

IC9: 0900 Construction and Renovation

STANDARD

The individual(s) responsible for the planning and organizing of all construction projects shall ensure that measures are taken to control airborne and waterborne infections during all phases of the construction.

The Infection Control Construction Agreement is introduced during the planning phase for work done both by Fraser Health staff and when working with outside contractors. A signed copy of the Infection Control agreement is kept by both the Fraser Health facility and any outside contractors.

PROCEDURE

- Part one of the Infection Control Construction agreement determines the type and duration of the construction and special risk factors, for example disruption of water supply, dust generating activities.
- Part two identifies the risk groups of residents in the area adjacent to the construction.
- Part three is a matrix. When heavier construction projects are undertaken in areas where high risk resident groups are accommodated, more precautions are required to minimize potential illness for the resident population.
- Part four specifies the infection prevention measures, stratified by risk category (Class), that are required to minimize risk of airborne/waterborne illness during construction.
- The Infection Control Measures for Class III, IV and any additional requirements will be dated and initialed by the Contractor prior to commencement of construction.
- Responsibilities of all personnel involved in the project must be clearly outlined in the contract documents.
- Consideration shall given to transferring immunocompromised residents from areas adjacent to construction
- The individual responsible for Plant Services shall ensure that all staff and all contractors follow the requirements stated in the Infection Control Construction Agreement.
- Concurrent cleaning shall be done by the construction crew and the Housekeeping Department

3.0 REFERENCES

1. Centers for Disease Prevention and Control. Guideline for prevention of nosocomial pneumonia. Am J Infection Control 22:247:92 August 1994
2. Reduce dust and danger during construction. Hospital Infection Control 24:26, February 1997
3. APIC Infection Control and Applied Epidemiology: Principles and Practice 1996
4. Construction-related Nosocomial Infections for Hospitalized Patients: Decreasing the Risk of Aspergillus, Legionella and Other Infections, 1999. Laboratory Centre for Disease Control, Health Canada
5. CSA Infection Control during construction or Renovation of Health Care Facilities. April 2003

Infection Control Manual – Residential Care Part 3 – Infection Control Standard IC9: Environmental

Location of Construction:	Project No.:
Project Coordinator:	Project Start Date:
Contractor Performing Work:	Estimated Duration:
Supervisor:	Telephone:

TYPE OF CONSTRUCTION ACTIVITIES (As Marked)

Type A	Inspection and Non-Invasive Activities. Includes, but is not limited to, removal of ceiling tiles for visual inspection limited to 1 tile per 50 square feet, painting (but not sanding), wall covering, electrical trim work, minor plumbing, and activities which do not generate dust or require cutting of walls or access to ceilings other than for visual inspection.	<input type="checkbox"/>
Type B	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. It also includes plumbing that requires disruption to the water supply to more than one patient care area (e.g., >2 rooms) for less than 30 minutes.	<input type="checkbox"/>
Type C	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 wall covering, removal of floor coverings, ceiling tiles and 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 workshift. It also includes plumbing that requires disruption to the water supply of more than one patient area (e.g., >2 rooms) for more than 30 minutes but less than 1 hour.	<input type="checkbox"/>
Type D	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. It also includes plumbing that results in disruption to the water supply of more than one patient care area (e.g., >2 rooms) for more than 1 hour.	<input type="checkbox"/>

RISK GROUPS (As Marked)

Group 1 Lowest <input type="checkbox"/>	Group 2 Medium <input type="checkbox"/>	Group 3 Medium High <input type="checkbox"/>	Group 4 Highest <input type="checkbox"/>
Office areas Unoccupied wards	All other patient care units such as: Outpatient clinics	Emergency Room Imaging Post Anaesthesia Care Units Labour and Delivery (LDRP) Newborn Nurseries Day Surgery	Echocardiography Laboratories Paediatrics Residential/Long Term Care All medical and surgical wards
All Operating Rooms/Sterile CPD All Cardiac Catheterization & Angiography areas Ambulatory Day Care Cardiology All Endoscopy areas Pharmacy admixture Intensive Care Units			

CONSTRUCTION ACTIVITY/INFECTION CONTROL MATRIX

Infection Control Permit is required when the Construction Activity and Risk Level indicate that Class III and Class IV control procedures are necessary.

CONSTRUCTION ACTIVITY	TYPE "A"	TYPE "B"	TYPE "C"	TYPE "D"
RISK LEVEL				
GROUP 1	CLASS I	CLASS II	CLASS II	CLASS III/IV
GROUP 2	CLASS I	CLASS II	CLASS III	CLASS IV
GROUP 3	CLASS I	CLASS III	CLASS III/IV	CLASS IV
GROUP 4	CLASS III	CLASS III/IV	CLASS III/IV	CLASS IV

INFECTION CONTROL MEASURES: (Contractor to initial and date any Class III, IV and Additional Requirements)

Infection Control Manual – Residential Care

Part 3 – Infection Control Standard

IC9: Environmental

CLASS I	<ol style="list-style-type: none"> 1. Execute work by methods to minimize raising dust from construction operations. 2. Immediately replace any ceiling tile displaced for visual inspection. 	<ol style="list-style-type: none"> 3. Report discolored water and water leaks to maintenance.
CLASS II	<ol style="list-style-type: none"> 1. Provide active means to prevent air-borne dust from dispensing into atmosphere. 2. Water mist work surfaces to control dust while cutting. 3. Seal unused doors with duct tape. 4. Block off and seal air vents. 5. Wipe work surfaces with disinfectant. 6. Contain construction waste before transport in tightly covered containers. 	<ol style="list-style-type: none"> 7. Wet mop and/or vacuum with HEPA filtered vacuum before leaving work area. 8. Place dust mat at entrance and exit of work area. 9. Remove or isolate HVAC system in areas where work is being performed. 10. Consider hyper chlorinating or superheating stagnant potable water.
CLASS III	<ol style="list-style-type: none"> 1. Obtain Infection Control permit before construction begins. 2. Isolate HVAC system in area where work is being done to prevent contamination of duct system. 3. Complete all critical barriers or implement control cube method before construction begins. 4. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. 5. Do not remove barriers from work area until complete project is thoroughly cleaned by Environmental Services Dept. 6. Vacuum work with HEPA vacuums. 	<ol style="list-style-type: none"> 7. Wet mop with disinfectant. 8. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. 9. Contain construction waste before transport in tightly covered containers. 10. Cover transport receptacles or carts. Tape covering. 11. Remove or isolate HVAC system in areas where work is being performed. 12. Consider hyper chlorinating or superheating stagnant potable water.
DATE:		
INITIALS:		
CLASS IV	<ol style="list-style-type: none"> 1. Obtain infection control permit before construction begins. 2. Isolate HVAC system in area where work is being done to prevent contamination of duct system. 3. Complete all critical barriers or implement control cube method before construction begins. 4. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. 5. Seal holes, pipes, conduits, and punctures appropriately. 6. Construct anteroom and require all personnel to pass through this room so they can be vacuumed using a HEPA vacuum cleaner before leaving work site or they can wear cloth or paper coveralls that are removed each time they leave the work site. 7. All personnel entering work site are required to wear shoe covers. Shoe covers must be changed each time the worker exits the work site. 	<ol style="list-style-type: none"> 8. Do not remove barriers from work area until completed project is thoroughly cleaned by the Environmental Services Dept. 9. Vacuum work area with HEPA filtered vacuums. 10. Wet mop area with disinfectant. 11. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. 12. Contain construction waste before transport in tightly covered containers. 13. Cover transport receptacles or carts. Tape covering. 14. Remove or isolate HVAC system in areas where work is being performed. 15. Consider hyper chlorinating or superheating stagnant potable water.
DATE		
INITIALS:		

ADDITIONAL REQUIREMENTS:

DATE:	INITIALS:
Permit Request By:	Permit Authorized By:
Date:	Date: