

COMPLIANCE CHECKLIST

IP5: Pediatric Critical Care Unit

The following checklist is intended to be used in the plan review applications for health care facilities submitted to the Massachusetts Department of Public Health. This checklist summarizes and references the applicable requirements from the Licensure Regulations and the 2014 Edition of the FGI Guidelines for Design and Construction of Hospitals and Outpatient Facilities. Applicants must verify compliance of the plans submitted to the Department with all referenced requirements from the Licensure Regulations and FGI Guidelines when completing this Checklist. A separate Checklist must be completed for each nursing unit, hospital or clinic department, or clinical suite.

Other jurisdictions, regulations and codes may have additional requirements which are not included in this checklist, such as:

- NFPA 101 Life Safety Code (2000) and applicable related standards contained in the appendices of the Code
- State Building Code (780 CMR)
- Joint Commission on the Accreditation of Health Care Organizations
- CDC Guidelines for Preventing the Transmission of Mycobacterium Tuberculosis in Health Care Facilities
- USP 797
- Accessibility Guidelines of the Americans with Disabilities Act (ADA)
- Architectural Access Board Regulations (521 CMR)
- Local Authorities having jurisdiction.

Instructions:

1. All requirement lines must be completed according to the following instructions and included in the plan submissions for Self-Certification Process or Part II of the Abbreviated Review Process.
2. This checklist must be completed by the project architect or engineer based on the design actually reflected in the plans at the time of completion of the checklist.
3. Each requirement line (___) of this Checklist must be completed exclusively with one of the following symbols, unless otherwise directed in the checklist. If a functional space is not affected by a renovation project, the symbol "E" may be indicated on the requirement line (___) before the name of the functional space (associated requirements on indented lines below that name, or associated MEP requirements do not have to be completed in this case). If more than one functional space serves a given required function (e.g. patient room or exam room), that clarification should be provided in the Project Narrative, and the requirement lines are understood to only address the functional spaces that are involved in the project.

X = Requirement is met, for new space, for renovated space, or for existing direct support space for an expanded service.

= Check box under section titles or individual requirements lines for optional services or functions that are not included in the project area.

E = Requirement relative to an existing suite or area that has been *licensed* for its designated function, is *not affected* by the construction project and *does not pertain to a required direct support space* for the specific service affected by the project.

W = Waiver requested for specific section of the Regulations or FGI Guidelines, where hardship in meeting requirement can be demonstrated (a Physical Plant Waiver Form must be completed for each waiver request).

4. All room functions marked with "X" must be shown on the plans with the same name labels as in this checklist.
5. Mechanical, electrical & plumbing requirements are only partially mentioned in this checklist. The relevant section of the FGI Guidelines must be used for project compliance with all MEP requirements and for waiver references.
6. Oxygen, vacuum, medical air, and waste anesthesia gas disposal outlets (if required) are identified respectively by the abbreviations "OX", "VAC", "MA", & "WAGD".
7. Requirements referenced with "FI" result from formal interpretations from the FGI Interpretations Task Group.
8. The location requirements including asterisks (*) refer to the definitions of the Glossary in the beginning section of the FGI Guidelines.

Facility Name:

DoN Project Number: (if applicable)

Facility Address:

Nursing Unit Bed Complements:

Current = Proposed =

Satellite Name: (if applicable)

Building/Floor Location:

Satellite Address: (if applicable)

Submission Dates:

Initial Date:

Revision Date:

Project Description:

