

# FORT JACKSON

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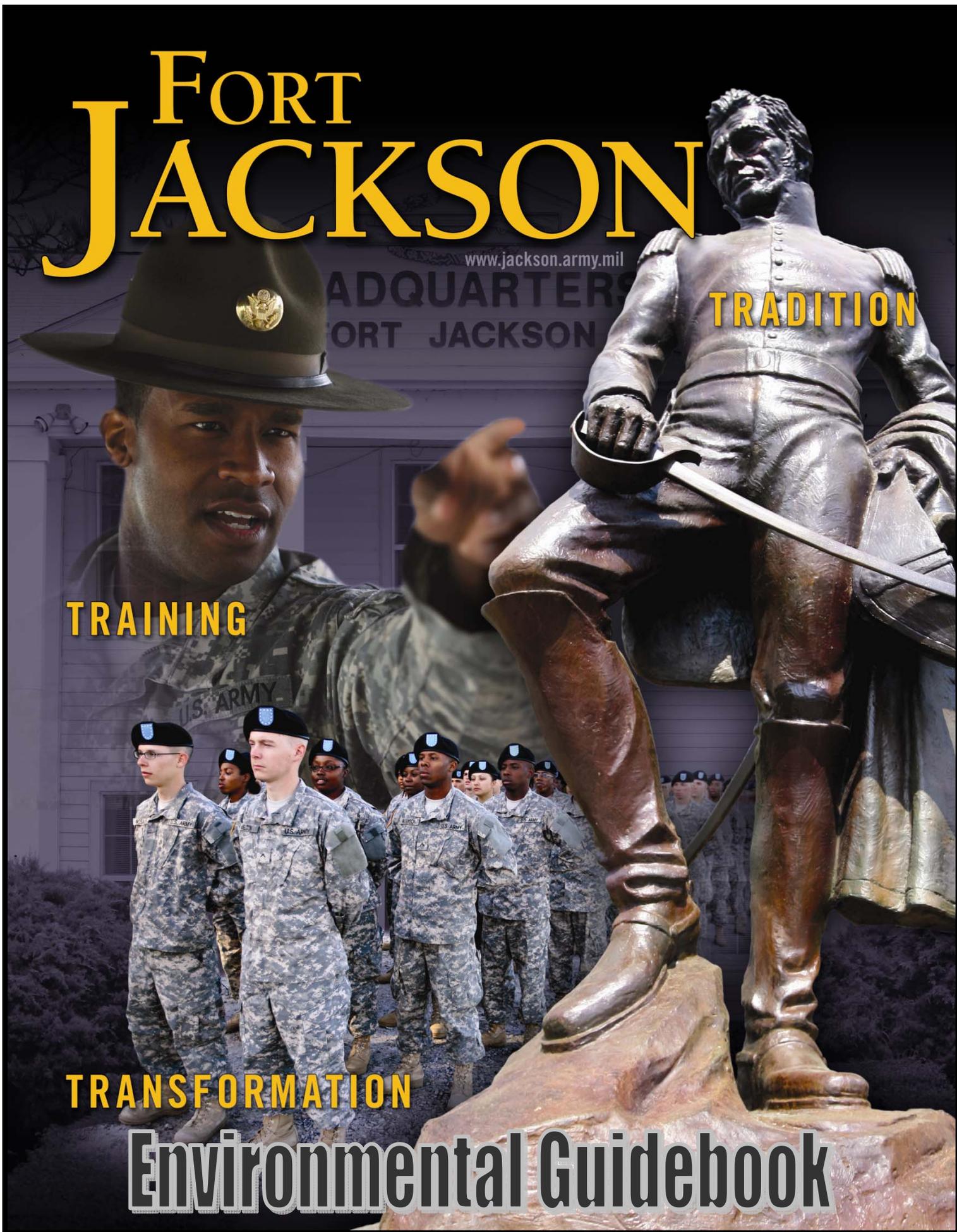
HEADQUARTERS  
FORT JACKSON

TRADITION

TRAINING

TRANSFORMATION

# Environmental Guidebook



## INTRODUCTION

This Environmental Guidebook prescribes responsibilities, policies, and procedures for managing environmental issues at Fort Jackson in accordance with applicable federal, state and local laws and regulations, Army Regulation 200-1 and Fort Jackson Regulation 200-8.

Oftentimes, environmental issues and regulations are looked at as an inhibitor to mission objectives. However, protecting the environment and complying with environmental regulations are essential in accomplishing the mission. These guidelines are designed to enhance and support our mission here at Fort Jackson while protecting and preserving our natural resources and environment.

This guidebook was produced with the unit level user in mind to simplify and provide a succinct source of information and guidance for commonly encountered environmental issues and situations. It is not intended to be an all-encompassing document and questions outside of the scope of this guidebook should be directed to the Fort Jackson Environmental Division (751-6858).

The Fort Jackson Environmental Division will review this guidebook annually. All Environmental Compliance Officers (ECOs), as well as other Fort Jackson personnel directly involved in environmental issues, are encouraged to provide comments and suggestions to improve this guidebook.

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## ABSORBENTS, RAGS, & SOIL

### POSSIBLE AREAS OF CONCERN

Absorbent contaminated with a hazardous substance (HS) may be a hazardous waste (HW).

### CHARACTERIZATION

Inorganic absorbents include pads, pillows, and booms. These items are usually made with polypropylene, a type of plastic. Organic absorbents include peat moss, dry sweep, kitty litter, soil, sand, and clay.

### HANDLING PROCEDURES

- Step 1** Determine the level of saturation. If you squeeze a handful of the absorbent and liquid drips out, it is considered to be “saturated”. If no liquid drips out, it is “not saturated”.
- Step 2** Determine if the waste is a non-HW, controlled waste (CW), or a HW using the chart on the next page. If the absorbent is not saturated and will be used again, it is a material, not a waste.
- Step 3** If the absorbent will not continue to be used and may be thrown away, throw it away immediately. Otherwise, place the absorbent in a container, seal the container, and label the contents. The label must identify the type of absorbent, the level of saturation, and the type of HS (example: “Dry sweep saturated with used motor oil”). If the absorbent will continue to be used, label the contents as follows: “Partially saturated identify the type of absorbent with identify the HS - still usable”.
- Step 4** Prior to disposal, manage all containers and storage areas in accordance with the Hazardous Substance Management Plan (HSMP).
- Step 5** Dispose as specified on the chart and in accordance with the HSMP.



**Inorganic Absorbents**

### GENERAL INFORMATION

Gasoline contaminated absorbent or soil is always a HW. Whenever possible, use absorbents with a high absorbency ration to reduce the total weight of HW. For assistance with ground stains contact the Environmental Division Hazardous Substance Program Manager at 751-4231.

## ABSORBENTS, RAGS, & SOIL (continued)

Hazardous Substance	Type of Absorbent	Level of Saturation	Type of Waste	Disposal
Motor oil or diesel	Inorganic	Not saturated	Material or Non-HW	Continue to use until saturated <u>or</u> throw away.
Motor oil or diesel	Inorganic	Saturated	CW	Call 751-4231 to initiate disposal through DLA Disposition Services Jackson.
Motor oil or diesel	Organic	Not saturated	Material or Non-HW	Continue to use until saturated <u>or</u> throw away <u>or</u> call 751-4231 to schedule Bioremediation Shed turn-in appointment.
Motor oil or diesel	Organic	Saturated	CW	Call 751-4231 to schedule Bioremediation Shed turn-in appointment.
Gasoline or other HW	Organic or inorganic	Not saturated	Material or HW	Continue to use until saturated <u>or</u> call 751-4231 to initiate disposal through DLA Disposition Services Jackson.
Gasoline or other HW	Organic or inorganic	Saturated	HW	Call 751-4231 to initiate disposal through DLA Disposition Services Jackson.
Other Non-HW or CW (such as antifreeze)	Organic or inorganic	Not saturated	Non-HW	Continue to use until saturated <u>or</u> throw away.
Other Non-HW or CW (such as antifreeze)	Organic or inorganic	Saturated	CW or Non-HW	Will depend on type of HS. Contact 751-4231 for disposal guidance.



**Dry Sweep with POL**

### GENERAL INFORMATION

All personnel who manage HW or CW must attend a Hazardous Substance Management class conducted by the Environmental Division. Call 751-4231 or 751-5971 to register for this class.

## AEROSOL CANS

### POSSIBLE AREAS OF CONCERN

Aerosols are under pressure and may be flammable, reactive, corrosive, and/or toxic depending on the contents of the cans and the propellant involved.

### CHARACTERIZATION

Aerosol cans that have been punctured are not a hazardous waste (HW).

### HANDLING PROCEDURES

**Step 1** Aerosol cans should be emptied as much as possible prior to puncturing. If the can is not empty, but no longer sprays, try replacing the nozzle with one from another can.

