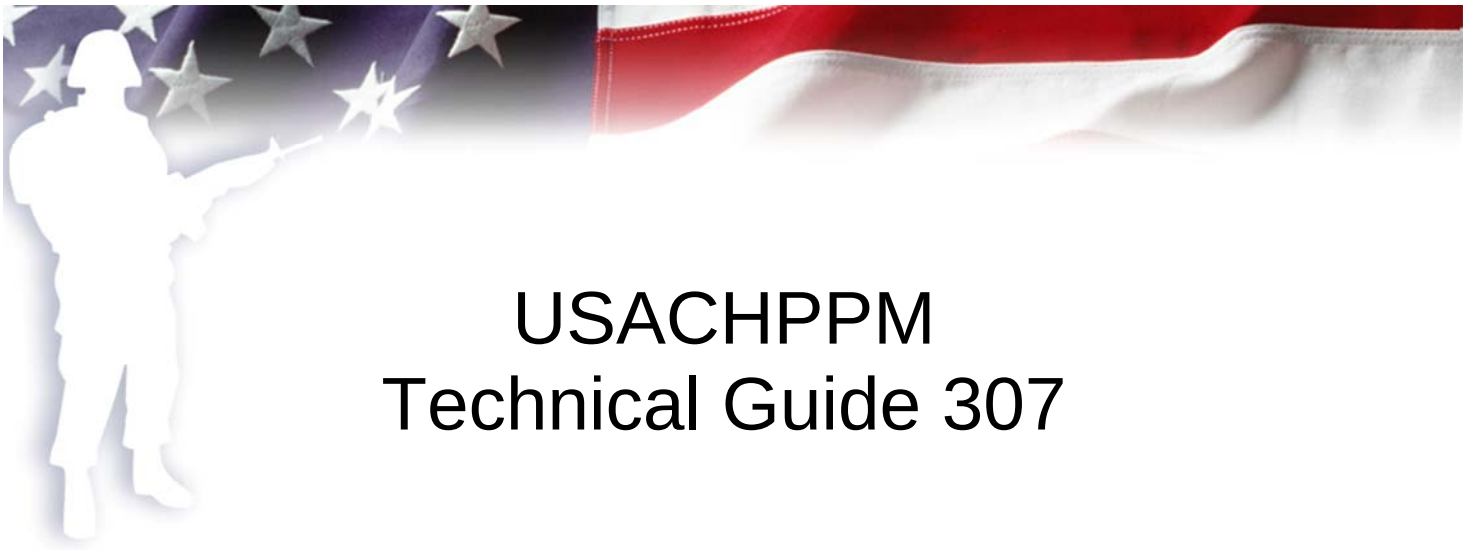




USACHPPM Technical Guide 307

Sanitation and Hygiene Standards for Establishing, Operating, and Inspecting Army Field Detention Facilities

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1. INTRODUCTION

a. General. The roles and responsibilities of medical personnel in the establishment, operation and inspection of Army detention facilities are derived from international treaties, federal laws, Department of Defense (DOD) directives, Department of the Army (DA) regulations, other military publications, and civilian consensus documents. Preventive Medicine (PVNTMED) personnel, whether assigned to Military Police (MP) units operating a detention facility, or to Table of Organization and Equipment (TOE) or installation PVNTMED organizations, may be required to assist in establishing, operating, or inspecting field detention facilities.

b. Purpose. The purpose of this Technical Guide (TG) is to provide preventive medicine and other medical personnel with basic sanitation and public health standards for establishing, operating and inspecting field detention facilities that comply with the Geneva Conventions, DOD and DA policy, and universally accepted norms. Current policy and doctrine is organized to address detainee operations primarily based on a classification scheme for detainees derived from the Geneva Conventions. This approach, while important in many aspects of detainee operations, is not particularly useful when applied to preventive medicine programs – there is still a need for minimum standards that can easily be applied to all detention operations, regardless of the classification of detainees. Furthermore, recent military operations have resulted in additional classifications of detainees (e.g., enemy combatants, security internees, criminal internees) that may not be clearly addressed in past or current laws, policies, or doctrine. It is the goal of this TG to establish common, minimum preventive medicine standards that can be applied to all detention facilities, independent of detainee classification schemes. The minimum standards expressed in this TG are designed to ensure that the underlying tenets of humane treatment and preservation of dignity for all detainees in the custody of U.S. Forces are consistently met and maintained.

c. Summary of Primary References. The specific references used in this TG are contained in Appendix A. The treaties, regulations, and standards related to detainee operations are briefly outlined below.

(1) The Geneva Conventions establish the fundamental requirements in international law for the housing, sanitation and treatment of prisoners of war (POW), currently referred to in U.S. military policy and doctrine as enemy prisoners of war (EPW), retained personnel (RP), civilian internees (CI) and other detainees (OD). The U.S. is a signatory to these Conventions. The DOD and presidential directives require that enemy combatants and other categories of detained persons not specifically addressed in the Geneva Conventions be treated humanely and in accordance with the Conventions.

(2) DOD Directives (DODD), including DODD 5100.77, *DOD Law of War Program*, and DODD 2310.1, *DOD Enemy POW Detainee Program*, require DOD and DA to adhere to the requirements of the Geneva Conventions.

(3) Army regulations (AR) establish policy for implementing DOD directives. AR 190-8, *Enemy Prisoners of War, Retained Personnel, Civilian Internees and Other Detainees*, applies to all non-U.S. military personnel detained by U.S. Forces. AR 190-47, *The Army Corrections System*, applies to U.S. military personnel being held in Army correctional facilities. AR 190-8 and AR 190-47 incorporate by reference requirements found in other ARs, including AR 40-5, *Preventive Medicine*.

(4) Field manuals (FM), including FM 21-10, *Field Hygiene and Sanitation*, FM 4-25.12, *Unit Field Sanitation Team*, FM 4-02.17, *Preventive Medicine Services*, and FM 3-19.40, *Military Police Internment/Resettlement Operations*, are incorporated by reference in the ARs and provide the doctrine for establishing and operating detention facilities.

(5) Technical Bulletins (Medical), or TB MEDs, including TB MED 530, *Food Service Sanitation*, TB MED 561, *Pest Surveillance*, and TB MED 577, *Sanitary Control and Surveillance of Field Water Supplies*, also apply to detention facilities by reference. Technical Guides (TG) from the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) and the Armed Forces Pest Management Board (AFPMB) are useful adjuncts.

(6) Non-military publications, including standards of the American Correctional Association (ACA), the Sphere Project, and the International Committee of the Red Cross (ICRC), may be used for specific guidance not covered by DOD or DA publications. AR 190-47 states that all Army Corrections Systems (ACS) facilities will strive to be accredited by the ACA. For ACS facilities which are either ACA-accredited or are seeking ACA accreditation, PVNTMED inspectors should apply ACA standards whenever possible. *The Sphere Project Handbook* was developed to provide minimum standards of sanitation during disaster relief operations, including armed conflict. This guide, a consensus document developed by the ICRC and over 400 other non-governmental organizations (NGO), is valuable in establishing, operating and inspecting refugee camps and other similar sites, including detention facilities established during military operations. The ICRC handbook, *War and Public Health*, is another useful reference.

d. Applicability. This TG is designed for use in all field detention facilities operated by U.S. Forces. Minimum preventive medicine standards should be maintained at all echelons of detainee operations.

This TG does not apply to Army Corrections System (ACS) facilities. ACS facilities are established and operated for the care and custody of U.S. military prisoners IAW AR 190-47, which contains specific sanitation and hygiene requirements based on American Correctional Association (ACA) standards. Preventive medicine personnel inspecting ACS facilities should refer to AR 190-47. AR 40-5 and related TB MEDs are applicable to all detention facilities, including those in the ACS.

2. GENERAL PRINCIPLES OF DETAINEE CARE AND CUSTODY

a. Introduction. The basic tenets of detainee care and custody are codified in the Geneva Conventions, DODD 2310.1, and AR 190-8. Each of these references addresses prisoners of war and civilian internees as distinct populations. Although this distinction is of little relevance in the application of sanitation and hygiene standards, it is important to understand the pertinent sections of each of these documents when establishing, operating and inspecting detention facilities. While international humanitarian law, DOD and DA policy provide the necessary foundation to develop specific sanitation standards, they do not, by nature, contain specific, i.e., quantitative, requirements for detention facilities.

b. The Geneva Conventions. The Geneva Conventions, drafted in 1949, contain articles that establish the international legal framework for the care and custody of detainees during armed conflict. Treatment requirements for prisoners of war (POW), referred to in current DOD and DA policy and doctrine as enemy prisoners of war (EPW), are outlined in the *Geneva Convention Relative to the Treatment of Prisoners of War* (GPW). Requirements for treatment of civilians are presented in the *Geneva Convention Relative to the Protection of Civilian Persons in Time of War* (GC). Articles of the Geneva Conventions of particular interest in establishing minimum preventive medicine standards are summarized below. Refer to the source documents for specific wording contained in the articles described. The Geneva Conventions referenced here can be accessed in their entirety at <http://www.ohchr.org/english/law/prisonerwar.htm> and <http://www.ohchr.org/english/law/civilianpersons.htm>.

(1) Common Article 3 establishes minimum treatment requirements for both EPWs and civilian internees (CI):

“1. Persons taking no active part in the hostilities, including members of armed forces who have laid down their arms and those placed hors de combat by sickness, wounds, detention, or any other cause, shall in all circumstances be treated humanely, without any adverse distinction founded on race, colour, religion or faith, sex, birth or wealth, or any other similar criteria.

To this end the following acts are and shall remain prohibited at any time and in any place whatsoever with respect to the above-mentioned persons:

(a) Violence to life and person, in particular murder of all kinds, mutilation, cruel treatment and torture;

(b) Taking of hostages;

(c) Outrages upon personal dignity, in particular, humiliating and degrading treatment;

(d) The passing of sentences and the carrying out of executions without previous judgment pronounced by a regularly constituted court affording all the judicial guarantees which are recognized as indispensable by civilized peoples.

2. The wounded and sick shall be collected and cared for.”

(2) Article 4 of the GPW establishes criteria for persons to be assigned prisoner of war status. Article 12 places sole responsibility for the treatment of POW/EPW on the Detaining Power.

(3) Article 13 reinforces the requirement for humane treatment and prohibits medical or scientific experimentation, acts of violence or intimidation, insults and public curiosity, and measures of reprisal. Article 17 prohibits any physical or mental torture.

(4) Articles 19 and 20 require evacuation of POW/EPW from combat zones as soon as possible to remove them from danger, and in a humane manner with sufficient food and water, clothing, and medical attention. Article 22 requires internment on land afforded every guarantee of hygiene and healthfulness. Article 23 requires shelters against air bombardment and other hazards of war.

(5) Article 25 describes the basic requirements for housing conditions of POW/EPW:

“Prisoners of war shall be quartered under conditions as favourable as those for the forces of the Detaining Power who are billeted in the same area. The said conditions shall make allowance for the habits and customs of the prisoners and shall in no case be prejudicial to their health.

The foregoing provisions shall apply in particular to the dormitories of prisoners of war as regards both total surface and minimum cubic space, and the general installations, bedding and blankets.

The premises provided for the use of prisoners of war individually or collectively, shall be entirely protected from dampness and adequately heated and lighted, in particular between dusk and lights out. All precautions must be taken against the danger of fire.

In any camps in which women prisoners of war, as well as men, are accommodated, separate dormitories shall be provided for them.”

(6) Article 26 states that basic food rations must be sufficient in quantity, quality and variety to maintain good health and prevent weight loss or nutritional deficiencies; sufficient water must be supplied; and disciplinary measures affecting food are prohibited. Article 27 mandates provision of sufficient clothing, underwear and footwear, with regular replacement and repair.

(7) Article 29 prescribes basic camp sanitation measures:

“The Detaining Power shall be bound to take all sanitary measures necessary to ensure the cleanliness and healthfulness of camps and to prevent epidemics.

Prisoners of war shall have for their use, day and night, conveniences which conform to the rules of hygiene and are maintained in a constant state of cleanliness. In any camps in which women prisoners of war are accommodated, separate conveniences shall be provided for them.

Also, apart from the baths and showers with which the camps shall be furnished, prisoners of war shall be provided with sufficient water and soap for their personal toilet and for washing their personal laundry; the necessary installations, facilities and time shall be granted them for that purpose.”

(8) Article 30 ensures access to free medical care within the camp and evacuation to higher echelons of care as needed. Article 31 requires monthly medical exams to record weight, assess health and nutritional status, and detect contagious diseases. Should POW/EPW be engaged in work activities, Articles 51-53 require safe working conditions and prescribe basic labor standards.

(9) In the same manner that the GPW establishes requirements for the treatment of POW/EPW, Section IV of the GC does so for civilian internees (CI) during armed conflict. Article 83 directs that internment areas be free from exposure to the dangers of war. Article 85 describes basic living standards for CI:

“The Detaining Power is bound to take all necessary and possible measures to ensure that protected persons shall, from the outset of their internment, be accommodated in buildings or quarters which afford every possible safeguard as regards hygiene and health, and provide efficient protection against the rigours of the climate and the effects of the war. In no case shall permanent places of internment be situated in unhealthy areas or in districts the climate of which is injurious to the internees. In all cases where the district, in which a protected person is temporarily interned, is in an unhealthy area or has a climate which is harmful to his health, he shall be removed to a more suitable place of internment as rapidly as circumstances permit.

The premises shall be fully protected from dampness, adequately heated and lighted, in particular between dusk and lights out. The sleeping quarters shall be sufficiently spacious and well ventilated, and the internees shall have suitable bedding and sufficient blankets, account being taken of the climate, and the age, sex, and state of health of the internees.

Internees shall have for their use, day and night, sanitary conveniences which conform to the rules of hygiene and are constantly maintained in a state of cleanliness. They shall be provided with sufficient water and soap for their daily personal toilet and for washing their personal laundry; installations and facilities necessary for this purpose shall be granted to them.

Showers or baths shall also be available. The necessary time shall be set aside for washing and for cleaning.”

(10) Article 88 requires protective shelter from air raids and other hazards of war. Article 89 states that basic food rations must be sufficient in quantity, quality and variety to maintain good health and prevent weight loss or nutritional deficiencies; sufficient water must be supplied. Article 90 ensures adequate clothing of internees.

(11) The Geneva Conventions do not specifically refer to detainees that may be classified as enemy combatants, security internees, criminal internees, terrorists, etc. While there may be controversy over which aspects of the Geneva Conventions apply to certain classifications of detainees, there is little dispute that minimum standards of sanitation and hygiene would be applicable to any detention setting as an extension of the basic requirement for humane treatment of all persons detained by U.S. Forces.

c. Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment. The Convention Against Torture (CAT) was ratified by the United States in 1994. It prohibits all acts and forms of torture, defined as “any act by which severe pain or suffering, whether physical or mental, is intentionally inflicted on a person.” Preventive medicine personnel who witness or discover evidence related to any cases of potential detainee abuse are required to report all information immediately through their chain of command and to the Criminal Investigation Division (CID).

d. DODD 5100.77, DOD Law of War Program. DODD 5100.77 establishes policy and responsibilities within the DOD for a program to ensure DOD compliance with the law of war obligations of the United States. It includes investigative and reporting requirements for incidents where a violation of the international laws of armed conflict (The Geneva Conventions, etc.) is alleged to have occurred.

e. DODD 2310.1, DOD Enemy POW Detainee Program. DODD 2310.1 establishes policy and responsibilities within the DOD for a program to ensure implementation of the international law of war, both customary and codified, about EPW, to include the enemy sick or wounded, retained personnel (RP), civilian internees (CI), and other detained personnel.

f. AR 190-8, Enemy Prisoners of War, Retained Personnel, Civilian Internees and Other Detainees. This AR implements DODD 2310.1 and establishes policies and planning guidance for the treatment, care, accountability, legal status and administrative procedures for detainees. It requires that medical support to detainee operations include preventive medicine (paragraph 1-4.g.(6)). Chapter 3 restates in Army policy the GPW requirements for POW/EPW, including: the need for proper health and hygiene standards; billeting in conditions as favorable as those provided U.S. Forces; adequate provision of food, water, bedding, space, lighting, heat, clothing and footwear; unlimited access to clean latrines; provision of personal hygiene items; and administration of a safety program. It also requires internment/resettlement (I/R) facilities and collecting points (CP) to operate under the same standards of hygiene and sanitation. Similarly, chapter 6 addresses the requirements of the GC for CI, including provision of safe, hygienic quarters with sufficient space and ventilation; showers; personal hygiene items, food and water. Chapter 6 specifically requires hygiene and sanitation measures to conform to AR 40-5, *Preventive Medicine*, and related regulations, and prescribes periodic and detailed sanitary inspections. Initial and monthly medical screening to assess nutritional status (weight) and detect communicable diseases is required. AR 190-8 does not provide minimum sanitation and hygiene standards for detention facilities at any echelon, whether located in a field setting or within a fixed structure.

g. AR 190-47, The Army Corrections System. This AR establishes policy for operations within military correctional facilities that house military prisoners (U.S. military personnel charged or convicted under UCMJ). It provides sanitation and hygiene requirements based on ACA standards. ***This TG does not apply to U.S. military prisoners; refer to AR 190-47 and the ACA for sanitation and hygiene standards applicable to facilities housing this population.***

h. FM 3-19.40, Military Police Internment/Resettlement Operations. This is the primary doctrinal reference for detainee operations. It does not, however, contain specific sanitation or hygiene standards for detention facilities.

i. Applicability of Existing Preventive Medicine Policy and Doctrine. In accordance with AR 190-8, existing preventive medicine policy and doctrine is applicable to detention facilities housing EPWs, RPs, CIs, or ODs.

