

CHAPTER 406: ENVIRONMENTAL MANAGEMENT SERVICE (EMS) ADMINISTRATION

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1 PURPOSE AND SCOPE

This document outlines space planning criteria for Chapter 406: Environmental Management Services Administration. It applies to all medical facilities at the Department of Veterans Affairs (VA).

2 DEFINITIONS

Environmental Management Service Administration: EMS Administration includes office / workspace, storage and linen handling areas, housekeeping closets, and laundry.

Space Planning / SEPS

Building Gross (BG) Factor: A Factor applied to the sum of all the Departmental Gross Square Footage (DGSF) in a project to determine the Building Gross Square Footage. This factor accounts for square footage used by the building envelope, structural systems, horizontal and vertical circulation including main corridors, elevators, stairs and escalators, shafts, and mechanical spaces. The Department of Veterans Affairs has set this factor at 1.35 and included guidance in case of variance when developing a Program for Design (PFD) in SEPS.

Department Net to Gross (DNTG) Factor: A parameter, determined by the VA for each clinical and non-clinical department PG-18-9 space planning criteria chapter, used to convert the programmed Net Square Feet (NSF) area to the Department Gross Square Feet (DGSF) area.

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 combined time commitment equals that of one full-time employee (i.e., 40 hours per week).

Functional Area (FA): The grouping of rooms and spaces based on their function within a clinical service or department.

Functional Area Criteria Statement (FACS): A verbalized mathematical / logical formulation assigned to a FA incorporating answers to Input Data Statements (IDSs) to determine the condition for providing the rooms / spaces listed in the FA in the baseline space program or Program for Design (PFD) for a project. Certain rooms / spaces may or may not have additional conditions.

Input Data Statement(s): A question or set of questions designed to elicit information about the healthcare project to generate a Program for Design (PFD) based on the parameters set forth in this set of documents. This information is processed through mathematical and logical operations in the VA Space and Equipment Planning system (SEPS).

JSN (Joint Schedule Number): A unique five alpha-numeric code assigned to each content item in the PG-18-5 Standard. JSNs are defined in DoD's Military Standard 1691 and included in SEPS Content Table.

Net Square Feet / Net Square Meters (NSF/NSM): The area of a room or space derived from that within the interior surface of the bounding walls or boundaries.



Program for Design (PFD): A project specific itemized listing of the spaces, rooms, and square foot area required for the proper operation of a specific service / department, and the corresponding area for each. PFDs are generated by SEPS based on the PG-18-9 Standard.

PG-18-5: A Department of Veterans Affairs' Equipment Guidelist Standard for planning, design, and construction of VA healthcare facilities; a Program Guide (PG) that lists assigned room contents (medical equipment, furniture, and fixtures) to each room in PG-18-9. PG-18-5 follows PG-18-9's chapter organization and nomenclature.

PG-18-9: A Department of Veterans Affairs' Program Guide for the Space Planning Criteria Standard use to develop space planning guidance for the planning, design, and construction of VA healthcare facilities; a Program Guide (PG) that provides space planning guidance for VA Medical Centers (VAMCs) and Community Bases Outpatient Clinics (CBOCs). PG-18-9 is organized by chapters, as of September 2021 there are 56 clinical and non-clinical PG-18-9 chapters; they are implemented and deployed in SEPS so that space planners working on VA healthcare projects can develop baseline space programs.

PG-18-12: A Department of Veterans Affairs' Design Guide Standard for planning, design and construction of VA healthcare facilities, a Program Guide (PG) that provides design guidance for VA Medical Centers (VAMCs) and Community Bases Outpatient Clinics (CBOCs). The narrative section details functional requirements and the Room Template section details the planning and design of key rooms in PG-18-9. Not all PG-18-9 chapters have a corresponding PG-18-12 Design Guide; one Design Guide can cover more than one PG-18-9 chapter.

Room Area: The square footage required for a clinical or non-clinical function to take place in a room / space. It takes into account the floor area required by equipment (medical and non-medical), furniture, circulation, and appropriate function / code-mandated clearances. Room area is measured in Net Square Feet (NSF).

Room Code (RC): A unique five alpha-numeric code assigned to each room in the PG-18-9 Standard. Room Codes in PG-18-9 are unique to VA and are the basis for SEPS's Space Table for VA projects.

Room Criteria Statement (RCS): A mathematical / logical formulation assigned to each room / space included in PG-18-9 incorporating answers to Input Data Statements (IDSs) to determine the provision of the room / space in the baseline space program or Program for Design (PFD) for a project.

SEPS: Acronym for Space and Equipment Planning System which produces equipment lists and Program for Design for a healthcare project based on specific information entered in response to Input Data Questions.

SEPS Importer: A style-based format developed to allow upload of RCSs and IDSs to SEPS to implement and operationalize space planning criteria in PG-18-9 in the SEPS digital tool. This format establishes the syntax used in the RCSs and allows the use of Shortcuts. Shortcuts allow developers of space planning criteria statements to simplify RCSs making



full use of their logical and mathematical functionality. A shortcut can refer to an RCS, a room in any FA or a formula. Shortcuts are [bracketed] when used in FAs and RCSs and are listed along with their equivalences at the end of the Space Planning Criteria section.

Space Planning Concept Matrix (SPCM): A working document developed during the chapter update process. It lists all the rooms organized by Functional Area and establishes ratios between the directly and the indirectly workload driven rooms for the planning range defined in this document. The matrix is organized in ascending workload values in ranges reflecting existing facilities and potential future increase. Section 5 of this document Space Planning Criteria reflects the values in the SPCM.

VA Room Family (VA RF): An organizational system of rooms / spaces grouped by function, a 'Room Family'. There are two "Orders" in the VA RF: Patient Care and Patient Care Support; Patient Care features four sub-orders: Clinical, Inpatient, Outpatient and Residential Clinical. There are also four sub-orders in the Patient Care Support order: Building Support, Clinical Support, Staff Support and Veteran Support. Each room in a Family has a unique Room Code and NSF assigned based on its Room Contents and function which correspond to the specific use of the room. The same RC can be assigned to different Room Names with the same function in this document and can be assigned an NSF that varies based on the PG-18-5 Room Contents assigned to the room.

VA Technical Information Library (TIL): A resource website maintained by the Facilities Standards Service (FSS) Office of Construction and Facilities Management (CFM) containing a broad range of technical publications related to the planning, design, leasing, and construction of VA facilities. VA-TIL can be accessed at: <https://www.cfm.va.gov/TIL/>

Workload: Workload is the anticipated number of procedures, clinic stops, clinic encounters etc. that is processed through a department/service area. The total workload applied to departmental operational assumptions will determine overall room requirements by modality.

3 OPERATING RATIONALE AND BASIS OF CRITERIA

- A. Space Planning parameters and metrics in this document are based on the EMS Administration Space Planning Criteria Matrix (SPCM) developed as a basis for this chapter. The SPCM lists all the spaces a VA EMS Administration site would require; the quantity and NSF for each room is calculated based on estimated Project Level for the facility organized in five ranges each corresponding to 100 patient beds incrementally.
- B. The room quantity (Q) and area (NSF) values included for each range in the SPCM are reflected in the Room Criteria Statements, placed immediately below each room name, room code and NSF/NSM, for each room in Section 5 of this document. The facility EMS Project Level is included in the Input Data Statements (IDSs) in Section 4. Both Sections are implemented in the Space Planning and Equipment System (SEPS) software accessible through the MAX.gov website. Planners programming a VA EMS Administration project shall develop a baseline Program for Design (PFD) in SEPS.



- C. SEPS incorporates a Net-to-Department Gross (NTDG) factor of **1.20** for EMS Administration and a Building Gross (BG) factor of 1.35 in the space calculation. These factors generate the Department Gross Square Feet (DGSF) and the Building Gross Square Feet (BGSF) for the project based on the aggregate resulting Net Square Feet (NSF) for all Departments included. Planners can adjust the BGSF factor in SEPS; the NTDG factor is fixed.
- D. The space planning and design Program Guides: PG-18-9, PG-18-5, and PG-18-12 are available at the [Department of Veterans Affairs Office of Construction and Facilities Management \(CFM\) Technical Information Library \(TIL\)](#) website.
- E. These criteria are based on the net square footage in each facility requiring daily housekeeping.
- F. Space planning is based on the number of FTE’s required to perform daily cleaning activities. Assume that an FTE can clean approximately 14,000 NSF per shift.
- G. Support space requirements are based on supplies and the number and types of equipment to be stored.

4 INPUT DATA STATEMENTS (IDS)

- A. What is the estimated Project Level for this facility? (Misc) (Values: 1 to 5)

5 SPACE PLANNING CRITERIA

A. FA 1: STAFF AND ADMINISTRATIVE AREA

- 1. EM Svcs Chief Office, Stff Sprt (SS204)..... 100 NSF (9.3 NSM)**
 - a. *Provide one if [the estimated Project Level for this facility] is between 1 and 5*
- 2. EM Svcs Waiting, Bldg Sprt (SB003) 80 NSF (7.5 NSM)**
 - a. *Provide one if [the estimated Project Level for this facility] is between 1 and 5*

Allocated space accommodates one standard chair @ 9 NSF, one bariatric chair @ 14 NSF, one accessible space @ 10 NSF, and circulation; total three people.
- 3. EM Svcs Assistant Chief Office, Stff Sprt (SS204)..... 100 NSF (9.3 NSM)**
 - a. *Provide one if [the estimated Project Level for this facility] is between 1 and 5*
- 4. EM Svcs Supervisor Office, Stff Sprt (SS204) 100 NSF (9.3 NSM)**
 - a. *Provide one if [the estimated Project Level for this facility] is between 1 and 2*
 - b. *Provide two if [the estimated Project Level for this facility] is between 3 and 5*
- 5. EM Svcs Administration Support Workstation, Stff Sprt (SS218).... 56 NSF (5.3 NSM)**
 - a. *Provide one if [the estimated Project Level for this facility] is between 1 and 2*
 - b. *Provide two if [the estimated Project Level for this facility] is between 3 and 5*



B. FA 2: SUPPORT AREA

1. **Supplies / Large Equipment Storage Room, EMS (SC476)200 NSF (18.6 NSM)**
 - a. Provide one if [the estimated Project Level for this facility] is 1
 - b. Provide one at 400 NSF if [the estimated Project Level for this facility] is 2
 - c. Provide one at 800 NSF if [the estimated Project Level for this facility] is 3
 - d. Provide one at 1,200 NSF if [the estimated Project Level for this facility] is 4
 - e. Provide one at 1,600 NSF if [the estimated Project Level for this facility] is 5

TABLE 1: CENTRAL STORAGE SPACE ALLOCATION

NUMBER OF RESIDENT BEDS	NSF ALLOCATED
1 to 100	200 NSF
101 to 200	400 NSF
201 to 300	800 NSF
301 to 400	1,200 NSF
401 to 500	1,600 NSF

Equipment stored in the Environmental Management Supplies and Large Equipment space include Vacuum Cleaning Machines, Floor Buffing Machines, 55 Gallon Drums of Cleaning Chemicals, and various supplies and detergents. Charging of Battery-powered equipment is also accommodated in this space.

2. **Clean Linen Distribution Room, EMS (SC459)240 NSF (22.3 NSM)**
 - a. Provide one if [the estimated Project Level for this facility] is 1
 - b. Provide one at 290 NSF if [the estimated Project Level for this facility] is 2
 - c. Provide one at 340 NSF if [the estimated Project Level for this facility] is 3
 - d. Provide one at 390 NSF if [the estimated Project Level for this facility] is 4
 - e. Provide one at 440 NSF if [the estimated Project Level for this facility] is 5
3. **Soiled Linen Distribution Room, EMS (SC455)120 NSF (11.2 NSM)**
 - a. Provide one if [the estimated Project Level for this facility] is between 1 and 2
 - b. Provide one at 160 NSF if [the estimated Project Level for this facility] is between 3 and 4
 - c. Provide one at 200 NSF if [the estimated Project Level for this facility] is 5
4. **Trash Collection Room, EMS (SC474)200 NSF (18.6 NSM)**
 - a. Provide one if [the estimated Project Level for this facility] is between 1 and 2
 - b. Provide one at 240 NSF if [the estimated Project Level for this facility] is between 3 and 4
 - c. Provide one at 280 NSF if [the estimated Project Level for this facility] is 5
5. **Patient Belongings Storage Room, EMS (SC491)300 NSF (27.9 NSM)**
 - a. Provide one if [the estimated Project Level for this facility] is between 1 and 2
 - b. Provide one at 350 NSF if [the estimated Project Level for this facility] is between 3 and 4
 - c. Provide one at 400 NSF if [the estimated Project Level for this facility] is 5



C. SEPS IMPORTER SHORTCUTS

The following shortcuts are used in the Room Criteria Statements in the Environmental Management Service (EMS) Administration Functional Areas. These shortcuts are used during upload of this document into the Space and Equipment Planning System (SEPS) software during implementation of the space planning parameters contained herewith to allow for mathematical or logical calculations to be performed. Input Data Statements (IDSs), Rooms or a partial calculation formula can have a shortcut.

1. *the estimated Project Level for this facility:* [What is the estimated Project Level for this facility?]

6 PLANNING AND DESIGN CONSIDERATIONS

- A. EMS should be located near the staff service entry and near the loading dock.
- B. Consideration must be given to properly ventilating storage areas that are designed for equipment recharging.
- C. Refer to Department of Veterans Affairs (VA) Office of Construction and Facilities Management Technical Information Library (www.cfm.va.gov/til/) for additional technical criteria.



7 FUNCTIONAL RELATIONSHIPS

Relationship of Environmental Management Service (EMS) Administration to services listed below:

TABLE 2: FUNCTIONAL RELATIONSHIP MATRIX

SERVICES	FUNCTIONAL RELATIONSHIP
BLDG SPRT: EMS: Lockers	1
BLDG SPRT: EMS: Breakrooms	1
BLDG SPRT: EMS: Toilets	1
CLNCL SPRT: EMS: Production	1
BLDG SPRT: ENG: Interior Design	2
BLDG SPRT: ENG: Biomedical Repair	2
BLDG SPRT: ENG: Carpentry Shop	2
BLDG SPRT: ENG: A/C Shop	2
BLDG SPRT: ENG: Plumbing Shop	2
BLDG SPRT: ENG: Electrical Shop	2
BLDG SPRT: ENG: Painting Shop	2
BLDG SPRT: ENG: Mechanical Shop	2
BLDG SPRT: ENG: Masonry Shop	2
BLDG SPRT: ENG: Grounds Maintenance Shop	2
BLDG SPRT: ENG: Locksmithing Shop	2
CLNCL SPRT: Nursing Service Administration	3
STFF SPRT: Education: Auditorium	3
CLNCL SPRT: VAMC Director	3

Legend:

1. High
2. Moderate
3. Minimal



8 FUNCTIONAL DIAGRAM

