

COMPLIANCE CHECKLIST

OP5: Freestanding Outpatient Radiation Therapy Facilities

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 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

Building Systems Requirements

2.2-3.7 **FREESTANDING OUTPATIENT RADIATION THERAPY FACILITIES**

3.1-1.2.2 **PATIENT PRIVACY**
 ___ Each facility design ensures appropriate levels of patient acoustic & visual privacy & dignity throughout care process

3.1-1.2.3 **SHARED/PURCHASED SERVICES**
 check if not included in project
 ___ Details of shared or purchased space and/or services indicated in Project Narrative
 ___ Waiver requests have been submitted for shared or purchased space (except as explicitly allowed below)

3.1-1.3.2 **PARKING**
 1.3-3.3.1.1 ___ Parking capacity sufficient to satisfy needs of patients, personnel & public

140.209 **ACCESS**
 ___ Facility is accessible to handicapped individuals

3.1-1.3.3 **ENTRANCE**
 ___ At grade level
 ___ Clearly marked
 ___ Located so patients need not go through other activity areas (public lobbies may be shared)

3.1-1.4 **FACILITY LAYOUT**
 ___ Precludes unrelated traffic in facility

2.2-3.7.2 **EXTERNAL BEAM RADIATION THERAPY SUITE**
 check if not included in project

2.2-3.7.2.2 ___ Radiation therapy room
 Space Requirements:
 (1) ___
 (a) ___ Sized for equipment
 (b) ___ accommodates access to equipment for patient on stretcher
 (c) ___ accommodates medical staff access to equipment & patient
 (d) ___ accommodates service access to equipment
 (2) ___ sized in compliance with manufacturer specifications
 ___ installation plans have been submitted to DPH Plan Review

Architectural Requirements

Building Systems Requirements

- (a) room sized to provide min. clearance 4'-0" on three sides of patient table
- (b) door swing does not encroach on equipment or on patient circulation or transfer space

2.2-3.7.2.3

- (1)
 - (a) Mold room
 - handwashing station
 - (b) Block room (may be combined with mold room)

- Ventilation:
 - Exhaust hood
- 2.2-3.7.2.3(1)

2.2-3.7.3

RADIOSURGERY SUITE

check if not included in project

2.2-3.7.3.1

- (1) Radiosurgery suite located near imaging services suite to facilitate image acquisition prior to radiosurgery treatment

2.2-3.7.3.2

- (1) Radiosurgery treatment room
 - Space Requirements:
 - accommodates patient access on stretcher
 - accommodates medical staff access to equipment & patient & service access
 - sized in compliance with manufacturer specifications
 - (b) room sized for min. clearance 4'-0" on all sides of treatment table
 - door swing does not encroach on equipment or patient circulation or transfer space

- (2) handwashing station

2.2-3.7.3.3

- Pre-procedure/recovery area or room
 - check if not included in project

2.2-3.5.3.1

- (2) immediately accessible* to procedure rooms
 - separate from corridors
- (3) arranged to permit visual observation by staff before & after procedure

2.2-3.5.3.2

- Space Requirements:
 - patient bays*
 - check if not included in project
 - min. clear floor area 60 sf
 - 4'-0" between sides of patient beds/stretchers
 - 3'-0" between sides of patient beds/ stretchers & adjacent walls or partitions

- Nurse Call System:
 - Patient station
 - Emergency staff assistance station
- Table 2.1-2

Architectural Requirements

Building Systems Requirements

- ___ patient cubicles*
 - check if not included in project
 - ___ min. clear floor area 80 sf
 - ___ min. clearance 3'-0" between sides & foot of lounge chairs/stretchers & adjacent walls or partitions
- ___ single-bed rooms
 - check if not included in project
 - ___ min. clear floor area 100 sf
 - ___ min. clearance 3'-0" between sides & foot of lounge chairs/stretchers & adjacent walls or partitions
- ___ provisions such as cubicle curtains used for patient privacy

2.1-2.6.5

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

2.2-3.7.3.4

Support Areas for RS Treatment Rooms:

(1)

- ___ space for sterilization of head-frames

(2)

- ___ target planning area

(3)

- ___ medication storage with nurse observation

(4)

