APPENDIX A

UNIT LEVEL PREVENTIVE MEDICINE MEASURES TASKS

TASK 1: Control biting insects.

EQUIPMENT NEEDED: 2-gallon sprayer, ready to use insecticide. Rodent traps and individual repellent.

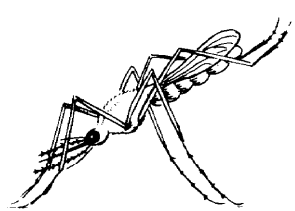
STEPS OF PERFORMANCE:

MOSQUITOES:

STEP 1: Identify common mosquito breeding areas:

Standing water.

Artificial water containers.

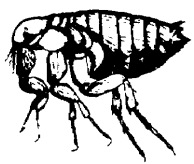


STEP 2: Control:

If possible drain standing water.

Empty artificial water containers.

Spray, using 2-gallon sprayer (see Task 2).



FLEAS:

STEP 1: Identify rodent infestations in unit area (rodents carry fleas).

STEP 2: Control:

Have soldiers in unit use individual insect repellent.

Apply insecticide dust to rodent burrows and harborage.

Use traps to catch rodents in infested areas.

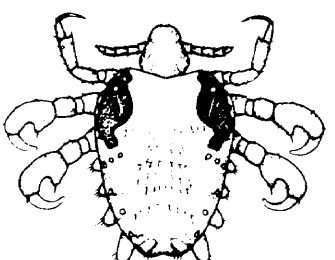
LICE:

STEP 1: Identify lice infestation:

Head Lice–normally attached to the hair close to the scalp. Eggs are attached directly to the hairs.

Crab Lice–usually associated with the pubic area (groin), but can also be found attached to body hairs. The eggs are attached directly to the hair.

Body Lice–generally found in the seams of clothing of infested persons. The eggs are attached on the fibers of the



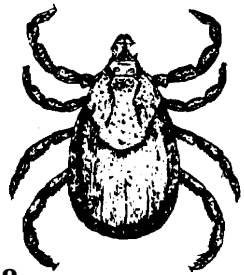
garments. The body louse tends to move to the body of the host only during the actual feeding process.

STEP 2: Control:

Refer individuals with lice infestation for medical treatment.

Enforce high standards of personal hygiene.

Require frequent laundering of bedding and clothing.



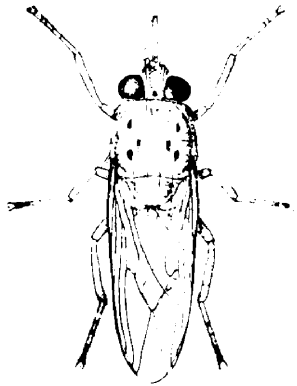
TICKS AND MITES:

STEP 1: Identify tick infested areas.

STEP 2: Control:

Enforce individual use of insect repellent.

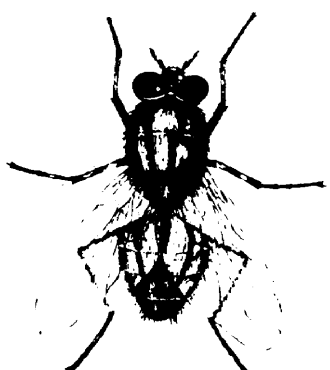
Spray, using 2-gallon sprayer (see Task 2).



BITING FLIES:

STEP 1: Identify problems with biting flies.

STEP 2: Control: Enforce individual use of insect repellent.



NONBITING FLIES:

STEP 1: Identify infestations and breeding areas, such as:

Open latrines.

Uncovered food and waste.

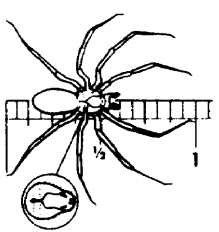
STEP 2: Control:

Frequently cover latrine waste.

Keep food and waste covered.

Use aerosol spray in enclosed areas (be sure not to use in food service operations).

Use 2-gallon sprayer to spray resting sites (see Task 2).



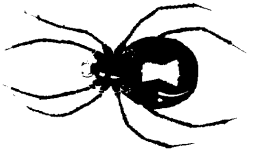
SPIDERS:

STEP 1: Identify infestations of medically important spiders.

STEP 2: Control:

Spray using the 2-gallon sprayer (See Task 2)

around tents, field latrines, or other spider habitats.

