

## CHAPTER 19

## LAUNDRY AND SHOWER OPERATIONS AND CLOTHING AND LIGHT TEXTILE REPAIR



### INTRODUCTION

During peacetime, laundry and shower services are normally provided through fixed facilities or field expedient methods for short-duration field exercises. In support of long-term training, war, or OOTW, these services must be provided on a timely, efficient basis in the field. These functions will be provided from the tactical and operational levels with projection as far forward as the brigade area. The goal is to provide soldiers with two showers each week. In addition, soldiers will be provided up to 15 pounds of laundered clothing each week. In this process, soldiers will receive their clothing back from the tactical laundry within a 24-hour period. Laundry and shower capability will be enhanced through the development of containerized equipment that will improve deployment, mobility, and productivity. The force structure is equipped and manned to provide each soldier one shower a week. The second shower would be provided by field expediency, small-unit shower equipment, HNS, or contract operations.

### RESPONSIBILITIES

The need to provide clean, serviceable clothing and a shower has long been recognized as essential for hygiene and morale purposes. The units responsible for providing this support are discussed below.

#### **QM Field Service Company (FSC), DS**

This company is the primary provider of tactical field services to divisional and nondivisional personnel from the corps forward area to the FLOT. This includes shower, laundry, limited

clothing repair, and delousing. It is normally assigned to a CSB in a COSCOM.

#### **Combat Support Hospital (CSH)**

This field hospital has organic equipment to support its patient load. Hospital staff personnel are supported by the FSC in their area of operation. The hospital must request and coordinate staff services through support channels.

#### **Laundry and Renovation Company, GS**

The mission of the laundry and renovation company, GS, is to receive, classify, launder, renovate, and temporarily store clothing and lightweight laundered textiles. The company also processes and stores seasonal clothing and equipment. It is assigned to a TAACOM and attached to a supply and service battalion in an area support group. The company operates on two shifts and is organized with a headquarters section, operations section, classification and storage platoon, and a laundry and renovation platoon. The classification and storage platoon consists of a platoon headquarters, a classification section, and a storage section. The laundry and renovation platoon consists of the platoon headquarters, renovation section, and a laundry section. The company is capable (weekly) of receipt, classification, and temporary storage of about 22 tons of clothing and lightweight textiles; renovation of about 35,000 items; and laundering of 44,000 pounds of clothing.

#### **QM Laundry Service Team**

This team is normally attached to a TAACOM hospital unit, base (field), or a TAACOM hospital

unit, base (general). The team provides weekly laundry service for 500 hospital patients based on 77 pounds for each patient a week.

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## CONCEPT OF OPERATIONS

The concept for laundry and shower support has been developed around the FSC, DS. It will, therefore, be addressed in depth. Although the laundry and renovation company and the QM laundry service teams have a recognized need, they are not currently resourced.

### General

At level one capability the FSC, DS, can support 17,500 soldiers a week. It can cleanup to 15 pounds of laundry for each soldier a week, provide one shower for each soldier a week, and perform limited repair for clothing being laundered. The company has equipment to provide mass delousing under the direction and supervision of medical personnel. It provides its own food service and organizational maintenance for organic equipment, less communications equipment. The FSC depends on corps elements for medical, legal, personnel, administrative, and religious services; maintenance of communications security equipment; and additional transportation. It depends upon battalion headquarters for organizational maintenance of communications equipment.

### Support Flow (Normal and Contingency)

The FSC normally operates at the tactical level of logistics in the corps forward or division area as far forward as METT-T allow. Maximum use of available HNS and local contracts is encouraged for shower, laundry, and clothing repair to increase the capabilities of the FSC. HNS and contract support must be used for soldiers in the corps rear and in the operational level of logistics. They are also required for general support for the cleaning and repair of organizational clothing and individual equipment (OCIE).

The company is modular by design with a platoon headquarters and five shower, laundry, and clothing repair (SLCR) sections. The SLCR sections will start from the company base and be sent to supported units as scheduled by the SLCR platoon headquarters. The platoon headquarters coordinates platoon functions (with supported units), site selection, preventive medicine, and site security. Access to a water source is preferred, but the organization has limited water storage capability when a water source is not available. Supported units will provide additional personnel to guard weapons and valuables of their personnel and to carry out mass delousing operations. They may also be requested to help in site setup. An FSC shower, laundry, and clothing repair section can support 3,500 soldiers a week (500 per day) and may be deployed in support of a brigade-size element. The SLCR sections are 100 percent mobile. Additional transportation may be required for other company elements.

The FSC must communicate with battalion headquarters, supported units, and the SLCR sections. The commander assigns the communication assets as needed to perform the mission. Since the SLCR sections are not collocated with the company headquarters, they should have telephones and local switchboard support in their areas of operation. When support is completed in one area, a section recovers equipment and moves to the next location. Prior coordination through support channels determines the next location. See Figure 19-1 (page 19-3). The SLCR sections may be task-organized to accommodate a particular strength requirement.

### Operations

Supported personnel would arrive at the shower point with their dirty laundry and a change of clothing to wear after they shower. After showering they would go to the laundry point and turn in up to 15 pounds of dirty clothing. The soldiers place their dirty clothing in mesh bags. Clothing needing repair will be identified when turned in

for cleaning. The dirty clothing is laundered, repaired (as necessary), and returned to the supported unit within 24 hours. Coordination may be made with the supported unit for pickup. The SLCR section uses organic vehicles to deliver clean individual laundry to the supported unit battalion S4.

When medical personnel determine that mass delousing is required, a delousing station is set up and is manned by supported unit personnel under the supervision of shower point personnel. A medical representative must be present during mass delousing operations. The supported unit coordinates the presence of medical personnel with their supporting medical facility.

Delousing operations, when required, are performed with shower operations.

### Shower Services

The shower point is staffed with three personnel. Supported units must provide guards for valuables and individual weapons. Each supported unit receives a scheduled time for SLCR support so that services are provided in a timely and orderly manner. Females will be scheduled separately from males. Upon completion of a shower, the supported soldiers must take their soiled clothing to the laundry turn-in point.

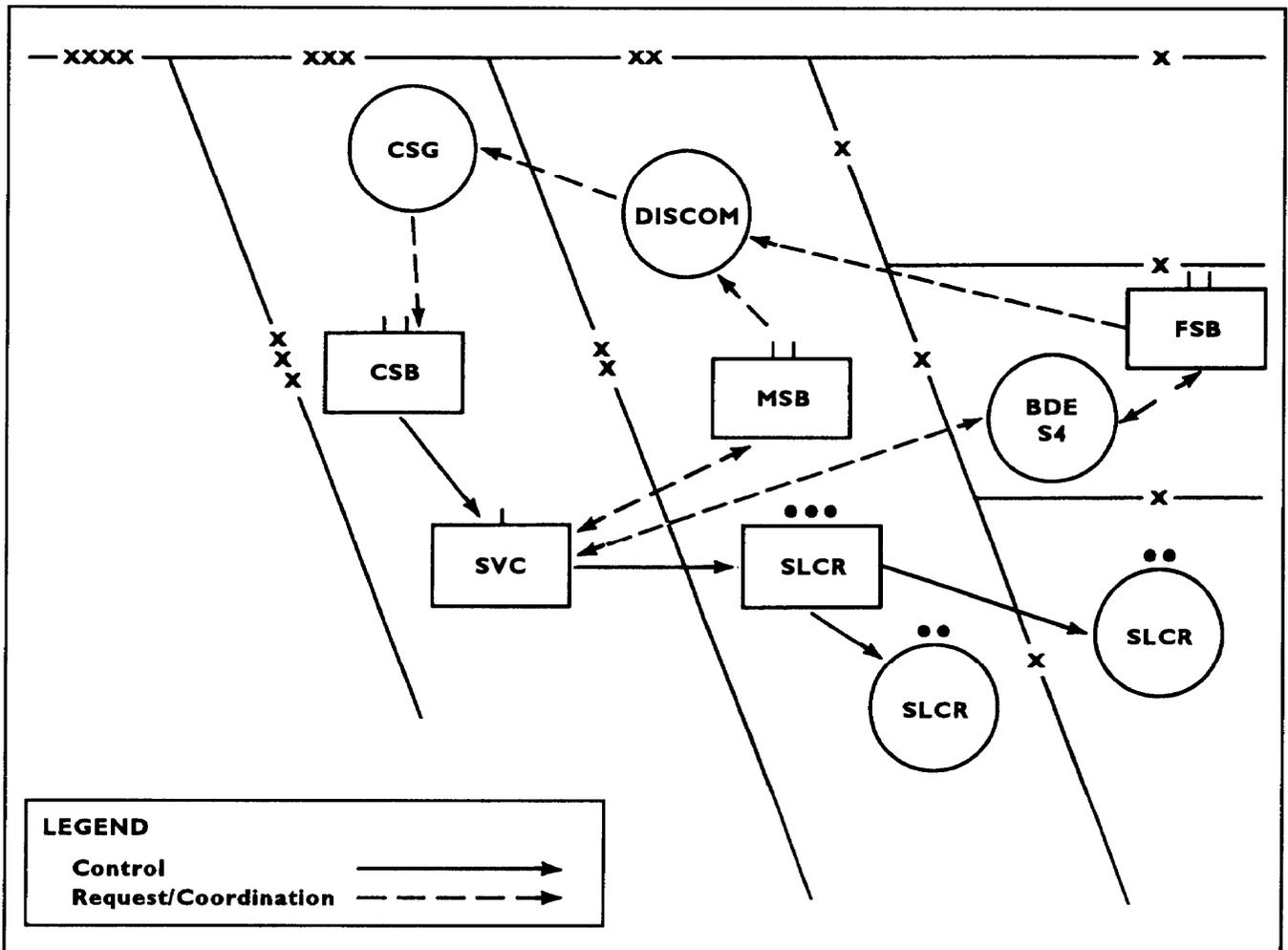


Figure 19-1. Support channels for SLCR sections

## Laundry Services

As soldiers turn in their soiled clothing they must identify clothing requiring repair. All soiled clothing is cleaned and sent to clothing repair, if required, or the shipping point. At the shipping point clothing bundles are separated by unit and returned to the supported unit.

### Clothing Repair Operations

Clothing repair performed by the SLCR sections is in support of shower and laundry operations. Repairs are limited to individual clothing of units being supported with shower and laundry services. No single repair shall exceed five rein-utes in duration and no item of clothing will be repaired if total repairs exceed 15 minutes. Any items exceeding these limitations will be returned to the soldier for replacement through normal supply channels. Table 19-1 (page 19-5) shows a list of the repairs made by the SLCR sections and the approximate time for each repair.

MOS 43M soldiers (fabric repair specialists) are assigned to the field service companies to repair lightweight textiles and clothing items. These specialists are also authorized (in selected maintenance TOEs) to repair medium-weight and heavyweight textiles. They repair canvas and fabrics used on vehicles and items such as seat covers, tarpaulins, cargo covers, and swim barriers. The FSC fabric repair specialists are authorized clothing repair shops (trailer-mounted) and the canvas worker's tool kit. The fabric repair specialists in maintenance companies are authorized the canvas and glass shop (shelter-mounted) and the canvas worker's tool kit. It is important to note that the fabric repair specialists assigned to an FSC do not have the equipment to repair medium-weight and heavyweight fabrics like tents and tarpaulin.

### NBC Decontamination Operations

The FSC does not provide laundry decontamination support, and showers are not required for detailed troop decontamination of chemical and biological agents. A shower may or may not be

needed for radiation decontamination. If mission-oriented protection posture (MOPP) was used as a protective measure against fallout, no showers will be needed. If MOPP 4 was not used, then contamination will be lodged in hair and on skin and can only be removed by showering. The assessment and recovery team will coordinate these showers with the FSC. The runoff from these showers will be contaminated and should be controlled. For decontamination procedures refer to FM 3-5. The new chemical protective clothing being developed and issued can be cleaned before being contaminated and still keep its protective qualities. Once exposed to contamination, however, it must be disposed of under theater policies.

## PLANNING CONSIDERATIONS

Since SLCR force structure is rather limited, planning is very important. Some planning considerations are discussed below.

### Site Selection

The mission assigned to the FSC by higher headquarters is the chief consideration when selecting a site for operations. A site is selected based upon the number of personnel to receive services, the location, and time constraints. The site should be located as close to the unit or command being supported as possible. It should have plenty of clean water, proper drainage, gently sloping terrain, good roads, and natural cover and concealment. A ditch or drainage system should be available to carry off wastewater. Suggested site layout is shown in Figure 19-2 (page 19-5).

### Water

The SLCR site must have an ample supply of clean water. The water must be as free from impurities as possible. Each laundry trailer uses about 350 gallons of water per hour, and each nine-head shower uses about 1,200 gallons per hour. In accordance with AR 700-135, each

soldier will be provided a minimum of one shower and have laundry service provided once a week while in the field. Laundry and shower planning and authorizations are based on this weekly cycle. Laundry and shower support above the standard will require additional water supplies and will decrease the number of soldiers that an FSC can support. Remember that potable water is not required for normal operations and most climatic areas. The water may require some treatment to remove foreign matter and microorganisms. When nonpotable water is used for showers, signs must be posted warning soldiers not to drink it.

The Army water doctrine requires potable water to be used in an arid environment. In arid environments or areas in which potable water must be supplied, the SLCR sections coordinate

their potable water requirements through the battalion to the MMC. Refer to Chapter 15 for water request procedures.

Table 19-1. Types of clothing repairs and repair times

REPAIR	APPROXIMATE TIME (Minutes)
Sew Name Tag	4
Sew US Army Tag	4
Sew Unit Insignia	3
Replace Button	1
Darn Small Holes, Rips, and Tears	5
Iron on Patch	5
Restitch Seams	5

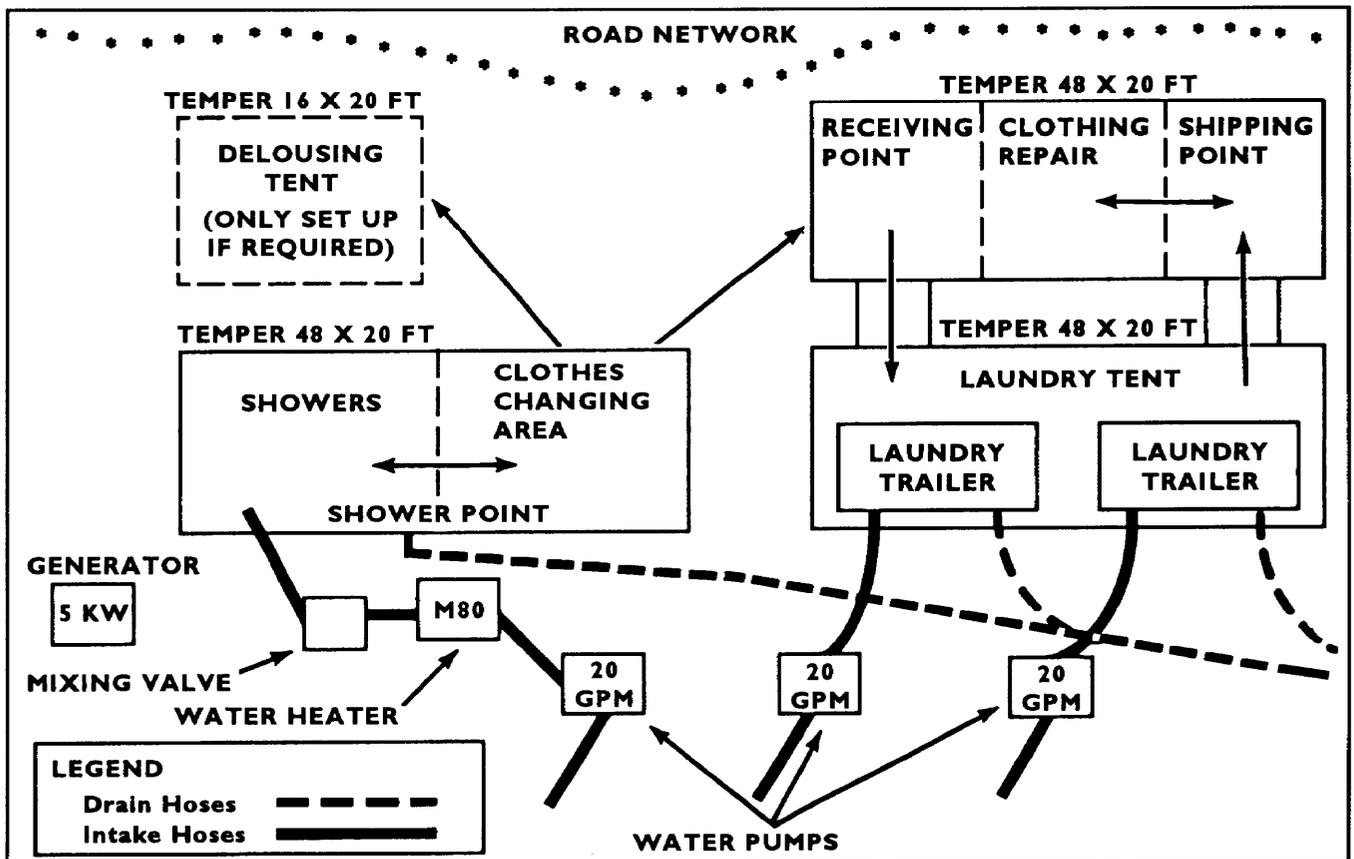


Figure 19-2. Possible site layout for SLCR operations

Currently there is no standard form used to request water. Normally, the platoon sergeant or section sergeant will select a site with an abundant water supply. When operations take place in towns and cities, local water supplies can be used. The SLCR sections are equipped with 3,000-gallon collapsible water tanks when they need to have water transported to them. If hard water is used (high mineral content), it is important that the proper amount and type of detergent be used. The recommended water consumption factor for hot, cold, and temperate climates is 6.5 gallons per soldier per day for laundering of clothing and

3 gallons per soldier per day for showers. As a rule of thumb, it requires 3 gallons of water for every pound of clothing processed and a flow rate per shower head of 2.5 gallons per minute. Table 19-2 shows the water planning data used for laundry and shower operations.

Fuel

Proper planning and coordination of fuel support are required if operations are to start up immediately upon arrival at a site. Table 19-3 (page 19-7) provides the hourly requirement for each piece of equipment.

Table 19-2. Laundry and shower planning data

LAUNDRY WATER PLANNING DATA					
A Gallons Per Load	B Pounds Per Load	C Gallons Per Pound (A ÷ B)	D Pounds Per Soldier/Week	E Pounds Per Soldier/Day (D ÷ 7)	F Gallons Per Soldier/Day (C x E)
180	60	3	15	2.14	6.42

SHOWER WATER PLANNING DATA					
A Minutes Per Shower	B Cycles Per Hour (60 ÷ 7)	C Soldiers Per Cycle	D Soldiers Per Hour (B x C)	E Usage ** Factor	F Showers Per Hour (D x E)
7	8.6	9	77.14 *	.70 Division .85 Corps .90 COMMZ	54 66 69
G Gallons Per Hour (Equipment)	H Gallons Per Soldier/Week (G ÷ F)	I Gallons Per Soldier/Day (H ÷ 7)			
1,200	22.17 Division 18.20 Corps 17.40 COMMZ	3.17 Division 2.60 Corps 2.48 COMMZ			

\* The 77.14 showers per hour assumes a constant flow of traffic where nine soldiers would instantaneously replace the soldiers using the showers without any break in the queue.

\*\* The usage factor is based on unscheduled maintenance, late troop arrival, and working requirements of the supported unit.

Table 19-3. SLCR fuel planning data

COMPONENT	GALLONS PER HOUR	TYPE OF FUEL
10-KW Generator	1.09	Diesel
M85 Water Heater	2.50	Diesel
Dryer	2.10	Diesel
3-KW Generator	0.84	MOGAS
M80 Water Heater	2.50	Diesel
Delouser	0.35	MOGAS

### EMERGING CONCEPTS, SYSTEMS, AND MATERIEL

An emerging concept and several new systems will impact on laundry, shower, and clothing repair operations in the next few years. These are discussed below.

#### Emerging Concept

The emerging concept will formalize a team organization where the shower, laundry, and clothing repair functions will be collocated.

#### Emerging Systems and Materiel

The major initiative in the laundry arena is to develop and field a dry cleaning system. Such a system, using an environmentally safe solvent, will end the requirement for water in laundry operations. The closed-loop system will regenerate the solvent for unlimited use. Replacement solvent would be required for that lost through maintenance, evaporation, or improper operation. The system would be containerized to make setup and tear-down faster. Now in development, the system has a projected fielding date of FY 97.

A containerized shower is being developed which will allow for faster setup and tear-down, better control of wastewater, and increased mobility. The fully developed system could be fielded by FY 99. In a related soldier enhancement program initiative, a small unit shower is being developed for fielding in FY 95. This shower would provide an added capability to give the soldier more than one shower per week. It would

also provide small detached units a shower capability when they cannot be supported by an organized QM shower unit. It will be a CTA item available to most units.

### SAFETY AND ENVIRONMENTAL ISSUES

Safety and environmental issues are always prime considerations when developing new equipment and systems. Some of these that pertain to laundry, shower, and clothing repair operations are discussed in the following paragraphs.

#### Safety

Equipment in the field is constantly being evaluated for safety and health hazards. Laundry and shower equipment items present safety and health hazards with their liquid fuels, hot surface temperatures, hot water, carbon monoxide from hot exhaust air, and electrical shock potential. An added health hazard concern is personnel assigned to the laundry handling soiled clothing and hospital items. It is possible that such items could have been used by personnel with contagious or infectious diseases, lice, or other health hazards. Laundry personnel should wear protective latex or rubber gloves, surgical mask, and possibly rubber or waterproof aprons.

#### Environmental

The main environmental concern with laundry and shower operations is disposal of wastewater. In many areas the practice of draining wastewater downstream in a river or into a sump is being stopped. Certain areas may require that wastewater be stored and hauled to an approved dump site. The use of an approved sewage system is not only encouraged but now mandatory on some Army posts. In accordance with AR 700-135, commanders are required to check with local environmental engineers before discharging any water on the ground. Laundry and shower personnel must be sure that drainage ditches are dug around components and drain hoses feed into the ditches to control water discharge. The proper

use of detergents, bleaches, and other chemical supplies is necessary to control environmental impact. Fuel is supplied in 55-gallon drums or 20-liter fuel cans and connected to the equipment components by fuel lines (dryer and water heaters) or poured directly into fuel tanks on the other components (generators). Extreme caution must be exercised to prevent fuel spills.

**RELATED DOCTRINE**

A number of publications expand on and further explain the laundry, shower, and clothing repair functions. Some of these publications and the topics they cover are listed in Table 19-4.

*Table 19-4. SLCR-related publications*

<b>Army Regulations</b>	<b>Topic</b>
<b>700-135</b>	<b>Mobile field laundry and bath operations</b>
<b>Field Manuals</b>	<b>Topic</b>
<b>3-5</b>	<b>NBC decontamination</b>
<b>10-27-2</b>	<b>Tactics, techniques, and procedures for QM DS supply and field services operations</b>
<b>10-52</b>	<b>Water supply in theaters of operations</b>
<b>10-280</b>	<b>Mobile field laundry, clothing exchange, and bath operations</b>