**Step 2** Place empty or unserviceable cans in container, seal the container and label the container "Aerosol cans to be punctured."

**Step 3** Take the cans to the Reuse Center (Building 2558).

**Note:** DOL/DPW organizations can take their cans to the puncturing area of Building 2603. ECS-124 and DPTMS, TSC have their own aerosol can puncturers.

**Step 4** After puncturing, recycle the cans as scrap steel.



Aerosol Cans

### GENERAL INFORMATION

Aerosol cans for personal use, such as hairspray, deodorant, or air fresheners, should be emptied as much as possible and then thrown away.

## ANTIFREEZE

### POSSIBLE AREAS OF CONCERN

Antifreeze typically contains ethylene glycol. However, other formulations have been developed recently using less toxic chemicals. Used antifreeze may contain low concentrations of toxic metals such as copper, zinc, lead, cadmium and chromium. Refer to the MSDS for specific hazards.

### CHARACTERIZATION

Used antifreeze is considered a controlled waste (CW).

### HANDLING PROCEDURE

- Step 1** Place used antifreeze in a container. Container must be closed unless adding or removing antifreeze.
- Step 2** Mark the container with the words “Used Antifreeze”.
- Step 3** Prior to disposal, manage all containers and storage areas in accordance with the Hazardous Substance Management Plan (HSMP).
- Step 4** There are several established pickup points on-post for used antifreeze. Call 751-4231 or 751-1849 if your organization needs to be added to the list. For disposal instructions for small quantities (less than 5 gallons), call 751-4231 or 751-5971.
- Note:** If your antifreeze is contaminated with another hazardous substance that might cause it to be a hazardous waste, call 751-4231 for a hazard determination.



### GENERAL INFORMATION

All personnel who manage HW or CW must attend a Hazardous Substance Management class conducted by the Environmental Division. Call 751-4231 or 751-5971 to register for this class.

## ASBESTOS AND LEAD BASED PAINT (Building Remodeling/Maintenance/Demolition)

### POSSIBLE AREAS OF CONCERN

Asbestos & Lead Based Paint may be found on any building on the installation. There may be increased health risks associated by not following the recommended work precautions. Noncompliance may result in non-occupational exposure and regulatory fines and penalties.

### CHARACTERIZATION

Asbestos containing materials (ACM) has been found to cause chronic and potentially fatal lung diseases. Lead based paint (LBP) is a toxic material that may damage the nervous and reproductive systems. These two wastes are regulated by EPA and must not be disposed of as regular waste. Special provisions, under RCRA, are required.

### HANDLING PROCEDURES

**Step 1** To determine if the buildings/area contains asbestos, contact the Environmental Division Toxic Substance Manager at 751-3838.

To determine if lead-based paint (LBP) is present, contact the Environmental Division Toxic Substance Manager at 751-3838.

**Step 2** Submit a DA Form 4283 (Work Order) to the DPW Work Order Desk (751-5926/5505) and a Record of Environmental Consideration (REC) to the Environmental Division (751-4078). This process can take up to 3 weeks or longer depending upon the nature and complexity of the work involved.

**Step 3** The Business Operation & Integration Division (BOID) and Engineering Division will review all proposed scope of work involving disturbance of toxic materials and coordinate them for contracted services.



### GENERAL INFORMATION

Activities such as sanding, grinding, drilling, or sawing of any ACM and LBP are **prohibited**. Self-Help projects requiring the disturbance of any type of asbestos containing materials (i.e., floor tile, ceiling tiles, joint compound, etc.) is also **prohibited**. Only contractors that are EPA certified and SCDHEC licensed may remove, handle and transport ACM. For additional information please contact your Toxic Substance Manager at 751-3838.

## ASBESTOS (Disposal of Unserviceable Brake Shoes)

### POSSIBLE AREAS OF CONCERN

Miscellaneous materials such as brake shoes, pads, and clutch disks may contain asbestos. Wet methods for the removal of these items should be the common work practice.

### CHARACTERIZATION

Asbestos-containing brake equipment must be managed as a Special Waste. These items may be handled by non-certified workers but specific work precautions pertaining to asbestos brake removal should be followed and documented as a part of the job specific HAZCOM Program.

### HANDLING PROCEDURES

**Step 1** Wet brake shoes, pads or clutch disks with amended water and then wrap in two layers of 6 mil plastic. Seal with duct tape for disposal. Do not exceed 20 pounds per package.

**Step 2** Label package as follows:

- a) "Danger. Contains Asbestos Fibers. Avoid Creating Dust. Cancer and Lung Disease Hazard."
- b) Generator's Information (e.g. Unit, POC, Phone)

**Step 3** Place sealed packages in a closed container that is separated and secured from normal waste storage.

**Step 4** Complete DD Form 1348-1A for each National Stock Number (NSN) turned in. Contact the Environmental Division Toxic Substance Program Manager (751-3838) to determine proper disposal requirements.



### GENERAL INFORMATION

Proper brake shoes, pads and clutch disk removal may be done by different approved techniques. Contact Preventive Medicine / Industrial Hygiene (751-5220) or Environmental Division, Toxic Substance Program Manager (751-3838) for details on these techniques.

## ASBESTOS (Floor Tile and Mastic Removal)

### POSSIBLE AREAS OF CONCERN

Asbestos containing floor tile is common on Fort Jackson. The black adhesive (mastic) used to hold the tile in place may also contain asbestos. Any combination of the two is considered asbestos containing. Activities such as sanding, grinding, drilling, sawing, and in some cases buffing will render the material to become friable. Performing any of the aforementioned acts will result in asbestos exposure.

**Self-Help flooring replacement projects are PROHIBITED.**

### CHARACTERIZATION

Asbestos-containing materials are managed as a Special Waste. Proper disposal of these materials must be in compliance with Federal and State regulation.

### HANDLING PROCEDURES

**Step 1** To determine if the buildings/area contains asbestos, contact the Environmental Division Toxic Substance Program Manager at 751-3838.

**Step 2** If the floor tile has detached from the floor, contact your unit Environmental Compliance Officer (ECO) to determine root cause. If there is excessive loose tile, call 751-3838.

**Note:** If there are only one or two loose tiles in the problem area, the ECO is the only person to handle and dispose of floor tiles.

**Step 3** Place floor tile in a 6 mil poly bag and call 751-3838 to schedule material pick-up, or bring the material to Building 2563, DPW Environmental Division for disposal.

**Step 4** If the floor tile is significantly deteriorated, damaged or otherwise is in poor condition, unit should submit a DA Form 4283 (Work Order) to the DPW Work Order Desk for removal/replacement actions.



### GENERAL INFORMATION

Knowingly disturbing asbestos containing materials for the purpose of conducting self-help renovation activities may result in human health exposure and individual fines and penalties per Federal, State, and military regulations. For additional information, refer to the Asbestos Hazard Management Plan or contact the Toxic Substance Program Manager at 751-3838.

## ASBESTOS (Disposal of Asbestos Safes, Fire Rated Doors, and Clothing)

### POSSIBLE AREAS OF CONCERN

Some safes and fire rated doors maybe lined with asbestos containing materials. There also may be some asbestos containing clothing (i.e. gloves and coats) used in fire protection and the handling of hot items (weapons barrels).

### CHARACTERIZATION

Asbestos containing materials are managed as a Special Waste. Some manufacturers of safes and fire doors used asbestos as a fireproofing insulation. If the safe or door becomes damaged, it may present a health risk to the user(s). The U.S. Navy has identified the Remington Rand manufactured safes (mostly “old First Sergeant Safes” or “Field Safes”) as potential asbestos hazards; Diebold safes are also suspect. Testing for the presence of asbestos must be accomplished prior to disposal of these and others like items. Fire Rated Doors should not be sampled if they are currently still in use. Sampling is destructive and will void the existing fire rating.

### HANDLING PROCEDURES

#### For Safes and Clothing

**Step 1** Complete DD Form 1348-1A for each national stock Number (NSN) turned in.

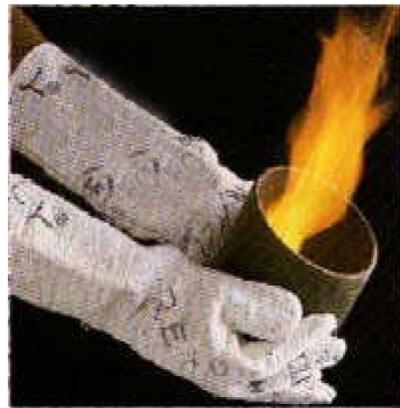
**Step 2** Contact DLA/DSJ (formally known as DRMO) at 751-7112 for turn in requirements and packing instructions for safes and clothing. If through laboratory analysis or manufacturer’s labeling, DLA/DSJ determines that the safe(s) or suspect gloves contain asbestos, it will need to double wrapped in 6 mil or thicker plastic and sealed with duct tape for disposal.

**Step 3** Label package as follows:

- a) “Danger. Contains Asbestos Fibers. Avoid Creating Dust. Cancer and Lung Disease Hazard.”
- b) Generator’s Information (e.g. Unit, POC, Phone)

**Step 4** Prior to disposal, keep it in a secured covered area. Transport to DLA/DSJ on scheduled turn-in day.

**For Fire Doors** - Coordinate with the construction project manager.



### GENERAL INFORMATION

For additional information contact the Environmental Division Toxic Substance Program Manager at 751-3838.

## ASBESTOS (Stripping Wax from Floor Tile That May Contain Asbestos)

### POSSIBLE AREAS OF CONCERN

Asbestos may be found on any building on the installation. There may be increased health risks associated by not following the recommended handling procedures.

### CHARACTERIZATION

The Environmental Division has surveyed installation buildings to identify those tiles that contain asbestos. The only way to determine if the floor tile contains asbestos is to sample the tile and have it analyzed by a certified laboratory. South Carolina Department of Health and Environmental Control (SCDHEC) requires any negative Polarized Light Microscopy (PLM) sample to be reanalyzed using Transmission Electron Microscopy (TEM) laboratory analysis. Current asbestos building surveys (surveys within 3 year) are managed within the Environmental Division, Toxic Substance Program.

### HANDLING PROCEDURES

- Step 1** Plan to strip wax build-up on floor as little as once or twice a year.
- Step 2** Keep floor tile wet during stripping of wax.
- Step 3** Do not use hard abrasive (black) pad. Less abrasive, light brown/tan pads are preferred.
- Step 4** Do not dry strip, scrape, or sand asbestos containing floor tile. Material will become friable causing an inhalation hazard.



### GENERAL INFORMATION

If asbestos containing floor tile is in good condition, floors may be stripped of wax build-up by using the appropriate stripping pad. If the asbestos containing floor tile is not in good condition, i.e., broken or badly worn, then floors should not be stripped. For additional information pertaining to asbestos containing materials restrictions, go to previous pages of this Guidebook or contact the Toxic Substance Program Manager at 751-3838.

## BALLASTS, CAPACITORS, AND OTHER EQUIPMENT CONTAINING PCBs

### POSSIBLE AREAS OF CONCERN

Polychlorinated Biphenyls (PCBs) are a major type of toxic chemical. This material has been labeled as a suspect human carcinogen and has also been shown to be teratogenic (capable of inducing mutations in the offspring of affected organisms).

### CHARACTERIZATION

PCBs are most commonly found in electrical transformers and capacitors, air conditioning equipment, and lighting ballasts.

### HANDLING PROCEDURES

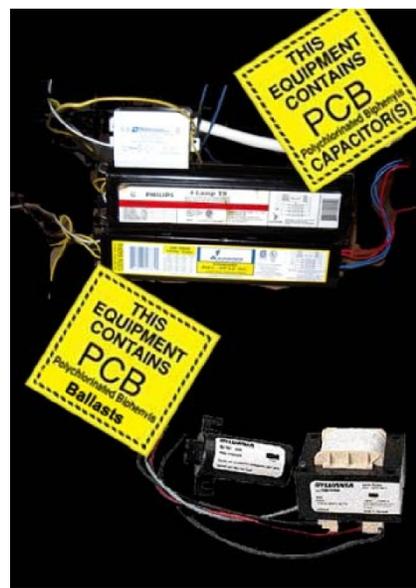
**Step 1** Remove the ballasts and/or capacitors from the piece of equipment. Check the label or data plate for indications that read “No-PCBs”.

**Step 2** If “PCB”, place item in a sealed container and contact the Environmental Division Toxic Substance Program Manager at 751-3838 for disposal.

If not PCB, dispose of material as solid waste.

**Note:** If PCB content cannot be determined, then testing is required. Please contact the Environmental Division Hazardous Substance Program Manager at 751-4231 coordinate.

**Note:** Routine operation and maintenance activities may require removal of PCB containing parts and equipment. PCB items must be turn-in to the Toxic Substance Manager at Building 2563 monthly. PCB storage is located behind Building 2563.



Ballasts and Capacitors may contain PCB's

### GENERAL INFORMATION

Ballasts must be visually checked for PCB content prior to disposal or recycling. *Contractors are not authorized to sign disposal manifests.* For more information contact the Environmental Division Hazardous Substance Program Manager at 751-4231. Refer to the Fort Jackson PCB Management Plan for additional information.

## BATTERIES, LARGE LEAD ACID (>11 LBS)

### POSSIBLE CONTAMINANTS OF CONCERN

The cells of a lead-acid battery contain lead and lead dioxide and an acidic electrolyte solution of sulfuric acid. The electrolyte is a strong corrosive agent. Batteries may also vent explosive hydrogen gas. Caution should be used when using jumper cables to avoid sparks near the battery.

### CHARACTERIZATION

Spent large lead-acid batteries are exempt from hazardous waste regulations if they are recycled.

### HANDLING PROCEDURES

**Step 1** New and used batteries must be stored in areas that provide spill containment and protection from rain/snow. They should not be stored in metal lockers. Prior to disposal, manage all containers and storage areas in accordance with the Hazardous Substance Management Plan.

**Step 2** The storage area must be identified with the words “Used Batteries”, “Battery Storage Area”, or something similar.

**Step 3** If your organization has an arrangement with Exide or another battery company for a 1:1 exchange, follow their packaging instructions. After each exchange, call the Environmental Division Hazardous Substance Program Manager at 751-4231 or 751-9507 with the quantity (volume or weight) picked up.

**Step 4** If your organization routinely generates large lead-acid batteries, but does not have an agreement with a battery company, the used batteries must be turned in to DLA Disposition Services Jackson. Batteries must be stacked on a pallet no more than three (3) high and banded with non-metallic banding. If non-metallic banding is not available, insulate the batteries with a layer of cardboard and then band with metallic banding. Store the batteries in a covered area until there is enough for at least one pallet. Call 751-7112 or (910) 366-2208 for turn-in guidance.

**Step 5** If your organization rarely has a battery, the used battery can be taken to the AAFES Car Care Center.

**Note:** Battery electrolyte should not be drained from the battery and caps must be in place.



**Batteries emit hydrogen gas and could leak acid. Secondary containment and ventilation is required.**

### GENERAL INFORMATION

POV batteries should be turned in at the store where you purchased a new one. This may be done at a later date if you save your receipt.

## BATTERIES (other than large lead-acid)

### POSSIBLE AREAS OF CONCERN

Batteries have chemicals that are a concern during routine use and disposal.

### CHARACTERIZATION

All lithium, nickel cadmium, nickel metal hydride, magnesium, nickel zinc, and mercury batteries are universal waste (UW). Alkaline and carbon zinc batteries are a non-hazardous waste.

### HANDLING PROCEDURES

**Step 1** Determine what type of battery you have. Call the Environmental Division Hazardous Substance Program Manager at 751-4231 if you need assistance in making a determination.

**Note:** Alkaline and carbon zinc batteries should be thrown away.

**Step 2** Store the batteries in a cardboard box or other container and seal the container. Mark the container with the words “Used Batteries” and the date. This must be done immediately when the first battery is placed in the container. Prior to disposal, manage all containers and storage areas in accordance with the Hazardous Substance Management Plan (HSMP).

**Step 3** Rechargeable batteries, including nickel cadmium (NiCd), nickel metal hydride (NiMH), nickel zinc (NiZn), lithium ion (Li+), and small (<11 lbs) lead-acid (Pb), must individually bagged and turned in to the Reuse Center (Building 2558) within 6 months from the start date.

**Step 4** Non-rechargeable Lithium Sulfur Dioxide (LiSO<sub>2</sub>) batteries must be turned in to DLA Disposition Services Jackson for recycling. Follow the disposal and transportation procedures given in the HSMP.

**Note:** Non-rechargeable LiSO<sub>2</sub> batteries must be sealed in separate plastic bags (one battery per bag) prior to turn-in. Bags are available at the Reuse Center (Building 2558) and the Environmental Division (Building 2563).



**Step 5** Other batteries are managed on a case-by-case basis. Call 751-4231 for a hazard determination and recycling/disposal instructions.

### GENERAL INFORMATION

Environmental Compliance Officers (ECOs) should provide UW training to their organization.

## DIG PERMIT/UTILITY LOCATE

### POSSIBLE AREAS OF CONCERN

Failure to locate underground utilities (water/sewer, electric, gas, phone, steam/chill water, control cables, storm drains, petroleum/POL, cable TV, and solid waste management units) can cause dangerous interruptions, hazardous situations, and potential violations and fines.

### CHARACTERIZATION

Digging permit and utility locate are required before any digging, excavation, or earthwork is performed. The organization/entity doing the digging shall take every precaution to prevent damage and shall be responsible for the repair or replacement of utility systems damaged during the performance of the work. See Fort Jackson Regulation 420-1 for more information.

### PROCEDURES

**Step 1** This requirement applies to Military, civilian, tenants, contractors, utility operators, or any other entity performing excavation of soil within the Fort Jackson cantonment area and/or any road and utility right-of-ways, training facilities/complexes on the ranges and training areas.



**Step 2** A Digging Permit application (Eng Form 194) must be submitted to the DPW, Operations and Maintenance Division at least 10 days before the start of any project that has the potential to require excavation or digging. The digging permit office is located in Building 2601 (RM 125), phone 751-1602. Depending on the nature and magnitude of the project, additional time may be required to complete the application review. A map must be included with the application that shows the location of the project and the limits of disturbance.

**Step 3** Anyone proposing to excavate, dig, bore, blast, tunnel, or disturb earth in any manner in which buried utilities may be damaged is required to call Palmetto Utility Protection Service (P.U.P.S.) at 811 or toll free 1-888-721-7877 between the hours 0730 and 1730, Monday through Friday, at least 72 hours before starting the proposed work.

**Note:** Prior to start of any project, a Record of Environmental Consideration (REC) must be submitted to the Environmental Division (751-4078) to initiate the environmental review process. Once the review is complete the REC will be returned to the proponent and will list any environmental conditions and restrictions.

**Note:** Any soil disturbance creates the potential for erosion and storm water pollution. Refer to the project REC to determine if a storm water permit is required. At a minimum, disturbed soil should be re-established in permanent vegetation and nearby storm drains should have inlet protection.

### GENERAL INFORMATION

For additional information, contact the Environmental Division at 751-4078.

## FILTERS (Oil, Diesel, and Gasoline)

### POSSIBLE AREAS OF CONCERN

Gasoline, diesel & oil contain volatile organic compounds in varying levels. Refer to the MSDS for specific hazards.

### CHARACTERIZATION

Diesel and oil filters are a controlled waste (CW). Gasoline filters are a hazardous waste (HW).

### HANDLING PROCEDURES

**Step 1** Drain the filter while at or near normal operating temperature using one of the following gravity, hot drain methods:

- a) puncture filter anti-drain back valve or filter dome end and hot drain for a minimum of 12 hours, or
- b) hot drain for a minimum of 12 hours and crush the filter, or
- c) dismantle the filter and hot drain for a minimum of 12 hours, or
- d) hot drain using any other equivalent method that will remove the used fluid.

**Step 2** Transfer the fluid drained from the filter to the appropriate container.

**Note:** Never mix oil or diesel with gasoline. Gasoline should always be placed in a separate container.

#### For Gasoline Filters

**Step 3** Place drained gasoline filters in a container, seal the container, and then follow the HW management, disposal, and transportation requirements of the Hazardous Substance Management Plan (HSMP).

#### For Oil and Diesel Filters

**Step 4** Place drained oil/diesel filters in a container, seal the container, and mark with the words “Used Oil Filters” or “Used Diesel Filters” or other appropriate terminology. There are several established pickup points on-post for used oil filters. Call 751-4231 or 751-5971 if your organization needs to be added to the list.



### GENERAL INFORMATION

All personnel who manage HW or CW must attend a Hazardous Substance Management class conducted by the Environmental Division. Call 751-4231 or 751-5971 to register for this class.

## FURNITURE AND NON-ODS CONTAINING APPLIANCES (GOVERNMENT)

### POSSIBLE AREAS OF CONCERN

Government furniture and appliances [that do not contain ozone depleting substances (ODS)], require special handling and disposal procedures. Excess and surplus property is regulated by the Defense Material Disposition Manual.

### CHARACTERIZATION

If possible, these items should be reused to reduce the quantity of waste placed in landfills.

### HANDLING PROCEDURES

- Step 1** Advertise excess usable furniture via e-mail, phone, or other means.
- Step 2** Call DLA Disposition Services Jackson to schedule an appointment for drop off (751-4660).



### GENERAL INFORMATION

ODS (refrigerants) containing appliances include refrigerators and air conditioning units and require special handling and disposal.

## GAS MASK FILTERS

### POSSIBLE AREAS OF CONCERN

The protective mask filters that contain ASC Whetlerite charcoal contain chromium, a toxic heavy metal.

### CHARACTERIZATION

The M-17 and M-40 C2 (black) gas mask filters are hazardous waste (HW). The M-40 C2 A1 (green) gas mask filter is a non-HW.

### HANDLING PROCEDURES

**Step 1** Place gas mask filters in a container, seal the container, and then follow the HW management, disposal, and transportation requirements of the Hazardous Substance Management Plan (HSMP).

**Note:** The M-40 C2 A1 (green) gas mask filters are non-HW and should be thrown away.



**Gas Mask Filters**

### GENERAL INFORMATION

All personnel who manage HW must attend a Hazardous Substance Management class conducted by the Environmental Division. Call 751-4231 or 751-5971 to register for this class.

## HAZARDOUS MATERIAL STORAGE

### POSSIBLE AREAS OF CONCERN

Improper storage of hazardous materials is a fire, safety, and environmental concern.

### CHARACTERIZATION

Improper storage of hazardous materials can cause unnecessary generation of hazardous wastes due to spoilage, leaks, or shelf-life expiration.

### HANDLING PROCEDURES

- Step 1** Keep the storage area neat and clean.
- Step 2** Store hazardous materials in containers that are in good condition, clean, and compatible with contents. If a container is in poor condition, the contents must be transferred to a new container or the damaged container must be overpacked (i.e. placed in a larger container). Hazardous substances should never be placed in a container that previously held food or drink.
- Step 3** Label all containers. Label must be legible and accurately describe the contents.
- Step 4** Tightly seal containers when not in use.
- Step 5** List hazardous materials on the Hazardous Chemical Inventory Form (HCIF) and keep the HCIF up-to-date.
- Step 6** Store the hazardous materials in a protected, secure area away from floor drains, storm drains, or hazards that might lead to a spill. Storage must also comply with Fire and Safety regulations.
- Step 7** Maintain a MSDS for each item. MSDSs must be located near all hazardous substance storage and handling areas, and must be easily accessible by all employees and personnel.
- Step 8** Store large containers (>10 gallons) on pallets to prevent rust and aid in leak detection and spill prevention.
- Step 9** Provide secondary containment adequate to hold volume of largest container.
- Step 10** Separate incompatible substances, using the MSDS for guidance. Call the Safety Office (x-6004/2542) for assistance.



**Soldiers read product information before using**

# Fort Jackson Environmental Guidebook

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**Step 11** Manage shelf-life items to avoid expiration. Maintain a log or calendar indicating when shelf-life items will expire.

**Step 12** Inspect storage areas, including aboveground storage tanks, at least weekly. The area should be free of ground stains, spills, odors, or fumes. Containers should be in good condition, clean, marked or labeled, tightly sealed, and not expired.

## GENERAL INFORMATION

A hazardous material is a usable hazardous substance that poses a threat to human health or the environment when improperly treated, stored, transported, or otherwise managed.

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# HAZARDOUS SUBSTANCE SPILLS/RELEASES

## POSSIBLE AREAS OF CONCERN

Hazardous substances, when spilled, pose a risk to individuals and the environment.

## CHARACTERIZATION

Spills may result in the generation of controlled or hazardous wastes. This will depend upon the type of substance spilled.

## HANDLING PROCEDURES

- Step 1** Maintain site-specific spill response plans, spill kits, and MSDS files and display these items prominently near all hazardous substance storage and handling areas. These items must be easily accessible by all employees and personnel.
- Step 2** Train personnel in spill response procedures and how to use the spill kit. Training should emphasize “safety first.”
- Step 3** Maintain spill kits that are sufficient to handle the volume of the largest container. Spill kits can be made from locally purchased items and will vary depending on the type and quantity of hazardous substances stored or handled.
- Step 4** If a spill/release occurs, follow the Spill Response Plan.
- Step 5** Clean up small, incidental spills, if it can be done safely.
- Step 6** Refer to the Absorbent Guidance Sheet for the proper disposal of used absorbents or contaminated soil.
- Step 7** Replace any used or missing spill kit items.



## GENERAL INFORMATION

A sample Spill Response Plan is provided in Appendix D of the Hazardous Substance Management Plan. This plan may be suitable for your organization “as is” or may be used as a go-by to create your own.

## LAMPS (i.e. Light Bulbs)

### POSSIBLE AREAS OF CONCERN

Small quantities of mercury, antimony, cadmium, barium, and lead are used to manufacture lamps.

### CHARACTERIZATION

All used lamps, except incandescent, are considered universal waste (UW). Incandescent lamps are non-hazardous waste and can be thrown away.

### HANDLING PROCEDURES

**Step 1** Carefully pack used lamps in the original box or an alternate container. Box must be able to be closed (do not cut end out of box). Do not tape lamps together and do not mix different sized/types of lamps in the same box.

**Step 2** Do the following:

- Mark the box with the phrase “Used Lamps”.
- Date the box with the date the first used lamp is put in the box/container (used lamps must be turned in within 6 months from the accumulation start date).
- Seal the box after adding a lamp.
- Store in an area protected from the weather and potential breakage.
- After the box is full, mark the number of lamps on the end of the box.



**Note:** Broken lamps must be cleaned up, placed in a leak-proof container, and sealed to prevent the release of mercury or other hazardous constituents (see guidance at back of Guidebook).

**Step 3** Turn in small quantities of lamps ( $\leq 8$  boxes) to the Reuse Center (Building 2558). Large quantities will be dealt with on a case-by-case basis (call 751-4231 for recycling instructions).

**Note:** DOL/DPW organizations can take their lamps to the DPW Supply area in Building 2601.

**Note:** The easiest way to collect lamps is to use the same box as the new ones. After you pull out a new one, put the used lamp in the empty spot and mark an “X” on the end of the lamp. If the box contains both good lamps and used lamps, mark the box with the phrase “Good Lamps & Used Lamps” and the accumulation start date.



### GENERAL INFORMATION

It is against the law to throw away or mismanage UW lamps.

## LEAD CONTAINING PAINT/SURFACE PREPARATION

### POSSIBLE AREAS OF CONCERN

Lead paint is common on many types of surfaces across the installation. There may be increased health risks if the recommended handling procedures are not followed.

### CHARACTERIZATION

Lead is often used in paint to enhance durability. When preparing areas for resurfacing/repainting, appropriate work procedures need to be followed. Lead paint can only be removed by workers using EPA “Lead Safe Work Practices” during scraping, sanding, sawing, grinding, and chipping activities. Implementation of approved work practices will reduce lead dust exposure.

### HANDLING PROCEDURES

**Step 1** Prior to starting, contact the Environmental Division Toxic Substance Program Manager at 751-3838 for an initial assessment. Sampling and analysis may take up to 14 calendar days for receipt of results.

**Step 2** Submit a DA Form 4283 (Work Order) to the DPW Work Order Desk (751-5926/5505) and a Record of Environmental Consideration (REC) to the Environmental Division (751-4078).

**Step 3** If materials are lead-containing, lead safe work practices must be implemented. Contact the Environmental Division Toxic Substance Program Manager for proper work precautions and PPE.

**Note:** Contact the Environmental Division Hazardous Substance Program Manager at 751-4231 for lead-based paint waste disposal requirements.



### GENERAL INFORMATION

For additional information, contact the Environmental Division Toxic Substance Program Manager at 751-3838.

## MOP WATER

### POSSIBLE AREAS OF CONCERN

Mop water has the potential, if disposed of improperly, to contaminate storm and other surface waters.

### CHARACTERIZATION

Mop water is generated from routine housekeeping operations and may have contaminants that could harm the environment if not properly handled.

### HANDLING PROCEDURES

- Step 1** Mop water from building and floor cleaning should be discharged in an appropriate drain that goes to the sanitary sewer, such as a mop or utility sink.
- Step 2** Mop water should never be poured into the storm drain or on the ground. Storm drains discharge into the nearest creek or pond.



### GENERAL INFORMATION

For issues related to sewer discharges, contact the Fort Jackson Environmental Division at 751-9504.

## MRE HEATERS

### POSSIBLE AREAS OF CONCERN

Meals Ready-to-Eat (MRE) that 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 which are water reactive chemicals. Improper disposal could cause inadvertent fires.

### CHARACTERIZATION

Used MRE Heaters should be disposed of as a non-hazardous solid waste.

### HANDLING PROCEDURES

**Step 1** Use the MRE heater or save it for future use.

**Step 2** Used MRE heaters should be placed in the trash.

**Note:** FRH's can pose a tactical risk if the enemy gets access to them.

**Note:** MRE's should be activated before discarding to avoid possible reactions and fires.



MRE Heaters

### GENERAL INFORMATION

For other questions or issues related to MRE disposal, call the Environmental Division Hazardous Substance Program Manager at 751-4231 or 751-5971.

## OIL/GREASE (COOKING)

### POSSIBLE AREAS OF CONCERN

Cooking oil and grease cannot be poured into the sanitary sewer, storm water system, dumpsters, or other trash receptacles. Dumping cooking oil or grease down the drain can clog sewer lines, causing sewage back-ups and is against environmental regulations.

### CHARACTERIZATION

Cooking oil and grease is regulated by the Clean Water Act.

### HANDLING PROCEDURES

- Step 1** Food service operations on Fort Jackson must dispose of cooking oil and grease in containers provided specifically for this purpose.
- Step 2** Use caution when transferring cooking oil and grease into containers. Secondary containment and spill cleanup materials must be available. All spills must be cleaned up immediately.
- Step 3** Cooking oil and grease are recycled by an off-post contractor on a periodic basis.



### GENERAL INFORMATION

For additional information or service related questions, contact the Recycling Center at 751-4208.

## **PAINT & PAINT RELATED MATERIAL (Paint, spray paint, stain, varnish, primer, sealer, paint thinner, and paint stripper)**

### **POSSIBLE AREAS OF CONCERN**

Paint related material can contain chemicals that may be combustible, toxic, or flammable. Refer to the MSDS for specific hazards.

### **CHARACTERIZATION**

Paint and paint related materials that are still usable are hazardous material. Unusable paint or paint related materials may be a hazardous waste or non hazardous waste, depending on their chemical constituents and physical properties.

### **HANDLING PROCEDURES**

- Step 1** Before purchasing paint related materials, check your Hazardous Chemical Inventory Form (HCIF), the Reuse Center (Building 2558), and other organizations to see if the material is available on post.
- Step 2** Purchase only what you need and avoid items that cannot be returned, such as custom colored paint.
- Step 3** Use the oldest material first, following the Step-by-Step Painting Instructions in this Guidebook.
- Step 4** Save any leftover material for future use or turn it in to the Reuse Center. Make sure containers are sealed tight to preserve the contents and prevent spills.
- Step 6** Take empty containers to the Reuse Center.
- Note:** Paint materials/brushes/rollers must not be cleaned in parts washers/weapons cleaning tanks.
- Note:** For disposal of paint stripper and thinner, see the Hazardous Substance Management Plan.
- Note:** If a thin film has developed on top of the paint, remove the film before stirring. The film may be thrown in the trash after it has dried. Tarps, rollers, brushes, gloves and stir sticks that have dried may also be placed in the trash.



### **GENERAL INFORMATION**

The Reuse Center carries a large variety of paint and paint related materials. The inventory changes frequently, so make sure to check often. Empty cans are reused, if possible, or recycled.

## PARTS WASHERS/WEAPONS CLEANING TANKS

### POSSIBLE AREAS OF CONCERN

Weapons cleaning tanks and parts washers use a variety of solvents and cleaning fluids which may be combustible, toxic, or flammable. Refer to the MSDS for specific hazards.

### CHARACTERIZATION

Used solvent from parts washers or weapons cleaning tanks are a potential hazardous waste (HW).

### HANDLING PROCEDURES

**Step 1** Register your tank with the Environmental Division Hazardous Substance Program Manager at 751-4231. Provide the location, type of tank, type of fluid (include MSDS), type of equipment being cleaned, POC, phone number, and e-mail address.

**Step 2** Manage tanks in accordance with the Hazardous Substance Management Plan (HSMP). This includes adding secondary containment, labeling the tank, and having a MSDS and spill plan. Manage as any other HS container.

**Step 3** Pre-clean equipment or parts before using the parts washer to prevent unnecessary dirt and grease from entering the tank.

**Step 4** Clean only parts/weapons in these tanks. Do not contaminate parts washer/weapons cleaning tank fluid with other chemicals such as paint, paint cleaning materials, or POL.

**Note:** Close lid when not in use.

**Step 5** Call 751-4231 prior to servicing to set up a sampling appointment. A sample must be analyzed prior to servicing, or on a periodic basis, for waste identification.

**Step 6** Service tanks regularly. This may be done in-house or through a contractor. If tanks are being serviced by a contractor, you must first call 751-4231 or 751-6858. The FJ Hazardous Substance Program Manager is the only person on FJ with the authority to sign hazardous waste manifests.



**Soldier using parts washer machine**

### GENERAL INFORMATION

BCT Companies are no longer using weapons cleaning tanks, but instead using rifle bore patches/swabs and CLP (Cleaner, Lubricant, Preservative). CLP is the only approved product that may be used with rifle bore patches/swabs.

All personnel who manage HW must attend a Hazardous Substance Management class conducted by

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the Environmental Division. Call 751-4231 or 751-5971 to register for this class.

## PETROLEUM, OIL, AND LUBRICANTS (POL)

### POSSIBLE AREAS OF CONCERN

Oil and diesel have a flash point above 100 degrees Fahrenheit. Oil potentially contains traces of metals such as chromium, cadmium, and lead. Gasoline has a flash point below 100 degrees Fahrenheit and contains benzene.

### CHARACTERIZATION

Used oil is a controlled waste. Diesel and gasoline that can be used as fuel are materials, not waste.

### HANDLING PROCEDURES

**Step 1** Whenever possible, store unused diesel and gasoline (in separate containers) for future use. Small quantities (less than 5 gallons) may be taken to the Reuse Center (Building 2558).

**Step 2** POL that cannot be used (i.e. used oil, contaminated diesel, or contaminated gasoline) should be placed in separate containers, if possible, in accordance with the hazardous materials storage instructions.

**Step 3** Containers and aboveground storage tanks containing used oil must be labeled or marked clearly with the words "Used Oil". For other POL, the containers must be labeled or marked clearly with the contents, and, in the case of mixtures, the percentage of each.

**Step 4** There are several established pickup points on-post for used oil, diesel, and gasoline. Call 751-4231 or 751-1849 if your organization needs to be added to the list. For disposal instructions for small quantities (less than 5 gallons), call 751-4231 or 751-5971.

**Note:** Do not mix any other wastes or materials with the used oil, diesel, or gasoline. This can alter the chemical characteristics and change the disposal procedures.



### GENERAL INFORMATION

Used oil includes hydraulic fluid, transmission fluid, rear end oils and greases, and transaxle oils.

All personnel who manage HW or CW must attend a Hazardous Substance Management class conducted by the Environmental Division. Call 751-4231 or 751-5971 to register for this class.

## RECYCLABLES

### POSSIBLE AREAS OF CONCERN

Recyclables contaminated with trash may have to be thrown away.

### CHARACTERIZATION

Many items can be recycled on Fort Jackson. See the Reuse-Recycle-Disposal Guide in the back of the Guidebook for a list of recyclable items.

### HANDLING PROCEDURES

**Step 1** Set up recycling containers in strategic locations, usually near trash containers.

**Step 2** Mark or label recycling containers appropriately.

**Step 3** Appoint recycling POCs to oversee recycling containers.

**Step 4** Deliver recyclables to the appropriate location (refer to the Reuse-Recycle-Disposal Guide for detailed information) or arrange for pickup by the Recycling Center (see note).

**Note:** Organizations are responsible for obtaining their own recycling containers. For assistance, call the Recycling Center at 751-4208.

**Note:** Organizations may have their recyclables picked up by Recycling Center employees on a regular schedule or as-needed basis. They will only pick up recyclables accepted at the Recycling Center.

**Note:** Units that wish to participate in the Unit Incentive Program must deliver their own recyclables to the Recycling Center.



### GENERAL INFORMATION

Recycling is mandatory for all military and civilian personnel and contractors. For more information on recycling, go to <http://www.jackson.army.mil/enrd/emb/recycle.htm> or call 751-4208.

## SCRAP METAL

### POSSIBLE AREAS OF CONCERN

Scrap metal contaminated with chemical agent resistant coating (CARC) cannot be turned in with regular scrap metal and must be turned in separately to DLA Disposition Service Jackson with the proper paperwork.

### CHARACTERIZATION

Scrap metal is considered a solid waste.

### HANDLING PROCEDURES

#### Scrap Metal Only

**Step 1** Drop off scrap metal at the Recycling Center during normal business hours. You must stop by the office before unloading.

#### Usable Items or Scrap Metal

**Step 2** Contact DLA Disposition Services Jackson at 751-7112 to set up a turn-in appointment. Appointments are only on Mondays, Wednesdays and Thursdays.

**Step 3** Fill out DD Form 1348 turn-in documents in accordance with DLA Disposition Services Jackson guidance.

**Step 4** Turn in usable items or scrap metal to DLA Disposition Services Jackson at the appointed time.



### GENERAL INFORMATION

Scrap metal can be turned in to the Recycling Center or DLA Disposition Services Jackson. Usable items are not considered scrap and must be saved for future use, given to another organization for use, or turned in to DLA Disposition Services Jackson.

## TIRES

### POSSIBLE AREAS OF CONCERN

Tires are not permitted in landfills. Tires should not be thrown into dumpsters or roll-off bins.

### CHARACTERIZATION

Tires may be recycled and used for many purposes.

### HANDLING PROCEDURES

**Step 1** Scrap tires must be protected from the weather to prevent rainwater accumulation. Tires with rainwater accumulation are breeding grounds for disease carrying rodents and mosquitoes.

**Step 2** Turn in government tires to DLA DSJ (formerly DRMO) in accordance with their procedures. Call 751-7112 for turn-in assistance. See the Reuse-Recycle-Disposal Guide at the back of the Guidebook for more information.

**Note:** The AAFES Car Care Center will accept POV/personal tires that have been removed from the metal wheel/rim.



**Tires are recyclable**

### GENERAL INFORMATION

Recycled whole tires are used for artificial reefs and playground equipment; split tires for floor mats, belts, and dock bumpers; crumb rubber for mudguards, carpet padding, tracks and athletic surfaces and rubberized asphalt; and shredded tires for road embankment or roadfill material.

## WASH RACKS/OIL WATER SEPARATORS

### POSSIBLE AREAS OF CONCERN

Disposal of oil, other POL products and pollutants via the sanitary sewer is illegal and contrary to environmental regulation.

### CHARACTERIZATION

All wash racks on Fort Jackson have drains that lead to oil water separators and then to the sanitary sewer. Oil water separators (OWS) serve as the primary pretreatment device for vehicle wash water prior to being discharged into the sanitary sewer system.

### HANDLING PROCEDURES

**Step 1** All wash racks on Fort Jackson have drains that lead to oil water separators and then to the sanitary sewer.

**Step 2** Accumulated mud and grit in wash racks will be periodically removed for proper disposal by DPW. Contact the work order desk for sight evaluation.

**Step 3** Intentional dumping of pollutants down floor drains or into wash racks is illegal.



**Oil Water Separator**

### GENERAL INFORMATION

Oil water separators are designed to prevent waste oil from entering the sanitary sewer. Oil water separators are not to be used to dispose of oil or other POL products. Oil and other POL products should never be intentionally discharged into the wash rack.

Signs are posted at wash racks that provide guidance in their use and management. Specifically:

- No fuel transfers shall be performed on any wash racks.
- No defueling shall take place on any wash racks.
- No oil changing of any vehicles or equipment shall take place on any wash racks.
- No detergents are allowed in wash racks.

## YARD WASTE

### POSSIBLE AREAS OF CONCERN

Yard waste should not be thrown into dumpsters or roll-off bins. Inorganic materials, including plastic bags, must not be mixed with yard waste.

### CHARACTERIZATION

It is against the law to put yard waste into a trash can, dumpster, or roll-off bin.

### HANDLING PROCEDURES

**Step 1** Take yard waste to the Mulch Site located on Golden Arrow Road, approximately a half mile from Hartsville Guard Road and the Hilton Field Softball Complex. It is open Mon-Fri from 0800-1130 and 1245-1445, except for holidays.

**Step 2** If bagged, empty the bag and then reuse, recycle, or throw away the bag.

**Note:** Do not put yard waste in the roll-off bins located at the Mulch Site.



### GENERAL INFORMATION

Yard wastes include leaves, pine straw, tree limbs, tree stumps, grass clippings, etc. Yard waste generated on-post must be taken to the Mulch Site by organization personnel. The DPW, Operations and Maintenance Staff will transport yard waste to the Mulch site during Spring Cleanup, Fall Cleanup, and upon special request. Housing occupant's yard waste is picked up independently by a refuse contractor and taken to the Mulch site.

## STEP-BY-STEP PAINTING INSTRUCTIONS



1. Remove fixtures, wall plates, heat register grills - anything you don't want to get paint on and attach their screws to them with tape. Cover fixtures that cannot be removed with plastic sheeting and tape securely.
2. Clean the surface to be painted with warm soapy water (use dishwashing detergent or other mild liquid detergent). Rinse thoroughly with clean water and allow to dry. Scrubbing walls and ceiling may seem like a lot of trouble, but if you don't, the paint will not hold and stains will bleed through. For mildew spots, apply diluted chlorine bleach or a mildew-removing product. Rinse thoroughly after the mildew is removed. Cover water or grease stains with a stain blocker, such as Kilz, to keep the stain from bleeding through.
3. Unless the existing finish is flat, you will need to apply a primer to make the new paint adhere or roughen the surface with fine sandpaper or steel wool. On flat-painted walls with minor repairs, you can spot prime. For walls with large areas of plaster, use a sealer or primer/sealer. Priming doesn't require as much care as painting, but its done the same way.
4. Paint the ceiling. First use a brush to paint around the perimeter and around any ceiling fixtures. Then use a roller to paint a series of overlapping "W" strokes from right to left, then left to right. Work widthwise in sections about six feet square. If using a finish other than flat, go over the entire ceiling once again with one-directional, overlapping, non-diagonal strokes to blend the paint. After the first coat dries, apply a second coat if needed.
5. Paint the walls. First use a roller to paint a series of overlapping "W" strokes from right to left, then left to right, covering to within 12 inches of all edges. Then go over the walls again with one-directional, overlapping, non-diagonal strokes from top to bottom. Then use a brush to paint the upper perimeter of the walls, as well as areas that cannot be covered with a roller (you might want to put painting tape around the perimeter of the ceiling, unless you are very skillful or have an edging tool). After the first coat dries, apply a second coat if needed.
6. Paint trim, baseboards, doors, and windows. With painting tape or a paint edger, protect newly painted wall surfaces while you paint the woodwork. Wedge doors open and put a drop cloth underneath them. If the door is flat, use a roller. If the door has panels, use a brush.
7. If using latex (water-based) paint, clean tools and hands with warm, soapy water. Scrape excess paint off brushes before washing them. Rinse brushes, working water through the bristles, until the water is clear. Empty leftover paint from the paint tray back into the can, and then wash the tray. Remove roller covers and then wash the roller carriage and handle. Allow roller covers to dry and then throw away.
8. If using alkyd (oil-based) paint, clean tools with paint thinner. Scrape excess paint off brushes before soaking in paint thinner. Then, wearing rubber gloves, work thinner through bristles until thinner comes out clear, and shake off excess. Empty leftover paint from the paint tray back into the

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can. Remove roller covers and then clean the roller carriage and handle with thinner. Allow paint trays, liners, and roller covers to dry and then throw away.

9. Return leftover paint, empty cans, and used paint thinner to the Reuse Center, Building 2558, Essayons Way. The Reuse Center is open Monday-Friday from 1000-1400.

**SURFACE REPAIR.** Use the following suggestions to repair minor cracks, holes, and other imperfections. Major repairs will require a work order (Work Order Desk/751-5926 or 751-5505) and a Record of Environmental Consideration (Environmental Division/751-4078).

- For small cracks and holes, apply spackling compound horizontally, smoothing vertically with your scraper. After each pass, wipe the scraper clean for a smoother application. To give added strength to new repairs, cover them with drywall tape (which requires you to use a drywall or topping compound with a wet consistency). Sand, then coat with primer, or use sealer for very large patches.
- For long, narrow cavities in hard-to-reach places, use caulk, smoothing it flat with your fingers.
- For badly flawed walls, cover them with a layer of plaster or joint compound to even them out.
- Sticking doors and windows may mean you have a paint build-up. Use a scraper or sandpaper to whittle it down. Use a scraper to remove peeling paint, following up with a wire brush. In all cases, the surface should be smooth before applying the primer.

## PRIMERS AND SEALERS

- Paint should never be applied directly to an unpainted surface - always use a primer or a sealer first. Paint can be applied to already-painted surfaces if the surface is flat or has been sanded. Primers and sealers have a slightly coarse texture that allows paint to adhere to the surface. Primers and sealers come in both alkyd (oil-based) and latex (water-based) types.
- Block-out primers should be used if the previous color is darker or brighter than the new color, or to cover up stains. Priming also "evens out" walls after spot patching.
- Sealers are intended for highly porous surfaces to prevent the absorption of paint. Use latex sealers for masonry, patching compound, and wallboard. Use alkyd sealers for wood.

## FINISHES

- Flat finishes are dull and soft. Flat paint cannot be scrubbed clean because it is porous and tends to absorb dirt and grease more than any other type. Flat is ideal for ceilings and walls in formal areas but should not be used in kitchens, bathrooms, and other high-traffic areas.
- Eggshell and satin finishes provide a slight sheen, with satin being slightly shinier than eggshell. They both resist stains better than flat paint and can endure scrubbing.
- Semigloss provides a harder, slicker finish than eggshell or satin, making it even more stain and wear resistant. Semigloss is ideal for kitchens, bathrooms, and other areas that receive hard use and require frequent scrubbing.
- Gloss is the shiniest and most durable finish, but its high sheen also highlights flaws. Gloss is generally used for cabinets and woodwork.

## HINTS FROM THE EXPERTS

- Don't put masking tape on glass. Chances are you won't get it off. Go ahead and get paint on the glass and take it off later with a single-sided razor.

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- Get excess paint out of the rim and cover the lid with a rag before pounding it back on.
- If applying more than one coat, don't let more than two weeks go by between applications.
- While brushing, dip the brush to cover only about one-third. Don't rub off the excess on the rim of the can; just slap it there lightly. Holding the brush at an angle, apply the paint in long, overlapping strokes, always keeping the pressure light and keeping the entire tip of the brush on the surface, pulling away only at the very end of the stroke to avoid clumping.

Note: These painting guidelines were provided by Coast to Coast via their web page - [http://www.coastcoasthome-auto.com/paint/paintshop\\_index.asp](http://www.coastcoasthome-auto.com/paint/paintshop_index.asp)

## CLEANUP AND DISPOSAL OF BROKEN LIGHT BULBS

Most light bulbs contain a small amount of mercury sealed within the glass bulb. When a light bulb breaks, some of this mercury is released as mercury vapor, and can continue to be released until the broken bulb is cleaned up. The one exception is incandescent light bulbs; they do not contain mercury.

To minimize exposure to mercury vapor, it is recommended the following cleanup and disposal steps be followed.

### Before Cleanup

- Have people leave the room, and avoid the breakage area on the way out.
- Open a window or door to the outdoors and leave the room for 5-10 minutes.
- Shut off the heating & air conditioning system (H&AC).
- Collect materials you will need to clean up the broken bulb:
  - Stiff paper or cardboard
  - Sticky tape (e.g., duct tape)
  - Damp paper towels or disposable wet wipes (for hard surfaces)
  - Sealable container such as a steel can or plastic pail



### Cleanup

- Carefully scoop up glass fragments and powder using stiff paper or cardboard, and place debris and paper/cardboard in the container.
- Use sticky tape, such as duct tape, to pick up any remaining small glass fragments and powder. Place the used tape in the container.
- Wipe hard surfaces clean with damp paper towels or disposable wet wipes. Place the towels in the container.
- Vacuuming of carpet or rugs during cleanup is not recommended unless broken glass remains after all other cleanup steps have been taken. If vacuuming is needed to ensure removal of all broken glass, keep the following tips in mind:
  - Keep a window or door to the outdoors open
  - Use the vacuum hose, if available
  - Remove the vacuum bag (or empty and wipe the canister) and seal the bag, vacuum debris, and any materials used to clean the vacuum in a plastic bag.
- Promptly place all bulb debris and cleanup materials, including vacuum cleaner bags, in a sealed container, such as a 5 gallon bucket with a lid, and call the Environmental Division at 751-4231 for disposal.
- Wash your hands with soap and water after disposing of the container containing bulb debris and cleanup materials.
- Continue to air out the room where the bulb was broken and leave the H&AC system shut off for several hours if possible.

## **Actions You Can Take to Prevent Broken Light Bulbs**

- Always allow the light bulb to cool before handling.
- If possible, screw/unscrew the light bulb by holding the base, not the glass.
- Screw in light bulbs gently. Do not over tighten.
- Consider using a drop cloth when changing a light bulb in case breakage should occur. The drop cloth will help prevent mercury contamination of nearby surfaces and can be bundled with the bulb debris for disposal.

# REUSE-RECYCLE-DISPOSAL GUIDE

## **The Recycling Center (Bldg 5671 Lee Road) accepts:**

**Cardboard** – includes corrugated cardboard, brown or white boxboard, and brown paper (ex. brown envelopes and brown paper bags).

*Exceptions: Waxed and grey cardboard should be thrown away or shredded and composted.*

**Newspapers** – includes newspaper inserts.

**Telephone books** - only during January, February, and March.

**Magazines** - less than 1 inch thick.

**High-grade white paper** – includes white copier, printer, or plotter paper.

*Note: white index cards, white envelopes, and any other white paper that is not the same texture and weight as copier paper should be recycled with high-grade mixed paper.*

**High-grade mixed paper** – includes all paper not included in one of the other paper categories.

*Exceptions: Carbon paper, wrapping paper, tissue paper, construction paper, glossy paper, waxed paper (for peel-off labels), cellophane windows, and blueprints should be thrown away.*

**Glass** – includes glass food and drink containers.

**Steel** – includes steel cans, steel lids, and other steel items.

*Exceptions: The Recycling Center does not accept steel clothes hangers; however, they can be taken to the Post Laundry, Clothing Issue Point, Clothing Alterations Shop, and charitable organizations for reuse.*

**Aluminum** – includes aluminum cans, aluminum foil, aluminum food containers, and other aluminum items.

**Scrap Metal** – this includes non-government items such as scrap washing machines, dryers, file cabinets microwave ovens, office trash cans, desks, chairs, tools, refrigerators with Freon removed, pipes, signs, etc.

**Plastic #1, 2, 3, 4, 5, 6, and 7\*** – includes any item marked with the numbers “1-7” inside the recycling symbol.

*Exceptions: The Recycling Center does not accept Styrofoam; however, Publix grocery stores accept Styrofoam egg cartons, meat trays, and other food & drink containers.*

**Plastic Bags** – includes clean, usable bags for reuse by Harvest Hope Food Bank.

*Note: Unusable plastic #2 bags are accepted for recycling by many local stores.*

**Wooden pallets** – Standard sized pallets (48”x42” or 48”x40”) in fair/good condition. All other pallets should be taken to the Mulch Site.

*Note: All pallets should be reused or returned to the manufacturer or distributor whenever possible.*

**Inkjet Cartridges**

**Cooking Oil**

**Christmas Trees** -during the holiday season.

*\*Note: All drink containers should be emptied and the lids removed. All food containers should be rinsed or wiped off and the lids removed (steel lids are recyclable).*

## **The Mulch Site on Golden Arrow Road accepts:**

**Yard waste** – includes leaves, pine straw, tree limbs, tree stumps, grass clippings, etc.

**Broken wooden pallets**

*\*Note: Bulky trash that is too large to fit in a regular dumpster should be disposed in the roll-off container located at the Mulch Site.*

**The Reuse Center (Bldg 2558 Essayons Way) accepts:**

**Plastic buckets** – includes 5-gallon buckets or pails in good condition.

**Office supplies** – includes items such as binders, folders, pencils, and paper.

**Cleaning supplies** – includes items such as glass cleaner, furniture polish, or floor wax.

**Paint related materials** – includes full, partially full, and empty containers of paint related materials such as paint, spray paint, stain, varnish, paint thinner, and paint remover.

**Building supplies** – includes items such as joint compound, sealant, and wall base adhesive.

**Household hazardous materials** – includes items such as 2-cycle engine oil or craft supplies.

**Light bulbs (lamps)** – Light bulbs are considered Universal Waste (UW) and must be managed IAW the Hazardous Substance Management Plan (HSMP) prior to taking them to the Reuse Center.

*Exception: Incandescent light bulbs do not contain mercury and may be thrown away.*

**Rechargeable batteries** – Rechargeable Nickel Cadmium (NiCd), Nickel Metal Hydride (NiMH), Nickel Zinc (NiZn), Lithium Ion (Li+), and small ( $\leq 11$  lbs) Lead-Acid (Pb) batteries are considered UW and must be managed IAW the HSMP prior to taking them to the Reuse Center.

**Non-rechargeable batteries** – Alkaline and carbon-zinc batteries are non-hazardous waste and may be thrown away. Call 751-4231 for disposal instructions for all other types of batteries.

**Mercury-containing products** - includes thermometers, thermostats, switches, and relays.

**Cell phones** (can also be dropped off at the Army Family Advocacy Office, Bldg 5450, Rm 218).

**Tyvek envelopes & CD holders** – includes FedEx, Express Mail, and Priority Mail envelopes.

**Overhead transparencies**

**Styrofoam packing peanuts**

**DLA-DSJ on Ewell Road accepts (with appropriate paperwork):**

Excess government property – includes furniture, office equipment, and appliances.

Large ( $>11$  lbs) Lead-Acid (Pb) batteries - must be palletized.

Tires

Scrap Metal

**The Auto Craft Shop (Bldg 5669 Lee Road) accepts:**

Used motor oil, antifreeze, and oil filters.

**The AAFES Car Care Center (Bldg 5669 Lee Road) accepts:**

Used privately owned vehicle POV and light weight truck tires.

Large ( $>11$  lbs) Lead-Acid (Pb) batteries

**Lions Club International (LCI) accepts:**

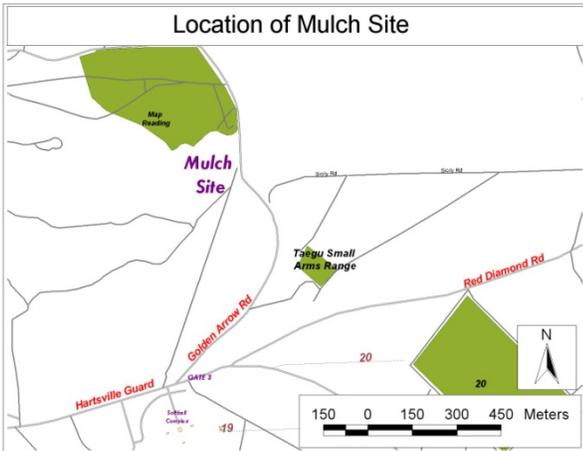
Toner cartridges (can also be returned to the manufacturer in most cases).

**The Thrift Shop in the Mini Mall (Bldg 4711 Lee Road) accepts:**

Clothes, furniture, toys, books, appliances, and other household items.

For additional disposal guidance, look at the Fort Jackson Environmental Guidebook at [https://cac.tkeportal.army.mil/sites/USABCTCoE/garrison/DPW/ENV/Shared%20Documents/ECO%20Course%20Documents/ENV%20Guide%20Book%20\(%20FEB%202011\).pdf](https://cac.tkeportal.army.mil/sites/USABCTCoE/garrison/DPW/ENV/Shared%20Documents/ECO%20Course%20Documents/ENV%20Guide%20Book%20(%20FEB%202011).pdf) or contact Stephanie Gillian at 751-9507 or [stephanie.a.gillian.ctr@mail.mil](mailto:stephanie.a.gillian.ctr@mail.mil). To view the HSMP, go to <http://www.jackson.army.mil/sites/garrison/docs/442>. For questions concerning hazardous substances, contact Heather Thomas at 751-4231 or [heather.s.thomas8.civ@mail.mil](mailto:heather.s.thomas8.civ@mail.mil).

## LOCATION MAPS



The **Mulch Site** is open Mon-Fri, 0730-1130 & 1245-1500. POC: Bob Stephens, 751-6094.



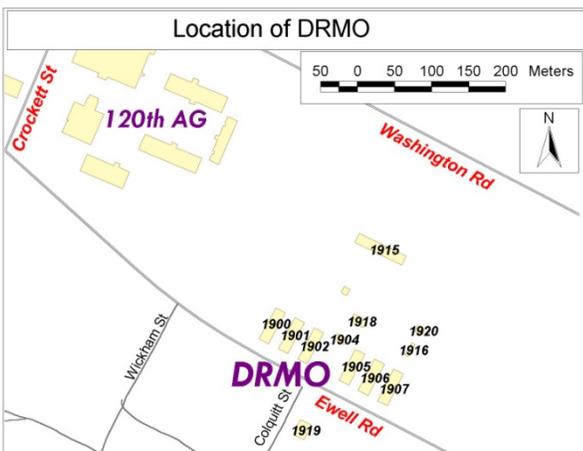
The **Recycling Center** is open Monday-Friday, 0700-1500 and Saturday, 0830-1530. POC: Ernest Dicks, 751-4208.



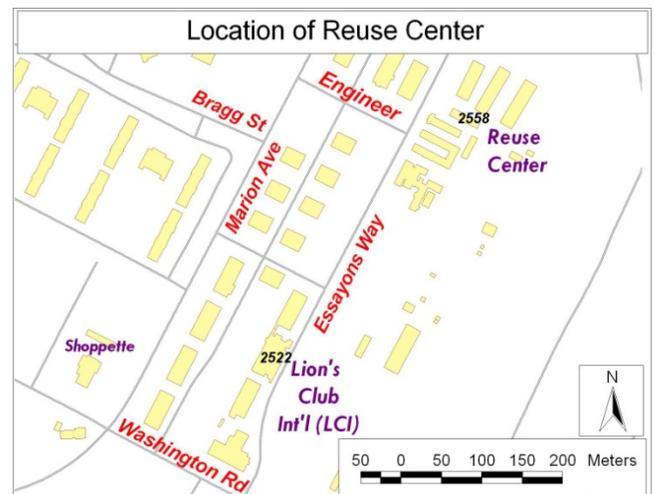
The **Thrift Shop** is open Wednesday from 0900-1730 & Tuesday and the first Saturday of the month from 0900-1430. Phone: 787-2153.

The **Auto Craft Shop** is open Monday, Thursday, and Friday from 1300-2100; and Saturday, Sunday, and holidays from 0900-1700. POC: Ken Fletcher, 751-5755.

The **AAFES Car Care Center** is open Monday-Friday from 0700-1700. POC: Chris Cerasaro, 782-1639.



The **DLA-DSJ** (formerly DRMO) accepts turn-ins by appointment only. Call 751-4660 for more information.



The **Reuse Center** is located in Building 2558, Essayons Way. It is open Monday-Friday, 1000-1400. Call 751-5121.

**LCI** is located at Building 2522, Essayons Way. It is open Monday-Friday, 0800-1600. POC: Chris Graham, 751-1967.