3. METHODOLOGY FOR DEVELOPMENT OF SANITATION AND HYGIENE STANDARDS

a. Introduction. Although international law, DOD and DA policy, and military doctrine distinguish between different classifications of detained persons (e.g., EPW vs. CI), the safe care and custody of all detainees is a common requirement and responsibility. Most medical requirements outlined in the Geneva Conventions and DOD/DA policy are broad, and it is difficult to conceive of a situation where application of different minimum standards of sanitation and hygiene based on any detainee classification scheme would be legal, ethical, or desirable. Because of this, it is prudent to establish minimum preventive medicine standards for all settings and for all classifications of detainees. Early in combat operations, living conditions for Soldiers and detainees are austere. As the theater matures, sanitation and hygiene standards should improve for Soldiers and detainees at a similar pace. As long as this development takes place

in tandem and applies similar standards, compliance with international and DOD/DA policy on detainee treatment should be assured. The main objective is disease prevention and control through the promotion of good hygiene practices, the provision of safe drinking water, and the reduction of environmental health risks.

b. Existing Preventive Medicine Policy and Doctrine. Minimum standards from existing preventive medicine policy and doctrine were referenced or incorporated when available and applicable to detention settings.

c. International Standards. Moving from a framework of basic requirements outlined in international law and DOD/DA policy to concrete, quantifiable minimum standards for hygiene and sanitation requires application of consensus guidelines developed by world experts in disaster response. Based on years of experience and best practices, these standards exist in the form of the World Health Organization's *Environmental Health in Emergencies and Disasters* and the *Sphere Project Handbook*. The Sphere Project is a collaborative effort of the Red Cross/Red Crescent movement and over 400 other non-governmental organizations in 80 countries. The consensus standards developed by the Sphere Project are designed for use in all environments and include indicators to measure the progress and compliance with the guidelines.

d. Development of Minimum Standards for Sanitation and Hygiene in Detention Facilities. Where previously there were no common, minimum standards to apply to field detention facilities, this TG provides such guidance. In the establishment of the minimum sanitation and hygiene standards presented in this TG, existing requirements and standards from ARs, FMs, and TB MEDs were supplemented with those developed by international organizations and consensus panels with expertise in humanitarian assistance and disaster response, including armed conflict. All standards contained in this TG meet or exceed requirements established in international law and DOD/DA policy. These standards are designed to prevent disease and maximize the health of detainees and cadre operating detention facilities. Because it is often impossible to know at the outset of an operation how long a detention facility will be in use, the standards included in this TG are designed to provide healthy living conditions in both the short term and the long term. Since every context is different, local factors may make some standards unattainable, especially in the short term. At no time, however, should sanitation and hygiene conditions at detention facilities fail to maintain parity with those of facilities housing U.S. military personnel. It is important, however, to remember that standards used by Military Police personnel to ensure the safety and security of detainees and cadre may supersede sanitation and hygiene guidelines, including those put forth in this document.

e. Local authority. The minimum sanitation and hygiene standards for detention facilities provided in this TG are not intended to restrict the application of higher sanitation and hygiene conditions, when practical and possible. Local medical personnel can recommend, and commanders can provide better living conditions, using more stringent standards, based on the local situation. The guiding principle that sanitary and hygienic conditions for detention facilities will be as favorable as those for U. S. Forces should commonly result in living conditions that exceed these minimum standards.

4. MINIMUM SANITATION AND HYGIENE STANDARDS FOR DETENTION FACILITIES

a. Site Selection and Camp Design.

(1) General. Detention facilities vary greatly, from short-term holding areas in forward locations that may consist of little more than several strands of concertina wire, to large, long-term I/R camps that house thousands of detainees. In accordance with current doctrine, a Military Police I/R battalion can operate a facility of up to 4,000 detainees. With augmentation, this number can be increased. The selection of an appropriate location for a detention facility should account for expected population size as well as potential for future expansion. Poor site selection and camp design can increase the risk of disease and injuries for detainees and cadre alike.

(2) Standards.

(a) The topography of the land should permit easy drainage and the site should be located above flood level. The lowest point of the site should not be less than 10 feet above the estimated level of the water table in the rainy season. Rocky, impermeable soil should be avoided. Bushes and excessive vegetation can harbor insects, rodents, reptiles, etc., and should be avoided or cleared. Wherever possible, steep slopes, narrow valleys, and ravines should be avoided. Ideally, the site should have a slope of 2–4% for good drainage, never less than 1%, and not more than 6% to avoid erosion and the need for earth-moving for roads and building construction.

(b) In determining total land area requirements, a minimum factor of 320 sq ft (35 sq. yds., or 30 m²) per person should be used to ensure ample space for the people to be sheltered and for all the necessary public facilities such as roads, firebreaks (areas without buildings and with little or no flammable vegetation), and administration and service areas (e.g., medical treatment facilities, food preparation/distribution centers, etc.).

(c) The site should be free of breeding areas or food sources for rats, insects and other pests, environmental hazards (e.g., dumpsites) and industrial hazards. Facilities should be located at least 1 mile upwind of potential mosquito breeding areas (swamps, ponds, etc.). The site should be of adequate size to maintain minimum distances between food service operations, sleeping areas, refuse disposal areas, latrines, and potable water sources IAW FM 21-10 (see Figure) and allow for future expansion. The residential area of the camp should face the prevailing wind to avoid odors from latrines.

(d) Areas adjacent to commercial and industrial zones, exposed to noise, odors, air pollution, and other nuisances should be avoided.

(e) To facilitate the management and control of communicable diseases, camps should hold no more than 10,000 people, and should be subdivided into independent units (compounds) of no more than 1000 people. (Security considerations may dictate smaller compound populations, e.g., FM 3.19-40 suggests 500-person compounds.)

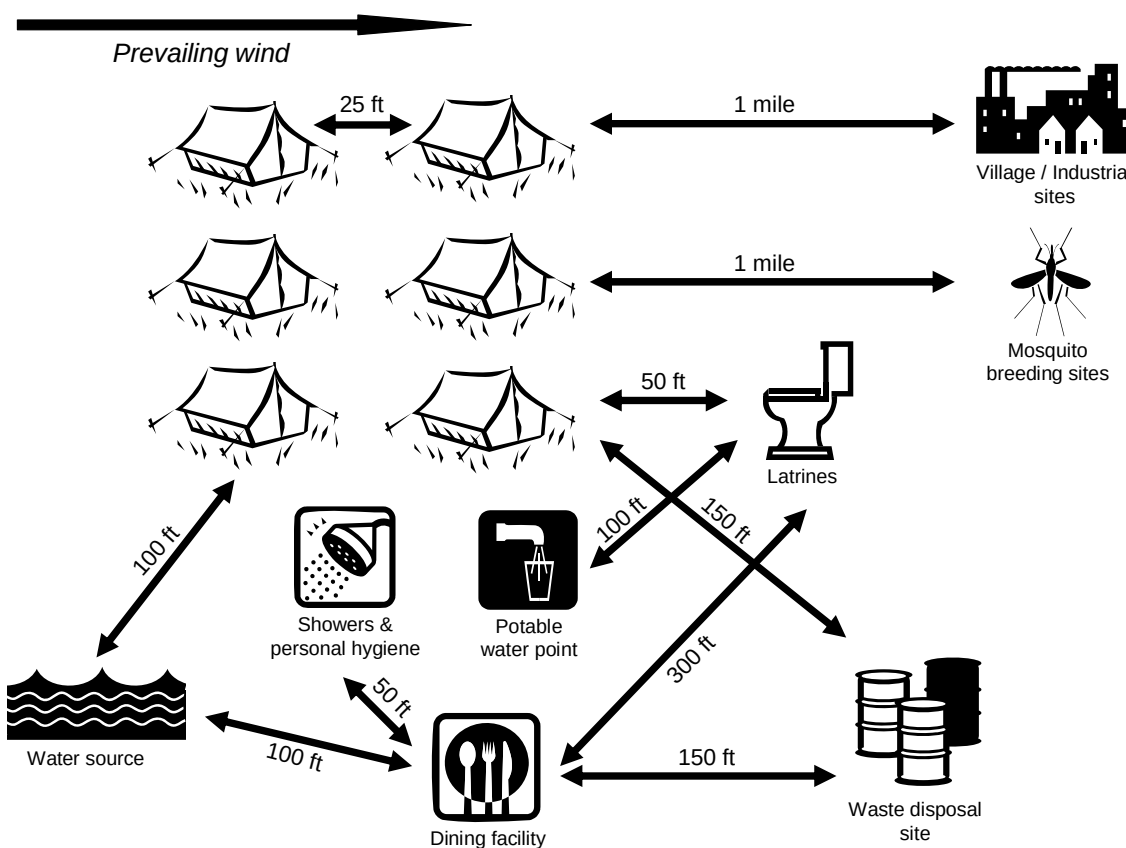
(f) Roads between compounds should be at least 30 feet wide to permit easy traffic flow and access by ambulances and firefighting vehicles.

