COMPLIANCE CHECKLIST

IP24_Pharmacy 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 2018 Edition of the FGI Guidelines for Design and Construction of Hospitals. 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 (2012) and applicable related standards contained in the appendices of the Code
- State Building Code (780 CMR)
- Accreditation requirements of The Joint Commission
- CDC Guidelines for Preventing the Transmission of Mycobacterium Tuberculosis in Health Care Facilities
- USP 797, USP 800 & Regulations of the Massachusetts Board of Registration in Pharmacy
- Occupational Safety & Health Standards (OSHA)
- 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 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 marks, unless otherwise directed in the checklist. If a functional space is not affected by a renovation project, the mark "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.

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. "E" must <u>not</u> be used for an existing required support space associated with a new patient care room or area.

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

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). An explicit floor plan or plan detail must be attached to each waiver request.

4. All room functions marked with "X" must be shown on the plans with the <u>same name labels</u> 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, waste anesthesia gas disposal and instrument air outlets (if required) are identified respectively by the abbreviations "OX", "VAC", "MA", "WAGD" & "IA".
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 and reproduced in this checklist.

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	Building Systems Requirements	
2.1-4.2	**PHARMACY SERVICES**		
2.1-4.2.1.2	**LOCATION**		
(1)	___ Pharmacy room or suite accessible to clinical areas of hospital		
(2)	___ Controlled access to pharmacy room or suite		
2.1-4.2.2	**PHARMACY AREAS**		
2.1-4.2.2.1	___ Dispensing facilities		
(1)	___ room or area for receiving unpacking & inventory control of materials used in pharmacy	Ventilation: ___ Min. 4 air changes per hour ___ Positive pressure	Table 7.1
(2)	___ work counters & space for automated & manual dispensing activities		
(3)	___ extemporaneous compounding area ___ sink & counter space for drug preparation		
(4)	___ area for reviewing & recording		
(5)	___ area for temporary storage exchange & restocking of carts		
(6)	___ security provisions for drugs & personnel in dispensing counter area		
2.1-4.2.2.2	___ Manufacturing facilities		
(1)	___ bulk compounding area	Ventilation: ___ Min. 4 air changes per hour ___ Positive pressure	Table 7.1
(2)	___ provisions for packaging & labeling		
(3)	___ quality control area		
2.1-4.2.2.3	___ Storage (storage cabinets, shelves or separate rooms or closets)		
(1)	___ bulk storage	Ventilation: ___ Min. 4 air changes per hour ___ Positive pressure	Table 7.1
(2)	___ active storage		
(3)	___ refrigerated storage		
(4)	___ storage for volatile fluids & alcohol		
(5)	___ secured lockable storage for narcotics & controlled drugs		
(6)	___ equipment & supply storage for general supplies & equipment not in use		
2.1-4.2.3	**STERILE WORK AREAS** ☐ check if <u>not</u> included in project		
2.1-4.2.3.1			
(1)	___ Layout of pharmacy precludes unrelated traffic through non-hazardous drug IV preparation rooms & hazardous drug IV preparation rooms		
(2)	___ Positive pressure non-hazardous IV preparation room & negative pressure hazardous drug IV prep room do not share robotic systems		

	Architectural Requirements	**Building Systems Requirements**
2.1-4.2.3.2	___ Non-hazardous IV preparation area ☐ check if not included in project	
	___ laminar-flow workstation designed for product protection	
(1)	___ laminar-flow workstation includes non-hydroscopic filter rated at 99.97 percent (HEPA filter)	
(2)	___ laminar-flow workstation have visible pressure gauge for detection of filter leaks or defects	
	___ complies with regulations of Board of Registration in Pharmacy 247 CMR 17.00	
2.1-4.2.3.3	___ Hazardous drug IV preparation room ☐ check if not included in project	
	___ separate room provided for preparation of hazardous drug IV admixtures under class II (type A2 B1 or B2) or class III biological safety cabinet	
	___ complies with regulations of Board of Registration in Pharmacy 247 CMR 19.00	
2.1-4.2.8	**SUPPORT AREAS FOR PHARMACY**	
2.1-4.2.8.2	___ Separate room or area provided for office functions	
2.1-4.2.8.3	___ Room for education & training (may be multipurpose room shared w/ other departments)	
2.1-4.2.8.4	___ Outpatient medication consultation area ☐ check if not included in project (only if medications are not dispensed to outpatients from hospital pharmacy area)	
2.1-4.2.8.7	___ Handwashing station	
	___ provided either in anteroom or immediately outside room where open medications are prepared	
2.1-4.2.8.13	___ Unit dose procedure used ☐ check if not included in project	
	___ additional equipment & supply storage	
	___ space for carts	
2.1-4.2.9	**SUPPORT AREAS FOR STAFF**	
2.1-4.2.9.2	(may be outside pharmacy area & shared with other departments) ___ Readily accessible* to pharmacy	
2.1-4.2.9.1	___ Lounge	
	___ Locker facilities	
	___ Staff toilet room	Ventilation: ___ Min. 10 air changes per hour Table 7.1 ___ Exhaust ___ Negative pressure ___ No recirculating room units

*LOCATION TERMINOLOGY:

Directly accessible: Connected to the identified area or room through a doorway, pass-through, or other opening without going through an intervening room or public space

Adjacent: Located next to but not necessarily connected to the identified area or room

Immediately accessible: Available either in or adjacent to the identified area or room

Readily accessible: Available on the same floor or in the same clinic as the identified area or room

Architectural Details & MEP Requirements

2.1-7.2.2 **ARCHITECTURAL DETAILS**

CORRIDOR WIDTH:

2.1-7.2.2.1 NFPA 101, 18.2.3.4
___ Aisles, corridors & ramps in adjunct areas not intended for the housing, treatment, or use of inpatients not less than 44" in clear & unobstructed width

or

___ Detailed code review incorporated in Project Narrative

2.1-7.2.2.2 CEILING HEIGHT:

(1)
___ Min ceiling height 7'-6"in corridors & in normally unoccupied spaces

___ Min. ceiling height 7'-10" in other areas

2.1-7.2.2.3 DOORS & DOOR HARDWARE:

(1) Door Type:

(a)
___ 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

___ detailed code review incorporated in Project Narrative

___ no floor tracks

(3) Door Swing:

(a)
___ doors do not swing into corridors except doors to non-occupiable spaces

(4)
___ Lever hardware or push/pull latch hardware

2.1-7.2.2.7 GLAZING MATERIALS:

___ Glazing within 1 foot 6 inches of floor must be safety glass, wire glass or plastic break-resistant material

2.1-7.2.2.8 HANDWASHING STATIONS:

(3)(a)
___ Handwashing station countertops made of porcelain, stainless steel, solid-surface materials or impervious plastic laminate assembly

(b)
___ Countertops substrate

☐ check if not included in project

___ marine-grade plywood (or equivalent material) with impervious seal

(4)
___ Handwashing station casework

☐ check if not included in project

___ it be designed to prevent storage beneath sink

(5)
___ Provisions for drying hands

☐ check if not included in project

(only at hand scrub facilities)

(a)
___ hand-drying device does not require hands to contact dispenser

(b)
___ hand-drying device is enclosed to protect against dust or soil & to ensure single-unit dispensing

(6)
___ Liquid or foam soap dispensers

2.1-7.2.3 **SURFACES**

2.1-7.2.3.1 FLOORING & WALL BASES:

(1)
___ Flooring surfaces cleanable & wear-resistant for location

(3)
___ Smooth transitions provided between different flooring materials

(4)
___ Flooring surfaces including those on stairways are stable, firm & slip-resistant

(5)
___ Floors & wall bases of toilet rooms & other areas subject to frequent wet cleaning are constructed of materials that are not physically affected by germicidal or other types of cleaning solutions

(7)(a)
___ Floors are monolithic & integral coved wall bases are at least 6" high & tightly sealed to wall in IV & chemotherapy preparation rooms

2.1-7.2.3.2 WALLS & WALL PROTECTION:

(1)(a)
___ Wall finishes are washable

(1)(b)
___ Wall finishes near plumbing fixtures are smooth, scrubbable & water-resistant

(2) ___ Wall surfaces in areas routinely subjected to wet spray or splatter (e.g. environmental services rooms) are monolithic or have sealed seams that are tight & smooth

(5) ___ Wall protection devices & corner guards durable & scrubbable

2.1-7.2.3.3 CEILINGS:

(1) ___ Ceilings provided in all areas except mechanical, electrical & communications equipment rooms

(a) ___ Ceilings cleanable with routine housekeeping equipment

(b) ___ Acoustic & lay-in ceilings where used not create ledges or crevices

(2) Semi-Restricted Areas:

☐ check if not included in project

(a) ___ ceiling finishes are scrubbable, non absorptive, non perforated, & capable of withstanding cleaning with chemicals

(b) ___ lay-in ceilings

___ gasketed or each ceiling tile weighs at least one pound per square foot

(c) ___ use of perforated tegular serrated or highly textured tiles not are permitted in semi-restricted areas

or

___ ceilings of monolithic construction

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

Part 3/6.1.2 Heating & Cooling Sources:

Part 3/6.1.2.1 ___ provide heat sources & essential accessories in number & arrangement sufficient to accommodate facility needs (reserve capacity) even when any one of heat sources or essential accessories is not operating due to breakdown or routine maintenance

Part 3/6.1.2.2 Central cooling systems greater than 400 tons (1407 kW) peak cooling load

☐ check if not included in project

___ number & arrangement of cooling sources & essential accessories is sufficient to support facility operation plan upon breakdown or routine maintenance of any one of cooling sources.

Part 3/6.2 AIR-HANDLING UNIT (AHU) DESIGN:

Part 3/6.2.1 ___ AHU casing is designed to prevent water intrusion, resist corrosion & permit access for inspection & maintenance

.

Part 3/6.3 OUTDOOR AIR INTAKES & EXHAUST DISCHARGES:

Part 3/6.3.1 Outdoor Air Intakes:

Part 3/6.3.1.1 ___ located min. of 25 ft from cooling towers & all exhaust & vent discharges

___ outdoor air intakes located such that bottom of air intake is at least 6 ft above grade

___ facilities with moderate-to-high risk of natural or man-made extraordinary incidents locate new air intakes away from public access

Part 3/6.3.1.3 ___ intakes on top of buildings

☐ check if not included in project

___ located with bottom of air intake min. of 3 ft above roof level

Part 3/6.3.1.4 ___ intake in areaway

☐ check if not included in project

___ bottom of areaway air intake opening is at least 6 ft above grade

___ bottom of air intake opening from areaway into building is at least 3 ft above bottom of areaway

Part 3/6.3.2 Exhaust Discharges:

Part 3/6.3.2.1 ___ ductwork within building is under negative pressure for exhaust of contaminated air (i.e. air from pharmacy hazardous-drug exhausted enclosures)

___ exhaust discharge outlets with contaminated air located such that they reduce potential for recirculation of exhausted air back into building

Part 3/6.3.2.2 ___ exhaust discharge outlets with contaminated air arranged to discharge to atmosphere in vertical direction at least 10 ft above adjoining roof level

___ exhaust discharge outlets from pharmacy hazardous-drug exhausted enclosures discharge with stack velocity of at least 2500 fpm

___ exhaust discharge outlets from pharmacy hazardous-drug exhausted enclosures is located not less than 25 ft horizontally from outdoor air intakes, openable windows/doors & areas that are normally accessible to public

Part 3/6.4 FILTRATION:
___ Two filter banks for inpatient care (see Table 6.4)
___ Filter Bank No. 1: MERV 7
___ Filter Bank No. 2: MERV 14
___ Each filter bank with efficiency of greater than MERV 12 is provided with differential pressure measuring device to indicate when filter needs to be changed

Part 3/6.4.1 ___ Filter Bank No. 1 is placed upstream of heating & cooling coils

Part 3/6.4.2 ___ Filter Bank No. 2 is placed downstream of all wet-air cooling coils & supply fan

Part 3/6.7 AIR DISTRIBUTION SYSTEMS:

Part 3/6.7.1 ___ Maintain pressure relationships required in tables 7.1 in all modes of HVAC system operation
___ Spaces that have required pressure relationships are served by fully ducted return systems or fully ducted exhaust systems

Part 3/6.7.2 Air Distribution Devices:
___ supply air outlets comply with Table 6.7.2

Part 3/6.7.3 Smoke Barriers:
___ HVAC zones coordinated with compartmentation to minimize ductwork penetrations of fire & smoke barriers.

Part 3/6.8 ENERGY RECOVERY SYSTEMS:
☐ check if not included in project

Part 3/6.8.1 ___ Located upstream of Filter Bank No. 2

Part 3/6.8.3 ___ Energy recovery systems with leakage potential
☐ check if not included in project
___ arranged to minimize potential to transfer exhaust air directly back into supply airstream
___ designed to have no more than 5% of total supply airstream consisting of exhaust air
___ not used from these exhaust airstream sources: general hazardous material storage

Part 3/7 SPACE VENTILATION

Part 3/7.1.a ___ Complies with Table 7.1
___ Air movement is from clean to less-

Part 3/7.1.a.1 clean areas

Part 3/7.1.a.3 ___ Min. number of total air changes required for positive pressure rooms is provided by total supply airflow
___ Min. number of total air changes required for negative pressure rooms is provided by total exhaust airflow

Part 3/7.1.a.4 ___ Entire minimum outdoor air changes per hour required by Table 7.1 for each space meet filtration requirements of Section 6.4

Part 3/7.1a.5 ___ Air recirculation through room unit
☐ check if not included in project
___ complies with Table 7.1
___ room unit receive filtered & conditioned outdoor air
___ serve only a single space
___ provides min. MERV 6 filter located upstream of any cold surface so that all of air passing over cold surface is filtered

2.1-8.3 **ELECTRICAL SYSTEMS**

2.1-8.3.2 **ELECTRICAL DISTRIBUTION & TRANSMISSION**

2.1-8.3.2.1 Switchboards Switchgear & Automatic Transfer Switches:

(1)(b) ___ accessible to authorized persons only

(1)(c) ___ located in dry ventilated space free of corrosive or explosive fumes, gases or any flammable material

(2) ___ overload protective devices are listed for ambient room temperature for space in which they are installed

2.1-8.3.2.2 Panelboards:

(1) ___ panelboards serving life safety branch circuits serve floors on which they are located & floors immediately above & below

(2) ___ panelboard critical branch circuits serve floors on which they are located

(3) ___ panelboards not located in exit enclosures or exit passageways

2.1-8.3.3 **POWER-GENERATING & -STORING EQUIPMENT**

2.1-8.3.3.1 ___ Essential electrical system or emergency electrical power

(1) ___ essential electrical system complies with NFPA 99

(2) ___ emergency electrical power complies with NFPA 99

2.1-8.3.5 **ELECTRICAL EQUIPMENT**

2.1-8.3.5.1 ___ Handwashing sinks that depends on building electrical service for operation are connected to essential electrical system
☐ check if not included in project

2.1-8.3.5.2 ___ Electronic health record system servers & centralized storage provided with uninterruptible power supply

2.1-8.3.6 **ELECTRICAL RECEPTACLES**

2.1-8.3.6.1 Receptacles In Corridors:

(1) ___ duplex-grounded receptacles for general use installed 50'-0" apart or less in all corridors

___ duplex-grounded receptacles for general use installed within 25'-0" of corridor ends

2.1-8.3.6.3 Essential Electrical System Receptacles:

(1) ___ cover plates for electrical receptacles supplied from essential electrical system are distinctively colored or marked for identification

(2) ___ same color is used throughout facility

2.1-8.4 **PLUMBING SYSTEMS**

2.1-8.4.2 Plumbing & Other Piping Systems:

2.1-8.4.2.1(3) ___ no plumbing piping exposed overhead or on walls where possible accumulation of dust or soil may create cleaning problem

2.1-8.4.2.5 Heated Potable Water Distribution Systems:

(2) ___ heated potable water distribution systems serving patient care areas are under constant recirculation

___ non-recirculated fixture branch piping max. length 25'-0"

(3)(a) ___ no installation of dead-end piping (except for empty risers mains &

(3)(c) branches for future use)

(3)(b) ___ any existing dead-end piping is removed
☐ check if not included in project

(4)(a) ___ water-heating system supplies water at temperatures & amounts indicated in Table 2.1-4

2.1-8.4.2.6 Drainage Systems:

(1)(a) ___ drainage piping installed above ceiling of or exposed in electronic data processing areas & electric closets have special provisions to protect space below from leakage & condensation

(1)(b) ___ drip pan for drainage piping above ceiling of sensitive area
☐ check if not included in project

___ accessible

___ overflow drain with outlet located in normally occupied area

2.1-8.4.3 **PLUMBING FIXTURES**

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

2.1-8.4.3.2 Handwashing Station Sinks:

(1) ___ handwashing sinks designed with basins that will reduce risk of splashing to areas where medications are prepared

(2) ___ sink basins have nominal size of no less than 144 square inches

___ sink basins have min. dimension 9 inches in width or length

(3) ___ sink basins are made of porcelain, stainless steel or solid-surface materials

(5) ___ water discharge point min. 10" above bottom of basin

(7) ___ anchored so that allowable stresses are not exceeded where vertical or horizontal force of 250 lbs. is applied

(8) ___ sinks used by staff have fittings that can be operated without using hands (may be single-lever or wrist blade devices)

(a) ___ blade handles
☐ check if not included in project

___ at least 4 inches in length

___ provide clearance required for operation

(b) ___ sensor-regulated water fixtures
☐ check if not included in project

___ meet user need for temperature & length of time water flows

___ designed to function at all times and during loss of normal power

2.1-8.6.2 **ELECTRONIC SURVEILLANCE SYSTEMS**
☐ check if not included in project

2.1-8.6.2.2 ___ monitoring devices are located so they are not readily observable by general public or patients

2.1-8.6.2.3 ___ electronic surveillance systems receive power from essential electrical system