	Architectural Requirements	Building Systems Requirements	
2.2-2.9	<u>PEDIATRIC CRITICAL CARE UNIT</u>		
2.2-2.9.2	PEDIATRIC PATIENT CARE ROOMS & AREAS		
2.2-2.6.2.2	Space Requirements:	Ventilation*:	
(1)	___ min. clear floor area 200 sf for each patient care station	___ Min. 6 air changes/hour	Table 7.1
	___ min. headwall width 13'-0" per bed	___ No recirculating room units	
(2)		Power*:	
(a)	___ 1'-0" min. clearance head of bed to wall	___ Min. 16 receptacles	Table 2.1-1
(b)	___ 5'-0" min. clearance foot of bed to wall	___ convenient to head of bed with one on each wall	
(c)	___ 5'-0" min. clearance on transfer side,		
(d)	___ 4'-0" min. clearance on non-transfer side	Nurse Call System*:	
(e)	___ 8'-0" min. clearance between beds	___ Patient station	Table 2.1-2
(4)	___ patient care station sized to allow for min. of 2 seated visitors without interfering with staff access to patient & equipment	___ Emergency staff assistance station	
		___ Code call station	
2.2-2.6.2.3	Windows:	Medical Gases*:	
(2) (3)	___ no more than one intervening patient care station between any patient bed & window	___ 3 OX, 3 VAC, 1 MA for each bed	Table 2.1-4
	___ clerestory windows in renovation projects		
(a)	<input type="checkbox"/> check if <u>not</u> included in project		
	___ equipped with glare & sun control operating mechanism controls for window coverings located max. 5'-0" above floor		
(b)			
(c)	___ distance from patient bed to an exterior window does not exceed 50'-0"		
	___ patient care station cubicles		
	<input type="checkbox"/> check if <u>not</u> included in project		
	___ patient view to exterior windows through no more than two separate clear view panels		
2.2-2.6.2.4	Patient Privacy:		
(1)	___ private rooms or cubicles		
	<input type="checkbox"/> check if <u>not</u> included in project		
	___ view panels to corridor with means to ensure visual privacy		
(2)	___ each patient care station has provisions for visual privacy from casual observation by other patients & visitors		
2.2-2.6.2.5	Handwashing Stations:		
(1)	Patient Care Stations in Open-Plan Areas:		
	<input type="checkbox"/> check if <u>not</u> included in project		
	___ min. 1 handw. station for 3 beds		
(2)	___ handw. station in each patient room		
(3)	___ handw. station located near entrance to each patient bay, cubicle, or room		

**Common requirements for all patient rooms*

Architectural Requirements

Building Systems Requirements

2.2-2.6.2.6 Toilet Room/Human Waste Disposal Room:

- (1) patient room has direct access to enclosed toilet room
- (a) equipped with toilet with bedpan washer
- or**
- (1) patient room has direct access to human waste disposal room
- (b) equipped with flushing-rim clinical sink with bedpan washer

2.2-2.9.2.2

- (1) (2) Additional Space Requirements:
- space at each bedside for families & visitors in addition to space for staff
 - space for parental accommodations does not limit or encroach on min. clearance requirements for staff & medical equipment around patient bed
 - space for recumbent sleep of parent/visitor
 - located in patient area
 - or**
 - separate from patient area
 - communication system

2.2-2.9.4

SPECIAL PATIENT CARE ROOMS

- 2.2-2.6.4.2 Airborne infection isolation (AII) room
- (1) min. one AII room in critical care unit
 - 2.1-2.4.2.2 (1) single-bed room
 - (2) provision made for personal protective equipment storage at entrance to room
 - (3) handwashing station in each patient room
 - 2.1-7.2.3.1(6) monolithic floors with integral covered 6" high wall base

Ventilation:

- Min. 12 air changes per hour Table 7.1
- Exhaust
- Negative pressure
- No recirculating room units
- Space ventilation & pressure relationship maintained in event of loss of normal electrical power 4/6.1.1
- Exhaust air from AII rooms, associated anterooms & toilet rooms discharged directly to outdoors 4/7.2.1
- Exhaust grilles or registers located directly above patient bed on ceiling or on wall near head of bed
- Permanent device monitoring differential air pressure between AII room & corridor

2.1-2.4.2.2(4)

- separate room with toilet, handwashing station & bathtub or shower

Ventilation:

- Min. 10 air changes per hour Table 7.1
- Exhaust

Architectural Requirements

Building Systems Requirements

- 2.1-2.4.2.3 Anteroom
 - check if not included in project (only if ICRA justifying the omission of the anteroom for the specific patient population is attached to Project Narrative)
- (1) for persons to don personal protective equipment before entering patient room
- (2) all doors to anteroom have self-closing devices

- 2.1-2.4.2.4(1)
 - (b) self-closing devices on all room exit doors
 - (c) doors have edge seals

- Ventilation:
- Min. 10 air changes per hour Table 7.1
 - Exhaust
 - Negative pressure to corridor
 - No recirculating room units
 - All room under negative pressure to anteroom 4/7.2.1
 - Anteroom under negative pressure to corridor

2.2-2.9.6 SUPPORT AREAS FOR PEDIATRIC CRITICAL CARE UNIT

- 2.2-2.6.6.1 (2) Administrative center or nurse station
 - direct or remote visual observation between nurse station, or staffed charting stations & all patient care stations (view of patient in bed)
- 2.1-2.6.1.1 (1) space for counters
- (2) at least one handwashing station located in, next to, or directly accessible*
- 2.2-2.6.6.2 (1) Documentation & information review areas
 - documentation area located in or adjacent* to patient bed care station
 - (2) space in unit for information review
 - located to facilitate concentration
- 2.2-2.6.6.3 Nurse or supervisor office
 - immediately accessible* to critical care unit
 - offices linked with unit by telephone or intercommunications system
- 2.1-2.6.6 Medication safety zones
- 2.1-2.6.6.1 (2) medication preparation room
 - or**
 - self-contained medication dispensing unit
- (a) located out of circulation paths to minimize distraction & interruption
- (c) work counters
- (d) task lighting
- (e) meet acoustic design criteria per 1.2-5.1

- Nurse Call System:
- Master station Table 2.1-2

 - Nurse Call System:
 - Duty station Table 2.1-2

- 2.1-2.6.6.2 (1) medication preparation room
 - check if not included in project
- (a) under visual control of nursing staff
- (b) work counter
- handwashing station

- Ventilation:
- Min. 4 air changes per hour Table 7.1
- Nurse Call System:
- Duty station Table 2.1-2

Architectural Requirements

Building Systems Requirements

- (c) lockable refrigerator
- locked storage for controlled drugs
- Sharps Containers:
 - check if not included in project
 - sharps containers placed at height that allows users to see top of container
- (d) space to prepare medicines in addition to any self-contained medicine-dispensing unit
- (2) self-contained medication dispensing units
 - check if not included in project
- (a) located at nurse station, in clean workroom, in an alcove, or inpatient room
- lockable unit to secure controlled drugs
- (b) handwashing station located next to stationary medication-dispensing units
- Mobile Medication-Dispensing Carts:
 - check if not included in project:
 - space in patient rooms to accommodate cart

- 2.2-2.6.6.7 Nourishment area
- 2.2-2.6.6.7 (2) located in proposed CCU
- or**
- available in adjacent CCU without travel through public corridor

- 2.1-2.6.7.2
- (1) handwashing station
- (2) work counter
- (3) refrigerator
- (4) microwave
- (5) storage cabinets
- (6) space for temporary storage of unused & soiled food service implements
- 2.1-2.6.7.3 provisions & space for separate temporary storage of unused & soiled meal trays not picked up at mealtime

- 2.2-2.6.6.8 Ice-making equipment
- (1) located in each unit to provide ice for treatment & nourishment
- 2.1-2.6.8.1 located in an enclosed space
- 2.1-2.6.8.2
- (1) self-dispensing ice-making equipment in public area
- (2) check if not located in public area

- 2.2-2.6.6.9 Clean workroom or clean supply room
- 2.2-2.6.6.9 (2) located in proposed CCU
- or**
- available in adjacent CCU without travel through public corridor

- Ventilation:
 - Min. 2 air changes per hour Table 7.1
- Nurse Call System:
 - Duty station Table 2.1-2

Architectural Requirements

Building Systems Requirements

- 2.1-2.6.9.1 clean workroom used for preparing patient care items
- (1) work counter
- (2) handwashing station
- (3) storage facilities for clean & sterile supplies

- Ventilation:
- Min. 4 air changes per hour Table 7.1
- Positive pressure
- Nurse Call System:
- Duty station

or

- 2.1-2.6.9.2 clean supply room used only for storage & holding as part of system for distribution of clean & sterile supplies

- Ventilation:
- Min. 4 air changes per hour Table 7.1
- Positive pressure

- 2.2-2.6.6.10 Soiled workroom or soiled holding room
- 2.2-2.6.6.10 located in proposed CCU
- (2) **or**
- available in adjacent CCU without travel through public corridor

- 2.1-2.6.10 Soiled workroom or soiled holding room
- 2.1-2.6.10.1 Soiled workroom
- (1) handwashing station
- (2) flushing-rim clinical service sink with bedpan washer
- (3) work counter
- (4) space for separate covered containers

- Ventilation:
- Min. 10 air changes per hour Table 7.1
- Exhaust
- Negative pressure
- Nurse Call System:
- Duty station

or

- 2.1-2.6.10.2 soiled holding room
- (1) handwashing station or hand sanitation station
- (a) space for separate covered containers
- (3) toilet with bedpan washer located in each inpatient toilet room

- Ventilation:
- Min. 10 air changes per hour Table 7.1
- Exhaust
- Negative pressure

- 2.2-2.6.6.11 Clean linen storage
- located in proposed CCU
- or**
- available in adjacent CCU without travel through public corridor

- 2.1-2.6.11.1 (1) clean linen stored in clean workroom or clean linen closet
- (2) covered cart distribution system (corridor alcoves may be used)
- check if not included in project

- 2.2-2.6.6.11 Equipment storage room or alcove
- (2) min. 20 sf per patient care station
- (a) space & provisions for recharging equipment
- (b)

- 2.2-2.9.6.2 Provisions for formula & breast milk storage
- 2.1-2.6.11.3 Storage space for stretchers & wheelchairs

Architectural Requirements

Building Systems Requirements

- 2.1-2.6.11.4 ___ Emergency equipment storage
 - (1) ___ each nursing unit has at least one emergency equipment storage location
 - (2) ___ under visual observation of staff
 - (3) ___ storage locations in corridors do not infringe on min. required corridor width

- 2.2-2.6.6.12 ___ Environmental services room
 - ___ immediately accessible* to critical care unit
 - (1) ___ not shared with other nursing units or departments

- 2.1-2.6.12.2 ___ service sink or floor-mounted mop sink
 - (1) ___ provisions for storage of supplies & housekeeping equipment
 - (2) ___ handwashing station or hand sanitation station
 - (3) ___

- 2.2-2.6.6.14 ___ Special procedures room
 - check if not included in project

- 2.1-3.2.2.1 ___ Space Requirements:
 - (1) ___ min. clear floor area of 120 sf with min. clear dimension of 10'-0"
 - (2) ___
 - (a) ___ room size permits min. clearance of 3'-0" at each side & at foot of exam table
 - ___ room arrangement permits placement of exam table, recliner, or chair at an angle, closer to one wall than another, or against wall to accommodate type of patient being served
 - (b) ___

- 2.1-3.2.2.2 ___ Equipment:
 - (1) ___ examination light
 - (2) ___ storage for supplies
 - (3) ___ accommodations for written or electronic documentation
 - (4) ___ space for visitor's chair
 - (5) ___ handwashing station

- 2.2-2.6.6.15 ___ Patient-monitoring equipment
 - (1) ___ equipment for physiological monitoring, with visual displays for each patient at bedside & at nurse station or centralized monitoring area
 - (2) ___ monitors located to permit easy viewing & access
 - ___ do not interfere with access to patient

- 2.2-2.6.6.16 ___ Image viewing capability (may serve more than one CCU)

- 2.2-2.9.6.1 ___ Consultation/demonstration room

Ventilation:
 ___ Min. 10 air changes per hour Table 7.1
 ___ Exhaust

Ventilation:
 ___ Min. 6 air changes per hour Table 7.1
 Power:
 ___ Min. 8 receptacles in room Table 2.1-1
 ___ Min. 4 receptacles convenient to head of stretcher
 Nurse Call System:
 ___ Emergency staff assistance station Table 2.1-2
 ___ Duty station
 Medical Gases:
 ___ 1 OX, 1 VAC Table 2.1-4

Architectural Requirements

- 2.2-2.9.6.3 Examination room
 check if not included in project
- 2.2-2.2.6.13 (2) centrally located to serve one or more nursing units on same floor
- 2.1-3.2.2 single-bed examination room
- 2.1-3.2.2.1 (1) **Space Requirements:**
 min. clear floor area of 120 sf with min. clear dimension of 10'-0"
- (2) room size permits min. clearance of 3'-0" at each side & at foot of exam table
- (a) room arrangement permits placement of exam table, recliner, or chair at an angle, closer to one wall than another, or against wall to accommodate type of patient being served
- 2.1-3.2.2.2 (1) **Room Features:**
 examination light
- (2) storage for supplies
- (3) accommodations for written or electronic documentation
- (4) space for visitor's chair
- (5) handwashing station

SUPPORT AREAS FOR STAFF

- 2.2-2.9.7 Staff lounge facilities
- 2.2-2.6.7.1 (1) min. 100 sf
- 2.1-2.7.1 (1) located in or adjacent* to CCU (may serve more than one CCU)
- (2) telephone or intercom & emergency code alarm connections to critical care unit it serves
- (3) furnishings, equipment & space for seating
- (4) not combined with multipurpose room required in 2.2-2.6.6.4
- 2.2-2.6.7.2 Staff toilet room
- 2.1-2.7.2.1 readily accessible* to staff lounge
- 2.1-2.7.2.2 readily accessible* to each nursing unit toilet & handwashing station
- 2.1-2.7.3 Staff storage facilities
- 2.1-2.7.3.1 securable closets or cabinet compartments for personal articles of staff
- located in or near nurse station
- 2.1-2.7.3.2 coat storage
 check if not included in project:
 storage of coats in closets or cabinets on each floor or in central staff locker area

Building Systems Requirements

- Ventilation:**
 Min. 6 air changes per hour Table 7.1
- Power:**
 ~~Min~~ Min. 8 receptacles in Table 2.1-1
 ~~Min~~ 4 receptacles convenient to head of stretcher
- Nurse Call System:**
 Emergency staff assistance station Table 2.1-2
 Duty station
- Medical Gases:**
 1 OX, 1 VAC Table 2.1-4

- Nurse Call System:**
 Duty station Table 2.1-2

- Ventilation:**
 Min. 10 air changes per hour Table 7.1
 Exhaust

Architectural Requirements

- 2.2-2.6.7.4 Staff accommodations
 - sleeping & personal care accommodations for staff on 24-hour, on-call work schedules
 - (1) accommodations for sleeping & rest
 - (a) space for chair
 - (b) space for bed
 - (2) individually secured storage for personal items
 - (3) communication system
 - (4) bathroom with toilet, shower & handwashing station

Building Systems Requirements

- Ventilation: Table 7.1
- Min. 10 air changes per hour
 - Exhaust

SUPPORT AREAS FOR FAMILIES & VISITORS

- 2.2-2.9.8
- 2.2-2.6.8.1 Family & visitor lounge
 - immediately accessible* to CCU
- 2.2-2.2.8.1 (4) lounge designed to minimize impact of noise & activity on patient rooms & staff functions
- 2.2-2.2.8.1 (6) public communication services
- 2.2-2.2.8.2 toilet room readily accessible*
- 2.2-2.6.8.1 (2) lounge seating capacity of no fewer than 1.5 persons per patient bed

Architectural Details & MEP Requirements

2.1-7.2.2 ARCHITECTURAL DETAILS

- 2.1-7.2.2.1 CORRIDOR WIDTH:
NFPA 101 Aisles, corridors & ramps required for exit access in a hospital not less than 8'-0" in clear & unobstructed width
- or**
- Code Review Sheet establishing compliance with NFPA 101 has been submitted
- Aisles, corridors & ramps in adjunct areas not intended for the housing, treatment, or use of inpatients not less than 44" in clear width
- 2.1-7.2.2.2 CEILING HEIGHT:
- (1) Min. ceiling height 7'-6" in corridors & normally unoccupied spaces
- (4) Min. height 7'-6" above floor of suspended tracks, rails & pipes located in traffic path for patients in beds and/or on stretchers
- Min. ceiling height 7'-10" in other areas

2.1-7.2.2.3 DOORS & DOOR HARDWARE:

- (1)
 - (a) Doors between corridors, rooms, or spaces subject to occupancy swing type or sliding doors
 - Sliding doors
 - check if not included in project
 - manual or automatic sliding doors comply with NFPA 101
 - code review sheet attached
 - no floor tracks
- (2)
 - (a) Min. 45.5" clear door width for patient rooms & diagnostic/treatment areas
 - Min. 83.5" clear door height for patient rooms & diagnostic/treatment areas
 - (b) Swinging doors for personnel use in addition to sliding doors
 - check if not included in project
 - min. clear width 34.5"
 - Doors do not swing into corridors (except doors in doors to non-occupiable spaces & doors with emergency breakaway hardware)
- (4)
 - (b) Lever hardware
 - (5) Doors for patient bathing/toilet facilities

- (a) 2 doors separated by horizontal distance equal to one-half length of max. diagonal room dimension
 - or**
 - door that swings outward
 - or**
 - door equipped with emergency rescue hardware
 - or**
- (b) sliding door

- 2.1-7.2.2.5 WINDOWS IN PATIENT ROOMS:
- (1) Natural light by means of window to outside
 - (3) Min. net glazed area no less than 8% of floor area of room served
 - (a) Operable windows
 - (2) check if not included in project
 - operation limited with either stop limit/restrictor hardware or open guard/screen

- 2.1-7.2.2.6 insect screens
- 2.1-7.2.2.7 GLAZING MATERIALS:
- (2) Safety glass-tempered or plastic glazing materials used for shower doors & bath enclosures
 - check if not included in project
 - (4) Glazing within 18" of floor
 - check if not included in project
 - safety glass, wire glass or plastic break-resistant material

- 2.1-7.2.2.8 HANDWASHING STATIONS:
- (1) Handw. stations in patient care areas located to be visible & unobstructed
 - (3) anchoring suitable for vertical or horizontal force of 250 lbs.
 - (4) Handwashing Station Countertops:
 - check if not included in project
 - (a) porcelain, stainless steel or solid surface materials
 - (b) plastic laminate countertops
 - check if not included in project
 - substrate marine-grade plywood (or equivalent) with impervious seal
 - (5) Designed to prevent storage beneath sink
 - (6) provisions for drying hands
 - (a) hand-drying device does not require hands to contact dispenser
 - (d) directly accessible* to sinks
 - (7) Liquid or foam soap dispensers

- 2.1-7.2.2.9 GRAB BARS:
- (2) Grab bars anchored to sustain concentrated load of 250 lbs.
- 2.1-7.2.2.10 HANDRAILS:
- (1) Handrails installed on both sides of patient use corridors
 - (3) Rail ends return to wall or floor
 - (4) Smooth non-textured surface free of rough edges
 - (5) Eased edges & corners
 - (6) Finishes cleanable
- 2.1-7.2.2.12 NOISE CONTROL:
- (1) Recreation rooms, exercise rooms, equipment rooms & similar spaces where impact noises may be generated are not located directly over patient bed areas
 - (2) Partitions, floors & ceiling construction in patient areas conform to Table 1.2-6

2.1-7.2.3 SURFACES

- 2.1-7.2.3.1 FLOORING & WALL BASES:
- (1) Selected flooring surfaces cleanable & wear-resistant for location
 - (2) Smooth transitions between different flooring materials
 - (3) Flooring surfaces, including those on stairways, stable, firm & slip-resistant
 - (b) Carpet
 - check if not included in project
 - provides stable & firm surface
 - (4) Floors & wall bases of soiled workrooms, toilet rooms & other wet cleaned areas are not physically affected by cleaning solutions

- 2.1-7.2.3.2 WALLS & WALL PROTECTION:
- (1) Washable wall finishes
 - (a) Wall finishes near plumbing fixtures smooth, scrubbable & water-resistant
 - (b) Monolithic wall surfaces in areas routinely subjected to wet spray or splatter

- 2.1-7.2.3.3 CEILINGS:
- (1) Ceilings in areas occupied by patients, & in clean rooms & soiled rooms:
 - (a) cleanable with routine housekeeping equipment
 - (b) acoustic & lay-in ceilings
 - check if not included in project
 - do not create ledges or crevices

2.1-8.2 **HEATING, VENTILATION, & AIR-CONDITIONING (HVAC) SYSTEMS**

- 4/6.3.1 Outdoor Air Intakes:
 - 4/6.3.1.1 Located min. 25 feet from cooling towers & all exhaust & vent discharges
 - Bottom of air intake is at least 6'-0" above grade
 - 4/6.3.1.2 Roof Mounted Air Intakes:
 - check if not included in project
 - bottom min. 3'-0" above roof level
- 4/6.3.2 Exhaust Discharges for Infectious Exhaust Air:
 - check if not included in project
 - Ductwork under negative pressure (except in mechanical room)
 - Discharge in vertical direction at least 10'-0" above roof level
 - Located not less than 10'-0" horizontally from air intakes & operable windows/doors
- 4/6.4 Filtration:
 - Filter banks conform to Table 6.4
 - 4/6.4.1 Filter Bank #1 placed upstream of heating & cooling coils
 - 4/6.4.2 Filter Bank No. 2 installed downstream of cooling coils & supply fan
- 4/6.5 Heating & Cooling Systems:
 - 4/6.5.3 no radiators or convectors in special care areas
- 4/6.7 Air Distribution Systems:
 - 4/6.7.1 Ducted return or exhaust systems in spaces listed in Table 7.1 with required pressure relationships
 - Ducted return or exhaust systems in inpatient care areas
 - 4/6.7.3 Smoke & Fire barriers:
 - HVAC zones coordinated with compartmentation to minimize ductwork penetrations of fire & smoke barriers
 - 4/6.8 Energy Recovery Systems:
 - 4/6.8.2 Exhaust systems serving potentially contaminated rooms are not used for energy recovery
 - 4/6.9 Duct Lining:
 - No duct lining in ductwork located downstream of Filter Bank #2
 - 4/7. Space Ventilation:
 - 4/7.1 Spaces ventilated per Table 7.1
 - Air movement from clean areas to less clean areas

- Min. number of total air changes indicated either supplied for positive pressure rooms or exhausted for negative pressure rooms
- Recirculating room HVAC units
 - check if not included in project
 - each unit serves only single space
 - min. MERV 6 filter for airflow downstream of cooling coils
- 2.1-8.2.1.1 Acoustic Considerations:
 - (5) Equipment location or acoustic provisions limit noise associated with outdoor mechanical equipment to 65 dBA at building façade
- 2.1-8.2.1.2 Ventilation & Space-Conditioning:
 - (1) All rooms & areas used for patient care have provisions for ventilation
 - (2) Natural ventilation only provided in non-sensitive areas & patient rooms via operable windows
 - check if not included in project
 - Mechanical ventilation provided for all rooms & areas in facility in accordance with Table 7.1 of Part 4

2.1-8.3 **ELECTRICAL SYSTEMS**

2.1-8.3.2 **ELECTRICAL DISTRIBUTION & TRANSMISSION**

- 2.1-8.3.2.1 Switchboards Locations:
 - (1)
 - (a) Located in areas separate from piping & plumbing equipment
 - (b) Not located in rooms they support
 - Accessible to authorized persons only
 - (c) Located in dry, ventilated space free of corrosive gases or flammable material
 - 2.1-8.3.2.2 Panelboards:
 - (1) Panelboards serving life safety branch emergency circuits only serve same floor, floor above & floor below
 - (2) Panelboards serving critical branch emergency circuits only serve same floor
 - (3) New panelboards not located in exit enclosures
 - 2.1-8.3.2.3 Ground-Fault Circuit Interrupters in Critical Care:
 - check if not included in project
 - (2) Provisions made to ensure that essential equipt is not affected by activation of one interrupter

- 2.1-8.3.3.1 **EMERGENCY ELECTRICAL SERVICE**
- (1) ___ Emergency power per NFPA 99, NFPA 101 & NFPA 110
- 2.1-8.3.4 **LIGHTING**
- 2.1-8.3.4.2 ___ Light fixtures in wet areas have smooth, cleanable, shatter-resistant lenses & no exposed lamps
- 2.1-8.3.4.3 (1) Patient Rooms:
 - ___ general lighting
 - (a) ___ reading light for each patient
 - ___ controls accessible to patient in bed
 - ___ light source covered by diffuser or lens
 - ___ flexible light arms
 - check if not included in project
 - ___ designed to prevent lamp from contacting bed linen
 - ___ lighting for ICU bed areas
 - (c) ___ permits staff observation of patient & minimize glare
 - (2) Nursing Unit Corridors:
 - ___ general illumination with reduced light levels at night
- 2.1-8.3.5 **ELECTRICAL EQUIPMENT**
- 2.1-8.3.5.2 ___ Required handwashing station or scrub sink tied to building electrical service
 - check if not included in project
 - ___ connected to essential electrical system
- 2.1-8.3.6 **ELECTRICAL RECEPTACLES**
- 2.1-8.3.6.1 (1) Receptacles in Corridors:
 - ___ duplex grounded receptacles installed approx. 50'-0" apart
 - ___ duplex grounded receptacles installed approx. within 25'-0" of corridor ends
- (2) ___ receptacles in pediatric unit corridors of tamper-resistant type
- 2.1-8.3.6.2 Receptacles in Patient Care Areas:
 - ___ receptacles provided according to Table 2.1-1
- 2.1-8.3.6.3 Emergency System Receptacles:
 - ___ distinctively colored or marked for identification
- 2.1-8.3.7 **CALL SYSTEMS**
- ___ Nurse call equipment legend includes patient stations, bath stations, staff emergency stations & code call stations
- 2.1-8.3.7.1