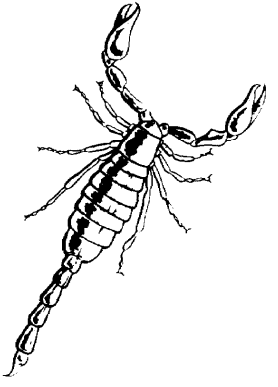


SCORPIONS:

STEP 1: Identify places where scorpions are a problem.

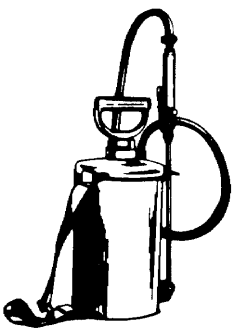
STEP 2: Control:

Spray using the 2-gallon sprayer (See Task 2) around the entire tent, or other structure, forming a band 2 feet high from the ground level. Saturate all cracks and crevices with insecticide.



BEES, WASPS, AND ANTS:

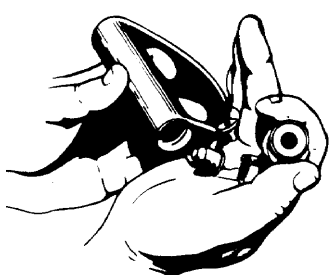
STEP 1: Identify places where these insects are a problem. Locate the nests.



STEP 2: Control:

Spray using the 2-gallon sprayer (See Task 2) on the nesting sites. Use caution to avoid stings from disturbed insects. If the task is too great or too dangerous, contact preventive medicine personnel for assistance.

TASK 2: Using the 2-gallon sprayer.



EQUIPMENT NEEDED: 2-gallon sprayer and authorized insecticide.

STEPS OF PERFORMANCE:

STEP 1: Determine the job to be done.

STEP 2: Select correct nozzle.

STEP 3: Read the insecticide label.

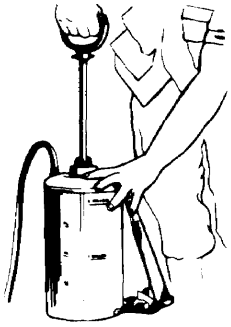
Always read the label before doing anything. Always follow all instructions on the label.

CAUTION

Wear gloves and an approved pesticide mask. The NBC protective mask is not for use when applying pesticides.

Avoid skin contact with insecticide.

STEP 4: Put insecticide in sprayer. Do not fill the sprayer to the top. Leave space to allow for pumping air pressure into the tank.

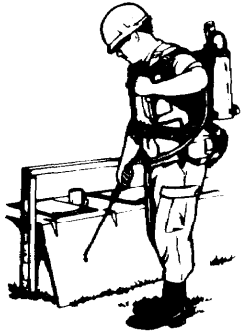


STEP 5: Pump the sprayer.

Put in pump assembly and pump 30-35 times to achieve 40-60 pounds PSI pressure or until there is a slight resistance. Do not over pump.

STEP 6: Spray insecticide.

Point nozzle at area to be sprayed and squeeze the handle on the wand. Continue spraying until area is covered or pesticide runs out.



STEP 7: Clean the sprayer

Clean after spraying with soap and water, then flush tank 3 times with clear water.

Rinse all parts in clear water.

Reassemble and spray clear water through nozzle. If the sprayer is not cleaned after use, vital parts will corrode.

STEP 8: Store cleaned sprayer.

Turn the sprayer upside down with pump assembly separated to keep tank dry.

CAUTION

Always wash your hands after spraying.

TASK 3: Inspect unit food service operations.

EQUIPMENT NEEDED: Thermometer, bimetallic, NSN 6685-00-444-6500.

BACKGROUND INFORMATION:

Some foods support the rapid growth of disease germs that cause diarrhea; these foods are called:

POTENTIALLY HAZARDOUS FOODS

Examples of potentially hazardous foods include but are not limited to: Meats, fish, milk, creamed beef, gravies, soups and chicken. Extra care and precautions must be taken with these potentiality hazardous foods.

Five factors most often involved in outbreaks of diarrhea caused by contaminated foods are:

Failure to keep potentially hazardous food cold (below 45°F), or hot (above 140°F).

Allowing potentially hazardous foods to remain at warm temperatures (46°F to 139°F).
Preparing foods 3 hours to a day or more before being served.

Allowing sick employees to work.
Poor personal hygiene or sanitation practices of food handlers.
Example: not washing hands after using the latrine.

STEPS OF PERFORMANCE:

IN GARRISON OR FIXED FACILITIES:

STEP 1: Have the supervisor check the temperature of potentially hazardous foods.

