

**CHAPTER 408. VETERANS HEALTH ADMINISTRATION: ENVIRONMENTAL  
MANAGEMENT SERVICE LAUNDRY AND LINEN OPERATION**

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## 1 PURPOSE AND SCOPE

This document outlines the Space Planning Criteria for Chapter 408: Environmental Management Service Laundry and Linen Operation. It applies to all medical facilities at the Department of Veterans Affairs (VA) that maintain a laundry operation.

## 2 DEFINITIONS

- A. Concept of Operations: A user-developed guide to the functional operation of the VA healthcare facility. It defines the function of the facility and the scope of Laundry and Linen services to be provided in new or remodeled space.
- B. Departmental Net to Gross (DNTG) Conversion Factor: A parameter, determined by the VA for each space planning criteria chapter, used to convert the programmed Net Square Foot (NSF) area to the Department Gross Square Foot (DGSF) area. The DNTG Departmental Conversion Factor for EMS Laundry and Linen Operation is 1.15.
- C. Full-Time Equivalent (FTE): A staffing parameter equal to the amount of time assigned to one full time employee. It may be composed of several part-time employees whose total time commitment equals that of a full-time employee. One FTE equals a 40 hours per week.
- D. Functional Area: The grouping of rooms and spaces based on their function within a service.
- E. Input Data Statement: A set of questions designed to elicit information about the healthcare project in order to create a Program for Design (PFD) based on the criteria parameters set forth in this document. Input Data Statements could be Mission related, based in the project's Concept of Operations; and Workload or Staffing related, based on projections and data provided by the VHA or the VISN about the estimated model of operation. This information is processed through mathematical and logical operations in SEPS.
- F. Program for Design (PFD): A space program based on criteria set forth in this document and specific information about Concept of Operations, workload projections and staffing levels authorized.
- G. Linen Pounds per Patient Day (PPD): The average number of pounds of soiled linen that is generated per patient per day.
- H. SEPS (VA-SEPS): Acronym for Space and Equipment Planning System, a digital tool developed by the Department of Defense (DoD) and the Department of Veterans Affairs to generate a Program for Design (PFD) and an Equipment List for a VA healthcare project based on specific information entered in response to Input Data Questions. VA-SEPS incorporates the propositions set forth in all VA space planning criteria chapters. VA-SEPS has been designed to aid healthcare planners in creating a space plan based on a standardized set of criteria parameters.

### 3 OPERATING RATIONALE AND BASIS OF CRITERIA

- A. Workload Projections or planned services / modalities for a specific VA medical center, hospital or satellite outpatient clinic project are provided by the VA Central Office (VACO) / VISN CARES Capacity Projection Model. The workload projections are generated by methodology based upon the expected veteran population in the respective market / service area. Healthcare planners working on VA medical center, hospital or satellite outpatient clinic projects will utilize and apply the workload based criteria set forth herein for identified services and modalities to determine room requirements for each facility.
- B. Space planning criteria have been developed on the basis of an understanding of the activities involved in the functional areas of Environmental Management Service Laundry and Linen Operation and its relationship with other services of a medical facility. These criteria are predicated on established and/or anticipated best practice standards, as adapted to provide environments supporting the highest quality health care for Veterans.
- C. These criteria are subject to modification relative to development in the equipment, medical practice, vendor requirements, and subsequent planning and design. The selection of the size and type of Environmental Management Service Laundry and Linen Operation equipment is determined by VACO and upon Veterans Health Administration (VHA) anticipated medical needs.
- D. The Department of Veterans Affairs (VA) laundry is responsible for providing an adequate, constant, and clean supply of linen to all users. The basic tasks include: sorting, weighing, washing, ironing, tumbling (drying), folding, mending, marking, and delivery. The laundry is usually responsible for the preparation of surgical linen packs that involves the inspection of linen, mending, fabrication of specialized linen items, and the make-up of the linen packs. As a part of the Patient Assistance Program, patient clothing is washed processed through the laundry.
- E. Environmental Management Service calculates linen processing quantities based on the average pounds of soiled linen generated per patient day. Site-specific historical data is utilized to calculate the number of pounds per bed by category per day (365). These figures are then multiplied by the number of projected beds in order to obtain the estimated annual pounds of linen.

Similar calculations must be performed to obtain the annual poundage for the miscellaneous categories of linen, for example: administration, clinics.

- F. Assume the following soiled linen quantities per bed per day (PB/PD):

General Hospitals:	18 pounds
Teaching Hospitals:	20 pounds
Psychiatric Hospitals:	12 pounds
Nursing Homes:	8 pounds

Annual pounds are the number of pounds/kilograms of soiled linen generated by the facility (medical center) for 365 days or the number of pounds/kilograms processed by the laundry based on 260 days of operation per year.

Laundries operate 5 days per week for 8 hours per day. Average equipment operating time is 5 days per week for 7 hours per day or 1,820 hours per year.

#### 4 PROGRAM DATA REQUIRED (Input Data Questions)

##### A. Mission Input Data Statements

1. Is an EMS Laundry Plant Manager FTE position authorized? (M)
2. Is an EMS Assistant Plant Manager FTE position authorized? (M)
3. Is an EMS Secretary FTE position authorized? (M)
4. Is a Vending Area authorized? (M)
5. Is Linen Pack Preparation authorized? (M)
6. Is Linen Repair authorized? (M)

##### B. Workload Input Data Statements

1. What is the total Daily Poundage of soiled patient linen projected? (W)
2. How many patient beds in total are projected? (W)
3. How many soiled carts are projected? (W)
4. How many cart washers are projected? (W)

##### C. Miscellaneous Input Data Statements

1. How many EMS FTEs will work on peak shift? (Misc)
2. How many EMS FTE positions are not authorized to have office or cubicle space? (Misc)

#### 5 SPACE CRITERIA

##### A. Staff and Administrative Areas

1. **Office, Laundry Plant Manager (OFA01 / OFA02) .....100 NSF (9.3 NSM)**  
*Provide one per Environmental Management Service Laundry and Linen Operation if authorized in Concept of Operations; provide OFA01 if standard furniture is authorized; or, OFA02 is systems furniture is authorized.*
2. **Office, Assistant Plant Manager (OFA01 / OFA02) .....80 NSF (7.4 NSM)**  
*Provide one per Environmental Management Service Laundry and Linen Operation if authorized in Concept of Operations; provide OFA01 if standard furniture is authorized; or, OFA02 is systems furniture is authorized.*
3. **Cubicle, Secretary (SEC01).....64 NSF (5.9 NSM)**  
*Provide one per Environmental Management Service Laundry and Linen Operation if authorized in Concept of Operations.*
4. **Vending Area (BX001) .....50 NSF (4.7 NSM)**  
*Provide one per Environmental Management Service Laundry and Linen Operation if authorized in Concept of Operations.*
5. **Conference / Training Room (CRA02) .....300 NSF (27.9 NSM)**  
*Provide one per Environmental Management Service Laundry and Linen Operation.*

6. **Storage, Supplies (SRSE1)**..... **100 NSF (9.3 NSM)**  
*Provide one per Environmental Management Service Laundry and Linen Operation.*
7. **Housekeeping Aides Closet – HAC (JANC1)**..... **40 NSF (3.7 NSM)**  
*Provide two per Environmental Management Service Laundry and Linen Operation.*

B. Staff Lounge, Lockers and Toilets:

The spaces below provide programming of Lounge, Lockers, and Toilets at department / service / chapter level. Alternatively, sum all departments/services data for Lockers, Lounges and Toilets, and program space in Chapter 410-EMS Lockers, Lounges, Toilets and Showers. Either/or – do not duplicate space. Provide locker space only for those FTEs without office or cubicle space.

1. **Lounge, Staff (SL001)** ..... **120 NSF (11.1 NSM)**  
*Minimum NSF; provide an additional 15 NSF per each projected FTE on peak shift greater than five; maximum 210 NSF.*

For less than five FTE combine Lounge facilities with adjacent department or sum in chapter 410.

2. **Locker Room, Staff (LR001)** ..... **80 NSF (7.5 NSM)**  
*Minimum NSF if total number of FTE positions not authorized to have office or cubicle space is between five and thirteen; provide an additional 6 NSF per FTE position if total number of FTE positions not authorized to have office or cubicle space is greater than thirteen.*

Provide locker space only for those FTEs without assigned office or cubicle space. For less than five FTE combine Locker Room facilities with adjacent department or sum in chapter 410.

3. **Toilet, Staff (TLTU1)** ..... **50 NSF (4.7 NSM)**  
*Minimum one; provide an additional staff toilet for each increment of five projected FTEs on peak shift greater than thirteen.*

C. Production Areas

1. **Receiving (LCSL1)** ..... **600 NSF (55.7NSM)**  
*Minimum NSF or divide the total projected Daily Poundage of Patient Soiled Linen (DPPSL) by 4, whichever is greater; maximum 1,200 NSF.*

This space is for the receiving of soiled linen transported by trucks, space for identifying the source (medical centers, other facilities) of the soiled linen, and space for storing linen carts. This area should be contiguous to the Sorting and Washing Area.

2. **Sorting and Washing (LCSL1)**..... **800 NSF (74.3 NSM)**  
*Minimum NSF or divide the total projected Daily Poundage of Patient Soiled Linen (DPPSL) by 3, whichever is greater; maximum 1,800 NSF.*

This area provides space for weighing and sorting linen, storage of linen carts, and loading washing equipment.

3. **Storage, Linen (LCCL1)**.....**240 NSF (22.3 NSM)**  
*Provide one per EMS Laundry and Linen Operation.*

This area provides space for storing linen that is not directly in production, such as seasonal items, new uniforms and linen issues.

4. **Central Liquid Supply System (LCCL1)**.....**200 NSF (18.6 NSM)**  
*Provide one per EMS Laundry and Linen Operation.*

This area provides space for measuring and loading washing equipment.

5. **Cart Washer (CWSH2)** .....**140 NSF (13.1 NSM)**  
*Provide one per each projected cart washer.*

6. **Clean Linen Processing (LCCL1)** .....**1,800 NSF (167.2 NSM)**  
*Minimum NSF or divide the total projected Daily Poundage of Patient Soiled Linen (DPPSL) by 1.5, whichever is greater; maximum 3,600 NSF.*

This area provides a space for removing linen from the washing equipment, transport of linen, drying ironing, folding, and finishing linen.

7. **Clean Linen Holding and Assembly (LCFA1)** .....**440 NSF (40.8 NSM)**  
*Minimum NSF or divide the total projected Daily Poundage of Patient Soiled Linen (DPPSL) by 3, whichever is greater; maximum 2,000 NSF.*

This space provides an area to hold clean linen in classified lanes and for assembling linen loads into carts.

8. **Distribution (Cart Storage, Dispatch) (LCCL1)** .....**400 NSF (37.2 NSM)**  
*Minimum NSF or divide the total projected Daily Poundage of Patient Soiled Linen (DPPSL) by 5, whichever is greater; maximum 1,500 NSF*

This area provides space for the storage, queuing and dispatch of clean linen carts. It should be located contiguous to the Clean Linen Holding and Assembly Area.

9. **Linen Pack Preparation (CSCQ1)** .....**240 NSF (22.3 NSM)**  
*Provide one if Linen Pack Preparation is authorized in Concept of Operations.*

This area provides space for storage of sorted linen needed for pack preparation, inspection of linen, and the assembly, storage and dispatch of surgical packs.

10. **Linen Repair (LCS01)** .....**120 NSF (11.2 NSM)**  
*Provide one per EMS Laundry and Linen Operation and if authorized in Concept of Operations.*

This area provides space for linen repair. Sewing machines and hot-patch equipment are usually utilized in this area.

D. Medical Center Linen Support Areas

These areas are provided within the VAMC for the collection and distribution of linen (clean, soiled, and uniforms).

1. **Linen Chute Collection (LCFA1)** ..... **60 NSF (5.6 NSM)**  
*Minimum NSF; provide an additional 100 NSF if the total number of projected patient beds is greater than two hundred fifty; provide an additional 140 NSF if the total number of projected patient beds is greater than six hundred and if Medical Center authorized in Concept of Operations.*

This area provides space at the termination of soiled linen chutes for the collection of linen and the loading of carts.

2. **Soiled Linen Cart Staging (LCSL1)** ..... **200 NSF (18.6 NSM)**  
*Minimum NSF; provide an additional 12 NSF per each projected soiled cart greater than fifteen and if Medical Center authorized in Concept of Operations.*

This area provides space for the staging of soiled linen carts prior to truck pickup for return to the laundry. This space is not required when the laundry is physically a part of the medical center building.

3. **Storage, Clean Linen Cart (LCCL1)**..... **120 NSF (11.2 NSM)**  
*Provide one per EMS Laundry and Linen Operation and if Medical Center authorized in Concept of Operations.*

Provide a storage room for clean linen carts before delivery. This room is not required when the laundry is located within the medical center structure.

4. **Uniform Exchange (LCUC1)** ..... **140 NSF (13 NSM)**  
*Provide one per EMS Laundry and Linen Operation and if Medical Center authorized in Concept of Operations.*

This space includes an automated uniform dispenser.

**6 PLANNING AND DESIGN CONSIDERATIONS**

- A. Department net-to-gross factor (**DNTG**) for **Environmental Management Service Laundry and Linen Operation** is **1.15**. This number when multiplied by the programmed net square foot (NSF) area determines the departmental gross square feet.
- B. Laundries are classified as either individual or consolidated. The individual laundry provides service only to the medical center where it is located. The laundry can be constructed as part of the medical center structure or can be separate building. The consolidated laundry serves more than one medical center. It is not essential for consolidated laundries to be located at a medical center site.

- C. Linen carts are approximately 2'-6" w x 5'-0" l x 5'-0" h. They hold approximately 60 cubic feet of linen. One cubic foot of clean linen weighs approximately 8 pounds. One cubic foot of soiled linen weighs approximately 10 pounds.

## 7 FUNCTIONAL RELATIONSHIP

Relationship of Environmental Management Service Laundry and Linen Operation to services listed below:

**TABLE 1: FUNCTIONAL RELATIONSHIP MATRIX**

SERVICE	RELATIONSHIP	REASONS
Linen Room	1	A,B,C,G,I
Loading Dock	1	A,C,G,I
Soiled Dock	1	A,C,E,G,I
EMS	2	A,C,G, I
Critical Care Units	3	G
Patient Care Units	3	G
Surgery	3	G
Outpatient Clinics	4	L

### Legend

Relationship:

1. Adjacent
2. Close / Same Floor
3. Close / Different Floor Acceptable
4. Limited Traffic
5. Separation Desirable

Reasons:

- A. Common use of resources
- B. Accessibility of supplies
- C. Urgency of contact
- D. Noise or vibration
- E. Presence of odors or fumes
- F. Contamination hazard
- G. Sequence of work
- H. Patient convenience
- I. Frequent contact
- J. Need for security
- K. Closeness inappropriate



## 8 FUNCTIONAL DIAGRAM