- (1) ___ Nurse call system locations provided as required in Table 2.1-2
- (2) ___ Nurse call systems report to attended location with electronically supervised visual & audible signals
- (4) ___ Call systems meet requirements of UL 1069 *Standard for Hospital Signaling & Nurse Call Equipment*
- (5) ___ Wireless system
 - check if not included in project
 - ___ meet requirements of UL 1069
- 2.1-8.3.7.2 Patient Call Stations:
 - (1) ___ each patient sleeping bed, except nursery beds, provided with patient call station equipped for two-way voice communication
 - (2) ___ visible signal once call station has been activated
 - (a) ___ reset switch for canceling call
 - (b) ___ visible signal in corridor at patient room door
 - (3) ___ additional visible signals installed at corridor intersections
 - (a) ___ visible & audible signal at nurse call duty stations in clean workroom, soiled workroom, medication preparation room, documentation area or other charting facilities, nourishment area, nurse master station of nursing unit or patient care area
- 2.1-8.3.7.3 Bath Stations:
 - (1) ___ provided at each patient toilet
 - (3) ___ alarm turned off only at bath station where it was initiated
 - ___ located to side of toilets within 12" of front of toilet bowl & 3'-0" to 4'-0" above floor
 - ___ accessible to both toilet & shower
- 2.1-8.3.7.4 ___ Staff emergency stations for summoning local staff assistance for non-life-threatening situations at each patient care location
- 2.1-8.3.7.5 ___ Code call station equipped with continuous audible or visual signal at point of origin

2.1-8.4.2 **PLUMBING & OTHER PIPING SYSTEMS**

2.1-8.4.2.2 Hemodialysis/Hemoperfusion:

- (1) check if not included in project
- (a) Separate treated water distribution system
 check if not included in project (only if dialysis equipment used includes water treatment)
- (2) treated water outlet for each individual hemodialysis treatment bay, hemodialysis equipment repair area & dialysate preparation area
- (b) treated water outlet for each individual hemodialysis treatment bay, hemodialysis equipment repair area & dialysate preparation area

(1)(a) Drainage system independent from tap water

(4) Liquid waste system for hemodialysis treatment area designed to minimize odor & prevent backflow

2.1-8.4.2.5 Heated Potable Water Distribution Systems:

- (2) systems serving patient care areas are under constant recirculation
- non-recirculated fixture branch piping does not exceed 25'-0" in length
- (3) no dead-end piping
- (4) water-heating system has supply capacity at minimum temperatures & amounts indicated in Table 2.1-3

- (5) handwashing stations supplied as required above
- or**
- handwashing stations supplied at constant temperature between 70°F & 80°F using single-pipe supply

2.1-8.4.2.6 Drainage Systems:

- (1) drainage piping above ceiling of, or exposed in electric closets
 check if not included in project
- special provisions to protect space below from leakage & condensation

2.1-8.4.3 **PLUMBING FIXTURES**

2.1-8.4.3.1 (1) Materials material used for plumbing fixtures non-absorptive & acid resistant

2.1-8.4.3.2 Handwashing Station Sinks:
(1) basins reduce risk of splashing to areas where direct patient care is provided, sterile procedures are performed & medications are prepared
(2) basin min. 144 square inches

- (3) min. dimension 9 inches
- made of porcelain, stainless steel, or solid-surface materials
- (5) water discharge point of faucets at least 10 inches above bottom of basin
- (7) anchoring for sinks withstands min. vertical or horizontal force of 250 lbs.
- (8) fittings operated without using hands for sinks used by medical & nursing staff, patients & public

- (a) blade handles or single lever
- min. 4 inches long
- provide clearance required for operation

or

- (b) sensor-regulated water fixtures
- meet user need for temperature & length of time water flows
- designed to function at all times & during loss of normal power

2.1-8.4.3.4 Ice-Making Equipment:
 copper tubing provided for supply connections

2.1-8.4.3.5 Clinical Sinks:
 check if not included in project

- (1) trimmed with valves that can be operated without hands
- (2) handles min. 6 inches long
- integral trap wherein upper portion of water trap provides visible seal

2.1-8.4.3.7 Bedpan Washers:
(1) bedpan washer provided in each inpatient toilet room

2.1-8.4.4 **MEDICAL GAS & VACUUM SYSTEMS**

Station outlets provided as indicated in Table 2.1-4

2.1-8.4.4.2 (2) Vacuum discharge at least 25'-0" from all outside air intakes, doors & operable windows

2.1-8.6.2 **ELECTRONIC SURVEILLANCE
SYSTEMS**

check if not included in project

2.1-8.6.2.1 Devices in patient areas mounted in unobtrusive & tamper-resistant enclosures

2.1-8.6.2.2 Monitoring devices not readily observable by general public or patients

2.1-8.6.2.3 Receive power from emergency electrical system