3.1 Common Elements for Outpatient Facilities

Appendix material, shown in shaded boxes at the bottom of the page, is advisory only.

### 3.1-1 General

The outpatient facilities described in Part 3 of the Guidelines are used primarily by patients who are able to travel or be transported to the facility for treatment, including those confined to wheelchairs. These facilities may be an outpatient unit in a hospital, a freestanding facility, or an outpatient facility in a multiple-use building containing an ambulatory health care facility as defined in the NFPA 101: Life Safety Code® occupancy chapters.

#### 3.1-1.1 Application

3.1-1.1.1 This chapter contains elements that are common to most types of outpatient facilities. The elements are required only when referenced in a specific outpatient facility chapter. Consideration shall be given to the special needs of anticipated patient groups/demographics as determined by the functional program.

3.1-1.1.2 Additional specific requirements are located in the facility chapters of Part 3 (facility chapters are listed below). Consult the facility chapters to determine if elements in this chapter are required.

- Renal dialysis centers (Chapter 3.10)
- Psychiatric outpatient facilities (Chapter 3.11)
- Outpatient rehabilitation facilities (Chapter 3.12)

#### 3.1-1.3 Language from other chapters in these Guidelines is included in the criteria given in this Part when reference is made to a specific section. Such references include the section as identified by number and heading and all its subsections, unless otherwise noted.

### 3.1-2 Functional Program

#### 3.1-2.1 General

3.1-2.1.1 Each project sponsor shall provide a functional program for the facility. For requirements, see 1.2-2.

3.1-2.1.2 Specialty outpatient facilities not included in Part 3 may have needs that are not addressed in this chapter. Development of such specialty facilities shall rely on a detailed and specific functional program to establish physical environment requirements beyond the general requirements identified in this chapter.

#### 3.1-2.2 Patient Privacy

Each facility design shall ensure appropriate levels of patient acoustical and visual privacy and dignity throughout the care process, consistent with needs established in the functional program. (For more information, see 1.1-4.4, National Standards for the Protection of Patient Health Information.)

#### 3.1-2.3 Shared/Purchased Services

**3.1-2.3.1 Shared services.** If space and/or services are to be shared, details of such shared space and/

---

**A3.1-1.2.3.1** Shared space and/or services may include, but are not limited to, space and/or services for storage, laundry, public areas, housekeeping facilities, and waste management.

When space and/or services are shared, ancillary service agreements/contracts are encouraged.
or services shall be incorporated into the functional program to ensure design considerations are addressed.

*3.1-1.2.3.2 Purchased services

(1) Use of purchased space and/or services shall be permitted only when practical.

(2) Purchase of services other than accommodations for storage, laundry, public areas, housekeeping facilities, and waste management shall be cleared with the authority having jurisdiction.

(3) Details of these services shall be incorporated into the functional program to ensure design considerations are addressed.

3.1-1.3 Site

*3.1-1.3.1 Location

Refer to Chapter 1.3, Site, for general requirements.

3.1-1.3.2 Parking

3.1-1.3.2.1 Parking provided shall comply with the general requirements in 1.3-3.3 and the specific requirements in each facility chapter in Part 3.

3.1-1.3.2.2 Separate and additional space shall be provided for service delivery vehicles and vehicles used for patient transfer.

3.1-1.3.3 Facility Access

3.1-1.3.3.1 Building entrances used to reach outpatient services shall be at grade level, clearly marked, and located so patients need not go through other activity areas. (Shared lobbies shall be permitted in multi-occupancy buildings.)

3.1-1.3.3.2 Design shall preclude unrelated traffic within the unit.

3.1-2 Reserved

■ 3.1-3 Diagnostic and Treatment Locations

3.1-3.1 General

When required by the functional program, the following clinical and support areas shall be provided.

*3.1-3.2 Examination and Treatment Rooms

3.1-3.2.1 General

3.1-3.2.1.1 Provision shall be made to preserve patient privacy from observation from outside an examination/treatment room through an open door.

3.1-3.2.1.2 If an examination or a treatment room is used as an observation room, it shall be located convenient to the nurse or control station and a toilet room shall be immediately accessible.

*3.1-3.2.2 General Purpose Examination/Observation Room

3.1-3.2.2.1 Reserved

3.1-3.2.2.2 Space requirements

(1) Area. Each examination/observation room shall have a minimum clear floor area of 80 square feet (7.43 square meters).

(2) Clearances. Room arrangement shall permit a minimum clear dimension of 2 feet 8 inches (81.28 centimeters) at each side and at the foot of the examination table, recliner, or chair.

3.1-3.2.2.3 Hand-washing station. A hand-washing station shall be provided.

3.1-3.2.2.4 Documentation space. A counter or shelf...
3.1 COMMON ELEMENTS FOR OUTPATIENT FACILITIES

3.1-3.2.3.1 Reserved

3.1-3.2.3.2 Space requirements

(1) Area. Rooms for special clinics—including but not limited to eye, ear, nose, and throat examinations—shall have a minimum clear floor area of 100 net square feet (9.29 square meters).

(2) Clearances. Room arrangement shall permit a minimum clear dimension of 2 feet 8 inches (81.28 centimeters) on both sides and at one end of the examination table, bed, or chair.

3.1-3.2.3.3 Hand-washing station. A hand-washing station shall be provided.

3.1-3.2.3.4 Documentation space. A counter or shelf for writing or electronic documentation shall be provided.

*3.1-3.2.4 Treatment Room

3.1-3.2.4.1 Reserved

3.1-3.2.4.2 Space requirements

(1) Area. Each treatment room shall have a minimum clear floor area of 120 square feet (11.15 square meters). The minimum room dimension shall be 10 feet (3.05 meters).

(2) Clearances. Room arrangement shall permit a minimum clear dimension of 3 feet (91.44 centimeters) at each side and at the foot of the bed.

3.1-3.2.4.3 Hand-washing station. A hand-washing station shall be provided.

3.1-3.2.4.4 Documentation space. A counter or shelf for writing or electronic documentation shall be provided.

3.1-3.3 Reserved

3.1-3.4 Special Patient Care Rooms

3.1-3.4.1 General

In facilities with a functional program that includes treatment of patients with known infectious disease and/or populations with known compromised or suppressed immune systems, the need for and number of airborne infection isolation rooms and protective environment rooms shall be determined by an infection control risk assessment (ICRA).

*3.1-3.4.2 Airborne Infection Isolation (AI1) Room

3.1-3.4.2.1 General

(1) The AI1 room requirements contained in these Guidelines for particular areas throughout a facility shall be:

(a) Predicated on an ICRA and designated by the functional program.

(b) Based on the needs of specific community and patient populations served by an individual health care organization (see Glossary and 1.2–3.4 [Infection Control Risk Mitigation]).

(c) Applied to patients who require an AI1 room but do not need a protective environment (PE) room.

(2) Number. For specific requirements, see facility chapters.

3.1-3.4.2.2 AI1 room requirements

(1) Capacity. Each patient room shall contain only one bed.

APPENDIX

A3.1-3.2.3 There is no distinction in size or standards for different types of special purpose examination rooms.

A3.1-3.2.4 There is no distinction in size or standards for different types of treatment rooms.

A3.1-3.4.2 For additional information, refer to the Centers for Disease Control and Prevention (CDC) “Guidelines for Preventing the Transmission of Mycobacterium tuberculosis in Health-Care Settings,” December 2005, and “Guidelines for Environmental Infection Control in Health-Care Facilities,” December 2003, both published in MMWR and available on the CDC Web site.
3.1 COMMON ELEMENTS FOR OUTPATIENT FACILITIES

(2) A hand-washing station shall be located in each patient room. Placement of an additional hand-washing station outside the room entrance shall be permitted.

(3) An area for gowning and storage of clean and soiled materials shall be located either directly outside or inside the entry door to the patient room.

(4) A separate room with a toilet and hand-washing station shall be provided for each airborne infection isolation room.

3.1-3.4.2.3 Anteroom. An anteroom is not required; however, if an anteroom is part of the design concept, it shall meet the following requirements:

*(1) The anteroom shall provide space for persons to don personal protective equipment before entering the patient room.

(2) All doors to the anteroom shall have self-closing devices.

3.1-3.4.2.4 Special design elements

(1) Architectural details

(a) All room perimeter walls, ceiling, and floor, including penetrations, shall be sealed tightly so that air does not infiltrate the environment from the outside or from other spaces.

(b) Airborne infection isolation room(s) shall have self-closing devices on all room exit doors.

(c) Doors shall have edge seals.

*(2) Window treatments and privacy curtains. In addition to the requirements below, see requirements in 3.1-7.2.4.3.

(a) Window treatments shall be selected for ease of cleaning. Smooth-suraced, easy-to-clean, wipeable, nonpleated window treatments shall be used.

(b) Fabric drapes and curtains shall not be used for window treatments.

(c) Use of fabric privacy curtains shall be permitted if they are washable. A wipeable fabric with a smooth surface is preferable.

(3) For HVAC requirements, see 3.1-8.2.2.1.

3.1-3.4.3 Protective Environment (PE) Room

The protective environment room is used to protect the profoundly immunosuppressed patient with prolonged neutropenia (i.e., a patient undergoing an allogeneic or autologous bone marrow/stem cell transplant) from common environmental airborne infectious microbes (e.g., Aspergillus spores). The differentiating factors between protective environment rooms and other patient rooms are the requirements for filtration and positive air pressure relative to adjoining spaces.

*3.1-3.4.3.1 General. When determined by an ICRA or the functional program, special design considerations and ventilation to ensure the protection of patients who are highly susceptible to infection shall be required.

3.1-3.4.3.2 Number. The number of PE rooms shall be as required by the ICRA.

3.1-3.4.3.3 Location. The appropriate location of PE rooms shall be as required by the ICRA.

3.1-3.4.3.4 In addition to the requirements in this section (3.1-3.4.3), each PE room shall comply with the requirements of 3.1-3.4.2 (Airborne Infection Isolation Room) except that a toilet shall not be required.

APPENDIX

A2.2-3.4.2.3 (1) The anteroom may be used for hand hygiene and for storage of personal protective equipment (PPE) (e.g., respirators, gowns, gloves) and clean equipment.

2.1-3.4.2.4 (2) Window shades should be a neutral color to maintain true coloration of patient skin.

A3.1-3.4.3.1 Many facilities care for patients with an extreme susceptibility to infection (immunosuppressed patients with prolonged granulocytopenia, most notably bone marrow recipients and patients with hematological malignancies who are receiving chemotherapy and are severely granulocytopenic). These rooms are not intended for use with patients diagnosed with HIV infection or AIDS unless they are also severely granulocytopenic. Generally, protective environments are not needed in community hospitals unless these facilities take care of these types of patients.
3.1.3.4.3.5 Special design elements

(1) Architectural details
   (a) The ceiling shall be monolithic.
   (b) The floor shall be smooth, with sealed seams.

(2) Surfaces and furnishings. All surfaces (e.g., floors, walls, ceilings, doors, and windows) shall be cleanable.

(3) Building systems
   (a) HVAC systems. See 3.1-8.2.2.2 for HVAC requirements for PE rooms.
   (b) Electrical systems. Lighting fixtures shall have lenses and shall be sealed.

3.1.3.5 Support Areas for Patient Care—General

Identifiable spaces shall be provided for each function indicated in all sections with requirements for support areas. Where the word “room” or “office” is used, a separate, enclosed space for the one named function is intended. Otherwise, the described area shall be permitted to be a specific space in another room or common area.

3.1.3.6 Support Areas for Examination and Treatment Rooms

3.1.3.6.1 Nurse Station(s)
The nurse station shall include the following:

3.1.3.6.1.1 Work counter

3.1.3.6.1.2 Communication system

3.1.3.6.1.3 Space for supplies

3.1.3.6.1.4 Provisions for charting

3.1.3.6.2 Documentation Area
A counter, area for a desk, or storage for a movable table shall be provided as designated documentation space.

3.1.3.6.3 Reserved

3.1.3.6.4 Reserved

3.1.3.6.5 Hand-Washing Stations

3.1.3.6.5.1 Location. Hand-washing stations shall be provided in each room where hands-on patient care is provided. For further requirements, see facility chapters.

3.1.3.6.5.2 Design requirements

(1) For hand-washing station design details, see 3.1.7.2.2.8 (Hand-washing stations).

(2) For sinks, see 3.1.8.4.3.2 (Hand-washing stations).

3.1.3.6.6 Medication Distribution Station
This may be a part of the nurse station and shall include the following:

3.1.3.6.6.1 Work counter

3.1.3.6.6.2 Sink

3.1.3.6.6.3 Refrigerator

3.1.3.6.6.4 Locked storage for biologicals and drugs

3.1.3.6.7 Nourishment Area or Room

3.1.3.6.7.1 The nourishment area or room shall have the following:

(1) Sink

(2) Work counter

(3) Refrigerator

(4) Storage cabinets

(5) Equipment for serving nourishment as required by the functional program

3.1.3.6.7.2 A hand-washing station shall be located in the nourishment room or adjacent to the nourishment area.

3.1.3.6.8 Reserved

3.1.3.6.9 Clean Storage
A separate room or closet for storing clean and sterile supplies shall be provided. This storage shall be in addition to that of cabinets and shelves.
3.1-3.6.10 Soiled Holding
Provisions shall be made for separate collection, storage, and disposal of soiled materials.

3.1-3.6.11 Equipment and Supply Storage
3.1-3.6.11.1 through 3.1-3.6.11.4 Reserved

3.1-3.6.11.5 Wheelchair storage space
(1) Storage. If required by the functional program, a designated area located out of the required access width shall be provided for at least one facility-owned wheelchair.

*(2) Parking. If the facility provides services that require patients to transfer to a facility chair, wheelchair, recliner, examination table, or stretcher, provision for the secure handling of patient wheelchairs shall be required. A designated area shall be provided for parking at least one patient wheelchair in a non-public area located out of the required access width.

3.1-3.6.12 Reserved
3.1-3.6.13 Reserved

3.1-3.6.14 Sterilization Facilities
If required by the functional program, sterilizing facilities shall be provided. For requirements, see 3.7-3.6.14 in the chapter on outpatient surgical facilities.

3.1-3.7 Reserved

3.1-3.8 Support Areas for Patients
3.1-3.8.1 Toilet(s) for patient use. These shall be provided separate from public use toilet(s) and located to permit access from patient care areas without passing through publicly accessible areas.

3.1-3.9 Diagnostic Imaging Services
*3.1-3.9.1 General
Basic diagnostic procedures (these may be part of the outpatient service, off-site, shared, by contract, or by referral) shall be provided as determined by the functional program.

3.1-3.9.2 Diagnostic Imaging Facilities
See 2.2-3.4 for requirements for diagnostic imaging services required by the functional program.

3.1-3.9.3 Support Areas for Diagnostic Imaging Facilities
3.1-3.9.3.1 Viewing and administrative areas(s)

3.1-3.9.3.2 Film and media processing facilities.
These shall be provided as indicated in the functional program and as technology requires.

3.1-3.9.3.3 Storage facilities for exposed film.
These shall be provided as indicated in the functional program and as technology requires.

3.1-3.9.4 Support Areas for Patients
3.1-3.9.4.1 Dressing rooms or booths. These shall be provided as required by the functional program, with convenient toilet access.

3.1-3.9.4.2 Toilet rooms. Toilet rooms with hand-washing stations shall be provided adjacent to procedure room(s) if procedures provided require patient toilet facilities.

APPENDIX
A3.1-3.6.11.5 (2) Wheelchair parking. Facilities that provide a significant quantity of services to aging and disabled populations that use wheelchairs (e.g., dialysis patients) should provide more than one wheelchair parking space.
Other facilities may be able to address the issue with scheduling and transportation procedures. Check with the authority having jurisdiction to determine if this is an acceptable alternative.

A3.1-3.9.1 Diagnostic Imaging Services
a. Access. Stretcher should have ready access to and from other areas of the facility. The emergency, surgery, cystoscopy, and outpatient clinics should be accessible to the imaging suite.
b. Layout. Particular attention should be paid to the management of outpatients for preparation, holding, and observation.
c. Location. Imaging should be located with consideration of ceiling height requirements, proximity to electrical services, and future expansion considerations.
3.1-4 Patient Support Services

3.1-4.1 Laboratory Services

3.1-4.1.1 General
Facilities for laboratory services identified by the functional program shall be provided within the outpatient department or through an effective contract arrangement with a nearby hospital or laboratory service. The following laboratory facilities shall be provided in (or be immediately accessible to) the outpatient facility:

3.1-4.1.2 Laboratory Testing/Work Area

3.1-4.1.2.1 When lab tests are performed on site, a separate, dedicated room shall be provided.

3.1-4.1.2.2 Work counters
(1) Work counters and equipment space shall be provided to accommodate all on-site tests identified in the functional program.
(2) Work counters shall be sufficient to meet equipment specifications and lab technician needs and have the following:
   (a) Sinks
   (b) Access to vacuum
   (c) Communications service
   (d) Electrical service

3.1-4.1.2.3 Hand-washing station(s). Hand-washing stations or counter sink(s) equipped for hand washing shall be provided.

3.1-4.1.3 Support Areas for the Laboratory

3.1-4.1.3.1 Storage cabinet(s) or closet(s)

3.1-4.1.3.2 Specimen collection facilities
(1) These shall have a water closet and lavatory.
(2) Blood collection facilities shall have seating space, a work counter, a hand-washing station, and a reclining chair or gurney for patients who become unsteady.

3.1-5 General Support Services and Facilities

3.1-5.1 Reserved

3.1-5.2 Linen Services

3.1-5.2.1 Reserved

3.1-5.2.2 On-Site Processing Area
If the functional program requires linen to be processed on site, the following shall be provided:

3.1-5.2.2.1 A separate distinct and dedicated linen processing area
(1) The area shall be large enough to accommodate a washer, a dryer, and any plumbing equipment needed to meet the temperature requirements of Table 2.1-5 (Hot Water Use—General Hospital).
(2) The area shall be divided into distinct soiled (sort and washer) and clean (drying and folding) areas.

3.1-5.2.2.2 Storage for laundry supplies

3.1-5.2.2.3 Clean linen storage

3.1-5.2.2.4 Hand-washing station

3.1-5.2.3 Reserved

3.1-5.2.4 Areas for Off-Site Laundry Services
If the functional program requires linen to be processed off site, the following shall be provided:

3.1-5.2.4.1 Soiled linen holding area or designated and dedicated area for soiled laundry cart

3.1-5.2.4.2 Clean linen storage area that protects linen from soil or damage

3.1-5.3 Materials Management Facilities

3.1-5.3.1 Shared/Purchased Services
Use of shared or purchased materials management services shall be permitted as long as on-site handling and storage areas commensurate with the facility's needs are provided as defined by the functional program.
3.1.5.3.2 Receiving Facilities
The route for supply delivery shall be identified and an unpacking or box breakdown area shall be provided if required by the functional program. This area shall be accessible from the designated delivery door. Movement of supplies from this area to storage shall be direct, with minimal impact on clinical and public areas.

3.1.5.3.3 Clean Clinical Storage
3.1.5.3.3.1 This storage area shall not include space for storage of office supplies or environmental paper products.

3.1.5.3.3.2 Sterile items that are stored in manufacturers' packaging that is safe for handling shall be considered “clean” and appropriately stored with clean supplies.

3.1.5.3.3.3 Items that are sterile shall be stored as established by criteria in 3.7-3.6.14 (Sterilization Facilities).

3.1.5.4 Waste Management Facilities
3.1.5.4.1 Waste Collection and Storage
3.1.5.4.1.1 General. These facilities shall use techniques acceptable to the appropriate health and environmental authorities.

(1) Location
(a) Necessary waste collection and storage locations shall be determined by the facility as a component of the functional program.
(b) The location of compactors, balers, sharps containers, and recycling container staging at docks or other waste removal areas shall be stipulated by the functional program.
(c) Red bag waste shall be staged in enclosed and secured areas. Biohazardous and environmentally hazardous materials, including mercury, nuclear reagent waste, and other regulated waste types, shall be segregated and secured.

3.1.5.4.1.2 Space requirements
(1) The functional program shall stipulate the categories and volumes of waste for disposal and the methods of handling and disposing of waste.
(2) The functional program shall outline the space requirements, including centralized waste collection and storage spaces. The size of spaces shall be based upon the volume of projected waste and length of anticipated storage.

3.1.5.4.1.3 Regulated waste storage spaces
(1) If provided, regulated medical waste or infectious waste storage spaces shall have a floor drain, cleanable floor and wall surfaces, lighting, and exhaust ventilation.
(2) Such spaces shall be safe from weather, animals, and unauthorized entry.
(3) Refrigeration requirements for such storage facilities shall comply with state and/or local regulations.

3.1.5.4.1.4 Refuse chutes. The design and construction of trash chutes, if provided, shall comply with NFPA 82.

3.1.5.4.2 Waste Treatment and Disposal
*3.1.5.4.2.1 Incineration. On-site hospital incinerators shall comply with federal, state, and local regulatory and environmental requirements. The design and construction of incinerators shall comply with NFPA 82: Standard on Incinerators and Waste and Linen Handling Systems and Equipment.

3.1.5.4.2.2 Other waste treatment technologies. Types of non-incineration technology used by the facility shall be determined by facility management in

APPENDIX

A3.1.5.4.1.1 (1)(c) An analysis should be made of the anticipated volume of biohazardous waste. The types of procedures to be conducted by the facility, the anticipated volume of patients, the extent of the biohazardous waste produced, and the frequency of biohazardous waste pickup or incineration should be considered.

A3.1.5.4.2.1 When incinerators are used, consideration should be given to the recovery of waste heat from on-site incinerators used to dispose of large amounts of waste materials.
conjunction with environmental, economic, and regulatory considerations. The functional program shall describe waste treatment technology components.

3.1-5.4.3 Nuclear Waste Disposal

For information about handling and disposal of nuclear materials in health care facilities, see Code of Federal Regulations, Title X, Parts 20 and 35.

3.1-5.5 Environmental Services

3.1-5.5.1 Environmental Services Room(s)

*3.1-5.5.1.1 Number

(1) The number of environmental services rooms provided shall be as required by the functional program.

(2) A minimum of one environmental services room per floor shall be provided.

(3) Sanitation needs may be met using separate environmental services rooms or room(s) large enough to hold multiple housekeeping carts.

*3.1-5.5.1.2 Facility requirements

(1) Facility-based services

   (a) At least one environmental services room shall be provided to maintain a clean and therapeutic environment.

