



Construction Infection Prevention & Control Measures

REFERENCES: JCAHO Environment of Care Standard EC.2.6

TABLES:
Table A Construction Activity Classification
Table B Risk Group Identification
Table C Construction Protocol

FORMS: [Construction Risk Assessment](#)
[ILSM /IC/Partition contractor daily checklist](#)

PURPOSE: To provide direction and assign responsibility for implementing infection control measures while construction work is underway. It is imperative to reduce the potential for Legionella, aspergillus and other biological contaminants.

POLICY: **Construction Infection Prevention & Control Measures (CIPCM)** must be implemented while construction projects are in process. All staff must be notified and trained according to these procedures. This policy *must* be posted for the duration of the construction project.

RESPONSIBILITY: All facility maintenance and construction staff, Emergency Response Team members, housekeeping staff and Infectious Disease/Infection Control Committee.

PROCESS:

1. Prior to initiating construction, identify the construction activity type from attached TABLE A – Construction Classification.
2. Prior to initiating construction, identify the infection and risk control from attached TABLE B – Risk Group Identification.
3. Prior to initiating construction, identify the infection control protocol necessary from attached TABLE C – Construction Protocol.
4. Complete the CIPCM Implementation Record signed off by the PD&C Project Manager and the Infection Prevention & Control Coordinator.
5. Post the CIPCM Implementation Record.



TABLE A: Construction Activity Classification

Type A Inspection and Trim Out	Type B Small Scale/Short Duration
Inspection and non-invasive activities includes but is not limited to: removal of ceiling tiles for visual inspection (limited to 1 tile per 50 SF), painting (but not sanding), wallcovering, electrical trim work, minor plumbing, and activities which do not generate dust or require cutting of walls or access to ceilings other than for inspection.	Small scale, short duration activities which create minimal dust includes but is not limited to: installation of telephone and computer cabling, access to chase spaces, cutting of walls or ceiling where dust migration can be controlled.
Type C Moderate Disruption	Type D Major Construction
Any work which generates a moderate to high level of dust or requires demolition or removal of any fixed building components or assemblies includes but is not limited to: sanding of walls for painting or wallcovering, removal of floor coverings – ceiling tile- casework, new wall construction, minor duct work or electrical work above ceilings, major cabling activities, and any activity which cannot be completed within a single work shift.	Major demolition and construction projects includes but is not limited to: activities which require consecutive work shifts, requires heavy demolition or removal of a complete cabling system, and new construction.

TABLE B: Risk Group Identification

Group 1 – Low Risk	Group 2 – Medium Risk	Group 3- High Risk
Administrative Office Areas, Non Clinical Areas New Construction – Shell Area	Admission/Registration Area(s) Laboratories Outpatient Services Rehabilitation Services (PT,OT, Speech Therapy, Audiology) Radiology/MRI (Non-invasive) Bulk Stores Plant Maintenance	All Inpatient Areas Cardiac Cath & Angiography Areas Cardiopulmonary Emergency Department GI Laboratory Imaging Services-Invasive Pharmacy PT-Tank Areas Sterile Processing Areas Surgical Services Anesthesia Laundry Dietary Oncology Services Hyperbaric Services

TABLE C: Infection Control Protocol Class (Circle Appropriate Box)

IC Risk Group	Construction Activity Type			
	Type A	Type B	Type C	Type D
Group 1	Class I	Class II	Class II	Class III
Group 2	Class I	Class II	Class III	Class III
Group 3	Class I	Class III	Class III	Class III



TABLE D: Construction Protocol

CLASS I

Construction Area (General): Anytime mold is encountered notify Maintenance.	HVAC: None
Demolition and Trash Removal: Assume no trash generated or hauled. Immediately replace materials that have been displaced.	Water: No standing water will be permitted.
Physical Separation of Construction Area: Vertical Isolation: None Horizontal Isolation: None Special Considerations: None	Periodic Inspection: None
Other Considerations: <ul style="list-style-type: none"> • Execute all work by methods that reduce raising dust. • Ensure that visitor (and staff) traffic is routed away from work area. • Ensure that patients are not exposed to activity. • Ensure that contaminated materials do not come in contact with clean supplies and fixtures. 	

TABLE D: Construction Protocol

CLASS II

Construction Area (General) <ul style="list-style-type: none"> • Provide clean door mats at all entrances/exits to construction areas. • Keep windows closed and sealed at all times. • Mist work surfaces when cutting. • Holes in walls not exposed for more than 1 work shift. Cover if more time is needed. • Ceiling tiles that are porous and wet should be replaced. Nonporous ceiling tiles should be removed and cleaned with dilute (10:1) hypochloride and dried before replacement. <p><i>Anytime mold is encountered:</i></p> <ul style="list-style-type: none"> • If outside the construction area, notify maintenance. • If inside the construction area, notify superintendent who will oversee cleaning and notify maintenance if source should be investigated. 	HVAC <ul style="list-style-type: none"> • Isolate area – Supply and Exhaust • Mechanical subcontractor covers and seals all HVAC inlets in work areas with polyethylene (at least 6-mil) or sheet metal. Water <ul style="list-style-type: none"> • No standing water will be permitted
Demolition and Trash Removal <ul style="list-style-type: none"> • Least intrusive route selected for trash haul. • Debris carts are covered during transport. • If trash chutes are used, clean prior to project. • Approved elevators only may be used for debris removal. 	Periodic Inspection <ul style="list-style-type: none"> • Contractor performs inspection prior to work beginning. • Facility performs periodic inspection.



TABLE D: Construction Protocol

CLASS III

<p>Construction Area (General)</p> <ul style="list-style-type: none"> • Examine design or operation laundry/trash chutes and dumbwaiters for potential transmission • Provide negative air pressure within demolition and construction areas • Provide mats at all entrances/exits to construction areas • Keep windows closed and sealed at all times • Increase the frequency of cleaning in adjacent areas <p><i>Anytime mold is encountered:</i></p> <ul style="list-style-type: none"> • If outside the construction area, notify maintenance. • If inside the construction area, notify superintendent who will oversee cleaning and notify maintenance if source needs investigating. • Employ walk-off mat(s) at entry/exits. 	<p>HVAC</p> <ul style="list-style-type: none"> • Negative air pressure within demolition and construction areas. • Isolate area – Supply and Exhaust. Existing return and exhaust systems shall be capped outside of the construction area. Mechanical subcontractor covers and seals all HVAC inlets in work areas with polyethylene (at least 6-mil) or sheet metal. • Mechanical contractor to ensure that adjacent air filtering systems are operating and increase filter media. • Exhaust system for construction area above roof or 75 feet from central system intake. • Fresh air intakes 25 feet from exhaust outlets of all vent systems. • Negative air pressure achieved by means of installing and maintaining negative air fans fitted with HEPA filters or by providing exhaust ventilation to the outside of the building. • Maintain minimum air pressure differential of negative -0.03 inches of water between construction area and any surrounding occupied areas. • Ductwork and pipes that are to remain within the construction area shall be sealed. • Mechanical subcontractor will insure that all HVAC equipment and ductwork delivered to the project are continuously protected from dust, moisture, and contaminates. • Ductwork is cleaned prior to start-up.
<p>Demolition and Trash Removal</p> <ul style="list-style-type: none"> • Least intrusive route selected for trash haul. Transport debris during low activity periods in the facility (i.e., night hours). • If trash chutes are used, clean prior to project. • Approved elevators only may be used for debris removal during approved hours. 	<p>Water</p> <ul style="list-style-type: none"> • Water lines flushed at site and adjacent areas before occupation. • Water temperatures checked prior to occupation. • No standing water will be permitted.
<p>Physical Separation of Construction Area</p> <p>Vertical Separation:</p> <ul style="list-style-type: none"> • Cover openings from removed tiles with plastic and seal until replaced. <p>Horizontal Separation:</p> <ul style="list-style-type: none"> • Extend temporary partitions from floor through suspended ceiling, to underside of deck above. Taped and caulked for a complete seal. Doors have self-closing, latching hardware. Subcontractors are responsible to immediately repair and seal any penetrations caused by their work. 	<p>Periodic Inspection</p> <ul style="list-style-type: none"> • Contractor performs daily inspection (see morning checklist) including all partitions to ensure integrity of seal. <p><i>Other Considerations:</i></p> <ul style="list-style-type: none"> • Note that many special IC considerations apply to the design and specification of space, fixtures, and equipment in these areas. • If negative air pressure cannot be achieved in a construction area that would require it, the project team (including Contractor, Mercy PDC PM, and Facilities Infection Control Rep) will determine the project-specific measures to be taken. One alternative will be isolation of the construction area with continuous filtering of the contained air and combined with appropriate sampling of air quality in the construction area and in sensitive areas outside the construction area. • Monitor adjacent areas that must maintain <i>positive</i> air pressure.