If hot–food should be 140°F or above.

If cold–food should be 45°F or below.

STEP 2: Check personnel for illness and skin infection.

STEP 3: Check food handling techniques and personal hygiene.

STEP 4: Have the supervisor check the food temperature in cold storage units.

STEP 5: Check handwashing facilities–are they being used by food handlers?

STEP 6: Check doors and windows–are they closed or screened to prevent flies from entering?

NOTE

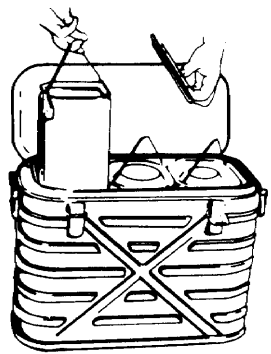
See FM 10-23 for the correct operating procedures for a field kitchen facility (MKT-75) mobile field kitchen or (M-1948) kitchen tent.

IN THE FIELD WHEN FOOD IS BROUGHT TO YOUR UNIT

STEP 1: Check the preparation of insulated containers.

For hot foods the container should be preheated by the use of boiling water. Foods should be placed in the container while they are hot (above 140°F).

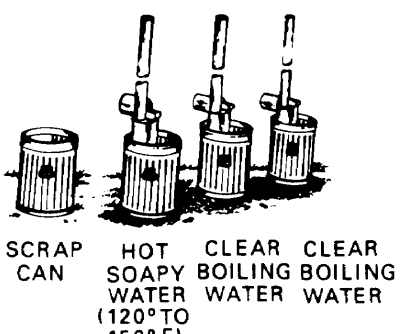
For cold foods the container should be prechilled by the use of ice. Foods placed in the container should be cooler than 45°F. Always check the container and insert seals to ensure that they are intact and in good condition to aid in keeping food at its required temperature.



NOTE

See FM 8-34 and FM 10-23 for the correct procedures for preparing the insulated containers.

STEP 2: When the insulated container arrives the supervisor must check the temperature before serving. Make sure it is 140°F or above for hot foods and 45°F or below for cold foods. If the temperatures are in the danger zone, contact the medical authority for instructions.



STEP 3: Check for handwashing devices for use by soldiers.

STEP 4: Check the mess kit laundry. Make sure soldiers are using the mess kit laundry correctly. The food waste is placed in a scrap can. Wash by using a

long handle brush to scrub the mess kit in warm soapy water (120°F to 150°F). Rinse the mess kit in clear boiling water. Disinfect the mess kit by immersing it in clear boiling water for 10 seconds. Each hot water setup of four cans will support 80 personnel.

NOTE

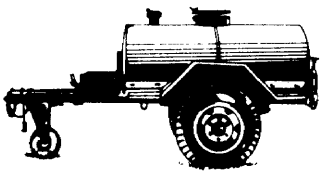
If immersion heaters are not in use, food service disinfectant may be used. Make sure the label directions are being followed. Each setup of four cans will support 100 personnel.

TASK 4: Inspect water containers.

EQUIPMENT NEEDED: None

WHEN TO INSPECT WATER CONTAINERS:

Quarterly in garrison when not being used.
Before filling at water distribution points.
Prior to deployment.



STEPS OF PERFORMANCE:

UNIT WATER TRAILER:

QUARTERLY:

STEP 1: Manhole cover: Make sure the sealing gasket is in place, free of excessive cracks and dry rot. Cover should provide effective seal.

STEP 2: Drain plug: Make sure it is operable—it should be removable without excessive effort.

STEP 3: Interior: Check surface for excessive cracks; check for signs of being used for storage of products other than water such as oil products and gasoline. Rust stains and other discoloration caused by common natural chemicals in water (iron, manganese) pose no health problem.

STEP 4: Spigots: Make sure spigots are clean and operable. Covers over spigots should open and close with ease. Spigot handles should operate freely.

NOTE

Questions concerning excessive interior cracks or chipping and use after storage of products other than water should be directed to preventive medicine. Refer to TM 9-2330-267-14 & P (maintenance circular for 400 gallon water trailer) for maintenance instructions.

BEFORE FILLING AT WATER DISTRIBUTION POINTS:

STEP 1: Check interior for gross contamination.

STEP 2: Check hose used to fill trailer. Water point fill hose should not come in contact with the ground. If the hose is lying on the ground, wash the end before use.

STEP 3: After filling, check manhole cover and drain plug to ensure that they are secure.

CAUTION

Personnel detailed to fill water trailers must be directed to fill the trailers only at approved water points.

LYSTER BAGS:

STEP 1: Interior: Check for dirt and other contamination; check for holes.

STEP 2: Cover: Check to make sure it fits; Check for holes.

STEP 3: Spigots: Make sure spigots are clean and in place.

STEP 4: Location: Elevate Lyster bag sufficiently to prevent contamination of spigots by wildlife.

NOTE

Always clean the Lyster bag prior to its first use.

WATER CANS: Check interior for contamination; if can has a fuel odor such as gasoline, do not use for drinking water.

TASK 5. Check unit water supply for chlorine residual.

EQUIPMENT NEEDED: Chlorination kit containing 3 color comparison tubes with color bands and bottle of chlorine test tablets.

Check the chlorine residual when:

Filling unit containers at water distribution points.

Water containers arrive in unit area.

Directed by command medical authority.

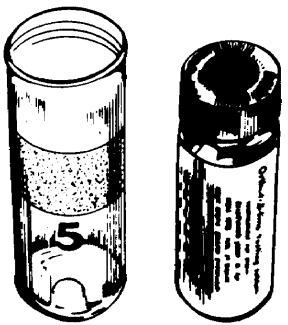
Treating a raw water supply.

STEPS OF PERFORMANCE:

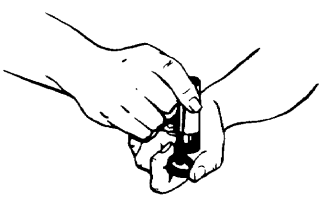
STEP 1: Determine the desired chlorine residual in parts-per-million (ppm).

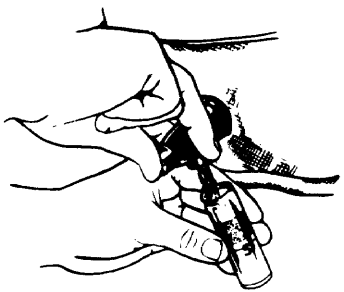
At the point of consumption, water obtained from an approved water distribution point should have at least 1 ppm chlorine residual.

When the unit must obtain water from a raw water supply, or from another source, such as a stream or pond, the finished product should have a 5 ppm chlorine residual after 30 minutes. Under certain conditions the local medical authority may direct a higher residual of 10 ppm.



STEP 2: Select the desired color comparison tube (marked 1, 5, or 10) based on the desired chlorine residual from STEP 1.





STEP 3: Flush the spigots of the water container being checked and fill the tube to a point just below the bottom of the color band.

STEP 4: Place one test tablet in the color comparison tube cap and crush it with the top of the test tablet bottle. Put the crushed tablet into the color comparison tube.

STEP 5: Place the cap on the color comparison tube and shake until the test tablet is completely dissolved.

NOTE

The test tablets in all 3 color comparison tubes are the same. They can be used to test water in any of the tubes.

STEP 6: Compare the color shade of the water with the color band on the comparison tube.

The water is safe to use if the color of the water is the same shade or darker than the color band on the tube.

The water must be dechlorinated if the color is lighter than the color band on the tube (see TASK 6).

TASK 6: Chlorinate water supplies.

EQUIPMENT NEEDED: Chlorination Kit, 6 oz jar of calcium hypochlorite (70% chlorine) or container of 5% household bleach.

Chlorinate the water supply when:

Water supply has no chlorine residual.

Chlorine residual is below required level.

Raw (untreated) or unapproved water supply must be used.

STEPS OF PERFORMANCE:

STEP 1: Before adding chlorine, check the chlorine residual following procedures in TASK 5.

STEP 2: If the chlorine residual is less than the desired olevel, add enough chlorine to raise the residual to 5 ppm. Use the table below to determine the amount to add to untreated water. If a 10 ppm chlorine residual is required, double these amounts. To increase the residual in treated water, smaller quantities of chlorine will be needed.

TABLE: AMOUNTS OF HTH AND BLEACH EQUIVALENT TO A 5ppm DOSE IN VARIOUS VOLUMES OF WATER

VOLUME	HTH			5% BLEACH	
	AMPULES	MRE SPOON	MESSKIT SPOON	MRE SPOON	MESSKIT SPOON
5 gal	0.5			0.5	
10 gal	1.0			1.0	
20 gal	1.0			2.0	
32 gal	2.0			2.0	1.0
36 gal	2.0	0.5		3.0	1.0
50 gal	3.0	0.5		3.0	1.0
55 gal	3.0	0.5		4.0	1.0
100 gal	6.0	1.0		7.0	2.0
150 gal	8.0	1.0		10.0	3.0
160 gal	9.0	1.0		11.0	3.0
250 gal	14.0	2.0	0.5	17.0	5.0
400 gal	22.0	3.0	1.0	26.0	7.0
500 gal	27.0	3.0	1.0	33.0	9.0
1000 gal	54.0	7.0	2.0	66.0	18.0
3000 gal	162.0	20.0	6.0	196.0	54.0
5000 gal	270.0	33.0	10.0	327.0	90.0
10000 gal	541.0	66.0	20.0	653.0	180.0
20000 gal	1081.0	132.0	39.0	1305.0	360.0
50000 gal	2704.0	330.0	97.0	3263.0	901.0

STEP 3:	Wait 10 minutes, then check the chlorine residual.
STEP 4:	If the residual is less than 5 ppm, repeat steps 2 and 3 using a smaller amount of chlorine.
STEP 5:	If the residual is at least 5 ppm, wait an additional 20 minutes before drinking.

TASK 7: Construct and maintain field waste disposal devices.

EQUIPMENT NEEDED:

Material as required for type of facilities to be constructed.

Additionally, a detail will be required to construct the devices.

FIELD METHODS OF DISPOSAL THAT MAY BE USED:

Garbage/rubbish disposal.

Burial–Less than 1 week.

Incineration—Longer than a week.

Liquid kitchen or bathing waste disposal.

Grease trap.

Soakage pits.

Soakage trenches.

Evaporation beds.

Human waste disposal.

Cat-hole latrine for marches.

Straddle trench for 1-3 day bivouac sites.

Deep pit latrine for temporary camps.

Burn-out latrine or pail-latrine when the ground is too harder the water table is too high (soil is very wet).

Soakage pits for urinals at temporary camps:

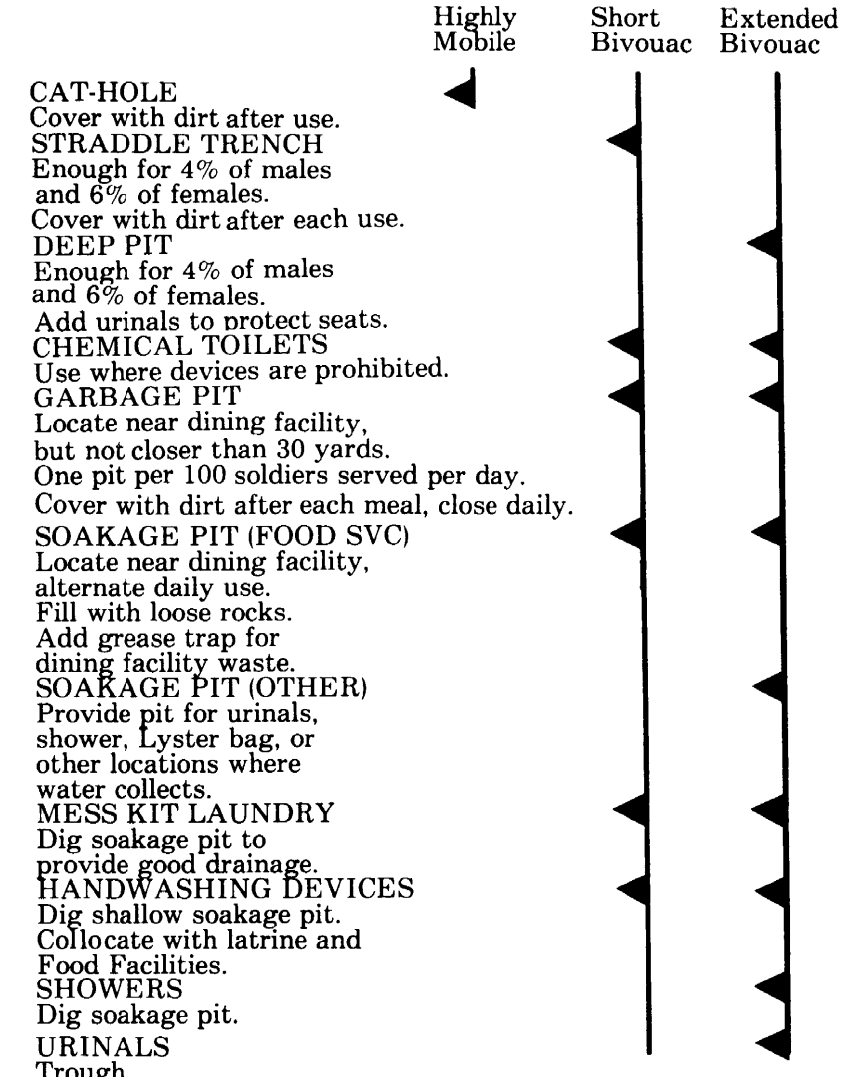
Trough urinal.

Pipe urinal.

Urinoil.

STEPS OF PERFORMANCE:

STEP 1: Use the chart below to determine disposal requirements.


Highly Mobile
Short Bivouac
Extended Bivouac
CAT-HOLE
Cover with dirt after use.
STRADDLE TRENCH
Enough for 4% of males
and 6% of females.
Cover with dirt after each use.
DEEP PIT
Enough for 4% of males
and 6% of females.
Add urinals to protect seats.
CHEMICAL TOILETS
Use where devices are prohibited.
GARBAGE PIT
Locate near dining facility,
but not closer than 30 yards.
One pit per 100 soldiers served per day.
Cover with dirt after each meal, close daily.
SOAKAGE PIT (FOOD SVC)
Locate near dining facility,
alternate daily use.
Fill with loose rocks.
Add grease trap for
dining facility waste.
SOAKAGE PIT (OTHER)
Provide pit for urinals,
shower, Lyster bag, or
other locations where
water collects.
MESS KIT LAUNDRY
Dig soakage pit to
provide good drainage.
HANDWASHING DEVICES
Dig shallow soakage pit.
Collocate with latrine and
Food Facilities.
SHOWERS
Dig soakage pit.
URINALS
Trough
Pipe
Urinoil

STEP 2: Select site of construction.

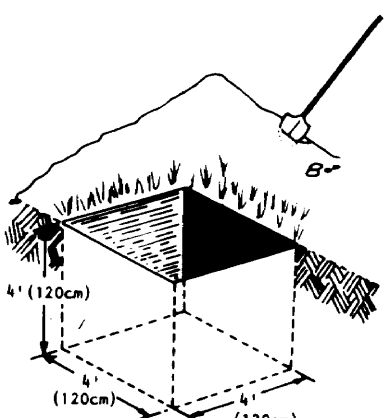
Garbage and soakage pits should be at least 30 yards from food service.

Latrine should be as far as possible from food service (100 yards or more is best).

Latrine should be located on level ground. Never uphill from the camp-site or water supplies.

STEP 3: Construct disposal facility.

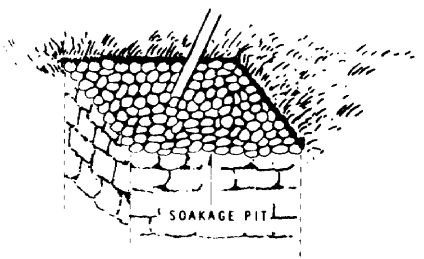
Garbage pit--Used to prevent accumulation of garbage in the unit area.

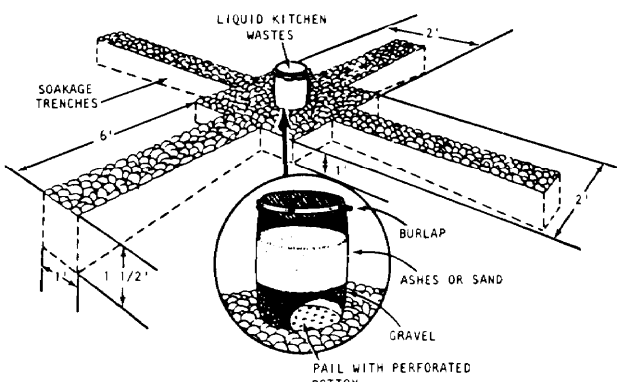


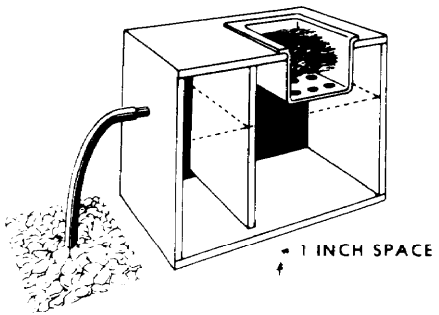
NOTE

Garbage and rubbish must be buried or burned. For short stays, bury and cover daily. For longer periods, garbage and rubbish may have to be burned; however, the ashes should be buried.

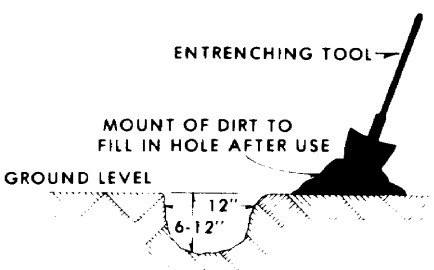
Soakage pit/trench--Used to prevent accumulation of liquid waste (water from showers, sinks, and field kitchens).





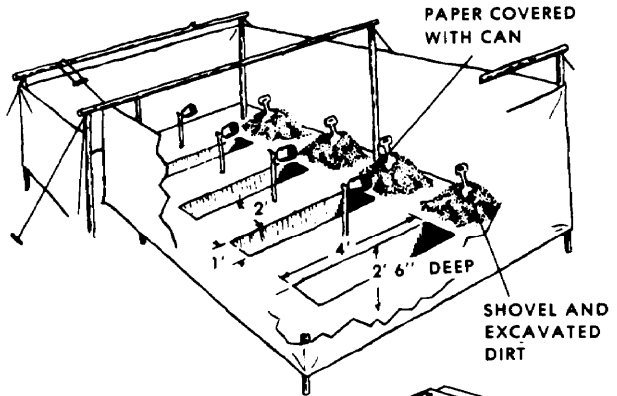


Grease trap--Used with both soakage pit and trench to prevent clogging of the soil.

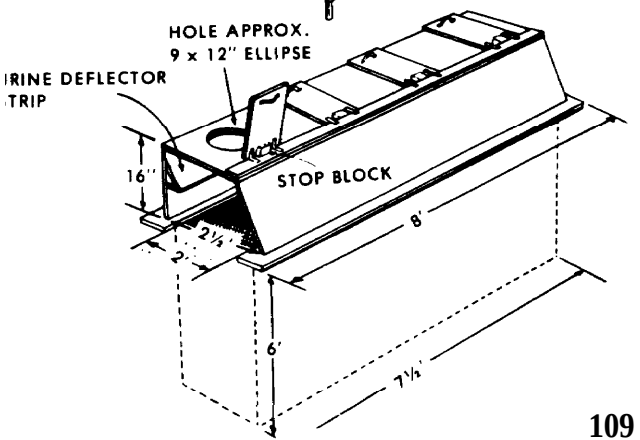


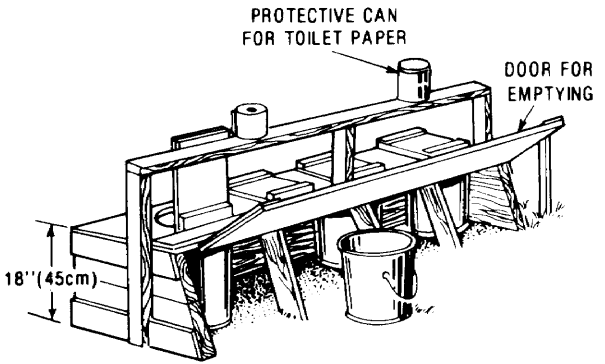
Cat-hole latrine--Used only on the march and covered immediately after use.

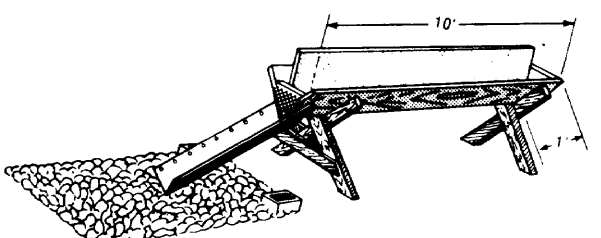
Straddle trench latrine--Used on short bivouacs and FTXs. Two trenches per 100 males and three trenches per 100 females.



Deep pit latrine--Used for longer periods of time and in build up areas. Collapsible 2-seat boxes are available in the supply system.







NOTE

If ground is too hard for digging, or if the water table is too high, use a pail-latrine or burn-out latrine.

Pail-latrine

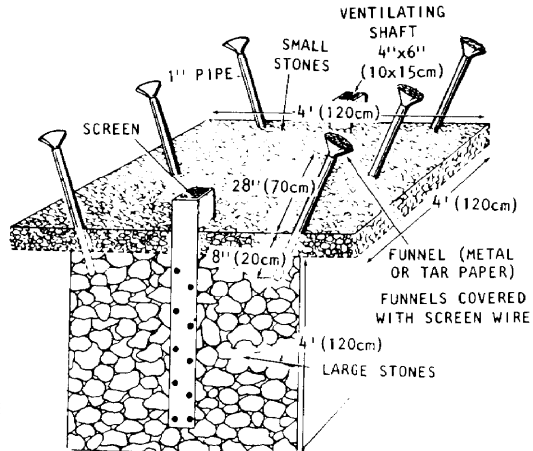
Burn-out latrine

Chemical toilets--Use when local, state, or host nation laws prevent construction of standard field latrine.

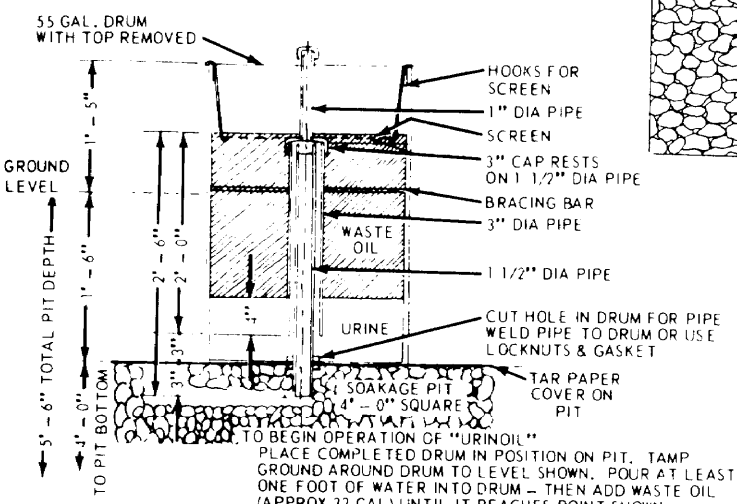
Urinals--For male latrines, construct one of the following urinals:

Trough urinal

Pipe urinal



Urinoil



STEP 4: Inspect daily to make sure that the following is done:

Straddle trench latrines and garbage pits are covered with dirt daily.

Pail-latrines are emptied and cleaned daily.

Burn-out latrine containers are rotated and contents burned daily.

When flies or other insects are a problem the field sanitation team has sprayed the facilities with insecticide not the pit contents..

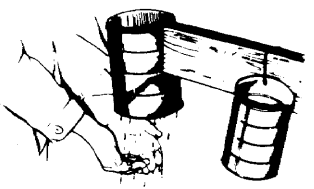
STEP 5: Closing: Close latrines and garbage pits when filled to within 1 foot of the ground surface. Have chemical toilet contents removed frequently.

Close out by--

Spraying with residual insecticide.

Packing earth in successive 3-inch layers until mounded 1 foot above ground level. Spraying again with residual insecticide.

Posting a sign stating, "Closed latrine/garbage pit, and date" (except in combat).



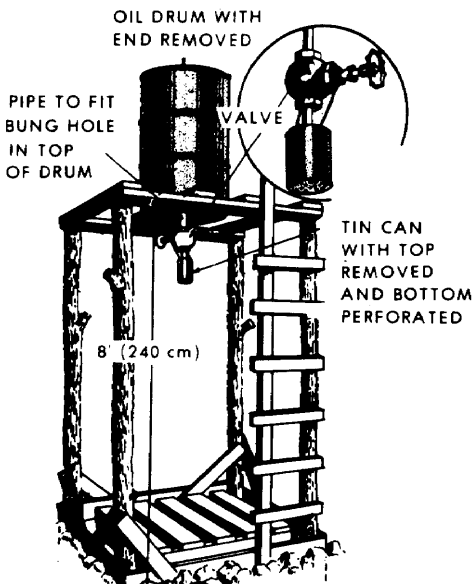
TASK 8: Construct and maintain field handwashing and shower devices.

EQUIPMENT NEEDED: Personnel detailed to construct and maintain field handwashing and shower devices. Material as required for type of facilities to be constructed.

STEPS OF PERFORMANCE:

STEP 1: Select device to be constructed:

Handwashing devices



Shower devices

STEP 2: Construct devices.

Collocate handwashing devices at food service and latrine locations.

NOTE

A soakage pit should be provided for all handwashing and shower facilities.

STEP 3: Maintain devices. A supply of soap and water must be available at all times.

STEP 4: Close devices.