(g) Firebreaks at least 100 feet wide should be established every 1000 feet.

(h) Shelters should be spaced 25 feet apart so people can pass freely between them without being obstructed by pegs and ropes. This spacing also helps prevent the spread of fire. If this is not possible due to a lack of space, the distance between shelters should be at least twice the overall height of each shelter, and should never be less than 8 feet.

(i) Drainage ditches should be dug around the tents or other shelters and along the sides of roads, especially if there is a danger of flooding. Care should be taken to lead water away from shelters, latrines, medical facilities, and storage areas. Persistent areas of stagnant water that are difficult to drain can be backfilled, or covered with polystyrene balls or a thin layer of oil, to control insects. Water points should also have adequate drainage to avoid pooling and mud.

Figure. Selected Minimum Distances in a Field Detention Facility (not to scale)



b. Shelter (Housing).

(1) General. Shelter (housing) should provide adequate space and protect detainees from cold, damp, heat, rain, wind, structural hazards, disease vectors, and hazards of war (e.g., direct and indirect fire).

(2) Standards.

(a) Housing areas should be located at least 100 feet downgradient from a well or downstream from a surface water point.

(b) Areas around dwellings should be kept free of standing wastewater. Shelters, paths and sanitation facilities should not flood or become eroded by water.

(c) Covered living space should provide a minimum of 40 sq. ft. per person. Air circulation is improved and respiratory disease rates lowered if more space can be provided (up to 80 sq. ft.). Beds or mats should be separated by a minimum distance of 2.5 feet. Maximum occupancy for military tentage is 20 occupants per GP Large and 12 occupants per GP Medium. Small shelters with few occupants are preferable to large shelters with many occupants.

(d) Existing buildings or other structures identified for shelter require a thorough inspection by qualified persons—engineers and environmental health specialists—prior to use. They must not be structurally damaged or sited near potential secondary hazards.

(e) Removable flooring (e.g., wood pallets or panels) should not be used.

(f) Adequate ventilation is critical. The minimum amount of air circulation needed is 12 cubic feet per minute (cfm) per person, at least 4 cfm (33%) of which should be fresh (outside) air. Re-circulated air should be filtered. Natural ventilation may be adequate to achieve this degree of circulation in temporary shelters such as tents, but mechanical ventilation will likely be required to comply with these standards inside buildings.

(g) Ambient temperature in shelters should be maintained at 66-78°F, but lower temperatures may be acceptable if detainees are provided warm clothing and blankets. Relative humidity should be maintained between 30% and 50% in buildings.

(h) Buildings should have emergency exits and fire escape routes. Fire-fighting equipment (e.g., fire extinguishers) should be available and properly maintained.

(i) Detainees must be segregated by gender, age (juveniles from adults), rank (if EPWs; officers housed separately from enlisted), status (EPW vs. CI), and nationality. Other segregation criteria, e.g., religious sect or ethnicity, may be necessary to reduce or eliminate detainee-on-detainee violence. Seriously ill detainees, especially those with communicable disease, should be segregated from the general detainee population. Detainees with respiratory infections, especially tuberculosis, should be masked with a standard surgical mask and segregated in areas that do not share re-circulated air with the remainder of the population until they're determined to be no longer infectious IAW appropriate medical criteria.

(j) A minimum of 20 foot-candles of light should be provided at 30 inches from the ground for all interior spaces.

(k) New or existing structures used as detention facilities should have skylights and windows of sufficient number and size to allow natural light (sunlight) into all areas in which detainees are housed.

(l) If shelters do not protect the detainees from the hazards of war (direct and indirect fire), bunkers or other protective structures should be available and have sufficient capacity to provide cover for 100% of the detainee population.

c. Water Supply.

(1) General. Water is essential to life, health and human dignity. Major health problems are caused by poor hygiene due to insufficient water and by the consumption of contaminated water. Water needs vary according to climate, sanitation facilities available, and the detainees' normal habits, religious, and cultural practices. Water quality for detention facilities will meet the field water requirements specified in TB MED 577.

(2) Standards.

(a) Potable (drinking) water.

i. Water consumption planning factors should be the same as for U.S. Forces.

1.5 gallons per person per day for drinking in temperate climates.

3.0 gallons per person per day for drinking in tropical and arid climates.

2.0 gallons per person per day for drinking in arctic climates.

1.7 gallons per person per day for personal hygiene.

1.7 gallons per person per day for centralized hygiene (showers) (1 shower per week per person)

2.8 gallons per person per day for food preparation.

3.1 gallons per person per day for laundry.

1.24 gallons per person per day for medical treatment.

Detainees of certain religious faiths (e.g., Islam) should be provided an additional 0.5-1.5 gallons (2-5 liters) of potable water per person per day for washing and drinking associated with religious practices.

Detainees who practice anal washing following defecation require an additional 0.25-0.5 gallons (1-2 liters) per day.

ii. There should be at least one water distribution point per 250 people. The distance from any living area to the nearest water point should not exceed 550 yards (500 meters).

iii. Queuing time at a water distribution point should be no more than 15 minutes. Excessive wait times are indicative of insufficient water availability.

iv. Water quality will meet the field water requirements specified in TB MED 577. Chlorine residuals will be at least 5 parts per million (ppm) free available chlorine (FAC) at bulk water storage and issue points for water that is treated by any method other than a reverse osmosis (RO) water treatment system. When bulk water is treated by an RO system, then the FAC residual will be at least 2 ppm. Chlorine residuals will be at least 1 ppm at points of consumption, such as at the taps of company-level 400-gallon water trailers. There is no FAC

requirement for bottled water from an approved source. Turbidity should be ≤ 5 nephelometric turbidity units (NTU).

v. Water should be tested daily for pH and FAC. PVNTMED personnel conduct weekly bacteriological and chemical testing of water supplies. PVNTMED personnel will inspect all water storage containers/tanks or "water buffaloes" (400-gallon water tanks on trailers) prior to use to ensure they meet the minimum standards for water storage IAW TB MED 577.

vi. Only potable water may be used for consumption, food service operations, personal hygiene, and medical treatment.

vii. For handwashing and personal hygiene, a minimum of 6 basins/sanitation stations should be provided for every 100 detainees. Supply at least 10 ounces of soap per person per month. Proper drainage must be ensured.

viii. Minimum water requirements for medical treatment facilities are 1.24 gallons per outpatient per day for medical aid, 10.5-16 gallons (40-60 liters) per inpatient per day, with the potential for additional quantities depending on the scope of medical services provided.

ix. Each detainee should have a clean water collecting container that holds 2.5-5 gallons (10-20 liters). The containers should have narrow necks and/or covers to prevent or minimize contamination. Cups or small plastic bottles may be issued to detainees for individual water consumption.

(b) Showering/Bathing.

i. Disinfected, non-potable water (with at least 1 ppm FAC) may be used for centralized hygiene (showers) unless schistosomiasis and/or leptospirosis are endemic and prevalent. Otherwise, potable water should be provided.

ii. Bathing areas must be separated from the drinking water source. Water consumption for showering is likely to be 1.7 gallons per day per person for 1 shower per person per week. Detainees should have access to showers at least once per week, more often based on water availability, climate, and cultural norms. A minimum of 7 minutes should be allowed for showering. One shower should be provided for every 25 detainees, with separate shower facilities for males and females.

iii. Each shower device should have, at minimum, a soakage pit built underneath it and wood duckboards positioned over the pit. Drums used to store petroleum products or hazardous chemicals should not be used as a source of materials for constructing showers.

iv. Whenever possible, hot water should be provided and maintained between 95°F and 120°F (35-50°C). Generators used to heat water should be located at least 50 feet from showers.

v. Some form of privacy screen should be used for latrines unless it would interfere with overwatch of detainees by the guard force.

vi. Supplies necessary for the personal hygiene, health, and comfort of detainees will be furnished, including clothing, underwear, footwear, toothbrush, toothpaste, soap, shampoo, hand and bath towels, hairbrush and/or comb, deodorant, sanitary napkins/tampons (females),

detergent (if detainees do their own laundry) and shaving supplies. Additional items may be provided at the discretion of the facility commander.