- ___ nourishment area

(5)

- ___ head-frame storage

(6)

- ___ toilet rooms for patients, staff & public

Ventilation:

- ___ Min. 10 air changes per hour Table 7.1

- ___ Exhaust

(7)

- ___ area for sedation of pediatric patients

2.2-3.7.3.6

Support Areas for Patients:

(2)

- ___ storage for patient belongings

Architectural Requirements**Building Systems Requirements**

- 2.2-3.7.4 **PROTON THERAPY SUITE**
 check if not included in project
- 2.2-3.7.4.1 ___ Rooms & spaces accommodate equipment manufacturer specifications
 ___ installation plans have been submitted to DPH Plan Review
- 2.2-3.7.4.2 ___ Proton therapy treatment room
 (1) Space Requirements:
 (a) ___ sized for proton therapy equipment
 ___ sized for patient access on stretcher
 ___ sized for medical staff access to equipment
 ___ sized for service access
 (b) ___ min. clearance 4'-0" on three sides of treatment table to facilitate bed transfer & provide access to patient
 ___ door swing does not encroach on equipment or on patient circulation or transfer space
 (2) ___ cyclotron vault
 (3) ___ hand sanitation dispenser located immediately inside or outside proton therapy room
- 2.2-3.7.4.3 ___ Patient stretcher holding
 ___ 2 stretcher holding bays for each proton therapy treatment room
 (1) ___ located next to treatment rooms & screened for privacy
 (2) ___ separate seating area for queued patients
 ___ separation & privacy of outpatients & inpatients
- 2.2-3.7.4.6 Support Areas for Proton Accelerators:
 (1) ___ general supply storage in treatment room
 (2) ___ storage for patient positioning devices
 ___ located in or next to treatment room
 (3) ___ storage for patient-specific treatment devices
 (4) ___ post-treatment storage room for patient-specific treatment devices
 (a) ___ separate shielded room
- 2.2-3.7.8.2 ___ Patient gowning area
 ___ 2 gowning cubicles* for each proton therapy room
 (1) ___ secure storage for valuables & clothing
 (2) ___ at least 1 cubicle sized for staff-assisted dressing

Architectural Requirements

Building Systems Requirements

2.2-3.7.6 **SUPPORT AREAS FOR RADIATION THERAPY SUITE**

2.2-3.7.6.1 Business office and/or reception/control area

2.2-3.7.6.11

- (1) Stretcher holding area
 - (a) immediately accessible* to radiation therapy treatment rooms
 - screened for privacy
 - located for direct observation & control
 - combined with seating area for outpatients

2.1-2.6.12 Environmental services room

2.1-2.6.12.1

- (1) serves one or more than one nursing unit on a floor
- (2) readily accessible* to unit it serves

2.1-2.6.12.2

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

Ventilation:

- 10 air changes per hour
- Exhaust

Table 7.1

2.2-3.7.6.13 Examination room
(may be combined with private pre-procedure/recovery patient care room)

- (1) one examination room for each radiation therapy treatment room except for proton therapy rooms
- (b) two examination rooms for each proton therapy room
- (2) min. clear floor area 100 sf
- (3) handwashing station

Ventilation:

- 6 air changes per hour

Table 7.1

2.2-3.7.6.14

(1)(a) Oncologist office
(may be combined with consultation room)
 check if not included in project

(1)(b) Physicist office (may be combined with treatment planning & record room)
 check if not included in project

(2) Consultation room
 check if not included in project

(3) Quality control area
 check if not included in project
 image viewing station

2.2-3.7.8 **SUPPORT AREAS FOR PATIENTS**

2.2-3.7.8.1

- (1) Waiting area for gowned patients
 - adjacent* to gowning cubicles
- (2) provisions made for patient privacy

2.2-3.7.8.3

Patient toilet rooms
 directly accessible* to waiting & procedure rooms

Ventilation:

- Min. 10 air changes per hour
- Exhaust

Table 7.1

Architectural Requirements

Building Systems Requirements

2.2~3.7.9 **SPECIAL DESIGN ELEMENTS FOR RADIATION THERAPY SUITE**

- 2.2-3.7.9.1 Architectural Details:
- (1) ___ Floor structure meets min. load requirements for equipment, patients & personnel
 - (2) ___ Ceiling-mounted equipment has properly designed rigid support structures located above finished ceiling
 - (3) ___ Direct-shielded door to radiation vault
 - check if not included in project
 - ___ motor-driven automatic opening system
 - ___ manual emergency opening system
 - (4) ___ Height & width of doorways, elevators & radiation treatment rooms entries adequate to allow delivery of equipment & replacement sources into treatment rooms
 - (5) ___ Radiation protection of radiation treatment rooms
 - (a) ___ layouts designed to prevent escape of radioactive particles
 - (b) ___ openings into room, including doors, ductwork, vents & electrical raceways & conduits, baffled to prevent direct exposure to other areas of facility
 - (c) ___ means of radiation protection have been submitted to the DPH Radiation Control Program

3.1-5 **GENERAL SUPPORT FACILITIES**

- 3.1-5.2 Linen Services:
- 3.1-5.2.2 ___ on-site linen processing
 - 3.1-5.2.2.1 ___ dedicated linen processing area
 - (1) ___ accommodates washer & dryer
 - (2) ___ area divided into distinct soiled (sorting & washing) & clean (drying & 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 ___ handwashing station
 - or**
 - 3.1-5.2.3 ___ off-site laundry services
 - 3.1-5.2.3.1 ___ soiled linen holding area or dedicated area for soiled laundry cart
 - 3.1-5.2.3.2 ___ clean linen storage area

- Ventilation:
- ___ Min. 10 air changes per hour Table 7.1
 - ___ Exhaust
 - ___ Negative pressure
 - ___ No recirculating room units

- 3.1-5.3 Materials Management:
- 3.1-5.3.2 ___ receiving facilities
 - ___ accessible from designated delivery door
 - 3.1-5.3.3 ___ clean clinical supply storage

Architectural Requirements

Building Systems Requirements

- 3.1-6.2 **PUBLIC AREAS**
- 3.1-6.2.1 ___ Vehicular drop-off & pedestrian entrance
 - 3.1-6.2.2 ___ Reception & information counter, desk, or kiosk
 - 2.2-3.6.8.1 (1) ___ Patient waiting area
 - ___ screened & separated from unrelated traffic
 - ___ under staff control
 - 3.1-6.2.4 ___ Public toilets (may be located off public corridor in multi-tenant building)
 - 3.1-6.2.4.1 ___ readily accessible from waiting area without passing through patient care or staff work areas
 - ___ Local telephone access
 - 3.1-6.2.5 ___ Provisions for drinking water
 - 3.1-6.2.6 ___ Wheelchair storage

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

- 3.1-6.3 **ADMINISTRATIVE AREAS**
- 3.1-6.3.3 ___ General or Individual offices
 - 3.1-6.3.5 ___ Medical records
 - 3.1-6.3.5.1 ___ restricted to staff access

- 3.1-6.4 **SUPPORT AREAS FOR STAFF**
- 3.1-6.4.1 ___ Staff lounge
 - check if not included in project
 - ___ handwashing station
 - 3.1-6.4.2 ___ Storage for staff personal effects (locking drawers, cabinets, or lockers)
 - ___ readily accessible to individual work areas

Architectural Details & MEP Requirements

- 3.1-7.2.2 **ARCHITECTURAL DETAILS**
- 3.1-7.2.2.1 Corridor Width:
 - IBC 1018.2 ___ Min. 44" except in corridors
 - or**
 - ___ Compliance of corridor width with State Building Code is established in submitted Code Review Sheet
 - ___ Min. 72" in corridors used to transport patients on stretchers
 - check if not included in project
 - 421 CMR 6.00 ___ Corridors include turning spaces for wheelchairs

- 3.1-7.2.2.2 Ceiling Height:
 - ___ Min. 7'-10" (except in spaces listed below in this section)
 - (1) ___ Min. 7'-6" in corridors
 - ___ Min. 7'-6" in normally unoccupied spaces
 - (2) ___ Min. height 7'-0" from lowest protruding element of equipment in radiography rooms
 - check if not included in project
- 3.1-7.2.2.3 Doors & Door Hardware:
 - (1) Door Type:
 - (a) ___ all doors between corridors, rooms, or spaces subject to occupancy of swing type or sliding doors

- (b) sliding doors
 check if not included in project
 no floor tracks in patient care areas
- (2) Door Openings:
- (a) door provides stretcher access
 min. clear width 45.5"
 min. clear height 83.5"
- or**
- door does not provide stretcher access
 door to room used by patients min. clear width 32"

421 CMR
26.00
3.1-7.2.2.3

- (3) door do not swing into corridors except doors in behavioral health units & doors to non-occupiable spaces
- (4) lever hardware
- (b) doors to patient use toilets in patient care & treatment areas have hardware that allows staff emergency access

3.1-7.2.2.8 Handwashing Stations:

- (3) Anchored to support vertical or horizontal force of 250 lbs.
- (4) Counter-Mounted Sinks:
- (a) countertops made of porcelain, stainless steel, or solid surface materials
- (b) plastic laminate countertops
 check if not included in project
 at minimum substrate marine-grade plywood with impervious seal
- (5) no storage casework beneath sink
- (6) provisions for drying hands at all handwashing stations except hand scrub facilities
- (a) hand-drying device does not require hand contact
- (b) hand-drying provisions enclosed to protect against dust or soil
- (7) liquid or foam soap dispensers

3.1-7.2.2.9 Grab Bars:

- (2) anchored for concentrated load of 250 lbs.
- (3) bariatric design
 check if not included in project
 length of rear wall grab bars 44"

3.1-7.2.3 **SURFACES**

- 3.1-7.2.3.1 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
 - Carpet provides stable & firm surface
 - (4) Floors & wall bases materials in all areas subject to frequent wet cleaning are not affected by germicidal cleaning solutions

3.1-7.2.3.2 Walls & Wall Protection:

- (1)
 - (a) Wall finishes washable
 - (b) Wall finishes in vicinity of plumbing fixtures smooth, scrubbable & water-resistant
- (2) Wall surfaces in areas routinely subjected to wet spray or splatter are monolithic or have sealed seams
- (4) No sharp protruding corners
- (5) Corner guards durable & scrubbable

3.1-8.2 **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
- 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

4/6.7 Air Distribution Systems:

- 4/6.7.1 Ducted return or exhaust systems in spaces listed in Table 7.1 with required pressure relationships

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
- 3.1-8.2.1.1(5) Acoustical Considerations:
 - _____ Equipment location or acoustic provisions limit noise associated with outdoor mechanical equipment to 65 dBA at building façade
- 3.1-8.2.1.2 Ventilation & Space-Conditioning:
 - (1) _____ All rooms & areas used for patient care have provisions for ventilation
 - (2) _____ Natural ventilation only allowed for non sensitive areas via operable windows
 - _____ Mechanical ventilation provided for all rooms & areas in facility in accordance with Table 7.1 of Part 4

3.1-8.3 ELECTRICAL SYSTEMS

3.1-8.3.2 ELECTRICAL DISTRIBUTION & TRANSMISSION

- 3.1-8.3.2.1 Switchboards Locations:
 - (1) _____ located in areas separate from piping & plumbing equipment
 - (a) _____ not located in rooms they support
 - (b) _____ accessible to authorized persons only
 - (c) _____ easily accessible
 - (d) _____ located in dry, ventilated space free of corrosive gases or flammable material

3.1-8.3.6 ELECTRICAL RECEPTACLES

- 3.1-8.3.6.2 _____ Receptacles in patient care areas conform to Table 3.1-1

3.1-8.4 PLUMBING SYSTEMS

- 3.1-8.4.2.5 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

3.1-8.4.3 PLUMBING FIXTURES

- 3.1-8.4.3.1 (1) _____ Materials material used for plumbing fixtures non-absorptive & acid resistant
- 3.1-8.4.3.2 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 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
- 3.1-8.4.3.5 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

3.1-8.7.2 ELEVATORS

- 3.1-8.7.2.1 _____ Outpatient facility located on more than one floor or on floor other than an entrance floor at grade level
 - _____ at least one elevator
- or**
- _____ Outpatient facility located on entrance floor at grade level