Sarvis at 751-5151 or deborah.k.miller.civ@mail.mil

Example: Hazardous Chemical Inventory Form (HCIF)

Bldg#: 2558
Cost Center: HMMS SUPPORT OFFICE
POC/Phone: Sherri E Robinson 751-5121
SSP: ID2304-FJ2558

NSN	Nomenclature	Manufacturer	Unit of Issue	MSDS Number	Unit Price	Beginning Inventory	Amount Used	Amount Purchased	Ending Inventory
6850-00-003-5295	Elect. Cleaning Compound	Chemscold Corp.	10 OZ CN	FJ###	$8.13	4	3	4	5
6850-00-026-0981	Inspct. Material Penetrant	Amer. Geo & Chem.	12 OZ CN	FJ###	$3.46	4			4
6850-00-062-8315	Inspct. Penetrant Remover	Testing Systems Inc.	12 OZ CN	FJ###	$3.46	4			4
6850-00-181-7929	Antifreeze	Captree Chemical	1 GL CO	FJ###	$6.08	2			2
8010-00-899-8825	Zinc Chromate-Green	LHB	11.5 OZ CN	FJ###	$2.89	2			2
9150-00-178-4725	OE/HDO 15W40	Garb Corp	1 QT CO	FJ###	$1.29	10			10
9150-00-053-0207	OE/HDO-10 Lube Eng. Oil	Imperial Oil Co.	5 GL CN	FJ###	$16.95	3			3
9150-00-657-4959	Hyd. Fluid Dextron III	Petroleum Packers	5 GL CN	FJ###	$20.00	37	12	5	30
9150-00-698-2382	Hydraulic Fluid Dextron III	South Coast Term.	1 QT CO	FJ###	$1.56	51	36	24	39
9150-00-823-7860	Lubricating Compound	QPL Inc.	16 OZ CN	FJ###	$3.91	8			8
9150-01-035-5394	80W90 Gear Oil	Imperial Oil Co.	55 GL DR	FJ###	$179.41	1			1
9150-01-102-9455	Silicone Brake Fluid	Dow Corning	1 GL CO	FJ###	$27.47	42			34
9150-01-152-4117	15W40 lube oil	Octagon	1 QT CO	FJ###	$2.36	8			8
9150-01-197-7692	GAA-grease	SOWESCO	35 LB CN	FJ###	$39.10	4			4
9150-01-198-3829	Gear Lubricant Additives	General Motors	4 OZ BT	FJ###	$5.19	24	6		18
9150-00-145-0268	Grease, Aircraft	SOWESCO	6.5 OZ CN	FJ###	$13.23	8			8
9150-03-T48-0012	Battery Fluid, Acid	Colonial Chemicals	160 OZ CO	FJ###	$8.78	2			2
9150-03-T48-0015	RTV Silicone White 94813	Curtis Industries	8 OZ TU	FJ###	$3.43	17			17
9150-03-T48-0123	Cream Hardener	Dynatron Bondo	3.5 OZ TU	FJ###	$2.12	5			5
9150-03-T48-4561	Super 10 Clean	Ken Chem Inc.	55 GL DR	FJ###	$1,019.62	2			2
9150-03-T48-0078	Remover E-S9	Metal Check	220 GM CO	FJ###	$3.46	9			9
9150-03-T48-0654	Pipe Sealant 2h050	Permabond Int.	1.69 OZ TU	FJ###	$1.18	34			34
9150-03-T48-5431	Primer for Silicone Sealant	Polymeric System	1 FL OZ TU	FJ###	$1.08	4			4
9150-03-T48-0999	Batt. Term. Conn. Clner	Ri-Tec	18 OZ CN	FJ###	$3.49	6			6
9150-03-T48-1000	WD 40	WD 40	9 OZ CN	FJ###	$1.89	1		6	7

Good Housekeeping Practices

- Ensure all containers are properly labeled to identify the contents.
- Do not store any materials/liquids in food or drink containers.
- Keep incompatible materials separated. For example, do not store your flammable materials with your paper products.
- Storage areas should be labeled as such, protected from the rain and/or the ground to prevent corrosion, and away from storm drains to prevent contaminating water bodies if a leak/spill occurs.
- Flammable materials must be stored in accordance with Fort Jackson Fire Department Regulations.
- Safety Data Sheets should be located near HM storage areas.
- A Spill Response Plan and spill kit should be located near HM storage areas.

Poor Housekeeping Practices

- Unlabeled or mislabeled containers
- Materials stored in food or drink containers
- Hazardous materials (HM) stored near food or drink items
- Hazardous materials not being stored within secondary containment
- Containers left outside
- Open containers
- Universal Waste (UW) not stored properly
- Unattended spills/leaks

- Note: Secondary containment must be able to capture all of the HW/HM being stored in it incase of a spill, leak or puncture.

Poor Housekeeping Example

UW Management - Lamps

- **Used lamps must be carefully packaged to minimize breakage. Lamps contain mercury, which is very harmful to human health and the environment.**
- **The accumulation start date, the phrase "Used Lamps", and the quantity must be marked on the outside of the box.**
- **Boxes must be sealed and protected from the weather and potential breakage.**
- **Lamps cannot be taped together.**
- ***Note: The accumulation start date is the date in which you began accumulating the waste.***

UW Management - Batteries

- Used batteries should be individually bagged and packed in a sealed container to ensure the battery acid does not escape in to the environment if it begins to leak.
- The accumulation start date and the phrase “Used Batteries” must be marked on the box.
- Boxes should be protected from the weather.
- Types of batteries accepted are lithium ion, Ni-Cd, Ni-Metal Hydride, and small lead acid.
- *Note: The accumulation start date is the date in which you began accumulating that waste.*

Waste Storage Facility

- Storage of hazardous, universal, and controlled wastes
  - Hazardous Waste (HW): paints, spent solvents, spill debris
  - Universal Waste (UW): lamps, batteries
  - Controlled Waste (CW): used oil, antifreeze
- Waste turn-in
  - Monday-Friday, 1000-1400
  - Location: 2568 Essayons Way (Behind the ENV)
  - See Heather Thomas or other Environmental personnel
  - Have waste in appropriate container and labeled. Guidance is provided in the Hazardous Substance Management Plan (HSMP) and Environmental Guidebook. **http://jackson.armylive.dodlive.mil/units/usag/dpw/env/emb/**
- We are always in need of clean, reusable empty containers.
- Note: The Environmental Guidebook is an A-Z disposal guide for items generated on Fort Jackson.

Examples of Spill Response Violations

Spills and releases can be detected long after it initially happens. The picture on the right took place after an individual failed to properly transport paint materials. The picture on the left is a perfect indication, due to the rainbow sheen, that a petroleum, oil, or lubricant (POL) spill took place. When spills are allowed to reach water bodies or stormdrains, it is a violation of the Clean Water Act.

Spill Response Actions

- Secure & evacuate the area
- Call 751-9111 (Fort Jackson Fire Department)
- Protect yourself with the appropriate PPE
- Stop the flow
- Contain the spill
- Prevent the spill from reaching a storm drain or body of water
- If the spill consist of 5 gallons or more you must notify the Fort Jackson Fire Department.

CLEAN WATER

Starts Here

Fort Jackson Storm Water Management

STORM WATER POLLUTION PREVENTION

Cuyahoga River (Ohio):
Extreme pollution allowed river to catch fire on several occasions prior to 1972.

Some river! Chocolate-brown, oily, bubbling with subsurface gases, it oozes rather than flows. "Anyone who falls into the Cuyahoga does not drown," Cleveland's citizens joke grimly. "He decays."
Time Magazine, August 1969

Reasons Fort Jackson is required to have a stormwater program:

Clean Water Act (1972)

- Primary federal law governing water quality
- Established National Pollutant Discharge Elimination System (NPDES) which regulates:
  - ❖ Industrial Facilities
  - ❖ Municipal Governments (including military installations)
  - ❖ Some agricultural facilities

Reasons Fort Jackson is required to have a stormwater program:

Water Quality Act (1987)

- Federal law requiring states to regulate stormwater runoff and prepare nonpoint source management (storm water) programs
- Regulated by the South Carolina Department of Health and Environmental Control (SCDHEC)
  - Regulates:
    - ❖ Industrial Sites – DLA/DSJ & Recycle Center
    - ❖ Municipal Separate Storm Sewer Systems (MS4s) - urbanized areas
    - ❖ Construction Sites one acre and greater

These stormwater regulations reduce the amount of pollutants that enter streams and lakes through stormwater runoff

What is Storm Water Runoff?

"Storm water runoff occurs when precipitation from rain or snowmelt flows over the ground. Impervious surfaces like driveways, sidewalks and streets prevent storm water from naturally soaking into the ground."

Why is storm water runoff a problem?

"Storm water can pick up debris, chemicals, dirt and other pollutants and flow into a storm sewer system or directly to a lake, stream, river, wetland, or coastal water. Anything that enters a storm sewer system is discharged untreated into the waterbodies we used for swimming, fishing and providing drinking water."

Storm Drains lead to directly to ponds, lakes, or creeks - not to sanitary sewers.
Do not pour anything into a storm drain.

The Types and Effects of Pollution

Sediment **– Clouds water and makes it difficult or impossible for aquatic plants to grow. Typically dirt or sand from:**

- **Construction Sites**
- **Rifle Ranges**
- **Any areas with no ground cover**

Excess Nutrients **– Causes algae blooms. When algae dies it sinks to the bottom and decomposes causing oxygen to be removed from the water. Low dissolved oxygen levels are harmful to fish and other aquatic organisms.**

- **Animal Wastes**
- **Fertilizers**

The Types and Effects of Pollution

Litter – can choke, suffocate, or disable aquatic life.

- Plastic bags
- Six-pack rings
- Bottles
- Cigarette butts

Bacteria and other pathogens – Wash into swimming areas and cause health hazards. This can lead to beach closures.

- Sewer systems
- Pet/Wildlife Waste

The Types and Effects of Pollution

Household Hazardous Wastes **– These substances (and others) can poison or contaminate aquatic life. Land animals and people can become sick from eating diseased or contaminated fish and shellfish or drinking polluted water.**

- **Insecticides**
- **Pesticides**
- **Paints/Solvents**
- **Used Motor Oil**
- **Auto Fluids**

Potential Storm Water Pollution Sources at Fort Jackson

Other Sources:

- Construction Sites
- Yard Debris
- Car Repairs (oils and other fluids)
- Litter
- Pet Waste
- Others?

Potential Storm Water Pollution Sources at Fort Jackson

Ensure to maintain proper housekeeping around your facility to prevent stormwater pollution.

Potential Stormwater Pollution Sources at Fort Jackson

Mop water should NOT be dumped down the storm drain. Chemicals in the water are carried to the nearest pond or creek. The best choice is to use the sink in a janitor's closet that will carry the water to a sanitary sewer. Intentional dumping of anything down a storm drain is prohibited. This includes mop water, Petroleum, Oils, and Lubricants (POLs), cooking grease and oils, trash and litter, leaves and pine straw, soap from car washing, etc.

Significant Spills and Leaks

Report and document significant spills and leaks:

- In excess of 5 gallons of a hazardous material OR
- Any amount of a spill that:
    - Enters a storm drain system
    - Leaves a facility boundary
    - Enters a surface water
    - Occurs outside during a rainfall event

REPORT TO THE FIRE DEPARTMENT!!

Clean Water Starts Here
Fort Jackson Storm Water Management

Report Illicit Discharges!

PLEASE DON'T FEED THE STORM DRAIN

Report any illegal discharges to the storm drain system or sewer overflows to the Environmental Division.
Remember....Only rain down the storm drain!

Phone:
(803) 751-9504

Email:
matthew.s.holstein.ctr@mail.mil

Report Illicit Discharges

- An illicit discharge is defined as: “any discharge to the storm drain system that is not composed entirely of storm water.”
- Report illicit discharges to the Environmental Division.

Clean Water Starts Here

Fort Jackson Storm Water Management

Report Sewer Leaks and Overflows

- Service Order Desk
  - 751-7684
  - 751-7685
- The service order desk will notify PSUS.

SOLID WASTE PROGRAM

"The focus is on PRIDE, RESPECT, and DISPLINE. We all need to take PRIDE in our community and remember that it is a reflection of who we are and the standards that we keep. If a person refuses to take pride in their community they at least need to RESPECT those of us who do and not litter. Finally, we all need to have DISCIPLINE not to walk past a piece of trash, we need to pick it up and throw it away. The CSM and I will carry this message to all the folks who run businesses on this installation that we expect the same from their employees." Commanding General Becker

It is against the law to discard waste onto the ground!

If recycling containers are located within your organization, ensure that they are clean and free of trash.

If dumpsters contain items other than their intended waste, the dumpster will not be dumped until the restricted items are removed.

Reuse/Recycle Facilities

Army Goal – Zero Waste - prevention and reduction of generated waste through recycling, reuse, composting, or source reduction.

- **Reuse Center** – paints, solvents, office supplies, 5-gallon buckets
- **Thrift Shop** – clothes, furniture, toys, books
- **DLA-DSJ** - government furnished items (hand receipt), furniture, office equipment, appliances, tires, scrap metal
- **Recycling Center** – recyclables (i.e. cardboard, paper, glass, metals, plastics #1-7, wooden pallets, cooking oil)
- **ENV Waste Storage Facility** – used lamps and batteries
- **LCI** – toner cartridges
- **Mulch Site** –leaves, limbs, pine straw, grass clippings, unusable or non-standard sized wooden pallets
- **Note:** Electronic Waste (e-waste) cannot be disposed of in the garbage or landfills. Fort Jackson holds an e-waste collection in April and November.

Qualified Recycling Program (QRP) Regulation

- FJ Regulation 200-9
- Recycling is mandatory
- Provides guidance for the Unit Incentive Program
- Governed by Recycling Planning Board
- QRP funds pay for recycling operations
- Remaining QRP funds (up to 50%) may be used to finance unfunded pollution prevention, energy conservation, and occupational safety and health projects. Remaining 50% is transferred to DFMWR.

Eliminate disposal of items that can be diverted to existing facilities

Enforced Regulations

Fort Jackson Law Enforcement Officers will investigate and reprimand anyone caught dumping illegally on Fort Jackson property. Illegal Dumping has become a major problem on post.

- Over 60 dump sites have been discovered and are currently on the list to be cleaned up.
- 90% of them are located within the cantonment area.

The Environmental Division is partnering with PHQ, DES, Recycling Center, FMWR, on and off-post organizations to coordinate clean-up activities.

Mulch Site

- Located on Golden Arrow Road
- Open Tues-Thurs 0730-1130 and 1245-1500

- **Roll-Off Bin**
  - **Bulky items**
- **Yard Waste Collection**
  - **Leaves**
  - **Tree limbs**
  - **Grass clippings**
  - **Pinestraw**
  - **Wooden pallets (not painted) that are broken or non-standard size**
- **Borrow-Pit**
  - **Clay, sand, soil**
    - **Rocks & gravel**
- **All other waste is PROHIBITED.**
- **BMPs**
  - **Loads are inspected**
  - **Only waste generated on the installation is allowed**
  - **Trash must be placed in the appropriate roll off container or designated area.**
  - **Yard waste must be removed from plastic**
- **POCs**
  - **751-5163 DPW Roads & Grounds**
  - **751-1924 DPW Roads & Grounds**
  - **751-9507 DPW Environmental**

ECO Responsibilities

- Ensure that dumpsters and trash cans are free of recyclables and yard waste.
- Ensure recycling containers are clean and free of trash.
- If any containers are not in compliance, correct it. If additional assistance is needed, contact Stephanie Gillian, Environmental Management Branch, 751-9507.

Fort Jackson Recycling Center

Hours of Operation: Monday-Friday 0700 – 1500 and Saturday 0830 to 1530

5671 Lee Road

For questions about recycling containers and The Unit Incentive Program contact 803-751-4208

Materials Accepted

- Paper (notebook paper, computer paper, flyers, junk mail, memo pads, post-its, envelopes (no plastic window), copier paper, index cards)
- Aluminum
- Steel Cans
- File Folders
- Glass (bottles and Jars)
- Plastic Bags (donated to Harvest Hope Food bank)
- Magazines and Books
- Phone Books
- Pallets
- Plastics #1-7
- Newspaper and Inserts
- Cardboard and Boxboard
- Metal

We have several cardboard only dumpsters located across Ft. Jackson. If you need one contact the Recycling Center. Dumpsters that contain or are blocked by any other items will not be emptied until removed.

Used cooking grease containers are located behind all DFACS and the Recycling Center. The grease is sold to make biofuel. Do not place any other materials in these containers.

Spill Prevention, Control and Countermeasure (SPCC) Training

Origins of SPCC Regulatory Requirements

- 1988 Ashland Oil Spill – Pennsylvania - 3.8 million gallons spilled with 700,000 gallons making it to the ocean.
- 1989 Exxon Valdez – off the coast of Alaska - 11.3 million gallons of oil spilled in to the ocean.

SPCC Specifics

The purpose of the SPCC Rule is to:

- Prevent oil discharges from reaching bodies of water, and
- To ensure an effective response to the discharge.

Types of oil include:

- Fats, oils or greases of animal, fish and marine animal origin
- Vegetable oils including oils from seeds, nuts, fruits, or kernels
- Oils and greases including petroleum oil, crude oil, refined oil, fuel, sludge, synthetic oils, mineral oils, oil mixed with wastes etc.

Containers Regulated under SPCC Include:

- Any oil storage container 55 gallons or greater
  - Bulk Storage - drums, tanks, containers
  - Operational Equipment (transformers)
- **Any empty container 55 gallons or greater capable of storing oil and not rendered unusable**

SPCC Requirements

A facility is subject to the SPCC rule if it meets two criteria:

- Can reasonably be expected to discharge oil to "navigable" waterways of the U.S and adjoining shorelines, and
- Has aboveground oil storage capacity of 1,320 gallons or underground oil storage capacity of 42,000 gallons.

**Annual SPCC training is required for all oil-handling personnel.

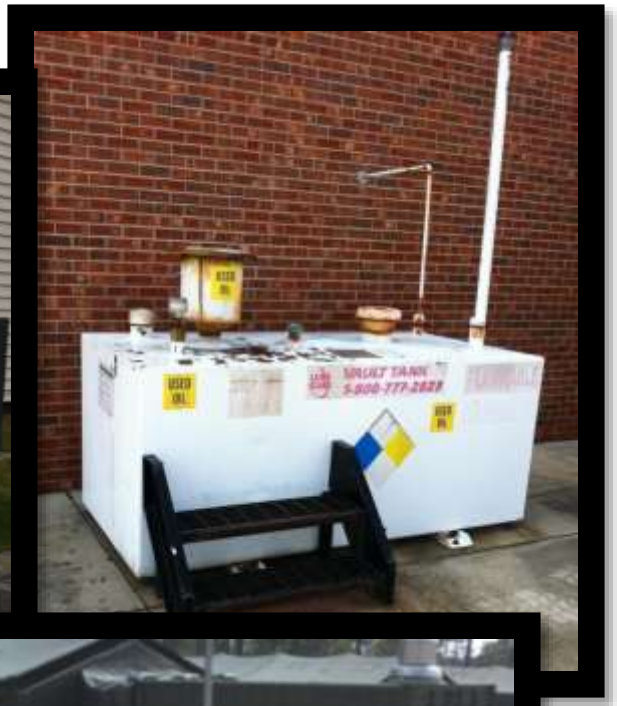
SPCC Requirements

Facilities that are subject to the SPCC rule must prepare an SPCC Plan to address:

- Operating procedures for routine handling of products to prevent a discharge of oil.
  - Prevent overfilling of tanks
  - Maintain gauges and alarms
  - Perform regular inspections
- Discharge or drainage control measures to prevent a discharge of oil:
  - Maintain secondary containment
  - Maintain tanks and supports to prevent leaks and spills
- Countermeasures to contain, clean up, and mitigate an oil spill
  - Plan for possible spill events
  - Identify potential spill pathways
  - Maintain spill kits
  - Protect storm drains in the event of a spill

Fort Jackson's SPCC Sources

Generators and Tanks



Control and Countermeasures

Spill PREVENTION is achieved through:

- **Installation of required equipment**
- **Timely repair of malfunctioning systems**
- **Regular inspections**
- **Good oil handling practices**
- **Monitoring of leak detection systems**
- **Proper reporting**
- **Ensuring containment systems are functional**
- **Quick Spill Response Activities**

Control and Countermeasures

Most releases occur during loading and unloading operations. To prevent RELEASES:

- **Ensure clean up supplies are always available**
- **Confirm the tank can hold the volume of oil added**
- **Keep valves closed**
- **Inspect tanks**
- **REPORT ALL SPILLS GREATER THAN 5 GALLONS TO THE FIRE DEPARTMENT (911)**

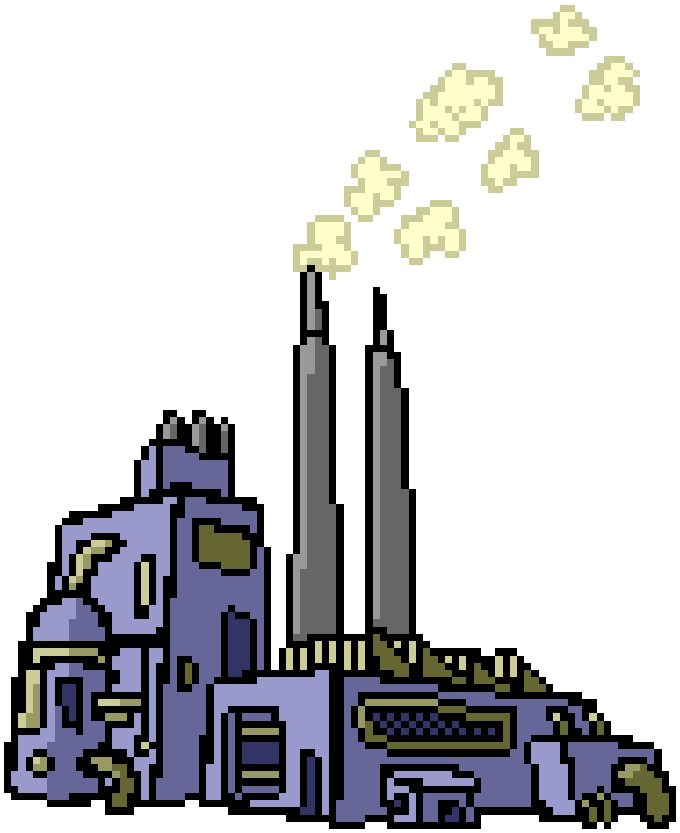
Fort Jackson's Pollution Prevention (P2) Program

Minimizing our wasteful "bootprint"

Before we prevent it, what is it?

- **Pollution:** contaminants introduced into the environment that can cause harm to ecosystems (or communities of living & non-living organisms with networks of interactions)

- **Examples:**
  - Municipal solid waste (MSW)
  - Air emissions
  - Waste water
  - Construction/demolition debris
  - Hazardous waste
  - More



What problems can arise?

- **Land & Landfill problems…**
  - Groundwater contamination
  - Generation of gases (i.e. methane)
  - Odor & aesthetic problems
  - Loss of land

- **Storm Water issues…**
  - Point source (known)- factory runoff
  - Non-point source (unknown)- oily water from parking lots

- **Solid and Hazardous Waste concerns…**
  - Health hazards (i.e. flammable & combustible materials)
  - Soil contamination
  - Disease vectors
  - Loss of reusable items

- **Conservation issues…**
  - Waste of energy and water

POLLUTING CAN LEAD TO SERIOUS CONSEQUENCES!!!

CAN IMPACT ONE'S HEALTH, THE ENVIRONMENT, OR LEAD TO FINES/IMPRISONMENT

What is Pollution Prevention (P2)?

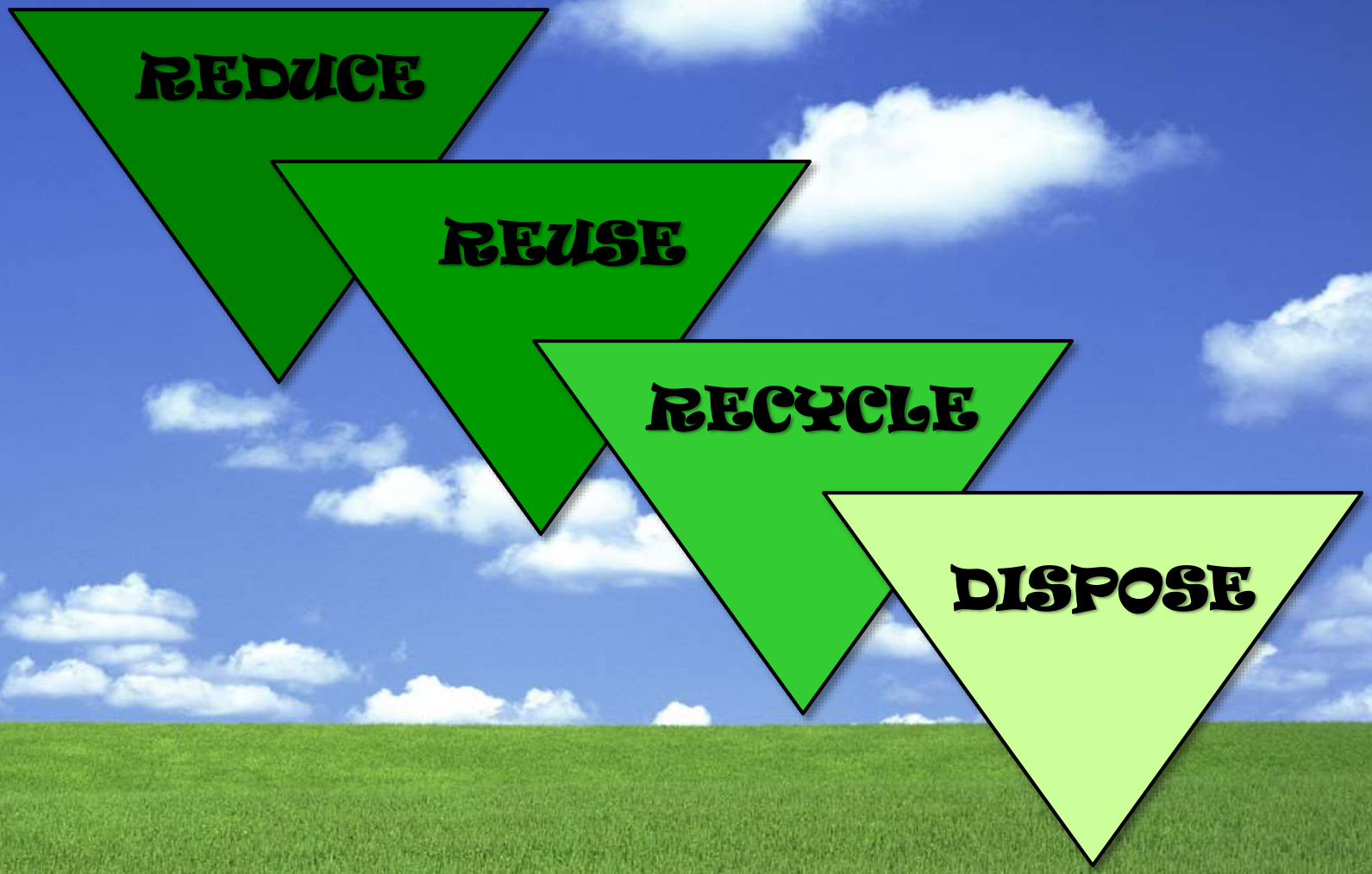
- Pollution prevention is **(1)** reducing or eliminating waste by modifying processes and **(2)** efficiently using raw materials, energy, water, and other resources

- P2 can be done:
  - Anywhere
  - Anytime
  - By Anybody

Why is P2 Important?

- Saves natural resources
- Reduces procurement & disposal costs
- Helps to reduce product inventory
- Saves storage space
- Helps to minimize pollution created through various processes (i.e. shipping/recycling)
- Creates less waste
- Saves landfill space

P2 Hierarchy



Combating pollution at different levels

Level #1: Reduce

- **Buy less, use less, rent, or borrow**

Purchase only what you need- check your inventory first!

Level #2: Reuse

- **Find new uses, repair, or donate**

Return excess to manufacture or transfer "usable" items to organizations, the Reuse Center, or DLA Disposition Services Jackson

Level #3: Recycle

- **Recycle or Compost**

Recycle items as much as possible- many of our office and personal items (i.e. water bottles and paper) can be turned in to Fort Jackson's Recycling Center. Take yard waste to the Fort Jackson Mulch Site

Level #4: Dispose

- **Do as the last resort!**

Dispose in accordance with the Hazardous Substance Management Plan (HSMP) and Environmental Guidebook.

Hazardous Substance Management Plan
(HSMP)

U.S. Army Garrison
Fort Jackson

Green Procurement Program (GPP)

- Federal/Army mandated
- Purpose of GPP:
  - Reduce environmental impacts
  - Support the mission through cost effective acquisition
  - Reduce resource consumption & waste generation
  - Better management of products

GPP (cont)

- **Policy Memorandum #42- Supply Purchases**
  - Guidelines for purchases through standard Army information systems (STAMIS) and self-service supply centers (SSSC)
  - Uses:
    - Admin/Cleaning Products → ***LCI***
    - Training Equipment → ***PBUSE***
  - Examples of products/equipment in the memo
- **LCI identifies & carries green products**

Source Reduction

- Avoid disposable items (i.e. styrofoam containers)- select reusable items
- Be a smart shopper
- See what's in-stock at another organization
- Don't waste food
- Turn off lights & appliances when not in use
- Smart transportation (i.e. carpooling)

Paper Reduction

- Become e-savvy (i.e. email and telephone)
- Use bulletin boards to route information
- Double-side the documents
- Use “used” paper for in-house documents
  - Designate one copier tray for “used” paper

Avoid discarding the following!

- Yard waste
- QRP/DLA recyclable items
- Hazardous materials
- Clothes & usable household items
- Clothing hangers
- Used oil, antifreeze, and some batteries
- Toner & inkjet print cartridges

Environmental Performance Assessment System (EPAS)

Internal Environmental Compliance Assessments

Patrick Green
EPAS Program Manager
751-5904

Army and Fort Jackson Regulations

- **Army Regulation (AR) 200-1**, Environmental Protection and Enhancement
- **Fort Jackson (FJ) Reg 200- 8**, Fort Jackson Environmental Protection and Enhancement
- **Fort Jackson (FJ) Reg 200-9**, Qualified Recycling Program
- **Hazardous Substance Management Plan**
- **Fort Jackson Environmental Guide Book**

Internal Assessments

- Required by Army and Fort Jackson Regulations
- Conducted by EPAS Team from DPW Environmental Management Branch and accompanied by the ECO
- Results are reported through the chain of command
- Conducted using Fort Jackson Environmental Compliance Checklist (FJ Form 2919)
- Scheduled at Brigade / Directorate level (If applicable)

*May be ANNOUNCE or <u>UNANNOUNCED</u> *

EPAS is an Assessment NOT an Inspection

Federal and State regulators inspect for violations and issue enforcement actions!

EPAS Program assesses deficiencies and assists with corrective actions!

Inspections vs. Assessments

<u>Federal Agency:</u> Environmental Protection Agency (EPA) can impose fines of up to $37,500 per violation, per day.

<u>State Agency:</u> South Carolina Department of Health and Environmental Control (SCDHEC) can impose fines of up to $10, 000 per violation, per day.

EPA and SCDHEC have the authority to conduct announced or unannounced inspections in any area on Fort Jackson at any time.

Note: There is not a penalty pocketbook. Monetary fines are paid by the organization, unit, and/or individual responsible!!!

Most Common Deficiencies

- **No assigned/trained Environmental Compliance Officers**
- **Missing environmental documentation/records**
  - **(i.e. Monthly ENV Checklist, Annual ENV Awareness and SMS Training, Appointment Orders)**
- **Hazardous substances improperly managed:**
  - **Labeling** (all containers must be properly labeled to identify the contents)
  - **Stored** (no secondary containment); and,
  - **Maintained (i.e. open, unlabeled, mislabeled, and expired shelf life)**
- **Flammables improperly stored**
- **Universal waste (UW) improperly managed (i.e. lamps & batteries)**
- **Excessive debris and old equipment**
- **Organizations not recycling (i.e. plastics, cardboard, aluminum, paper)**
- **Material Safety Data Sheets (MSDS) not available**

Hazardous substances improperly stored, labeled, and/or maintained

Universal Waste improperly stored

Hazardous Waste
What's Wrong in this picture?

If you said, the wooden pallets are not sufficient secondary containment, the photo copied HW label is not acceptable per DOT regulations, and garbage bags are not adequate containment for hazardous materials or waste, you are correct.

Repeat Findings Math

The containers below were found during an assessment in 2013. They were never properly disposed of and were found and cited for again in 2014. Additional penalties are added when an offense is a repeat finding. The drums were open, unlabeled or mislabeled, and had no secondary containment.

37,500 x 4 (Drums)=

$150,000

$150,000 x 14 (Days) =

$2,100,000

Examples of Excess Old Equipment and Debris, Solid Waste and Open Dumping, and Poor Housekeeping. All are EPAS violations.

Did you know…?

Fort Jackson is home to hundreds of Cultural Sites. Unauthorized digging, the use of metal detectors, and the collection, removal, or disturbance of archaeological resources on Fort Jackson is prohibited and may result in the assessment of civil or criminal penalties. If you encounter possible artifacts, do not disturb and immediately contact the Cultural Resources Manager at (803) 751-7153/4793.

Wildlife Protection

- Here on Fort Jackson we love our Wildlife.
- Do not harm or harass wildlife of any type, and do not kill snakes.
- Do not disturb bird nest boxes. These boxes are located in numerous areas around post and are monitored regularly.
- Immediately report accidental injury or death of any wildlife to Pest Management at 751-3638.

Duties of the Environmental Compliance Officer (ECO)

- Maintain required environmental documents. After completing this course you will be sent an ECO packet that includes everything you will need to begin. All environmental documents must be kept in your ECO "green" binder for three (3) years. The EPAS team request that you keep all environmental documents in a green 3-ring binder. This makes it easy to spot when they come out for an assessment. If there is already a binder at your organization, please replace all out dated documents with the replacements sent to you at the end of this course.
- Complete the monthly Environmental Compliance Checklist and retain in your binder.
- Provide Annual Environmental Awareness and Sustainability Management Systems training to all personnel at your organization. This is a requirement and will also ensure assistance in your new role. Log the type of training being provided, the date the training took place and the name of the individuals taking the training. You may use this presentation, do something on your own or contact the ENV for assistance.
- Update unit commanders and directors on environmental issues and concerns. Also, let them know when you can no longer fill the ECO position, so the position can be filled by someone else.
- Promote environmental initiatives (i.e., recycling, green procurement, saving our resources)
- Update and send the Hazardous Chemical Inventory Form to the Reuse Center by the 10th of every month.
- Complete a DA 4283 (Work Order) Record of Environmental Consideration (REC) prior to any renovation or construction projects. Maintain all RECs and responses in your binder.

You have completed the Administrative Environmental Compliance Officers Course

- Contact Lisa McKnight, ENV, at lisa.a.mcknight11.ctr@mail.mil to receive the exam via e-mail.
- You will need to print the exam, circle the correct answer, and then scan and send it back to Lisa McKnight for grading.
- Once your test has been graded and you receive an 80% or better, a certificate will be sent to you.
- Please print two copies of your certificate. One copy must be placed in your ECO binder, and the other copy should be hung in a conspicuous place such as your Safety Board.
- Your certificate is good for three years from the date of issuance.
- For any questions, concerns, or IT problems, please contact Lisa McKnight at lisa.a.mcknight11.ctr@mail.mil or 751-5971.