

COMPLIANCE CHECKLIST**IP21: Renal Dialysis Services**

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:

Satellite Name: (if applicable)

Building/Floor Location:

Satellite Address: (if applicable)

Submission Dates:

Project Description:

Initial Date:

Revision Date:

Architectural Requirements
RENAL DIALYSIS SERVICES
(INPATIENT ACUTE & CHRONIC)

Building Systems Requirements

2.2-3.10

2.2-3.10.2 **HEMODIALYSIS TREATMENT AREA**

2.2-3.10.2.2

Space Requirements:
 ___ treatment bays with dialysis chairs
 check if not included in project

Ventilation:
 ___ Min. 6 air changes per hour Table 7.1

(1)(a)
 (2)

___ min. clear floor area 80 sf
 ___ min. clearance 4'-0" between chairs

Power:
 ___ Min. 8 receptacles in room Table 2.1-1
 ___ Min. 4 receptacles on each side of bed or lounge chair

___ treatment bays with beds
 check if not included in project

___ Include 2 receptacles on emergency power on each side of bed or lounge chair

(1)(b)
 (2)

___ min. clear floor area 90 sf
 ___ min. clearance 4'-0" between beds

2.2-3.10.2.4

___ Space accommodates provisions for patient privacy

2.2-3.10.2.5

Handwashing Stations:

2.1-7.2.2.8(1)

___ handwashing stations in patient care areas located to be visible & unobstructed

2.1-2.6.5.3

___ handwashing stations that serve multiple patient care stations
 check if not included in project:

(1)

___ at least one handwashing station for every 4 patient care stations or fewer & for each major fraction thereof

(2)

___ evenly distributed
 ___ provide uniform distance from two patient care stations farthest from handwashing station

2.2-3.10.2.5(2)

___ handwashing station located at entry to hemodialysis treatment area for use by patients, their escorts & visitors

2.2-3.10.2.6

___ Patient toilet room

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

2.2-3.10.6 **SUPPORT AREAS FOR RENAL DIALYSIS UNIT** (may be shared with inpatient unit)

2.2-3.10.6.1

___ Nurse station
 (1) ___ located in hemodialysis treatment area
 (2) ___ designed to provide visual observation of all individual dialysis treatment bays

2.2-3.10.6.6

___ Medication safety zone (medication preparation room or self-contained medication dispensing unit)

2.2-3.10.6.6(2)

___ centrally located in dialysis unit
 ___ at least 6'-0" from any individual dialysis treatment chair or bed

Architectural Requirements

Building Systems Requirements

- 2.1-2.6.6 ___ Medication safety zones
- 2.1-2.6.6.1(2)
- (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

- 2.1-2.6.6.2
- (1) ___ medication preparation room
- (a) ___ under visual control of nursing staff
- (b) ___ work counter
- ___ handwashing station
- ___ lockable refrigerator
- ___ locked storage for controlled drugs
- (c) 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 or in an alcove
 - ___ lockable unit to secure controlled drugs
 - (b) ___ handwashing station located next to stationary medication-dispensing units

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

- 2.1-2.6.9 ___ Clean workroom or clean supply room
- 2.1-2.6.9.1
- (1) ___ clean workroom used for preparing patient care items
- (2) ___ work counter
- (3) ___ handwashing station
- ___ 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

- 2.1-2.6.10 ___ Soiled workroom or soiled holding room
- 2.1-2.6.10.1
- (1) ___ soiled workroom room
- (2) ___ handwashing station
- ___ 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

Architectural Requirements

- 2.2-3.10.6.15 Hemodialysis water treatment equipment area
 - water treatment equipment located in dedicated secure area with space to access all components of equipment
 - (1) area includes drain
 - (2) area part of an overall secure room
- 2.2-3.10.6.16 Equipment repair room
 - (1) handwashing station
 - (2) treated water outlet for equipment maintenance
 - drain or clinical service sink for equipment connection & testing
 - (3) work counter
 - (4) storage cabinet

Building Systems Requirements

2.2-3.10.7 **SUPPORT AREAS FOR STAFF**
(may be shared with adjacent* nursing units)

- 2.2-3.10.7.2
 - (1) Lockers
 - (2) Toilet room
 - (3) Handwashing stations
 - (4) Eyewash station & emergency shower

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

2.2-3.10.8 **SUPPORT AREAS FOR PATIENTS**

- 2.2-3.10.8.1 Waiting room
- 2.2-3.10.8.2 Toilet room
 - handwashing station
- 2.2-3.10.8.3 Source of drinking water
- 2.2-3.10.8.4 Access to make local phone calls
- 2.2-3.10.8.5 Seating accommodations for waiting periods
- 2.2-3.10.8.6 Storage for patient belongings

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

Architectural Details & MEP Requirements

2.1-7.2.2 ARCHITECTURAL DETAILS

- 2.1-7.2.2.1 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
 - (2) Min. height 7'-0" in radiography, procedure & operating rooms from floor to lowest protruding element of equipment or fixture in stowed position
 - (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) Doors between corridors, rooms, or spaces subject to occupancy swing type or sliding doors

- (b) 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 diagnostic/treatment areas
 Min. 83.5" clear door height for diagnostic/treatment areas
- (b) Swinging doors for personnel use in addition to sliding doors
 check if not included in project
- (3) min. clear width 34.5"
 Doors do not swing into corridors (except doors to non-occupiable spaces & doors with emergency breakaway hardware)
- (4)
- (b) Lever hardware
- (5) Doors for patient 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
 sliding door
- toilet room door opening in public area or corridor maintains visual privacy
- 2.1-7.2.2.7 **GLAZING MATERIALS:**
- (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)
- (7) directly accessible* to sinks
 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:**
- (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)
- (a) Washable wall finishes
- (b) Wall finishes near plumbing fixtures smooth, scrubbable & water-resistant
- (2) Monolithic wall surfaces in areas routinely subjected to wet spray or splatter
- (5) No sharp, protruding corners
- (6) Wall protection devices & corner guards durable & scrubbable

- 2.1-7.2.3.3 **CEILINGS:**
 (1) Ceilings in areas occupied by patients, in clean rooms & soiled rooms:
 ___ cleanable with routine housekeeping equipment
 (a) ___ acoustic & lay-in ceilings
 (b) ___ 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
 4/6.4 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
 4/6.7 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 (5) Acoustic Considerations:
 ___ Equipment location or acoustic provisions limit noise associated with outdoor mechanical equipment to 65 dBA at building façade
 2.1-8.2.1.2 (1) Ventilation & Space-Conditioning:
 ___ All rooms & areas used for patient care have provisions for ventilation
 (2) ___ 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
 ___ 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 Areas:
 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 smooth, cleanable, shatter-resistant lenses & no exposed lamps
- 2.1-8.3.5 **ELECTRICAL EQUIPMENT**
- 2.1-8.3.5.2 ___ Required handwashing station tied to building electrical service
 - check if not included in project
 - ___ connected to essential electrical system
- 2.1-8.3.6 **ELECTRICAL RECEPTACLES**
- 2.1-8.3.6.2 Receptacles in Patient Care Areas:
 - ___ receptacles provided according to Table 2.1-1
- 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
- 2.1-8.3.7.3 Bath Stations:
 - (1) ___ provided at each patient toilet
 - ___ alarm turned off only at bath station where it was initiated
 - (3) ___ located to side of toilets within 12" of front of toilet bowl & 3'-0" to 4'-0" above floor
- 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 Water Distribution:
 - (1) (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
 - (1)(a) ___ Drainage system independent from tap water
 - (4) ___ Liquid waste system for hemodialysis treatment area designed to minimize odor & prevent backflow
 - (5) ___ All hemodialysis distribution piping readily accessible for inspection & maintenance
- 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
- ___ min. dimension 9 inches
- (3) ___ 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 & food handlers

- (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

- 2.1-8.4.4 **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