(c) Laundry.

i. All detainee clothing should be laundered at least once a week, preferably in an Army field laundry or a commercial central laundry facility with wash cycles of at least 15 minutes and water temperature at least 130°F.

ii. When centralized laundry services are unavailable, there should be at least one clothes washing station (basin) per 100 detainees. Detainees should be provided approximately 6 gallons of water per person for laundering. Whenever possible, hot water should be provided. Proper drainage must be ensured. Lines or other means of drying clothes should be provided.

iii. Clothing contaminated with body fluids, including hygiene period cloths for female detainees, should be handled as potentially contaminated laundry.

(d) Other.

i. Water point drainage should be well-planned, properly constructed and maintained. This includes drainage from washing and bathing areas. Drainage water should not pool, cause flooding or erosion, or pollute existing surface or groundwater sources.

ii. All water points should have signs in English and the detainees' native language(s) that identify the water as potable or non-potable.

iii. In hot climates, water trailers/containers should be shaded using tents, tarpaulins, or other covering materials.

iv. Medical treatment personnel or cadre who become aware of detainees suffering from symptoms associated with potential waterborne illness (e.g., nausea, vomiting, diarrhea, and abdominal cramps) should report this information immediately to PVNTMED personnel.

d. Food Service Sanitation.

(1) General. Food must be available to all detainees in a quantity and of a quality sufficient to satisfy their dietary needs. Food must be free from adverse substances and acceptable within their culture. Unsanitary handling of food in the field has been responsible for many incidents of preventable disease. Foodborne disease has the potential for causing large outbreaks from a single unsanitary practice. Kitchen personnel must ensure that food does not become contaminated with pathogenic organisms by using food from approved sources only; preventing contamination during storage, preparation, and serving; preventing the growth of organisms which cause foodborne illnesses or spoilage; and preparing meals that are safe to eat and palatable.

(2) Standards.

(a) Food service facilities that serve detainee populations must meet all sanitation requirements specified in FM 21-10 and TB MED 530.

(b) Field kitchens should be located at least:

- i. 300 feet upwind from latrines;
- ii. 50 feet from wash-up areas and sanitation centers;
- iii. 100 feet upwind from waste disposal sites (grease traps, soakage pits, and garbage pits);
- iv. 100 feet from water sources; and
- v. 150 feet upwind from incinerators. (See Figure on page 9.)

(c) Only food obtained from a supplier on VETCOM Circular 40-1, Worldwide Directory of Sanitarily Approved Food Establishments for Armed Forces Procurement, or a locally approved list may be used.

(d) Locally procured food should be tailored to meet the nutritional requirements of the detainees. Some pre-packaged rations (e.g., Kosher, Humanitarian, and Halal meals) do not contain certain types of “unclean” food products (e.g., pork) and are useful for detainees with religious/cultural or other dietary restrictions.

(e) Food must be protected from contamination during storage, preparation, and service. Cold foods must be kept below 40°F (4°C) and hot foods above 140°F (60°C) to prevent bacterial growth. Food should be served within 3 hours of preparation.

(f) Food preparation areas will be screened to exclude flies from exposed food.

(g) All food service workers must be trained in food preparation and handling by qualified personnel IAW TB MED 530.

(h) Food service workers should be inspected daily prior to starting work and should be clean and maintain good personal hygiene. Food service workers who are sick should not be allowed to handle, prepare, or serve food. Food service workers who have any open sores, open cuts, infections, skin irritations or rashes will not be allowed to handle, prepare, or serve food.

(i) Handwashing devices/facilities should be located within the food service area. Personnel must thoroughly wash their hands and the exposed portions of their arms with soap and warm water before preparing food, after using latrine facilities, after using tobacco, between handling soiled surfaces (including body parts and clothing) and clean utensils and equipment, between handling raw and cooked foods, after performing custodial duties (including handling garbage or trash), and as often as necessary to keep their hands clean.

(j) A soakage pit must be provided under each handwashing device to prevent water from collecting. The water containers for these devices must be checked periodically to ensure that they are kept filled.

(k) Food and water may not be withheld from detainees as punishment.

(l) Provision of pre-packaged meals (e.g., meal, ready to eat (MREs), Halal) for detainees is appropriate until the capability for preparing hot meals is established. MPs may “strip” these meals to remove sharp items and heating elements due to safety and security

considerations. Detainees should be provided three meals (including two hot meals once field kitchens are operable) at regular meal times during each 24-hour period, with no more than 14 hours between the evening meal and breakfast. Variations are authorized as long as basic nutritional goals are met.

(m) Fasting for religious or cultural purposes is acceptable and should be accommodated. Hunger strikers should be reported to qualified medical treatment personnel for evaluation.

(n) Medical treatment personnel or cadre who become aware of detainees suffering from symptoms associated with potential foodborne illness (e.g., nausea, vomiting, diarrhea, and abdominal cramps) should report this information immediately to PVNTMED personnel.

e. Waste Management.

(1) General. Safe disposal of waste creates the first barrier to direct and indirect transmission of disease. The provision of appropriate facilities for urination and defecation is essential for the detainees' dignity, safety, health and well-being.

(2) Standards.

(a) Human Waste (Latrines).

i. In austere environments or transient areas where latrine facilities are not available, open defecation must be limited to specific, well-defined areas. Under no circumstances should open defecation be allowed along river banks; in the beds of rivers or other possible future water sources; within 100 feet of wells or boreholes; within 30 feet of water taps; on or above surfaces prepared for rainwater catchment; within 100 feet uphill of a spring or 30 feet downhill; within 30 feet of any water storage tank or treatment facility; within 100 feet of medical facilities and food storage/preparation/service areas; or in fields containing crops for human consumption. Where open defecation is necessary, slit trenches should be used whenever possible. Management of slit trenches (including coverage of waste) shall be performed by U.S. Forces or contract personnel.

ii. Latrines should be designed, constructed, and maintained to be acceptable for all detainees, taking into account cultural norms, ease of cleaning, and privacy.

iii. There are a wide variety of latrines and urinals devised for field use. All of these devices fall into one of three categories: excavated latrines, receptacle latrines, and urinals. The disposal methods for human wastes will vary with the tactical situation, materials available, and the soil conditions. For example, burn-out latrines are effective in many situations, but they employ flammable materials and must only be managed by U.S. Forces or contract personnel. See FM 21-10, FM 4-25.12, and FM 8-250 for detailed information on the construction of these devices. All latrines should be wind-proofed. If latrines are roofed, the roof must be sloped and the edge extended to sufficiently clear the earth banking to prevent washouts and consequent loss of fly proofing in wet weather.

iv. Latrines are provided at ratios of at least one for every 25 male detainees and one for every 17 female detainees. Whenever possible, urinals should be provided at a ratio of at least one for every 50 male detainees to prevent soiling of the toilet seats. Urinals may replace up to 50% of the total male latrine requirement.

v. The latrine or urinal site should be chosen at least 300 feet downwind from food service areas of the internment facility and at least 100 feet from water supplies. Latrines should be placed at least 50 feet from dwellings but no more than 150 feet to encourage their use. (See Figure on page 9.)

vi. Latrines and urinals should be at least 300 feet from any water source. The bottom of the latrine should be at least 5 feet above the water table. Drainage or spillage must not pool, cause flooding or erosion, or run towards any surface water or shallow groundwater source.

vii. Toilet paper should be available at all latrines at all times. If the latrine does not have a roof, ensure that the toilet paper holder is waterproof. Water for anal cleansing should be provided for detainees who utilize this method of personal hygiene (0.25-0.5 gallons (1-2 liters) per person per day).

viii. Handwashing devices should be located between or adjacent to all latrines and urinals, at least one for every 5 latrines. Potable water, soakage pits, soap, paper towels, and trash receptacles should be provided for each handwashing station and maintained daily. A soakage pit must be provided under each device to prevent water from collecting.

ix. Latrines that use water for flushing or to maintain a hygienic seal should have an adequate and regular supply of water.

x. Latrines and urinals must be cleaned daily to maintain sanitary conditions and to control potential insect breeding. Certain types of field latrines require specific maintenance procedures (e.g., daily coverage of trench latrine contents with 1-3 inches of earth). Refer to FM 21-10 for additional guidance.

xi. Some form of privacy screen should be used for latrines unless it would interfere with overwatch of detainees by the guard force.

(b) Solid Waste (Refuse/Trash).

i. Thirty-three-gallon refuse containers should be available at a ratio of one for every 25 detainees. If detainees prepare their own food, provide one container for every 17 detainees. Oil drums or similar containers can be used for refuse collection. Empty sacks and plastic bags may also be used to collect solid wastes, but they must be supported in an upright position.

ii. Refuse containers should be clearly marked, lined with plastic bags, and covered with tight-fitting lids. They should be located no more than 50 feet from dwellings. Daily trash collection is best, but collection not less frequent than once a week is essential to minimize insect breeding. If contracted personnel are utilized for removal and disposal of waste, contracts should clearly state the minimum frequency of collection and method(s) of disposal.

iii. Burial of solid waste is an acceptable method of disposal for short-term situations (less than one week) and where incineration is not feasible. Incineration or transport of waste to a sanitary landfill is the preferred methods of disposal. Open dumps and open burning of waste are not authorized. Refer to FM 21-10, FM 4-25.12, FM 8-250, and TM 5-814-5 for detailed guidance on solid waste disposal methods.

iv. Incinerators and waste storage/burial sites should be at least 150 feet downwind and downgradient from dwellings, food service areas, and water sources.

(c) Liquid Waste (from cooking, laundry and showers).

i. Soil conditions will determine whether soakage pits/trenches, evaporation beds, or drains are suitable for the disposal of liquid wastes. Newly constructed facilities should incorporate a drainage/sewer system. See FM 21-10, FM 4-25.12, and FM 8-250 for detailed information on the disposal of liquid waste.

ii. Liquid wastes from field kitchens contain a high proportion of grease, food particles, soap, and other detergents. Because these wastes quickly clog the soil when discharged into the ground, grease traps must be incorporated into the waste disposal system.

(d) Medical Waste.

i. Ideally, medical waste should be disposed of using modern, high-quality incinerators available at local national hospitals or through contractors. If unavailable, medical wastes should be separated and disposed of in a correctly designed, constructed, and operated inclined-plane incinerator with vapor burner as described in FM 4-25.12.

ii. The waste feed to the inclined-plane incinerator should be mixed at approximately 10% by weight of medical waste (including sharps, e.g., needles, scalpel blades) to 90% by weight of ordinary refuse to ensure the hottest and cleanest burn possible. If the ash does not contain sharps, it can be managed as ordinary trash and buried. If sharps are present, the ash should be sealed in 55-gallon drums and retrograde shipped through normal logistical channels to an approved landfill in CONUS. The ash is regular trash and not subject to the special regulatory requirements of the Department of Transportation for regulated medical waste.

iii. In the absence of an incinerator, steam sterilization is an acceptable treatment for medical waste. Autoclave bags must be used. Once sterilized and cooled, medical waste is treated as regular trash and buried (if no sharps) or sealed in 55-gallon drums and shipped to CONUS.

iv. It is permissible to bury sharps if shipping back to CONUS is not feasible. Burial must be below scavenger depth (approximately 8 feet).

v. Personnel should exercise extreme caution when handling infectious waste to avoid injuries from sharps. Personnel employed in the burning of medical waste should protect their skin (gown and gloves) and wear respirators with HEPA filters. Surgical masks do not protect personnel from all hazards inherent in the burning of waste.

f. Vector & Pest Control.

(1) General. Vector-borne diseases are a major cause of illness and death. An assessment of potential risk includes clinical evidence of disease, immune status of the population, pathogen type and prevalence, vector species/behaviors/ecology, vector numbers, and exposure factors (e.g., proximity, shelter type, personal protection measures available). Vector-borne diseases can be controlled by appropriate site selection, shelter, water supply, waste disposal, use of chemical controls, protection of food stores, and use of individual protective measures.

(2) Standards.

(a) Vector/pest surveillance and control will be conducted IAW TB MED 561. DOD and DA policy require the implementation of non-chemical methods, such as harborage elimination and improved sanitation, prior to the use of chemical control measures (pesticides). However, if the vector burden is high, especially during a disease outbreak, it may be necessary to decrease the population quickly through short-term use of chemical control measures in conjunction with the onset of an environmental management program.

(b) A pest surveillance and control program should be established and executed to identify the presence and size of pest populations and conditions that favor breeding, monitor these populations and conditions, determine when thresholds for control have been surpassed, implement control measures, and determine the success of the measures taken. Refer to USACHPPM TG 288 for guidance on entomological risk assessments.

(c) Fly control shall be conducted IAW AFPMB TG 30. Appropriate use and application of pesticides is outlined in AFPMB TG 24. Pesticide usage shall be in accordance with the directions on the label, recorded on a DD Form 1532-1, *Pest Management Maintenance Record*, reported to the Command Surgeon's Office, and archived at USACHPPM. Only properly trained PVNTMED personnel may apply pesticides. PVNTMED personnel will use only those pesticides approved for use on the DOD Contingency Pesticide Management List (see AFPMB TG 24).

(d) Detainee populations at risk of vector-borne diseases should understand the modes of transmission and methods of prevention. Personal protective supplies (repellents, bed nets, etc.) should be made available to detainees in threat areas as indicated.

(e) Detainees should have shelters that do not harbor or encourage the growth of vector/pest populations and are protected by appropriate control measures. Vegetation within 12 feet of buildings or tentage must be eliminated. Vegetation within 12 feet of pathways and fence lines should be eliminated or maintained at less than 6 inches in height. Standing water must be drained and re-accumulation prevented. Rubbish must be removed at least weekly. Artificial containers where water collects must be emptied and/or covered.

(f) Mass delousing is rarely necessary and dangerous if done incorrectly. The DOD does not have a mass delousing capability, and there are no approved pediculicides for use in mass delousing. Presence of lice and/or louse-borne disease is diagnosed and documented during initial medical screening of detainees or routine sick call. Infested detainees should be kept separated from the general population until adequately treated on an individual basis by medical care providers, thoroughly showered with soap and water, and dressed in appropriately laundered clothing (at least 15 minutes at 130°F; see AFPMB TG 6). Whenever possible, cleaned clothing for detainees should be impregnated with permethrin using DOD-approved methods. Anyone handling louse-infested clothing or materials should, at a minimum, use the DOD Insect Repellent System and wear surgical gloves. Such persons should shower and change into clean clothing after handling louse-infested laundry.

(g) Bedding should be aired and washed regularly.

(h) Food must be protected at all times from contamination by vectors such as insects and rodents.

(i) Personal clothing is removed at intake, laundered, labeled, and returned to the detainee upon release. Detainees should be issued permethrin-impregnated clothing (usually

jumpsuits). Jumpsuits are laundered or exchanged for a clean set at least once weekly. Permethrin-treated jumpsuits are normally effective for 20 washings before requiring re-treatment. Only trained PVNTMED personnel using proper equipment should apply permethrin.

(j) Refuse is disposed of (removed, buried or incinerated) daily.

(k) No animals will be kept as pets or mascots by U.S. personnel or detainees. Stray animals and pets should never be permitted within the facility perimeter.

g. Control of Communicable Diseases.

(1) General. The control of communicable diseases depends on the establishment and maintenance of a healthy environment. The risk of disease transmission can be greatly reduced by adhering to the standards presented in this TG. Monitoring for disease occurrence is imperative to identify problems early enough to implement effective control measures. Just as is done for U.S. military personnel, medical surveillance of detainees should be a priority of medical personnel supporting detainee operations.

(2) Standards.

(a) Detention facilities should have a sanitation and hygiene standing operating procedure (SOP) IAW AR 190-8.

(b) Facility sanitation and hygiene standards should be posted in the detainees' native language(s) and explained to them upon initial entry into the facility.

(c) Screening for communicable diseases must occur at in-processing and during monthly medical exams IAW AR 190-8 and theater policy.

(d) Delousing is only indicated for individual detainees diagnosed with a lice infestation. Treatment is prescribed by a medical care provider. Clothing and bedding of individuals with lice infestation should be washed at least 15 minutes at 130°F. Clothing issued to the detainees should be impregnated with permethrin. Refer to AFPMB TG 6.

(e) Detainees should be immunized IAW theater detainee health policy.

(f) Medical surveillance data must be collected, analyzed, and reported for the detainee populations at all detention facilities. Failure to track disease trends in the detainee populations (similar to the disease and non-battle injuries (DNBI) process for U.S. personnel) prevents the recognition of health problems within these cohorts. Daily and weekly DNBI data should be reported through medical channels to the Command Surgeon's Office IAW theater policy.

5. PREVENTIVE MEDICINE INSPECTION PROCEDURES

a. General. A critical element in the success of any operation is consistent monitoring and evaluation. Detention facilities require regular evaluation with reference to stated objectives and minimum standards to measure overall appropriateness, efficiency, and impact on the detainee population. Preventive medicine personnel should have knowledge of all applicable policy and doctrine, as well as local cultures, customs, and endemic environmental and communicable disease issues.

b. Procedures.