   (b) Each environmental services room shall contain the following:

      (i) A service sink or floor basin

      (ii) Storage for housekeeping supplies and equipment

(2) Non-facility based services. Area requirements shall be based on the service agreement and outlined in the functional program.

APPENDIX

A3.1-5.5.1.1 When determining the number of environmental services areas needed for outpatient settings, areas should be grouped by similar sanitation needs. Following are a few examples:

a. Sterile areas: Operating rooms, substerile corridors, sterile labs, and sterile storage

b. Clinical areas: Pre-procedure areas, examination rooms, blood draw areas, PACUs, dialysis treatment areas, infusion areas, or other areas likely to come into contact with body fluids

c. Processing rooms: Endoscopy room, uroscopy room, and instrument processing room (if these areas are within a sterile area, the sanitation needs of these areas can be addressed procedurally, for example, by cleaning them last.)

d. Public and administrative areas: Waiting areas, offices, and hallways

A3.1-5.5.1.2 Storage areas for housekeeping supplies should be identified.
3.1 COMMON ELEMENTS FOR OUTPATIENT FACILITIES

3.1-5.6 Engineering and Maintenance Services

3.1-5.6.1 General
Shared engineering services and maintenance facilities shall be permitted provided capacity is appropriate for use.

3.1-5.6.2 Equipment Locations
Equipment room(s) for boilers, mechanical equipment, telecommunications equipment, and electrical equipment shall be provided.

3.1-5.6.3 Equipment and Supply Storage
Storage room(s) for building maintenance supplies and equipment shall be provided.

3.1-6 Public and Administrative Areas

3.1-6.1 Public Areas
The following shall be provided:

3.1-6.1.1 Vehicular Drop-Off and Pedestrian Entrance
This shall be at grade level, sheltered from inclement weather, and accessible to the disabled.

3.1-6.1.2 Reception
A reception and information counter or desk shall be provided.

*3.1-6.1.3 Waiting Space(s)

3.1-6.1.4 Public Toilets
Toilet(s) for public use shall be conveniently accessible from the waiting area without passing through patient care or staff work areas or suites.

3.1-6.1.5 Local Telephone Access
Access to make local phone calls shall be provided.

3.1-6.1.6 Provisions for Drinking Water
Conveniently accessible provisions for drinking water shall be provided.

3.1-6.1.7 Wheelchair Storage
Conveniently accessible wheelchair storage shall be provided.

*3.1-6.2 Administrative Areas

3.1-6.2.1 Reserved

3.1-6.2.2 Interview Space
Space(s) shall be provided for private interviews related to social services, credit, etc.

*3.1-6.2.3 General or Individual Offices
Space providing adequate work area for business transactions, records storage, and administrative and professional staffs shall be provided. This shall include space designated for computers, printers, fax machines, and copiers if required by the functional program.

3.1-6.2.4 Reserved

*3.1-6.2.5 Medical Records
Provisions shall be made for securing medical records of all media types.

APPENDIX

A3.1-6.1.3 Consideration should be given to special needs of specific patient groups in a shared/general waiting area, such as separation of adolescent and geriatric patients.

A3.1-6.2 Multipurpose room(s) should be provided for private interviews, conferences, meetings, and health education purposes. Where health education is accommodated, the room(s) should be equipped for audiovisual aids.

A3.1-6.2.3 The following types of employees/services are among those to be considered when determining the amount of office space required by the functional program:
a. Owner/director
b. Other levels of supervisors
c. Business office personnel
d. Each type of health care professional employed by the facility
e. Physicians (unique confidentiality duties may make private office space critical)
f. Social work
g. Maintenance
h. Dietary

226 2010 Guidelines for Design and Construction of Health Care Facilities
3.1-6.2.5.1 Space required shall be defined by the functional program.

3.1-6.2.5.2 The identified area shall be located to maintain confidentiality of records and shall be either restricted to staff movement or remote from treatment and public areas.

3.1-6.2.5.3 Records shall be protected from loss or damage.

3.1-6.2.5.4 Storage area(s) shall be provided for forms or documents used to create medical records.

*3.1-6.2.6 Equipment and Supply Storage
General storage facilities for supplies and equipment shall be provided as identified in the functional program.

3.1-6.3 Support Areas for Staff

3.1-6.3.1 Storage for Employees

3.1-6.3.1.1 Special storage for staff personal effects with locking drawers or cabinets (may be individual desks or cabinets) shall be provided.

3.1-6.3.1.2 Such storage shall be convenient to individual workstations and shall be staff controlled.

3.1-7 Design and Construction Requirements

3.1-7.1 Building Codes and Standards

3.1-7.1.1 Building Codes

3.1-7.1.1.1 NFPA 101

(1) The outpatient facilities described in Part 3 of the Guidelines may be an outpatient unit in a hospital, a freestanding facility, or an outpatient facility in a multiple-use building containing an ambulatory health care facility as defined in the NFPA 101 occupancy chapters. Occasional facility use by patients on stretchers shall not be used as a basis for more restrictive institutional occupancy classifications.

(2) Exits. Details relating to exits and fire safety shall comply with NFPA 101 or equivalent building, fire, and safety codes where adopted and enforced by the authority having jurisdiction, and the standards outlined herein.

3.1-7.1.1.2 Construction and structural elements of freestanding outpatient facilities shall comply with recognized building code requirements for offices (business occupancies) and the standards contained herein.

3.1-7.1.1.3 Outpatient facilities that are an integral part of a hospital or that share common areas and functions with a hospital shall comply with the construction standards for general hospitals. For requirements, see applicable sections of Chapters 2.1 and 2.2 in Part 2 of these Guidelines.

3.1-7.1.2 Reserved

3.1-7.1.3 Provision for Disasters
For further requirements, see 1.2-6.5.

3.1-7.1.3.1 Earthquakes. Seismic force resistance of new construction for outpatient facilities shall comply with Section 1.2-6.5 (Provisions for Disasters) and shall be given an importance factor of one. Where the outpatient facility is part of an existing building, that facility shall comply with applicable local codes.

*3.1-7.1.3.2 Other natural disasters

APPENDIX

A3.1-6.2.6 Storage areas for the following should be identified:
   a. Non-clinical records, documents, and reports
   b. Office supplies
   c. Decorations and furnishings

A3.1-7.1.3.2 Special design provisions should be made for buildings in regions that have sustained loss of life or damage to buildings from hurricanes, tornadoes, floods, or other natural disasters.
3.1-7.2 Architectural Details, Surfaces, and Furnishings

2.1-7.2.1 General
Details, surfaces, and furnishings shall comply with the requirements in 3.1-7.2.2, 3.1-7.2.3, and 3.1-7.2.4.

3.1-7.2.2 Architectural Details

3.1-7.2.2.1 Corridor width
(1) Public corridors shall have a minimum width of 5 feet (1.52 meters). Staff-only corridors shall be permitted to be 3 feet 8 inches (1.12 meters) wide unless greater width is required by NFPA 101 (occupant load calculations).

(2) Items such as provisions for drinking water, telephone booths, vending machines, etc., shall not restrict corridor traffic or reduce the corridor width below the required minimum.

(3) In-corridor storage or parking space for portable equipment shall not overlap required corridor widths.

3.1-7.2.2.2 Ceiling height. The minimum ceiling height shall be 7 feet 10 inches (2.39 meters), with the following exceptions:

(1) Corridors, storage rooms, toilet rooms, etc. Ceiling height in corridors, storage rooms, toilet rooms, and other minor rooms shall not be less than 7 feet 8 inches (2.34 meters).

(2) Rooms with ceiling-mounted equipment/light fixtures. Radiographic and other rooms containing ceiling-mounted equipment shall have ceilings of sufficient height to accommodate the equipment and/or fixtures.

(3) Boiler rooms. Boiler rooms shall have ceiling clearances not less than 2 feet 6 inches (76.20 centimeters) above the main boiler header and connecting piping.

(4) Clearances. Tracks, rails, and pipes suspended along the path of normal traffic shall be not less than 6 feet 8 inches (2.03 meters) above the floor.

3.1-7.2.2.3 Doors and door hardware
(1) Door openings
(a) The minimum door opening width for patient use shall be 2 feet 10 inches (86.36 centimeters).
(b) If the outpatient facility serves patients confined to stretchers or wheelchairs, the minimum width of door openings to rooms shall be 3 feet 8 inches (1.12 meters).

3.1-7.2.2.4 through 3.1-7.2.2.6 Reserved

3.1-7.2.2.7 Glazing materials
(1) Doors, sidelights, borrowed lights, and windows glazed to within 18 inches (45.72 centimeters) of the floor shall be constructed of safety glass, wired glass, or plastic glazing material that resists breakage and creates no dangerous cutting edges when broken.

(2) Similar materials shall be used in wall openings of playrooms and exercise rooms unless otherwise required for fire safety.

(3) Glazing materials used for shower doors and bath enclosures shall be safety glass or plastic.

*3.1-7.2.2.8 Hand-washing stations
(1) General

(a) Hand sanitation dispensers shall be provided in addition to hand-washing stations.

(b) The number and location of both hand-washing stations and hand sanitation dispensers shall be determined by the ICRA. For more information about the number and placement of hand-washing stations and hand sanitation dispensers, see 1.2-3.2.1.2 (ICRA Considerations—Design elements).

(2) Sinks. For these requirements, see 3.1-8.4.3.2 (Hand-washing stations).

(3) Reserved
(4) Fittings
   (a) General hand-washing stations used by medical and nursing staff, patients, and food handlers shall be trimmed with valves that can be operated without hands.
      (i) Single-lever or wrist blade devices shall be permitted.
      (ii) Blade handles used for this purpose shall be at least 4 inches (10.2 centimeters) in length.
      (iii) Care shall be taken to provide the required clearance for operation of blade-type handles.
   (b) Sensor-regulated water fixtures shall meet user need for temperature and length of time the water flows. Electronic faucets shall be capable of functioning during loss of normal power.
   (c) Sensor-regulated faucets with manual temperature control shall be permitted.

   (a) Hand-washing stations shall include a hand-drying device that does not require hands to contact the dispenser.
   (b) If provided, hand towels shall be directly accessible to sinks.

(6) Cleansing agents. Hand-washing stations shall include liquid or foam soap dispensers.

3.1.7.2.9 Grab bars

3.1.7.2.10 Handrails

3.1.7.2.11 Radiation protection. Radiation protection for x-ray and gamma ray installations shall comply with requirements in 2.1.7.2.2.11.

3.1.7.2.12 Reserved

3.1.7.2.13 Protection from heat-producing equipment. Rooms containing heat-producing equipment (such as boiler or heater rooms) shall be insulated and ventilated to prevent occupied adjacent floor or wall surfaces from exceeding a temperature 10°F above the ambient room temperature.

3.1.7.2.14 Decorative water features. Decorative water features installed in outpatient spaces shall be designed for easy maintenance and capped or covered.

3.1.7.2.3 Surfaces

3.1.7.2.3.1 Surface selection characteristics and criteria. See A1.2.3.2.1.5 for information on recommendations and code requirements for surface selection.

3.1.7.2.3.2 Flooring
   *(1) Selected flooring surfaces shall be easy to maintain, readily cleanable, and appropriately wear-resistant for the location.
   *(2) Flooring surfaces shall allow for ease of ambulation and self-propulsion.
   *(3) Flooring surfaces shall provide smooth transitions between different flooring materials.
   *(4) Flooring surfaces, including those on stairways, shall have slip-resistant surfaces according to ASTM C1028, Standard Test Method for Determining the Static Coefficient of Friction.

APPENDIX

A3.1.7.2.3.2 (1) Portable lifting equipment without powered wheels may require more exertion by staff than ceiling-mounted equipment to move an elevated resident around and through a space. The exertion required by staff may increase with the use of carpet; however, different types and brands of carpet may have significantly different levels of resistance to wheeled devices. Installation of a mock-up to test flooring materials in relationship to wheeled equipment and devices used in a facility is recommended. Carpet should not be automatically discounted as inappropriate due to this challenge as it has major advantages over hard-surface flooring in terms of noise reduction, acoustics, and residential appearance, all of which are important in creating a comfortable, attractive living environment for patients.

A3.1.7.2.3.2 (2) Color contrast between walls and floors and minimized transitions to different types of flooring may reduce falling risk.

A3.1.7.2.3.2 (3) Flush thresholds should be used to reduce tripping.

A3.1.7.2.3.2 (4) Soft flooring (carpet, cushioned flooring, etc.) can be used to reduce the risk of falls and the impact of associated injuries.
of Ceramic Tile and Other Like Surfaces by the Horizontal Dynamometer Pull-Meter Method.

(5) Slip-resistant flooring products shall be considered for flooring surfaces in wet areas (e.g., kitchens, shower and bath areas), ramps, entries from exterior to interior space, and areas that include water for patient services.

(6) All floor surfaces shall allow easy movement of all wheeled equipment required by the functional program.

(7) In all areas subject to frequent wet cleaning methods, flooring materials shall not be physically affected by germicidal or other types of cleaning solutions.

(8) Highly polished flooring or flooring finishes that create glare shall be avoided.

(9) Carpet and carpet with padding in patient areas shall be glued down or stretched taut and free of loose edges or wrinkles that might create hazards or interfere with the operation of lifts, wheelchairs, walkers, wheeled carts, or residents utilizing orthotic devices.

(10) Joints for floor openings for pipes, ducts, and conduits shall be tightly sealed to minimize entry of pests. Joints of structural elements shall be similarly sealed.

3.1-7.2.3.3 Walls, wall bases, and wall protection

(1) Wall finishes

(a) Wall finishes shall be washable. In the vicinity of plumbing fixtures, wall finishes shall be smooth, scrubbable, and moisture-resistant.

(b) Wall finish treatments shall not create ledges or crevices that can harbor dust and dirt.

(2) Wall surfaces in wet areas (e.g., kitchens, environmental services rooms) shall be monolithic and all seams shall be covered and/or sealed.

(3) Wall bases in areas routinely subjected to wet cleaning shall be monolithic and coved with the floor, tightly sealed to the wall, and constructed without voids.

(4) Wall areas penetrated by pipes, ducts, and conduits shall be tightly sealed to minimize entry of rodents and insects. Joints of structural elements shall be similarly sealed.

(5) Highly polished walls or wall finishes that create glare shall be avoided.

(6) Sharp, protruding corners shall be avoided.

(7) Wall protection devices and corner guards shall be durable and scrubbable.

3.1-7.2.3.4 Ceilings

3.1-7.2.4 Furnishings

3.1-7.2.4.1 Casework, millwork, and built-ins

3.1-7.2.4.2 Furniture

3.1-7.2.4.3 Window treatments

3.1-7.2.4.4 Signage and wayfinding

3.1-8 Building Systems

3.1-8.1 Reserved

3.1-8.2 Heating, Ventilation, and Air-Conditioning (HVAC) Systems

*3.1-8.2.1 General

Basic HVAC system requirements are defined in Part 6, ANSI/ASHRAE/ASHE Standard 170-2008: Ventilation of Health Care Facilities. This section of the Guidelines includes additional requirements.

APPENDIX

A3.1-7.2.3.2 (8) The selection of non-wax flooring eliminates finish glare. Where a finish coat is required, smooth flooring surfaces should be sealed with a matte finish to reduce surface glare.

A3.1-8.2.1 Remodeling and work in existing facilities may present special problems. As practicality and funding permit, existing insulation, weather stripping, etc., should be brought up to standard for maximum economy and efficiency. Consideration should be given to additional work that may be needed to achieve this.

A3.1-8.2.1.1 (1) Insofar as practical, the facility should include provisions for recovery of waste cooling and heating energy.
3.1.8.2.1.1 Mechanical system design

*(1) Efficiency. The mechanical system shall be designed for overall efficiency and appropriate life-cycle cost. Details for cost-effective implementation of design features are interrelated and too numerous (as well as too basic) to list individually.

(a) Recognized engineering procedures shall be followed for the most economical and effective results. A well-designed system can generally achieve energy efficiency at minimal additional cost and simultaneously provide improved patient comfort. Different geographic areas may have climatic and use conditions that favor one system over another in terms of overall cost and efficiency.

(b) In no case shall patient care or safety be sacrificed for energy conservation.

(c) Use of recognized energy-saving mechanisms such as variable-air-volume (VAV) systems, load shedding, programmed controls for unoccupied periods (nights and weekends, etc.), and use of natural ventilation shall be considered, site and climatic conditions permitting.

(d) Facility design considerations shall include site, building mass, orientation, configuration, fenestration, and other features relative to passive and active energy systems.

*(e) Air-handling systems shall be designed with an economizer cycle where appropriate to use outside air. (Use of mechanically circulated outside air does not reduce the need for filtration.)

(f) VAV systems. The energy-saving potential of VAV systems is recognized, and the standards herein are intended to maximize appropriate use of such systems. Any system used for occupied areas shall include provisions to avoid air stagnation in interior spaces where thermostat demands are met by temperatures of surrounding areas.

(2) Air-handling systems with unitary equipment that serves only one room. These units shall be permitted for use as recirculating units only. All outdoor air shall be provided by a separate central air-handling system with proper filtration, as noted in 3.1.8.2.5.1 (filter efficiencies).

(3) Vibration isolators. Mechanical equipment, ductwork, and piping shall be mounted on vibration isolators as required to prevent unacceptable structure-borne vibration.

(4) System valves. Supply and return mains and risers for cooling, heating, and steam systems shall be equipped with valves to isolate the various sections of each system. Each piece of equipment shall have valves at the supply and return ends.

(5) Renovation. If system modifications affect greater than 10 percent of the system capacity, designers shall utilize pre-renovation water/air flow rate measurements to verify that sufficient capacity is available and that renovations have not adversely affected flow rates in non-renovated areas.

(6) Acoustic considerations

*(a) Outdoor mechanical equipment shall not produce sound that exceeds 65 dBA at the hospital façade, unless special consideration is given to façade sound isolation design in impinged areas.

*(b) Outdoor mechanical equipment shall not produce sound that exceeds daytime and nighttime noise limits at neighboring properties as required by local ordinance.

3.1.8.2.1.2 Ventilation and space-conditioning requirements. All rooms and areas used for patient care shall have provisions for ventilation. See Part 6 for further requirements.

(1) Although natural ventilation for nonsensitive and patient areas (via operable windows) shall be

A3.1.8.2.1.1 (1)(c) It may be practical in many areas to reduce or shut down mechanical ventilation during appropriate climatic and patient care conditions and to use open windows for ventilation.

A3.1.8.2.1.1 (6)(a) and (b) Outdoor mechanical equipment includes cooling towers, rooftop air handlers, exhaust fans, and fans located inside buildings with openings on the outside of the building.

Noise that these and other outdoor equipment produce may impinge on hospital buildings and may require special consideration of the hospital building shell in these areas, or may impinge on adjacent properties where jurisdictional noise limits and/or owner land uses must be considered.
permitted, mechanical ventilation shall be provided for all rooms and areas in the facility in accordance with Table 7-1 in Part 6 (ASHRAE 170).

3.1-8.2.2 HVAC Requirements for Specific Locations

3.1-8.2.2.1 Airborne infection isolation (AII) rooms. The AII room is used for isolating the airborne spread of infectious diseases (e.g., measles, varicella, tuberculosis).

(1) Use of AII rooms for routine patient care during periods not requiring isolation precautions shall be permitted. Differential pressure requirements shall remain unchanged when the AII room is used for routine patient care.

(2) Each AII room shall have a permanently installed visual mechanism to constantly monitor the pressure status of the room when occupied by patients with an airborne infectious disease. The mechanism shall monitor the pressure differential between the AII room and the corridor, whether or not there is an anteroom between the corridor and the AII room.

(3) When an anteroom is provided, airflow shall be from the corridor into the anteroom and from the anteroom into the patient room.

(4) See Part 6 for additional ventilation requirements.

3.1-8.2.2.2 Protective environment (PE) rooms. The PE room is used to protect the profoundly immunosuppressed patient with prolonged neutropenia (i.e., a patient undergoing an allogeneic or autologous bone marrow/stem cell transplant) from common environmental airborne infectious microbes (e.g., Aspergillus spores).

(1) These special ventilation areas shall be designed to provide directed airflow from the cleanest patient care area to less clean areas.

* (2) Supply air to PE rooms, and to anterooms if provided, shall pass through HEPA filters just before entering the room. For a suite of rooms, installation of the HEPA filters upstream of the suite shall be permitted.

(3) Each PE room shall have a permanently installed visual mechanism to constantly monitor the pressure status of the room when occupied by a patient requiring a protective environment. The mechanism shall monitor the pressure differential between the PE room and the corridor or common space, whether or not there is an anteroom between the corridor or common space and the PE room.

(4) When an anteroom is provided, airflow shall be from the patient room into the anteroom and from the anteroom into the corridor.

(5) See Part 6 for additional ventilation requirements.

3.1-8.2.2.3 Reserved

3.1-8.2.2.4 Reserved

3.1-8.2.2.5 Operating rooms

(1) Air supply. In addition to the required low return (or exhaust) grilles, such grilles placed high on the walls shall be permitted.

(2) Ventilation rates

(a) Operating room ventilation systems shall operate at all times, except during maintenance and conditions requiring shutdown by the building's fire alarm system.

(b) During unoccupied hours, operating room air change rates may be reduced, provided that

APPENDIX

A3.1-8.2.2.2 (2) These interrupting filters protect patient rooms from maintenance-derived release of environmental microbes from the ventilation system components. Recirculating HEPA filters can be used to increase the equivalent room air exchanges.

A3.1-8.2.2.5 (2) (a) Ventilation rates for operating rooms. The operating and delivery room ventilation systems should operate at all times to maintain the air movement relationship to adjacent areas. The cleanliness of the spaces is compromised when the ventilation system is shut down. For example, airflow from a less clean space such as the corridor can occur, and standing water can accumulate in the ventilation system (near humidifiers or cooling coils).
3.1-8.2.2.6 Bronchoscopy rooms

(1) Differential pressure shall be a minimum of 0.01" water gauge (2.5 Pa).

(2) Local exhaust shall be provided.

3.1-8.2.2.7 Emergency and radiology waiting areas.
When these areas are not enclosed, the exhaust air change rate shall be based on the general volume of the space.

3.1-8.2.2.8 Anesthesia storage rooms. The ventilation systems for inhalation anesthesia storage rooms shall conform to the requirements for medical gas storage or transfilling as described in NFPA 99.

3.1-8.2.2.9 ETO sterilizer space. The ventilation system for the space that houses ethylene oxide (ETO) sterilizers shall be designed as follows:

(1) A dedicated (not connected to a return air or other exhaust system) exhaust system shall be provided. Refer to 29 CFR Part 1910.1047.

(2) All source areas shall be exhausted, including the sterilizer equipment room, service/aeration areas, and the space above the sterilizer door, as well as the aeration.

(a) If the ETO cylinders are not located in a well-ventilated, unoccupied equipment space, an exhaust hood shall be provided over the cylinders.

(b) The relief valve shall be terminated in a well-ventilated, unoccupied equipment space or outside the building.

(c) If the floor drain to which the sterilizer(s) discharges is not located in a well-ventilated, unoccupied equipment space, an exhaust drain cap shall be provided (coordinate with local codes).

(3) General airflow shall be away from the sterilizer operator(s).

(4) The exhaust outlet to the outside shall be at least 25 feet (7.62 meters) away from any air intake.

(5) An audible and visual alarm shall activate in the sterilizer work area, and in a 24-hour staffed location, upon loss of airflow in the exhaust system.

3.1-8.2.2.10 Food preparation centers

(1) Exhaust hoods handling grease-laden vapors in food preparation centers shall comply with NFPA 96.

(2) All hoods over cooking ranges shall be equipped with grease filters, fire extinguishing systems, and heat-actuated fan controls.

(3) Cleanout openings shall be provided every 20 feet (6.10 meters) and at changes in direction in the horizontal exhaust duct systems serving these hoods. Each horizontal duct run shall have at least one cleanout opening. Horizontal runs of ducts serving range hoods shall be kept to a minimum.

3.1-8.2.2.11 Fuel-fired equipment rooms. Rooms with fuel-fired equipment shall be provided with sufficient outdoor air to maintain equipment combustion rates and to limit workstation temperatures.

3.1-8.2.3 Thermal Insulation and Acoustical Provisions

3.1-8.2.3.1 General. Insulation shall be provided within the building to conserve energy, protect personnel, prevent vapor condensation, and reduce noise.

(1) Vapor barrier. Insulation on cold surfaces shall include an exterior vapor barrier. (Material that will not absorb or transmit moisture will not require a separate vapor barrier.)

(2) Flame-spread rating. Insulation, including finishes and adhesives on the exterior surfaces of ducts, piping, and equipment, shall have a flame-spread rating of 25 or less and a smoke-developed rating of 50 or less as determined by an independent testing laboratory in accordance with NFPA 255.

(3) Renovation. Existing accessible insulation within areas of facilities to be modernized shall be inspected, repaired, and/or replaced, as appropriate.

3.1-8.2.3.2 Duct linings
3.1 COMMON ELEMENTS FOR OUTPATIENT FACILITIES

(1) Duct linings exposed to air movement shall not be used in ducts serving operating rooms, delivery rooms, LDR rooms, nurseries, protective environment rooms, and critical care units. This requirement shall not apply to mixing boxes and sound attenuators that have special coverings over such lining.

(2) Duct lining shall not be installed within 15 feet (4.57 meters) downstream of humidifiers.

(3) Renovation. If existing lined ductwork is reworked in a renovation project, the liner seams and punctures shall be resealed.

3.1-8.2.4 HVAC Air Distribution

3.1-8.2.4.1 Return air systems. For patient care areas, return air shall be via ducted systems.

3.1-8.2.4.2 HVAC ductwork

(1) General. When smoke partitions are required, heating, ventilating, and air conditioning zones shall be coordinated with compartmentation insofar as practical to minimize the need to penetrate fire and smoke partitions.

* (2) Duct humidifiers

(a) If duct humidifiers are located upstream of the final filters, they shall be at least twice the rated distance for full moisture absorption upstream of the final filters.

(b) Ductwork with duct-mounted humidifiers shall have a means of water removal.

(c) Humidifiers shall be connected to airflow proving switches that prevent humidification unless the required volume of airflow is present or high-limit humidistats are provided.

(d) All duct takeoffs shall be sufficiently downstream of the humidifier to ensure complete moisture absorption.

(c) Steam humidifiers shall be used. Reservoir-type water spray or evaporative pan humidifiers shall not be used.

(3) Fire and smoke dampers

(a) Fire and smoke dampers shall be constructed, located, and installed in accordance with the requirements of NFPA 101, 90A, and the specific damper’s listing requirements.

(b) Fans, dampers, and detectors shall be interconnected so that damper activation will not damage ducts.

(c) Maintenance access shall be provided at all dampers.

(d) All damper locations shall be shown on design drawings.

(e) Dampers shall be activated in accordance with NFPA 90A. Installation of switching systems for restarting fans shall be permitted for fire department use in venting smoke after a fire has been controlled. Provisions to avoid possible damage to the system due to closed dampers shall be permitted.

(4) Construction requirements. Ducts that penetrate construction intended to protect against x-ray, magnetic, RFI, or other radiation shall not impair the effectiveness of the protection.

3.1-8.2.4.3 Exhaust systems

(1) General

(a) To enhance the efficiency of recovery devices required for energy conservation, combined exhaust systems shall be permitted.

(b) Local exhaust systems shall be used whenever possible in place of dilution ventilation to reduce exposure to hazardous gases, vapors, fumes, or mists.

(c) Fans serving exhaust systems shall be located at the discharge end and shall be readily serviceable.

3.1-8.2.4.2 (2) One way to achieve basic humidification may be by a steam-jacketed manifold-type humidifier with a condensate separator that delivers high-quality steam. Additional booster humidification (if required) should be provided by steam-jacketed humidifiers for each individually controlled area. Steam to be used for humidification may be generated in a separate steam generator. The steam generator feedwater may be supplied either from soft or reverse osmosis water. Provisions should be made for periodic cleaning.

3.1-8.2.4.3 (2) See Industrial Ventilation: A Manual of Recommended Practice, published by the American Conference of Governmental Industrial Hygienists (www.acgih.org), for additional information.
(d) Airborne infection isolation rooms shall not be served by exhaust systems incorporating a heat wheel.

*(2) Anesthesia scavenging system. Each space routinely used for administering inhalation anesthesia and inhalation analgesia shall be served by a scavenging system to vent waste gases.

(a) If a vacuum system is used, the gas-collecting system shall be arranged so that it does not disturb patients' respiratory systems.

(b) Gases from the scavenging system shall be exhausted directly to the outside. The anesthesia evacuation system may be combined with the room exhaust system, provided that the part used for anesthesia gas scavenging exhausts directly to the outside and is not part of the recirculation system.

(c) Where anesthesia scavenging systems are required, air supply shall be at or near the ceiling. Return or exhaust air inlets shall be near the floor level.

(d) Scavenging systems are not required for areas where gases are used only occasionally, such as the emergency department, offices for routine dental work, etc.

3.1-8.2.4.4 Ventilation hoods

(1) Exhaust hoods and safety cabinets

(a) Hoods and safety cabinets are permitted to be used for normal exhaust of a space provided minimum air change rates are maintained.

(b) If air change standards in Part 6 (ASHRAE 170) do not provide sufficient air for proper operation of exhaust hoods and safety cabinets (when in use), makeup air (filtered and pre-heated) shall be provided around these units to maintain the required airflow direction and exhaust velocity. Use of makeup air will avoid dependence upon infiltration from outdoor and/or from contaminated areas.

(c) Makeup systems for hoods shall be arranged to minimize "short circuiting" of air and to avoid reduction in air velocity at the point of contaminant capture.

(2) Laboratory fume hoods. Laboratory fume hoods shall meet the following general standards:

(a) General standards

(i) Average face velocity of 75 feet per minute (0.45 to 0.56 meters per second)

(ii) Connection to an exhaust system to the outside that is separate from the building exhaust system

(iii) Location of an exhaust fan at the discharge end of the system

(iv) Inclusion of an exhaust duct system of noncombustible corrosion-resistant material as needed to meet the planned usage of the hood

(b) Special standards for use with strong oxidants

(i) Fume hoods, and their associated equipment in the air stream intended for use with perchloric acid and other strong oxidants, shall be constructed of stainless steel or other material consistent with special exposures.

(ii) These hoods and equipment shall be provided with a water wash and drain system to permit periodic flushing of duct and hood.

(iii) Electrical equipment intended for installation within such ducts shall be designed and constructed to resist penetration by water. Lubricants and seals shall not contain organic materials.

(iv) When perchloric acid or other strong oxidants are only transferred from one container to another, standard laboratory fume hoods and the associated equipment may be used in lieu of stainless steel construction.

(c) Special standards for use with infectious or radioactive materials. In new construction and major renovation work, each hood used to process infectious or radioactive materials shall meet the following requirements:

(i) Each hood shall have a minimum face velocity of 90 to 110 feet per minute (0.45 to 0.56 meters per second) with suitable pressure-independent air-modulating devices and alarms to alert staff of fan shutdown or loss of airflow.

(ii) Each hood shall have filters with a 99.97
3.1 COMMON ELEMENTS FOR OUTPATIENT FACILITIES

percent efficiency (based on the DOP test method) in the exhaust stream, and be designed and equipped to permit the safe removal, disposal, and replacement of contaminated filters. Filters shall be located within 10 feet (3.05 meters) of the hood to minimize duct contamination.

(iii) Fume hoods intended for use with radioactive isotopes shall be constructed of stainless steel or other material suitable for the particular exposure and shall comply with NFPA 801: Facilities for Handling Radioactive Materials. Note: Radioactive isotopes used for injections, etc., without probability of airborne particulates or gases may be processed in a clean-workbench-type hood where acceptable to the Nuclear Regulatory Commission.

3.1-8.2.5 HVAC Filters
See Part 6 (ASHRAE 170) for further filter requirements.

3.1-8.2.5.1 Filter efficiencies. Noncentral air-handling systems shall be equipped with permanent (cleanable) or replaceable filters with a minimum efficiency of MERV 6.

3.1-8.2.5.2 Filter frames. Filter frames shall be durable and proportioned to provide an airtight fit with the enclosing ductwork. All joints between filter segments and enclosing ductwork shall have gaskets or seals to provide a positive seal against air leakage.

3.1-8.2.6 Heating Systems and Equipment

3.1-8.2.6.1 Boilers
(1) Capacity. For requirements, see Section 6.1.2.1 of Part 6 (ASHRAE 170). In addition, domestic hot water for clinical, dietary, and patient/resident use shall be included in the reserve capacity to be served by the remaining sources.

(2) Fuel sufficient to meet demand loads for the same length of time required for emergency generators shall be provided on site.

3.1-8.2.6.2 Boiler plant accessories. Major sup-
porting components of the heating plant, including feedwater pumps, fuel pumps, and condensate transfer pumps, shall be provided with redundancy that makes it possible to meet the heating capacity of the plant required by Section 3.1-8.2.6.1 (Boilers—Capacity) when any one of these components is out of service due to failure or routine maintenance.

3.1-8.2.6.3 Temperature control
(1) Rooms containing heat-producing equipment, such as boiler or heater rooms or laundries, shall be ventilated to prevent the floor surface above and/or the adjacent walls of occupied areas from exceeding a temperature of 10°F (6°C) above ambient room temperature.

(2) Heating units shall have a maximum surface temperature of 125°F (51.6°C) or shall be protected from occupant contact.

3.1-8.3 Electrical Systems

3.1-8.3.1 General

3.1-8.3.1.1 Applicable standards
(1) All electrical material and equipment, including conductors, controls, and signaling devices, shall be installed in compliance with applicable sections of NFPA 70 and NFPA 99.

(2) All electrical material and equipment shall be listed as complying with available standards of listing agencies or other similar established standards where such standards are required.

3.1-8.3.1.2 Testing and documentation. Electrical installations, including alarm and communication systems, shall be tested to demonstrate that equipment installation and operation is appropriate and functional. A written record of performance tests on special electrical systems and equipment shall show compliance with applicable codes and standards.

3.1-8.3.1.3 Power disturbance safeguards. Data processing and/or automated laboratory or diagnostic equipment, if provided, may require safeguards from power line disturbances.
3.1-8.3.2 Electrical Distribution and Transmission

3.1-8.3.2.1 Switchboards

(1) Location

(a) Main switchboards shall be located in an area separate from plumbing and mechanical equipment and shall be accessible to authorized persons only.
(b) Switchboards shall be convenient for use and readily accessible for maintenance but away from traffic lanes.
(c) Switchboards shall be located in dry, ventilated spaces free of corrosive or explosive fumes or gases or any flammable material.

(2) Overload protective devices. These shall operate properly in ambient room temperatures.

3.1-8.3.2.2 Panelboards

(1) Panelboards serving normal lighting and appliance circuits shall be located on the same floor as the circuits they serve.

(2) Panelboards serving critical branch emergency circuits shall be located on each floor that has major users.

(3) Panelboards serving life safety emergency circuits may also serve floors above and/or below.

3.1-8.3.2.3 Ground-fault circuit interrupters

(1) Ground-fault circuit interrupters (GFCIs) shall comply with NFPA 70: National Electrical Code.

(2) When GFCIs are used in critical care areas, provisions shall be made to ensure that other essential equipment is not affected by activation of one interrupter.

3.1-8.3.3 Power Generating and Storing Equipment

3.1-8.3.3.1 Emergency electrical service. Emergency lighting and power shall be provided for in accordance with NFPA 99, NFPA 101, and NFPA 110.

*3.1-8.3.4 Lighting

*3.1-8.3.4.1 As required by the functional program, special needs of the elderly shall be incorporated into the lighting design.

3.1-8.3.4.2 Reserved

3.1-8.3.4.3 Lighting for specific locations in the outpatient facility

(1) Examination/treatment/trauma rooms. A portable or fixed examination light shall be provided for examination, treatment, and trauma rooms.

(2) Operating and delivery rooms. Operating and delivery rooms shall have general lighting in addition to special lighting units provided at surgical and obstetrical tables. General lighting and special lighting shall be on separate circuits.

3.1-8.3.5 Electrical Equipment

3.1-8.3.5.1 Special electrical equipment. Special equipment is identified in the subsections of Section 2, Diagnostic and Treatment Locations, of this chapter. These sections shall be consulted to ensure compatibility between programmatic and defined equipment needs and appropriate power and other electrical connection needs.

3.1-8.3.5.2 Reserved

APPENDIX

A3.1-8.3.4 Required levels for artificial illumination in health care facilities should comply with Illuminating Engineering Society of North America (IES) publication RP-79: Recommended Practices for Lighting for Hospitals and Health Care Facilities. Light intensity for staff and patient needs should generally comply with these IES guidelines. Consideration should be given to controlling intensity and/or wavelength to prevent harm to the patient’s eyes (i.e., retina damage to premature infants and cataracts due to ultraviolet light).

Many procedures are available to satisfy lighting requirements, but the design should consider light quality as well as quantity for effectiveness and efficiency. While light levels in the IES publications are referenced herein, those publications include other useful guidance and recommendations which the designer is encouraged to follow.

A3.1-8.3.4.1 Refer to IES publication ANSI/IESNA RP-79: Recommended Practices for Lighting and the Visual Environment for Senior Living.
3.1-8.3.5.3 X-ray equipment. Fixed and mobile x-ray equipment installations shall conform to articles 517 and 660 of NFPA 70.

3.1-8.3.5.4 Inhalation anesthetizing locations. At inhalation anesthetizing locations, all electrical equipment and devices, receptacles, and wiring shall comply with applicable sections of NFPA 99 and NFPA 70.

3.1-8.3.6 Receptacles (Convenience Outlets)

3.1-8.3.6.1 Duplex grounded-type receptacles (convenience outlets) shall be installed in all areas in sufficient quantities for tasks to be performed as needed.

3.1-8.3.6.2 Each examination and worktable shall have access to a minimum of two duplex receptacles.

3.1-8.4 Plumbing Systems

3.1-8.4.1 General

3.1-8.4.1.1 Application. These requirements do not apply to outpatient facilities that do not perform invasive applications or procedures.

3.1-8.4.1.2 Standards. Unless otherwise specified herein, all plumbing systems shall be designed and installed in accordance with the International Plumbing Code.

3.1-8.4.2 Plumbing and Other Piping Systems

3.1-8.4.2.1 General piping and valves

(1) All piping, except control-line tubing, shall be identified.

(2) All valves shall be tagged, and a valve schedule shall be provided to the facility owner for permanent record and reference.

(3) In food preparation and service areas, no plumbing piping shall be exposed overhead or exposed on walls where possible accumulation of dust or soil may create a cleaning problem or where leaks would create a potential for food contamination.

3.1-8.4.2.2 Hemodialysis piping

(1) Where the functional program includes hemodialysis, continuously circulated filtered cold water shall be provided. Piping shall be in accordance with AAMI RD62.

(2) In new construction and renovation where hemodialysis or hemoperfusion are routinely performed, a separate water supply and drainage facility that does not interfere with hand-washing shall be provided.

3.1-8.4.2.3 Potable water supply systems. The following standards shall apply to potable water supply systems:

(1) Capacity. Systems shall be designed to supply water at sufficient pressure to operate all fixtures and equipment during maximum demand. Supply capacity for hot- and cold-water piping shall be determined on the basis of fixture units, using recognized engineering standards. Where the ratio of plumbing fixtures to occupants is proportionally more than required by the building occupancy and is in excess of 1,000 plumbing fixture units, a diversity factor is permitted.

(2) Valves. Each water service main, branch main, riser, and branch to a group of fixtures shall have valves.

   (a) Stop valves shall be provided for each fixture.

   (b) Appropriate panels for access shall be provided at all valves where required.

(3) Backflow prevention

   (a) Systems shall be protected against cross-connection in accordance with American Water Works Association (AWWA) Recommended Practice for Backflow Prevention and Cross-connection Control.

   (b) Vacuum breakers or backflow prevention devices shall be installed on hose bibs and supply nozzles used for connection of hoses or tubing in laboratories, housekeeping sinks, etc.

(4) Potable water storage vessels (hot and cold) not intended for constant use shall not be installed.

(5) Emergency eyewash and showers shall comply with ANSI Z358.1.
3.1-8.4.2.4 Reserved

3.1-8.4.2.5 Hot water systems. The following standards shall apply to hot water systems:

*(1) The water-heating system shall have sufficient supply capacity at the temperatures and amounts indicated in the applicable table. Storage of water at higher temperatures shall be permitted.

(2) Hot water distribution systems serving patient/resident care areas shall be under constant recirculation to provide continuous hot water at each hot water outlet. Non-recirculated fixture branch piping shall not exceed 25 feet (7.62 meters) in length.

(3) Dead-end piping (risers with no flow, branches with no fixture) shall not be installed. In renovation projects, dead-end piping shall be removed. Empty risers, mains, and branches installed for future use shall be permitted.

*(4) Provisions shall be included in the domestic hot water system to limit the amount of Legionella bacteria and opportunistic waterborne pathogens.

3.1-8.4.2.6 Drainage systems

(1) Piping

(a) Drain lines from sinks used for acid waste disposal shall be made of acid-resistant material.

(b) Drain lines serving some types of automatic blood-cell counters shall be of carefully selected material that will eliminate the potential for undesirable chemical reactions (and/or explosions) between sodium azide wastes and copper, lead, brass, solder, etc.

(c) Insofar as possible, drainage piping shall not be installed within the ceiling or exposed in operating and delivery rooms, nurseries, food preparation centers, food-serving facilities, food storage areas, central services, electronic data processing areas, electric closets, and other sensitive areas. Where exposed overhead drain piping in these areas is unavoidable, special provisions shall be made to protect the space below from leakage, condensation, or dust particles.

(2) Floor drains

(a) Floor drains shall not be installed in operating and delivery rooms, except as permitted in dedicated cystoscopy rooms.

*(b) If a floor drain is installed in a dedicated cystoscopy room, it shall contain a nonsplash, horizontal-flow flushing bowl beneath the drain plate.

(c) Dietary area floor drains and/or floor sinks

(i) Type. These shall be of a type that can be easily cleaned by removing the cover. Removable stainless steel mesh shall be provided in addition to grilled drain covers to prevent entry of large particles of waste that might cause stoppages.

A3.1-8.4.2.5 (1) Water temperature is measured at the point of use or inlet to the equipment.

A3.1-8.4.2.5 (4) There are several ways to treat domestic water systems to kill Legionella and opportunistic waterborne pathogens. Complete removal of these organisms is not feasible, but methods to reduce the amount include hyperchlorination (free chlorine, chlorine dioxide, monochloramine), elevated hot water temperature, ozone injection, silver/copper ions, and ultraviolet light. Each of these options has advantages and disadvantages. While increasing the hot water supply temperature to 140°F (60°C) is typically considered the easiest option, the risk of scalding, especially to youth and the elderly, is significant. Additional consideration should be given to domestic water used in bone marrow transplant units. See CDC and ASHRAE Guideline 12, “Minimizing the Risk of Legionellosis Associated with Building Water Systems,” for additional information. Another reference on this topic is “Legionella Control in Health Care Facilities,” available from the American Society of Plumbing Engineers.

A3.1-8.4.2.6 (2)(b) Floor drains in cystoscopy operating rooms have been shown to disseminate a heavily contaminated spray during flushing. Unless flushed regularly with large amounts of fluid, the trap tends to dry out and permit passage of gases, vapors, odors, insects, and vermin directly into the operating room. For new construction, if the users insist on a floor drain, the drain plate should be located away from the operative site and should be over a frequently flushed nonsplash, horizontal-flow type of bowl, preferably with a closed system of drainage. Alternative methods include (1) an aspirator/trap installed in a wall connected to the collecting trough of the operating table by a closed, disposable tube system or (2) a closed system using portable collecting vessels. (See NFPA 99.)
(ii) Location. Floor drains or floor sinks shall be provided at all "wet" equipment (as ice machines) and as required for wet cleaning of floors. Location of floor drains and floor sinks shall be coordinated to avoid conditions where locations of equipment make removal of covers for cleaning difficult.

(3) Sewers. Building sewers shall discharge into community sewerage. Where such a system is not available, the facility shall treat its sewage in accordance with local and state regulations.

(4) Kitchen grease traps
   (a) Grease traps shall be of capacity required.
   (b) These shall be located and arranged to permit easy access without the need to enter food preparation or storage areas.
   (c) These shall be accessible from outside the building without need to interrupt any services.

(5) Plaster traps. Where plaster traps are used, provisions shall be made for appropriate access and cleaning.

3.1-8.4.2.7 Condensate drains
(1) Condensate drains for cooling coils shall be a type that may be cleaned as needed without disassembly.

(2) An air gap shall be provided where condensate drains empty into building drains.

(3) Heater elements shall be provided for condensate lines in freezers or other areas where freezing may be a problem.

3.1-8.4.3 Plumbing Fixtures
The following standards shall apply to plumbing fixtures:

3.1-8.4.3.1 General
(1) Materials. The material used for plumbing fixtures shall be non-absorptive and acid-resistant.

(2) Clearances. Water spouts used in lavatories and sinks shall have clearances adequate to avoid contaminating utensils and the contents of carafes, etc.

3.1-8.4.3.2 Hand-washing stations
(1) General. For further requirements regarding hand-washing stations, see 1.2-3.2.1.2 (ICRA considerations—Design elements), 3.1-7.2.2.8, and the facility chapters in Part 3.

(2) Sinks
   *(a) Sinks in hand-washing stations shall be designed with deep basins to prevent splashing to areas where direct patient care is provided, particularly those surfaces where sterile procedures are performed and medications are prepared.
   (b) The area of the basin shall not be less than 144 square inches (929.03 square centimeters), with a minimum 9-inch (22.86-centimeter) width or length.
   (c) Hand-washing basins/countertops shall be made of porcelain, stainless steel, or solid surface materials. Basins shall be permitted to be set into plastic laminate countertops if, at a minimum, the substrate is marine-grade plywood (or equivalent) with an impervious seal.
   (d) Sinks shall have well-fitted and sealed basins to prevent water leaks onto or into cabinetry and wall spaces.
   (e) The discharge point of hand-washing sinks shall be at least 10 inches (25.4 centimeters) above the bottom of the basin.
   (f) The water pressure at the fixture shall be regulated.

APPENDIX

A3.1-8.4.3.2 Hand-washing stations. Plumbing lines under hand-washing stations should be protected for use by residents using wheelchairs.

A3.1-8.4.3.2 (2)(a) Recommendations for minimizing splashing through hand-washing station design and sink style
a. Faucets should not discharge directly above the drain as this causes splashing (i.e., water should be angled away from the drain).
b. Sink size and depth should follow ANSI standards for sink design.
c. Water pressure should be adjusted to reduce forceful discharge into the sink at maximum flow.
d. Design of sinks should accommodate ADA requirements for clearance under the sink basin.
(g) Design of sinks shall not permit storage beneath the sink basin.

3.1-8.4.3.3 Showers and tubs
(1) Showers and tubs shall have nonslip walking surfaces.
(2) If provided, soap dishes shall be recessed.

3.1-8.4.3.4 Ice machines. Copper tubing shall be provided for supply connections to ice machines.

3.1-8.4.3.5 Clinical sinks
(1) Handles on clinical sinks shall be at least 6 inches (15.24 centimeters) long.
(2) Clinical sinks shall have an integral trap wherein the upper portion of the water trap provides a visible seal.

3.1-8.4.3.6 Scrub sinks. Freestanding scrub sinks and lavatories used for scrubbing in procedure rooms shall be trimmed with foot, knee, or ultrasonic controls; single-lever wrist blades shall not be permitted.


3.1-8.4.4 Medical Gas and Vacuum Systems
Station outlets shall be provided consistent with need established by the functional program. (See Table 3.1-1 for station outlet requirements.)

3.1-8.4.4.1 Medical gas systems. If piped medical gas is used, the installation, testing, and certification of nonflammable medical gas and air systems shall comply with the requirements of NFPA 99, Standard for Health Care Facilities.

3.1-8.4.4.2 Vacuum systems. Where the functional program requires a central clinical vacuum system, design and installation shall be in accordance with NFPA 99.

3.1-8.5 Communications Systems

3.1-8.5.1 Locations for terminating telecommunications and information system devices shall be provided.

3.1-8.5.2 A space shall be provided for central equipment locations. Special air conditioning and voltage regulation shall be provided when recommended by the manufacturer.

3.1-8.6 Electronic Safety and Security Systems

3.1-8.6.1 Fire Alarm System
Any fire alarm system shall be as required by NFPA 101 and installed per NFPA 72.

3.1-8.7 Special Systems

3.1-8.7.1 General
As required by the functional program, special systems shall be installed in accordance with the following standards:

3.1-8.7.1.1 Testing
(1) Prior to acceptance of the facility, all special systems shall be tested and operated to demonstrate to the owner or its designated representative that the installation and performance of these systems conform to design intent.
(2) Test results shall be documented for maintenance files.

3.1-8.7.1.2 Documentation
(1) Upon completion of the special systems equipment installation contract, the owner shall be furnished with a complete set of manufacturers’ operating, maintenance, and preventive maintenance instructions; a parts list; and complete procurement information, including equipment numbers and descriptions.
(2) Operating staff persons shall also be provided with instructions for proper operation of systems and equipment. Required information shall include all safety or code ratings as needed.
3.1-8.7.1.3 Insulation. Insulation shall be provided surrounding special system equipment to conserve energy, protect personnel, and reduce noise.

3.1-8.7.2 Elevators

3.1-8.7.2.1 Reserved

3.1-8.7.2.2 Reserved

3.1-8.7.2.3 Dimensions. Cars shall have a minimum inside floor dimension of not less than 5 feet (1.52 meters).

3.1-8.7.2.4 Leveling device. Elevators shall be equipped with a two-way automatic level-maintaining device with an accuracy of ±1/2 inch (±12.7 millimeters).

3.1-8.7.2.5 Elevator controls

(1) Elevator call buttons and controls shall not be activated by heat or smoke. Light beams, if used for operating door reopening devices without touch, shall be used in combination with door-edge safety devices and shall be interconnected with a system of smoke detectors. This is so the light control feature will be overridden or disengaged should it encounter smoke at any landing.

(2) Elevator controls, alarm buttons, and telephones shall be accessible to wheelchair occupants and usable by the blind.

3.1-8.7.2.6 Installation and testing

(1) Standards. Installation and testing of elevators shall comply with ANSI/ASME A17.1 for new construction and ANSI/ASME A17.3 for existing facilities. (See ASCE/SEI 7 for seismic design and control system requirements for elevators.)

(2) Documentation. Field inspections and tests shall be made and the owner shall be furnished with written certification stating that the installation meets the requirements set forth in this section as well as all applicable safety regulations and codes.

---

Table 3.1-1

Station Outlets for Oxygen, Vacuum, and Medical Air in Outpatient Facilities

<table>
<thead>
<tr>
<th>Section</th>
<th>Location</th>
<th>Oxygen</th>
<th>Vacuum</th>
<th>Medical Air</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1-3.2.2/3.2.3</td>
<td>General/special purpose examination</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>3.1-3.2.4</td>
<td>Treatment</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>3.1-3.4.2</td>
<td>Isolation</td>
<td>0(^1)</td>
<td>0(^1)</td>
<td></td>
</tr>
<tr>
<td><strong>Urgent Care</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.5-3.3</td>
<td>Procedure room</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>--</td>
<td>Cast room</td>
<td>0(^1)</td>
<td>0(^1)</td>
<td></td>
</tr>
<tr>
<td>--</td>
<td>Catheterization room</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3.7-3.2</td>
<td>Examination in outpatient surgical facility</td>
<td>0(^1)</td>
<td>0(^1)</td>
<td></td>
</tr>
<tr>
<td><strong>Ambulatory operating rooms</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.7-3.3.2</td>
<td>Class A—surgical procedures with minimal sedation</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3.7-3.3.3</td>
<td>Class B—surgical procedure with moderate sedation</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3.7-3.3.4</td>
<td>Class C—surgical procedure with deep sedation</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>3.7-3.4.2.2</td>
<td>Post-anesthesia recovery</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3.7-3.4.2.3</td>
<td>Phase II recovery</td>
<td>0(^1)</td>
<td>0(^1)</td>
<td></td>
</tr>
<tr>
<td>--</td>
<td>Cysto procedure</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Endoscopy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.9-3.2.2</td>
<td>Procedure room</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>3.9-3.3</td>
<td>Holding/prep/recovery area</td>
<td>0(^1)</td>
<td>0(^1)</td>
<td></td>
</tr>
<tr>
<td>3.9-5.1.1.2</td>
<td>Decontamination area</td>
<td>--</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>5.2-2.2</td>
<td>Birthing room</td>
<td>1(^2)</td>
<td>1(^2)</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Portable source shall be available for the space.

\(^2\) Use of portable equipment shall be permitted.
3.2 Specific Requirements for Primary Care Outpatient Centers

Appendix material, shown in shaded boxes at the bottom of the page, is advisory only.

■ 3.2-1 General

The primary care outpatient center provides comprehensive community outpatient medical services.

3.2-1.1 Application
All requirements in 3.1-1 (General), 3.1-3 (Diagnostic and Treatment Locations), 3.1-4 (Patient Support Services), 3.1-5 (General Support Services), 3.1-6 (Administrative and Public Areas), and 3.1-7 (Design and Construction Requirements) shall apply to primary care outpatient centers, with additions and modifications described in this chapter. [See Chapter 3.3 for small primary care (neighborhood) outpatient facilities.]

3.2-1.2 Functional Program
The functional program shall specify the number and type of diagnostic, treatment, and administrative areas needed to support the services and estimated patient load of the facility.

3.2-1.3 Site

3.2-1.3.1 Parking
Comply with parking requirements outlined in Chapter 1.3, Site.

■ 3.2-2 Reserved

■ 3.2-3 Diagnostic and Treatment Locations

3.2-3.1 Reserved

*3.2-3.2 Examination and Treatment Rooms

3.2-3.3 Imaging Facilities
Provisions shall be made for x-ray procedures as described in 3.1-3.9.2 (Diagnostic Imaging Facilities). Services may be shared or provided by contract off-site.

■ 3.2-4 Patient Support Services

■ 3.2-4.1 Laboratory Services

3.2-4.1.1 General
Provisions shall be made for laboratory procedures as described in 3.1-4.1 (Laboratory Services). Services may be shared or provided by contract off-site.

3.2-4.1.2 Specimen Storage
Each outpatient unit shall have appropriate facilities for storage and refrigeration of blood, urine, and other specimens.

■ 3.2-5 Reserved

■ 3.2-6 Public and Administrative Areas

3.2-6.1 Public Areas
Public areas shall be situated for convenient access and designed to promote prompt accommodation of patient needs, with consideration for personal dignity.

3.2-6.1.1 Entrances

3.2-6.1.1.1 Entrances shall be well marked and at grade level.

3.2-6.1.1.2 Where entrance lobby and/or elevators are shared with other tenants, travel to the outpatient unit shall be direct and accessible to the disabled. Except for passage through common doors, lobbies, or elevator
stations, patients shall not be required to go through other occupied areas or outpatient service areas.

3.2-6.1.1.3 Entrances shall be convenient to parking and accessible via public transportation.

3.2-6.1.2 Reception

3.2-6.1.2.1 Reception/information counter. A reception and information counter or desk shall be located to provide visual control of the entrance to the outpatient unit and shall be immediately apparent from that entrance.

3.2-6.1.2.2 Control counter. A control counter shall be provided with access to patient files and records for scheduling of services. This shall be permitted to be part of the reception, information, and waiting room control.

3.2-6.1.3 Waiting Area

3.2-6.1.3.1 The waiting area for patients and escorts shall be under staff control.

3.2-6.1.3.2 The seating area shall contain not fewer than two spaces for each examination and/or treatment room.

3.2-6.1.3.3 Where the outpatient unit has a formal pediatrics service, a separate, controlled area for pediatric patients shall be provided.

3.2-6.1.3.4 Wheelchairs shall be accommodated within the waiting area.

3.2-6.2 Administrative Areas

3.2-6.2.1 General
Each primary care outpatient facility shall make provisions to support administrative activities, filing, and clerical work as appropriate. (See also 3.1-6.2 [Administrative Areas].) Administrative areas provided shall include the following:

3.2-6.2.2 Reserved

3.2-6.2.3 Office(s)

3.2-6.2.3.1 Office(s), separate and enclosed, with provisions for privacy shall be provided.

3.2-6.2.3.2 Clerical space or rooms for typing and clerical work shall be provided separate from public areas to ensure confidentiality.

3.2-6.2.4 Multipurpose Rooms
Multiuse rooms for conferences, meetings, and health education shall be provided. One room may be primarily for staff use but also available for public access as needed. In smaller facilities, the room may also serve for consultation and other purposes.

3.2-6.2.5 Medical Records
Filing cabinets and storage shall be provided for the safe and secure storage of patient records with provisions for ready retrieval.

3.2-6.2.6 Equipment and Supply Storage
For requirements, see 3.1-6.2.6.

3.2-6.3 Support Areas for Staff
A staff toilet and lounge in addition to and separate from public and patient facilities.

3.2-7 Reserved

3.2-8 Building Systems

3.2-8.1 Reserved

3.2-8.2 Heating, Ventilation, and Air-Conditioning (HVAC) Systems
All standards set forth in 3.1-8.2 shall be met.

3.2-8.3 Reserved

3.2-8.4 Plumbing
All standards set forth in 3.1-8.4 shall be met.
3.3 Specific Requirements for Small Primary Care (Neighborhood) Outpatient Facilities

■ 3.3-1 General

This chapter contains specific requirements for small outpatient facilities where primary care is provided. Such facilities are often contained within existing commercial or residential buildings as “storefront” units, but they may also be freestanding new or converted small structures. The size of the units limits occupancy, thereby minimizing hazards and allowing for less stringent standards. As a result, needed community services can be provided at an affordable cost.

3.3-1.1.1 For the purposes of this chapter, the term “small structure” shall be defined as space and equipment to serve three or fewer examination rooms at any one time.

3.3-1.1.2 Meeting all provisions of 3.1-3 (Diagnostic and Treatment Locations), 3.1-4 (Patient Support Services), 3.1-5 (General Support Services), 3.1-6 (Public and Administrative Areas), and 3.1-7 (Design and Construction Requirements) is desirable, but limited size and resources may preclude satisfying any but the basic minimums described. This section does not apply to outpatient facilities located within a hospital, nor is it intended for larger, more sophisticated units.

3.3-1.2 Reserved

■ 3.3-2 Reserved

■ 3.3-3 Diagnostic and Treatment Locations

3.3-3.1 Reserved

3.3-3.2 Examination and Treatment Rooms

3.3-3.2.1 Number
At least one examination room shall be available for each provider who may be on duty at any one time.

3.3-3.2.2 Function
Rooms shall be permitted to serve as both examination and treatment spaces; see 3.1-3.2.2 (General Purpose Examination/Observation Room).

3.3-3.2.3 Reserved

3.3-3.2.4 Reserved
3.3 SPECIFIC REQUIREMENTS FOR SMALL PRIMARY CARE (NEIGHBORHOOD) OUTPATIENT FACILITIES

3.3-3.2.5 Support Areas for Patient Care—General
For requirements, see 3.1-3.5.

3.3-3.2.6 Support Areas for Examination and Treatment Rooms

3.3-3.2.6.1 through 3.3-3.2.6.5 Reserved

3.3-3.2.6.6 Biological and drug storage. Locked storage for biologicals and drugs shall be provided.

3.3-3.2.6.7 Toilet rooms
(1) A toilet room containing a hand-washing station shall be accessible from all examination and treatment rooms.
(2) Where a facility contains no more than three examination and/or treatment rooms, the patient toilet shall be permitted to serve waiting areas.

3.3-3.2.6.8 Reserved

3.3-3.2.6.9 Clean work area. A clean work area shall be provided in a separate room or in an isolated area and shall contain the following:
(1) Counter
(2) Hand-washing station
(3) Storage for clean supplies

3.3-3.2.6.10 Soiled holding room. A soiled holding room shall be provided. For requirements, see 3.1-3.6.10.

3.3-3.2.6.11 Equipment and supply storage. Storage for sterile equipment and supplies shall be provided to meet functional requirements. (Sterile supplies may be prepackaged disposables or processed off-site.)

3.3-3.3 Diagnostic Services

3.3-3.3.1 General
3.3-3.3.1.1 The functional program shall identify diagnostic services to be provided within the facility and those to be provided off-site.

3.3-3.3.2.2 Spaces to accommodate services provided within the facility shall meet the requirements of 3.1-3, as applicable.

3.3-3.4 Patient Support Services

3.3-4.1 Laboratory Services
Laboratory services and/or facilities shall meet the requirements in this section.

3.3-4.1.1 Laboratory Testing/Work Areas

3.3-4.1.1.1 Specimen collection
(1) Urine collection rooms shall be equipped with a water closet and hand-washing station.
(2) Use of the toilet room provided within the examination and treatment room shall be permitted for specimen collection.

3.3-4.1.1.2 Blood collection
(1) Blood collection facilities shall have space for a chair and work counter.
(2) A hand-washing station shall be provided.

3.3-4.1.2 Other Laboratory Services
Services shall be available within the facility or through a formal agreement or contract with a hospital or other laboratory for hematology, clinical chemistry, urinalysis, cytology, pathology, and bacteriology.

3.3-5 Reserved

3.3-6 Administrative and Public Areas

3.3-6.1 Public Areas
Public areas shall include the following:

3.3-6.1.1 Reception
A reception and information center or desk shall be provided.
3.3-6.1.2 Waiting Area
This space shall include provisions for wheelchairs.

3.3-6.2 Administrative Areas

3.3-6.2.1 Office
An office area for business transactions, records, and other administrative functions, separate from public and patient areas, shall be provided.

3.3-6.2.2 Equipment and Supply Storage
General storage facilities for office supplies, equipment, sterile supplies, and pharmaceutical supplies shall be provided.

3.3-6.3 Support Areas for Staff

3.3-6.3.1 Staff Storage
Locked storage (cabinets or secure drawers) convenient to workstations shall be provided for staff valuables.

■ 3.3-7 Design and Construction Requirements

3.3-7.1 Building Codes and Standards

3.3-7.1.1 Every building and every portion thereof shall be designed and constructed to sustain all dead and live loads in accordance with accepted engineering practices and standards.

3.3-7.1.2 If existing buildings are converted for use, consideration shall be given to the structural requirements for concentrated floor loadings, including x-ray equipment, storage files, and similar heavy equipment that may be added.

■ 3.3-8 Building Systems

3.3-8.1 General
The requirements in this section shall apply for the small outpatient facility in lieu of the requirements in 3.1-8.

3.3-8.2 Heating, Ventilation, and Air-Conditioning (HVAC) Systems
HVAC systems shall meet the following standards:

3.3-8.2.1 Mechanical System Design
A minimum indoor winter-design-capacity temperature of 75°F (24°C) shall be set for all patient areas. Controls shall be provided for adjusting temperature as appropriate for patient activities and comfort.

3.3-8.2.2 Ventilation and Space-Conditioning Requirements
All occupied areas shall be ventilated by natural or mechanical means.

3.3-8.2.3 HVAC Ductwork
Air-handling duct systems shall meet the requirements of NFPA 90A.

3.3-8.3 Electrical Systems

3.3-8.3.1 Testing
Prior to completion and acceptance of the facility, all electrical systems shall be tested and operated to demonstrate that installation and performance conform to applicable codes and functional needs.

3.3-8.3.2 Lighting

3.3-8.3.2.1 General. Lighting shall be provided in all facility spaces occupied by people, machinery, and/or equipment, and in outside entryways.

3.3-8.3.2.2 Lighting for specific locations in the small outpatient facility
(1) Examination/treatment rooms. An examination light shall be provided for each examination and treatment room.

3.3-8.3.2.3 Emergency lighting. Automatic emergency lighting shall be provided in every facility that has a total floor area of more than 1,000 square feet (92.9 square meters) and in every facility requiring stairway exit.
3.3 SPECIFIC REQUIREMENTS FOR SMALL PRIMARY CARE (NEIGHBORHOOD) OUTPATIENT FACILITIES

3.3-8.3.3 Electrical Equipment

3.3-8.3.3.1 X-ray equipment. X-ray equipment installations, when provided, shall conform to NFPA 70.

3.3-8.3.4 Receptacles

3.3-8.3.4.1 Sufficient duplex grounded-type receptacles shall be available for necessary task performance.

3.3-8.3.4.2 Each examination and work table area shall be served by at least one duplex receptacle.

3.3-8.4 Plumbing Systems

3.3-8.4.1 General

Plumbing and other piping systems shall meet the requirements in this section.

3.3-8.4.1.1 Systems shall comply with applicable codes, be free of leaks, and be designed to supply water at sufficient pressure to operate all fixtures and equipment during maximum demand.

3.3-8.4.1.2 Backflow preventers (vacuum breakers) shall be installed on all water supply outlets to which hoses or tubing can be attached.

3.3-8.4.1.3 Water temperature at lavatories shall not exceed 110°F (43°C).

3.3-8.4.1.4 All piping registering temperatures above 110°F (43°C) shall be covered with thermal insulation.
3.4 Specific Requirements for Freestanding Outpatient Diagnostic and Treatment Facilities

3.4-1 General
This section applies to the outpatient diagnostic and treatment facility that is separate from the acute care hospital. This facility is a form of outpatient center that is capable of accommodating a wide array of outpatient diagnostic services and minimally invasive procedures. The range of services provided in these facilities is dynamic and growing, including diagnostic cardiac catheterization, general radiography, fluoroscopy, mammography, CT scanning, magnetic resonance imaging (MRI), ultrasound, radiation therapy, and IV therapies. Facilities may specialize in only one of these areas or may provide a mix of services.

3.4-1.1 Application
The general requirements for outpatient facilities set forth in 3.1-1 (General), 3.1-3 (Diagnostic and Treatment Locations), 3.1-4 Patient Support Services), 3.1-5 (General Support Services and Areas), 3.1-6 (Public and Administrative Areas), and 3.1-7 (Design and Construction Requirements) shall apply to the freestanding outpatient diagnostic and treatment facility, with two modifications:

3.4-1.1.1 For those facilities performing diagnostic imaging and minimally invasive interventional procedures, all provisions of 2.2-3.4 (Diagnostic Imaging Services) and 2.2-3.5 (Interventional Imaging Services) shall also apply, except that adjacencies to emergency, surgery, cystoscopy, and outpatient clinics shall not be required.

3.4-1.1.2 For those facilities performing nuclear medicine procedures, all requirements in 2.2-3.6 (Nuclear Medicine Services) shall also apply, except that support services such as radiology, pathology, emergency department, and outpatient clinics shall not be required.