

CHAPTER 285: VETERANS HEALTH ADMINISTRATION - SUPPLY PROCESSING AND DISTRIBUTION (SPD)

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1 PURPOSE AND SCOPE

This document outlines Space Planning Criteria for Chapter 285: Supply Processing and Distribution. It applies to all medical facilities at the Department of Veterans Affairs (VA).

Supply, Processing and Distribution is responsible for:

1. Processing and issuing of:
 - a Medical/Surgical supplies, reprocessed items and one use items (commonly called disposable).
 - b Equipment used in delivery of patient care.
2. Distribution:
 - a Vertical and horizontal distribution of SPD products to points of use or terminal points by acceptable modes of conveyance; ranging from manual through fully automated systems.
3. Storage of Medical/Surgical (M/S) supplies and equipment.
 - a Storage and maintenance of a defined level of M/S supplies and equipment at the points of use and in SPD.
4. The collection of unused (expired) M/S supplies, used M/S supplies and equipment is the responsibility of SPD. These items are returned to SPD for reprocessing or disposal. However, the disposal of pathological wastes and removal of soiled linen is the responsibility of Environmental Management Service.

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 medical services to be provided in the 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 SPD is **1.30**.
- 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 clinical service. Typical Functional Areas are Reception Areas, Patient Areas, Support Areas, Staff and Administrative Areas, Residency and / or Externship Program Areas.
- 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. Net-to-department-gross (NTDG): See Departmental Conversion Factor.
- G. Program for Design (PFD): A space program generated by VA-SEPS based on criteria set forth in this document and specific information entered about Concept of Operations, Workload projections and Staffing levels authorized.
- 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.
- I. Supply, Processing and Distribution (SPD): Area where Medical/Surgical (M/S) supplies and equipment are processed, staged and ready for distribution to the patient care units.

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 Supply Processing and Distribution 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 Medical equipment is determined by VACO. VISN and upon Veterans Health Administration (VHA) anticipated medical needs.
- D. SPD is should be planned as a 24 hour, 7 days per week operation.

4 PROGRAM DATA REQUIRED (Input Data Questions)

A. Mission Input Data Statements

1. Is an SPD operation authorized? (M)
2. Is a surgical case cart system authorized? (M)
3. Is Ethylene Oxide (ETO) sterilization authorized? (M)
4. Is Inspection and Preparation of surgical packs within SPD authorized? For alternative see EMS-Laundry/Linen Chapter 408. (M)
5. Is a Conference / Training Room authorized? (M)
6. Is an Assistant Chief authorized? (M)

B. Workload input Data Statements

1. How many Medical Surgical patient beds are projected? (W)
2. How many MICU patient beds are projected? (W)
3. How many SICU patient beds are projected? (W)
4. How many CCU patient beds are projected? (W)
5. How many SCI patient beds are projected? (W)
6. How many Mental Health patient beds are projected? (W)
7. How many Nursing Home Care beds are projected? (W)
8. How many annual Outpatient Visits are projected? (W)
9. How many ORs are authorized? (W)

C. Staffing Input Data Statements

1. How many Clerical FTE positions are authorized? (S)
2. How many FTE staff members, excluding FTEs in the Soiled Receiving and Decontamination Area, are authorized? (S)
3. How many FTE staff members are authorized in the Soiled Receiving and Decontamination Area? (S)

D. Miscellaneous Input Data Statements

1. How many Washer Decontaminators are authorized? (Misc)
2. How many Case Carts are authorized? (Misc)
3. How many Assembly Workstations are authorized? (Misc)
4. How many Terminal Sterilizers are authorized? (Misc)
5. How many FTE positions are not authorized to have office or cubicle space? (Misc)
6. How many FTEs will work on peak shift? (Misc)

5 SPACE CRITERIA

A. Soiled Areas:

1. **Soiled Transition Room (CSCR1) 160 NSF (14.8 NSM)**
Provide one per SPD.
2. **Decontamination (CSDE3) 800 NSF (93 NSM)**
Minimum NSF; provide an additional 10 NSF per each Case Cart projected, and an additional 30 NSF per each Washer Decontaminator authorized; maximum 2,000 NSF.

Includes soiled cart unloading zone, work stations, access to washer decontaminators, cart washer, ultrasonic washer, hand washing stations.

3. **Manual Equipment Wash (CWSH1)**..... **140 NSF (13.0 NSM)**
Provide one per SPD.

This room is used to decontaminate equipment used in delivery of patient care.

4. **Automatic Cart Wash (CWSH2)**..... **120 NSF (11.2 NSM)**
Minimum one if the number of Case Carts projected is between one and forty; provide an additional one if the number of Case Carts projected is greater than forty.

5. **Detergent and Water Treatment Room (LBWA1)** **100 NSF (9.3 NSM)**
Provide one per SPD.

6. **Housekeeping Aids Closet - HAC (JANC1)** **40 NSF (3.7 NSM)**
Provide one per Soiled Areas.

7. **Toilet and Shower, Staff (TLTS1)** **80 NSF (7.4 NSM)**
Provide two, one for male and one for female.

8. **Locker Room, Staff (LR001)** **80 NSF (7.5 NSM)**
Provide two, one for male and one for female.

Infection control requires separate facilities required for staff in soiled areas.

B. Clean Areas:

1. **Preparation, Assembly, and Sterilization (CSIA3)** **1,200 NSF (111.5 NSM)**
Minimum NSF; provide an additional 80 NSF per each assembly workstation position authorized; provide an additional 50 NSF per each additional terminal sterilizer required greater than two.

Space must be provided in front of the sterilizers for loading and unloading sterilizer carriages and for cooling after each sterilization cycle.

2. **Ethylene Oxide Gas Sterilization (CSSS1)**..... **100 NSF (9.3 NSM)**
Provide one if authorized in Concept of Operations.

Ethylene Oxide Gas Sterilizers must be located in an enclosed, properly vented room.

C. Inspection / Preparation of Surgical Linen:

1. **Linen and Packs (CSIA2)** **240 NSF (22.3 NSM)**
Provide one per SPD Clean Area if authorized in Concept of Operations.

This area is to be provided only if the function is not delegated to Environmental Management Service, Laundry/Linen-Chapter 408. Do not duplicate space. The screening of linen for holes and tears and the assembly of surgical packs for

sterilization will be accomplished in this area. This room should be located contiguous to the Preparation, Assembly, and Sterilization Area.

D. Storage Areas:

1. **Storage, Sterile (ORSS1)**..... **500 NSF (46.5 NSM)**
Minimum NSF; provide an additional 60 NSF per each OR greater than four.
2. **Storage, Non-Sterile (SRS01)**..... **600 NSF (55.7 NSM)**
Minimum NSF or 10 NSF per each Medical Surgical patient bed projected, 20 NSF per each Critical Care patient bed projected, 25 NSF per each SCI patient bed projected; 0.5 NSF per each Mental Health patient bed projected, 1.25 NSF per each Nursing Home Care patient bed projected, 0.004 NSF per each annual Outpatient Visit projected, and 8 NSF per each Surgical Case Cart in the Staging Area, whichever is greater; maximum 2,500 NSF.
3. **Storage, Bulk (SRS01)**..... **140 NSF (13 NSM)**
Minimum NSF or 0.07 per each Sterile and Non-Sterile Storage NSF whichever is greater; maximum 450 NSF.
4. **Vendor Instrument Consignment Room (ORSS1)** **100 NSF (9.3 NSM)**
Minimum NSF; provide an additional 10 NSF per each OR greater than eight.

This area should be located adjacent to the sterile / non-sterile storage area and the Breakout and Clean Receiving Room and will accommodate instrument and items that are on consignment from vendors primarily used in setting up surgical packs for special procedures.

5. **Breakout and Clean Receiving Room (CSIA2)**..... **200 NSF (18.6 NSM)**
Minimum NSF; provide an additional 15 NSF per each increment of 20 patient beds greater than two hundred; maximum 400 NSF.

This room should be contiguous and interconnected to the Sterile/ Non-sterile Storage Area. This area is used to receive supplies from the warehouse and to remove them from the packing prior to entering the stores area. Only goods that have been removed from their packing cartons should enter the Sterile/ Non-Sterile Storage Areas.

6. **Dispatch Area (CSCQ1)**..... **200 NSF (18.6 NSM)**
Provide one per SPD.

The issuing and control of medical/surgical supplies and equipment is accomplished within this area.

7. **Cubicle, Dispatch Control (OFA03)** **80 NSF (7.4 NSM)**
Provide one per Dispatch Area; provide OFA01 if standard furniture is authorized or OFA02 if systems furniture is authorized.
8. **Storage, Equipment and Testing Room (SRE01)**..... **240 NSF (22.3 NSM)**
Minimum NSF; provide an additional 30 NSF per each increment of twenty patient beds greater than two hundred; maximum 540 NSF.

Equipment, after decontamination, is tested and stored in this room. This equipment is used for patient care and is assigned and stored in SPD.

9. **Housekeeping Aids Closet - HAC (JANC1)**40 NSF (3.7 NSM)
Provide one per Storage Area.

E. Administrative Areas:

1. **Office, SPD Chief (OFM01)**120 NSF (11.2 NSM)
Provide one per SPD.
2. **Office, Assistant Chief (OFA01 / OFA02)**.....100 NSF (9.3 NSM)
Provide one per Assistant Chief FTE position authorized; provide OFA01 if standard furniture is authorized or OFA02 if systems furniture is authorized.
3. **Cubicle, Clerical Staff (OFA03)**.....64 NSF (5.9 NSM)
Provide one per each Clerk FTE position authorized.
4. **Conference Room / Training (CRA02)**300 NSF (27.9 NSM)
Provide one if authorized in Concept of Operations.

F. 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. Program locker space only for those FTEs without office or cubicle space.

1. **Lounge, Staff (SL001)**80 NSF (7.5 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.

Do not include staff in the Soiled Receiving and Decontamination Area.

6 PLANNING AND DESIGN CONSIDERATIONS

- A. Departmental net-to-gross factor (**DNTG**) for Supply Processing and Distribution is **1.30**. This number when multiplied by the programmed net square foot (NSF) area determines the departmental gross square feet.
- B. Soiled equipment and reusable medical / surgical supplies, issued for patient care, are returned to SPD for decontamination and further processing before reissuing. Care must be taken to ensure sufficient amounts of floor space for parking and sorting returned soiled carts adjacent to work stations.
- C. The three main areas within the SPD department are Decontamination, Preparation and Packaging, and Processed Stores. These three areas incorporate a number of processing features that separate and maintain a clean materials handling flow through the department.
- D. The most important consideration of SPD is the complete, physical separation of soiled materials and equipment from activities connected with the preparation, packing, sterilization, and storing of clean and sterilized materials and equipment.
- E. The decontamination area is totally separated from the clean area and its staff is confined to this space; therefore, a soiled transition room must be provided with access between an adjacent circulation corridor and the decontamination area.
- F. SPD should be located on the same level and contiguous to the surgery or directly below surgery with dedicated clean and soiled vertical transport between the two departments.
- G. Special consideration should be given the circulation flow patterns into and out of the department in order to control the amount of clean and soiled traffic.
- H. All staff members working in the SPD department will be properly gowned in order to maintain high sterile technique standards.
- I. Work stations and equipment for cleaning soiled items must be located in a manner to facilitate unidirectional flow of work towards the clean side of SPD.

7 FUNCTIONAL RELATIONSHIP

Relationship of Supply, Processing and Distribution to services listed below:

TABLE 2: FUNCTIONAL RELATIONSHIP MATRIX

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

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