(1) PVNTMED resources in theater must be sufficient to meet minimum internment facility sanitary standards, provide comprehensive PVNTMED services, and conduct weekly inspections of all detention facilities. Field sanitation teams must be deployed with a full complement of trained personnel and complete equipment sets (see FM 4-25.12, Appendix C).

(2) Inspections will include a comprehensive assessment of all areas to ensure compliance with the standards contained within this TG and applicable command policy. A sample inspection form can be found in Appendix C.

(3) Reports from PVNTMED inspections need to reach the appropriate leadership elements for correction of deficiencies. Distribution of inspection findings must include the base commander, detention facility commander, MP unit commander, MTF commander, and the Command Surgeon's Office. All PVNTMED inspections and occupational and environmental health surveillance activities and reports must be archived in accordance with the Joint Chiefs of Staff guidance (MCM 0006-02).

(4) PVNTMED personnel must be able to recognize abusive or illegal activities directed against detainees and report them immediately to their chain of command and to the Criminal Investigation Division (CID).

(5) Where there are inadequate uniformed PVNTMED personnel to meet the requirements of the detention facility mission, contracted PVNTMED personnel, if available, may be used to provide sanitation services and perform detention facility inspections.

APPENDIX A: REFERENCES

AFPMB TG 6, *Delousing Procedures for the Control of Louse-borne Disease During Contingency Operations* (6 Mar 2002)

AFPMB TG 24, *Contingency Pest Management Pocket Guide* (15 Apr 2002)

AFPMB TG 30, *Filth Flies: Significance, Surveillance and Control in Contingency Operations* (15 Apr 2002)

AFPMB TG 36, *Personal Protective Techniques Against Insects and Other Arthropods of Military Importance* (18 Apr 2002)

AFPMB TG 43, *Guide to Pest Surveillance During Contingency Operations* (Jul 2002)

AR 40-5, *Preventive Medicine* (22 Jul 2005)

AR 190-47, *The Army Correction System* (13 Dec 2005)

AR 190-8, *Enemy Prisoners of War, Retained Personnel, Civilian Internees and Other Detainees* (1 Oct 1997)

AR 700-135, *Soldier Support in the Field* (31 Dec 2002)

AR 700-136, *Tactical Land Based Water Resources Management* (10 May 2005)

Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (9 Dec 1975)

DA PAM 40-11, *Preventive Medicine* (22 Jul 2005)

DODD 2310.1, *DOD Enemy POW Detainee Program* (18 Aug 1994)

DODD 5100.77, *DOD Law of War Program* (9 Dec 1998)

Environmental Health in Emergencies and Disasters: A Practical Guide (World Health Organization, 2002)

FM 3-19.4, *Military Police Leaders' Handbook* (4 Mar 2002)

FM 3-19.40, *Military Police Internment/Resettlement Operations* (1 Aug 2001)

FM 4-02.17, *Preventive Medicine Services* (28 Aug 2000)

FM 4-25.12, *Unit Field Sanitation Team* (25 Jan 2002)

FM 8-250, *Preventive Medicine Specialist* (27 Jan 1986)

FM 10-23, *Basic Doctrine for Army Field Feeding and Class I Operations Management* (18 Apr 1996)

FM 10-52, *Water Supply in Theaters of Operations* (11 Jul 1990)

FM 21-10, *Field Hygiene and Sanitation* (21 Jun 2000)

Geneva Convention Relative to the Treatment of Prisoners of War (12 Aug 1949)

Geneva Convention Relative to the Protection of Civilian Persons in Time of War (12 Aug 1949)

The Sphere Project Handbook (Sphere Project, 2004)

STANAG 2048 MED (Edition 3), *Chemical Methods of Insect and Rodent Control* (30 May 2001)

STANAG 2136 MED (Edition 4), *Minimum Standards of Water Potability During Field Operations and in Emergency Situations* (10 Apr 2002)

STANAG 2885 ENGR (Edition 3), *Emergency Supply of Water in War* (15 May 2001)

STANAG 2937 MED (Edition 3), *Survival, Emergency and Individual Combat Rations – Nutritional Values and Packaging* (9 May 2001)

STANAG 2982 MED (Edition 1), *Essential Field Sanitary Requirements* (26 August 1994)

Standards for Adult Correctional Institutions (American Correctional Association, 2003)

Study Report – Water Consumption Planning Factors, Directorate of Combat Developments (Quartermaster), U.S. Army Combined Arms Support Command, Fort Lee, VA (15 Jun 1999)

TB MED 530, *Food Service Sanitation* (30 Oct 2002)

TB MED 561, *Pest Surveillance* (1 Jun 1992)

TB MED 577, *Sanitary Control and Surveillance of Field Water Supplies* (Dec 2005)

TM 5-814-5, *Sanitary Landfill* (15 Jan 1994)

USACHPPM TG 138, *Guide to Commensal Rodent Control* (Dec 1991)

USACHPPM TG 150, *Guide for Selection and Operation of Medical Waste Incinerators* (Oct 1986)

USACHPPM TG 177, *A Commander's Guide to Regulated Medical Waste Management at Army Medical Treatment Facilities* (Sep 2001)

USACHPPM TG 288, *Entomological Operational Risk Management* (Sep 2003)

VETCOM Circular 40-1, *Worldwide Directory of Sanitarily Approved Food Establishments for Armed Forces Procurement* (1 Jun 2005)

War and Public Health: A Handbook (International Committee of the Red Cross, 1996)

APPENDIX B: GLOSSARY OF ACRONYMS AND TERMS**Acronyms**

ACA	American Correctional Association
ACS	Army Corrections System
AFPMB	Armed Forces Pest Management Board
AMEDD	Army Medical Department
AR	Army Regulation
CAT	Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment
cfm	cubic feet per minute
CI	civilian internee
CID	criminal investigation division
CONUS	Continental United States
CP	collecting point
DA	Department of the Army
DNBI	disease and non-battle injuries
DOD	Department of Defense
DODD	Department of Defense Directive
EPW	enemy prisoner of war
FAC	free available chlorine
FM	field manual
ft	foot, feet
GC	Geneva Convention Relative to the Protection of Civilian Persons in Time of War, 12 August 1949
GP	general purpose
GPW	Geneva Convention Relative to the Treatment of Prisoners of War, 12 August 1949
HEPA	high efficiency particulate air
IAW	in accordance with
I/R	internment/resettlement
ICRC	International Committee of the Red Cross
IFRC	International Federation of Red Cross and Red Crescent Societies
ISN	internment serial number
MI	military intelligence
MP	military police
MRE	meal, ready-to-eat
MTF	military treatment facility
NATO	North Atlantic Treaty Organization
NGO	non-governmental organization
NTU	nephelometric turbidity unit
OD	other detainee
PAM	pamphlet
ppm	parts per million
PVNTMED	preventive medicine
POW	prisoner of war
ROWPU	reverse osmosis water purification unit
RP	retained person
SOP	standing operating procedure
sq	square

STANAG	Standardization Agreement
TB	tuberculosis
TB MED	Technical Bulletin (Medical)
TG	Technical Guide
TOE	table(s) of organization and equipment
UCMJ	Uniform Code of Military Justice
UN	United Nations
UNHCR	United Nations High Commissioner for Refugees
U.S.	United States
USACHPPM	United States Army Center for Health Promotion and Preventive Medicine
WHO	World Health Organization
yds	yards

Terms

Civilian Internee(s) A civilian who is interned during armed conflict or occupation for security reasons or for protection or because he has committed an offense against the detaining power.

Detainee A term used to refer to any person captured or otherwise detained by an armed force.

Enemy Prisoner of War A detained person as defined in Articles 4 and 5 of the Geneva Convention Relative to the Treatment of Prisoners of War of August 12, 1949. In particular, one who, while engaged in combat under orders of his or her government, is captured by the armed forces of the enemy. As such, he or she is entitled to the combatant's privilege of immunity from the municipal law of the capturing state for warlike acts which do not amount to breaches of the law of armed conflict. For example, a prisoner of war may be, but is not limited to, any person belonging to one of the following categories who has fallen into the power of the enemy: a member of the armed forces, organized militia or volunteer corps; a person who accompanies the armed forces without actually being a member thereof; a member of a merchant marine or civilian aircraft crew not qualifying for more favorable treatment; or individuals who, on the approach of the enemy, spontaneously take up arms to resist invading forces.

Other Detainee Persons in the custody of the U.S. Armed Forces who have not been classified as an EPW (article 4, GPW), RP (article 33, GPW), or CI (article 78, GC), shall be treated as EPWs until a legal status is ascertained by competent authority.

Retained Person Enemy personnel who come within any of the categories below are eligible to be certified as retained personnel.

- a. Medical personnel who are members of the medical service of their armed forces.
- b. Medical personnel exclusively engaged in the—
 - (1) Search for, collection, transport, or treatment of, the wounded or sick.
 - (2) Prevention of disease.
 - (3) Staff administration of medical units and establishments exclusively.
- c. Chaplains attached to enemy armed forces.
- d. Staff of National Red Cross societies and other voluntary aid societies duly recognized and authorized by their governments. The staffs of such societies must be subject to military laws and regulations.

APPENDIX C: SAMPLE PREVENTIVE MEDICINE INSPECTION FORM

COMPREHENSIVE FIELD DETENTION FACILITY INSPECTION For use of this form, see TG 307; the proponent agency is the USACHPPM			
FACILITY NAME		FACILITY LOCATION	
FACILITY OIC		FACILITY NCOIC	
INSPECTOR'S NAME & UNIT			DATE
PURPOSE ☐ Initial ☐ Routine ☐ Follow-up ☐ Other (specify) _____		TYPE OF FACILITY ☐ Camp ☐ Hard site ☐ Mixed	
TOTAL FACILITY SQUARE FOOTAGE:		# COMPOUNDS:	
TOTAL # DETAINEES:		AVG # DETAINEES PER COMPOUND:	
TOTAL # MALES:		MAX # DETAINEES PER COMPOUND:	
TOTAL # FEMALES:			
TOTAL # JUVENILES:			

GENERAL & HOUSING

DESCRIPTION	PTS	DESCRIPTION	PTS	DESCRIPTION	PTS
Facility at least 1 mile from mosquito breeding sites, industrial zones, and villages Yes = 5; No = 0		Detainees are segregated by gender, age, status (EPW vs. CI), nationality, and medical status Yes = 5; No = 0		Protection from direct/indirect fire (hard structures or bunkers for 100% of population) Yes = 5; No = 0*	
Total camp population < 10,000 detainees Yes = 5; No = 0		Housing areas at least 100 ft from well or surface water point Yes = 5; No = 0		Clear emergency exits and fire-fighting equipment Yes = 5; No = 0*	
Compounds < 1000 detainees Yes = 5; No = 0		Covered living space >71 sq ft = 5; 40-71 sq ft = 3; <40 = 0*		Interior lighting ≥20 foot-candles at 30 in. from floor Yes = 5; No = 0	
Openings, skylights, windows provide natural lighting throughout housing areas Yes = 5; No = 0*		Beds/mats separated by minimum distance of 2.5 ft Yes = 5; No = 0		Firebreaks 100 ft wide every 1000 feet Yes = 5; No = 0	
Space between shelters >24 ft = 5; 8-24 ft = 3; <8 ft = 0		Existing structures approved for occupancy by engineers Yes = 5; No = 0		Standing water Absent = 5; Present = 0	
Roads between compounds >30 ft wide Yes = 5; No = 0		Flooring: Ground/concrete = 5; Removable (e.g., pallets) = 0*		Ventilation: ≥33% fresh air = 5; 10-32% = 3; <10% = 0*	
Program, work orders in place to correct previously noted deficiencies Yes = 5; No = 0		Air circulation: ≥12 cfm per person = 5; 6-11 = 3; <6 = 0*			

WATER SUPPLY

DESCRIPTION	PTS	DESCRIPTION	PTS	DESCRIPTION	PTS
Potable water provided at 4 gal/person/day; 8 gal/person/day if preparing food Yes = 5; No = 0*		Water quality IAW TB MED 577 Yes = 5; No = 0*		Clothing laundered at least weekly Yes = 5; No = 0*	
Potable water for religious/cultural practices (additional 0.5-1.5 gal/person/day) Yes or N/A = 5; No = 0		Handwashing basins/stations ≥6 per 100 detainees, soap present, good drainage Yes = 5; No = 0		Laundry (field/commercial) wash cycles at least 15 min at 130° F Yes = 5; No = 0	
Water for anal washing provided (additional 0.25-0.5 gal/person/day) Yes or N/A = 5; No = 0		Each detainee has water collecting container that holds 2.5-5 gal, with narrow neck and/or cover Yes = 5; No = 0		One laundry (hand) basin for every 100 detainees Yes = 5; No = 0	
At least one water point per 250 people Yes = 5; No = 0*		Showers: minimum 7 min per person once weekly Yes = 5; No = 0		At least 1 shower for every 25 detainees Yes = 5; No = 0*	
Maximum distance from housing to water point ≤ 550 yds Yes = 5; No = 0		All water points labeled as potable or non-potable in English and detainees' native language(s) Yes = 5; No = 0		Hot water temperature for bathing and hand washing is between 95° F and 120° F Yes = 5; No = 0	

FOOD SERVICE

DESCRIPTION	PTS	DESCRIPTION	PTS	DESCRIPTION	PTS
Facilities meet all sanitation requirements IAW FM 21-10 & TB MED 530. Inspection report attached Yes = 5; No = 0*		Detainees receive 3 meals per day at regular intervals, with no more than 14 hrs between meals Yes = 5; No = 0*		Food is procured from approved sources; meets nutritional and cultural requirements Yes = 5; No = 0*	
Facilities are located IAW TG 307, para 4.4 b.(2) Yes = 5; No = 0*		Procedures in place for notifying PVNTMED of suspected foodborne disease outbreaks Yes = 5; No = 0			

WASTE MANAGEMENT

DESCRIPTION	PTS	DESCRIPTION	PTS	DESCRIPTION	PTS
Latrines are provided at ratios of 1 for every 25 males and 1 for every 17 females Yes = 5; No = 0*		Latrine areas have adequate drainage and are maintained daily to ensure sanitary conditions Yes = 5; No = 0*		Latrines are located IAW para 4.5 b.(1)(e) & (f) Yes = 5; No = 0*	
Toilet paper is available at all times and protected from rain Yes = 5; No = 0		Handwashing devices are co-located with latrines, at least 1 for every 5 latrines Yes = 5; No = 0*		Privacy screens provided for latrines; unless security issue. Yes = 5; No = 0	
Adequate facilities, on or off site for disposal of solid waste Yes = 5; No = 0		33-gallon refuse containers are provided, 1 for every 25 detainees Yes = 5; No = 0*		Medical waste is disposed of properly (See para. 4.5 b.(4).) Yes = 5; No = 0	
Liquid waste disposed of in appropriate method (para. 4.5 b (3)); grease traps are present if indicated Yes = 5; No = 0		Adequate collection frequency for solid waste, at least weekly. Containers clean. Yes = 5; No = 0*		Facilities and procedures available for handling contaminated waste, including laundry Yes = 5; No = 0	

VECTOR / PEST CONTROL

DESCRIPTION	PTS	DESCRIPTION	PTS	DESCRIPTION	PTS
Vector/pest surveillance and control conducted IAW TB MED 561 Yes = 5; No = 0		No evidence of insect or rodent infestation. Yes = 5; No = 0*		Bedding aired and washed regularly Yes = 5; No = 0	
Clothing issued to detainees impregnated with permethrin Yes = 5; No = 0*		Detainee shelter constructed and maintained to prevent harborage Yes = 5; No = 0		No animals are present within the facility perimeter Yes = 5; No = 0	
Clothing and bedding laundered to sufficiently kill lice (IAW AFPMB TG 6) Yes = 5; No = 0		Detainees screened for lice and other vector-borne diseases during medical screenings Yes = 5; No = 0*			

COMMUNICABLE DISEASE CONTROL

DESCRIPTION	PTS	DESCRIPTION	PTS	DESCRIPTION	PTS
Medical surveillance data collected and forwarded to Theater Surgeon for analysis. Yes = 5; No = 0*		Communicable disease screening documented at entry & monthly thereafter Yes = 5; No = 0*		Personal hygiene supplies provided Yes = 5; No = 0*	
Detainees immunized IAW theater detainee health policy. Yes = 5; No = 0*		Copies of PVNTMED inspections on hand at the detention facility. Yes = 5; No = 0		Facility sanitation & hygiene SOP in place Yes = 5; No = 0	

OBSERVATIONS & COMMENTS**OVERALL SCORE:**

(330 possible pts)

NUMBER OF CRITICAL DEFICIENCIES (CDs):

(0 pts on standards identified with an asterisk)

RATING:**UNSATISFACTORY**

(< 290 pts and/or any CDs)

SATISFACTORY

(≥ 290 pts and no CDs)

EXEMPLARY

(≥ 310 pts and no CDs)

NEXT INSPECTION:

(within 30 days; CDs within 7 days)

Date:

INSPECTOR'S SIGNATURE:

Date:

FACILITY OIC or NCOIC'S SIGNATURE: