

<h3 style="margin: 0;">Infection Control Risk Assessment (ICRA) Permit</h3>						Project Review <input type="checkbox"/> 1 st Review <input type="checkbox"/> 2 nd Review
1 – General Information						Permit Number: _____
Date:					Project Number:	
Project Name:						
Project Location:						
Contact Person:				Phone Number:		
Contractor:				Phone Number:		
Start Date:				Duration:		
Scope of Work:						
Activity Type			Patient Risk			
<input type="checkbox"/>	Type A: Non-invasive		<input type="checkbox"/>	Low: Non-patient care areas		
<input type="checkbox"/>	Type B: Small-scale, short duration		<input type="checkbox"/>	Medium: Patient care support areas		
<input type="checkbox"/>	Type C: Large-scale, longer duration		<input type="checkbox"/>	High: Patient care area		
<input type="checkbox"/>	Type D: Major demolition		<input type="checkbox"/>	Sensitive: Invasive, sterile, or highly compromised area		
Surrounding Area Assessment						
Above		North				
_____		_____				
Project Area		West	Project Area		East	
_____		_____				
Below		South				
_____		_____				
Impacted Systems	Above	Below	North	South	East	West
	<input type="checkbox"/> Mechanical	<input type="checkbox"/> Mechanical	<input type="checkbox"/> Mechanical	<input type="checkbox"/> Mechanical	<input type="checkbox"/> Mechanical	<input type="checkbox"/> Mechanical
	<input type="checkbox"/> Hot/Cold H ₂ O	<input type="checkbox"/> Hot/Cold H ₂ O	<input type="checkbox"/> Hot/Cold H ₂ O	<input type="checkbox"/> Hot/Cold H ₂ O	<input type="checkbox"/> Hot/Cold H ₂ O	<input type="checkbox"/> Hot/Cold H ₂ O
	<input type="checkbox"/> Med Equip	<input type="checkbox"/> Med Equip	<input type="checkbox"/> Med Equip	<input type="checkbox"/> Med Equip	<input type="checkbox"/> Med Equip	<input type="checkbox"/> Med Equip
	<input type="checkbox"/> Data	<input type="checkbox"/> Data	<input type="checkbox"/> Data	<input type="checkbox"/> Data	<input type="checkbox"/> Data	<input type="checkbox"/> Data
	<input type="checkbox"/> Shafts	<input type="checkbox"/> Shafts	<input type="checkbox"/> Shafts	<input type="checkbox"/> Shafts	<input type="checkbox"/> Shafts	<input type="checkbox"/> Shafts
	<input type="checkbox"/> Elevator	<input type="checkbox"/> Elevator	<input type="checkbox"/> Elevator	<input type="checkbox"/> Elevator	<input type="checkbox"/> Elevator	<input type="checkbox"/> Elevator
	<input type="checkbox"/> Stairs	<input type="checkbox"/> Stairs	<input type="checkbox"/> Stairs	<input type="checkbox"/> Stairs	<input type="checkbox"/> Stairs	<input type="checkbox"/> Stairs
<input type="checkbox"/> None	<input type="checkbox"/> None	<input type="checkbox"/> None	<input type="checkbox"/> None	<input type="checkbox"/> None	<input type="checkbox"/> None	
Additional Comments						

2 – Infection Control Risk Assessment (ICRA)											
Class Level Decision Matrix											
Patient Risk Group	Project Type				Patient Group Risk Key						
	A	B	C	D							
Low	<input type="checkbox"/> I	<input type="checkbox"/> II ²	<input type="checkbox"/> II ²	<input type="checkbox"/> III ^{2,3}	Offices (non-exam), mechanical areas, exterior spaces, and public spaces/corridors not in clinical areas						
Medium	<input type="checkbox"/> I	<input type="checkbox"/> II ²	<input type="checkbox"/> III ^{1,3}	<input type="checkbox"/> IV ¹	Food and nutrition, outpatient clinics, physical therapy spaces, respiratory therapy work rooms, psychiatric units, and non-invasive radiology rooms						
High	<input type="checkbox"/> II ²	<input type="checkbox"/> III ²	<input type="checkbox"/> IV ¹	<input type="checkbox"/> V ¹	Inpatient care areas, infusion/dialysis spaces, emergency department, medication and clean utility rooms, invasive radiology rooms, pharmacies, and laboratories						
Sensitive	<input type="checkbox"/> III ²	<input type="checkbox"/> IV ¹	<input type="checkbox"/> V ¹	<input type="checkbox"/> V ¹	Operating/Procedure rooms, CSS, pharmacy clean rooms, and burn, oncology, transplant, and intensive care units (ICUs)						
Project Type Key	A – Inspections and non-invasive activities B – Small-scale, short-duration (approximately one work shift) activities that create minimal debris, dust, or odors C – Large-scale, long-duration (multiple work shifts) activities that create moderate amounts of debris, dust, or odors D – Major construction and demolition activities										
1 - An ICRA permit, and Committee approval is required 2 - An ICRA permit, and department supervisor approval is required 3 - Projects that cannot be sealed and completely isolated from occupied patient care spaces should be elevated to Class IV and include negative air exhaust requirements 4 - Projects that involve environmental factors such as sewage, mold, asbestos, gray water, and black water should be elevated to Class IV for Low and Medium Risk Groups and Class V for High and Sensitive Risk Groups											
CLASS I-V (select all that apply)											
<input type="checkbox"/> Remove medical equipment/supplies from the project area; cover items with plastic that cannot be moved, as needed. <input type="checkbox"/> Cover/seal cabinets, shelves, and unused doors with tape and plastic. <input type="checkbox"/> Make available disinfectant wipes and/or disinfectant sprays and clothes for cleaning all equipment, carts, and materials. <input type="checkbox"/> Make available the proper PPE for the task (e.g., rubber boots, safety glasses/goggles, face shield, nitrile gloves, masks/respirators, etc.). <input type="checkbox"/> Place adhesive mat at all work area entrances/exits. Replace adhesive mat regularly, <i>at least</i> 2x per day for large projects. <input type="checkbox"/> Implement strategies to reduce airborne dust dispersion using: <table border="0" style="width: 100%; margin-left: 20px;"> <tr> <td><input type="checkbox"/> Hard Barriers (i.e., STARC Wall, gypsum board, etc.)</td> <td><input type="checkbox"/> Fire-Grade Plastic Barriers</td> </tr> <tr> <td><input type="checkbox"/> Plastic/Tape to seal barriers or penetrations in the floor, walls, and doors</td> <td><input type="checkbox"/> HEPA Vacuums</td> </tr> <tr> <td><input type="checkbox"/> Environmental Containment Unit (ECU) (i.e., HEPA Cart)</td> <td><input type="checkbox"/> Other: _____</td> </tr> </table> <input type="checkbox"/> Immediately vacuum equipment, ladder, floor, and clothing after replacing a ceiling tile. <input type="checkbox"/> Workers are to clean their clothing and shoes free of visible dust prior to exiting the project area. <input type="checkbox"/> Inspect/clean HEPA vacuum, air scrubber, and/or negative air machines (NAMs). Verify filters are undamaged and properly installed. <input checked="" type="checkbox"/> Practice good housekeeping by vacuuming floors and surfaces regularly and minimizing tripping hazards. Use dust suppressant when sweeping. Use cleaning supplies to remove debris, dust, water, and/or sewage from project area (and above ceiling, as needed). <input type="checkbox"/> Conduct a construction clean, vacuuming all surfaces (floors, walls, flat surfaces) using a HEPA vacuum. If using a portable anteroom or ECU, clean & vacuum the interior and exterior prior to transport. Wet mop surfaces, if necessary.						<input type="checkbox"/> Hard Barriers (i.e., STARC Wall, gypsum board, etc.)	<input type="checkbox"/> Fire-Grade Plastic Barriers	<input type="checkbox"/> Plastic/Tape to seal barriers or penetrations in the floor, walls, and doors	<input type="checkbox"/> HEPA Vacuums	<input type="checkbox"/> Environmental Containment Unit (ECU) (i.e., HEPA Cart)	<input type="checkbox"/> Other: _____
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<input type="checkbox"/> Environmental Containment Unit (ECU) (i.e., HEPA Cart)	<input type="checkbox"/> Other: _____										
CLASS II-V (select all that apply)											
<input type="checkbox"/> Construct hard or fire-rated poly sheeting barriers. Seal gaps around unavoidable infrastructure using approved materials (NFPA 241). <input type="checkbox"/> Place the HEPA vacuum nozzle at the drill/cut point to capture dust. <input type="checkbox"/> Debris carts are to be tightly covered with a nonporous lid or shrink-wrap plastic. Cloth and plastic sheets are not permitted. <input type="checkbox"/> Coordinate with Engineering Services to shut down ventilation at the terminal air unit; if unable, consider closing fire dampers serving the project area. <input type="checkbox"/> Seal/isolate <i>supply</i> air diffusers/registers with plastic to avoid pressurizing the work area. <input type="checkbox"/> Seal/isolate <i>return</i> air grills with plastic to avoid contaminating the HVAC system. If unable, seal MERV 11 filters over return air grills. <input type="checkbox"/> Seal/isolate <i>exhaust</i> air grills with plastic to avoid contaminating the HVAC system. If unable, seal MERV 8 filters over exhaust air grills. <input type="checkbox"/> Follow Clean Duct Protocols (SMACNA Advanced Duct Cleanliness Standard). Verify duct integrity and cleanliness prior to installation. <input type="checkbox"/> Use air scrubbers if moderate dust producing work is to be done. Air scrubbers are to be in operation 24/7 until project completion; soiled filters must be sealed in bags prior to transport. <input type="checkbox"/> Cover all open ducts at the end of each shift with plastic. <input type="checkbox"/> Conduct construction/maintenance clean. Clean and remove barriers carefully to prevent the spread of dirt, dust, and debris. <input type="checkbox"/> Coordinate a terminal clean with EVS or an independent contractor (required). <input type="checkbox"/> Post ICRA Permit at project site. Perform and document frequent ICRA/ILSM inspections (required).											

CLASS III-V (select all that apply)

- All equipment, carts, and materials are to be clean prior to hospital entry and prior to leaving the project area. Cleaning supplies will also be located and disposed within the project area at _____ (write location).
- Poly barriers are to be sealed to the floor and ceiling with tape/Velcro; if ceiling tile is removed, the barrier is to be sealed to deck.
- Maintain a HEPA filter maintenance schedule.
- Painters are to use disposable drop cloths when in sensitive patient areas.
- Project area is to always be maintained to neutral air pressure.

CLASS IV-V (select all that apply)

- An anteroom/staging area will be located at: _____ (write in location) for the cleaning/staging of equipment and donning/doffing of PPE.
- Project area is to always be maintained to negative air pressure by using an appropriate number of HEPA-equipped NAMs and exhausting to an appropriate area, preferably outdoors. If exhausting air *indoors*, consider collecting particulate data to verify the HEPA filtration efficiency of the NAMs. Discharge NAM to: _____ (write in location).
- Install device with a visual pressure indicator (and data-logging capabilities preferred) to continually monitor negative pressurization. Program alarm set point to $-0.02''$ wg or $-0.03''$ wg for critical care areas. Describe alarm response in the additional comments section below.
- Shoe covers are to be donned/doffed in the anteroom and only worn within the project area (Class IV). Unused shoe covers are not to be stored on the floor or left uncovered.
- Consult with an ICRA committee member before downgrading ICRA precautions (e.g., disengage negative air, remove barriers, etc.).
- Do not begin project work until an ICRA Committee representative has inspected the containment barriers.

CLASS V (select all that apply)

- Workers are to wear the following PPE:
 - Bunny suits
 - Shoe covers
 - Hair bouffant
 - Other: _____
- PPE is to be donned prior to entering/exiting restricted area of the hospital and doffed in a project anteroom/designated area (required in restricted areas).
- All PPE is to be stored in covered cabinets, totes, or bag in the anteroom or outside the main project area when not in use. PPE is not to be stored on the floor or left uncovered.
- Coordinate an Infection Control-Guided Turnover Sequence with PHE if project is within a sensitive risk area.
- When work is performed in a clean room or similar setting, coordinate a "triple-terminal clean" with EVS.
- Perform "patient-safe air commissioning" with the industrial hygienist if requested by ICRA Committee.

CLASS I-V: Environmental Containment Unit (ECU) (e.g., HEPACART) (Select all that apply)

- Use an ECU when conducting overhead work in Medium/High/Sensitive Risk Areas.
- Inspect the ECU for damage prior to each use (e.g., electrical cord, casters and wheels, retractable enclosure, and NAM). Verify ECU NAM for clean pre-filter. Follow manufacturer's instruction for use (IFU) for maintenance protocols.
- Verify that the NAM is turned on and that the ECU is depressurized prior to conducting work.
- Vacuum visible dust from the ECU interior, worker clothing, and equipment prior to exiting the ECU.
- Maintain an ECU Inspection Checklist, preferably daily.
- Reduce the number of ECU entries/exits by designating one individual to stay within the ECU while the other remains outside.
- Wipe down the ECU interior, exterior, and wheels with disinfectants prior to arriving at the project location (sensitive/restricted areas).
- Workers are to wear a bunny suit, shoe covers, and hair/hat covers when exiting the ECU in restricted areas (sensitive/restricted areas).

Water Management (Select all that apply)

- Domestic/water lines, including risers are not to be left without water flow or flushing for greater than 7 days. Large risers may need to be flushed continuously to maintain chlorine dioxide residuals.
- Water is to be maintained to site. A weekly 10-minute flushing program will be in place. All sinks, water fountains, dialysis boxes, and other water sources are to be flushed weekly to allow water treatment to reach the distal location. Laminar flow attachments shall be removed during the flushing of sinks. If auto faucets are in place, the Contractor or EVS must develop an appropriate flushing plan.
- Water will be turned off and new plumbing included, or pipes are drained in the project. Any dead legs found must be taken back to the main line. New domestic water pipes must be received, closed, and stored out of the elements to avoid contamination. New pipes should remain dry during storage and until fixtures are set in place during project.
 - Pressure testing is to be completed using clean air or nitrogen. Water use for testing must be pre-approved on a case-by-case basis.
 - PM is to schedule an onsite walk with the Facilities Water Management Team at least 10 days in advance of the chlorine shock. All pipe and fixtures must be set, pressure tested, and water flushed for a minimum of two days before the chlorine shock. If applicable, water softeners shall remain locked and in by-pass during the chlorine shock treatment. Domestic water system is not to be placed into service prior to receiving the testing results from ES and FM unless water filters are in place and approved by PHE.

Additional Comments

3 – Interim Life Safety Measures Assessment			
Life Safety Features	Yes	No	If yes, what is ILSM?
Will the project compromise the integrity of any exit route or access, exit, or exit discharge features?	<input type="checkbox"/>	<input type="checkbox"/>	
Will the project compromise the compartmentalization features: fire/smoke barriers, floor slab, or corridor walls?	<input type="checkbox"/>	<input type="checkbox"/>	
Will any other existing or temporary life safety features be compromised?	<input type="checkbox"/>	<input type="checkbox"/>	
Will the project impair: fire alarm, detection, suppression systems, or require the removal of ceiling tiles for more than 10 hours?	<input type="checkbox"/>	<input type="checkbox"/>	
Will an approved fire alarm or automatic sprinkler system be out of service? Fire alarm 4 hours in 24-hour period. Sprinkler system 10 hours in 24-hour period.	<input type="checkbox"/>	<input type="checkbox"/>	
Will the project involve the presence of large quantities of combustibles or debris?	<input type="checkbox"/>	<input type="checkbox"/>	
Will the project involve hot work (e.g., cutting, welding, torches, open flame devices, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	
Will the project obstruct access by emergency services or by fire, police, or other emergency forces?	<input type="checkbox"/>	<input type="checkbox"/>	
Will any other existing or temporary life safety features be compromised?	<input type="checkbox"/>	<input type="checkbox"/>	
YES ANSWERS REQUIRE COMMENTS and/or ILSM PLAN. CHECK ALL THAT APPLY BELOW			
Required Interim Life Safety Measures			
<input type="checkbox"/> Fire watch. Contact Safety and Security to start fire watch when systems are impaired. Fire alarm 4 hours in 24-hour period. Sprinkler system 10 hours in 24-hour period or multiple ceiling tiles are removed for more than 10 hours. <input type="checkbox"/> Ensure free and unobstructed exits. Communicate with staff when alternative exits are designated. <input type="checkbox"/> Buildings or areas under construction must always maintain escape routes for construction workers and staff. The means of exiting construction areas shall be inspected daily. <input type="checkbox"/> Ensure free and unobstructed access to emergency services and for fire, police, and other emergency forces. <input type="checkbox"/> Ensure that fire alarm, detection, and suppression systems are in good working order. A temporary but equivalent system shall be provided when any fire system is impaired. Temporary systems shall be inspected and tested monthly. <input type="checkbox"/> Ensure that temporary construction partitions are smoke-tight and built of noncombustible or limited combustible materials that will not contribute to the development or spread of fire. <input type="checkbox"/> Provide additional fire-fighting equipment and train staff in its use. <input checked="" type="checkbox"/> Develop and enforce storage, housekeeping, and debris-removal practices that reduce the building's flammable and combustible fire load to the lowest feasible level. <input type="checkbox"/> Conduct a minimum of two fire drills per shift per quarter. <input type="checkbox"/> Increase surveillance of buildings, grounds, and equipment, with special attention to excavations, construction areas, construction storage, and field offices. <input type="checkbox"/> Train staff to compensate for impaired structural or compartmentalization features of fire safety. <input type="checkbox"/> Conduct hospital-wide education programs to promote awareness of fire-safety building deficiencies, construction hazards, and ILSMs. <input type="checkbox"/> NO Interim Life Safety Measures (ILSM) required.			
<i>Prohibit smoking throughout the hospital's buildings and in and near construction areas, is not applicable as it is covered by a hospital-wide no smoking policy.</i>			
Additional Comments			

4 – Additional Risk Mitigation Strategies	
Noise & Vibration	Ventilation & Air Quality
<input type="checkbox"/> Schedule noise-making periods with adjacent spaces. <input type="checkbox"/> Install sound-absorbing barriers (e.g., STARC REALWALL™). <input type="checkbox"/> Use exterior man/material lifts. <input type="checkbox"/> Use equipment that produces less noise and vibration. <input type="checkbox"/> Use electric sheers in lieu of reciprocating saw (to cut ducts). <input type="checkbox"/> Use diamond drills in lieu of powder actuated fasteners. <input type="checkbox"/> Use tin snips in lieu of chop saws (to cut metal studs). <input type="checkbox"/> Use mechanical joining in lieu of threaded system sprinklers. <input type="checkbox"/> Shot blast in lieu of floor scraping (to remove flooring). <input type="checkbox"/> Use wet diamond saw in lieu of jackhammer (to remove concrete). <input type="checkbox"/> Other (Comment Below) <input type="checkbox"/> None	<input type="checkbox"/> Exhaust NAMs to the outdoors (consider filtration methods). <input type="checkbox"/> Exhaust negative air machine to a nearby area, directing it low to the ground (must be HEPA filtered and verified to have at least 85% filter efficiency prior to the project). <input type="checkbox"/> Use wet drill methods in lieu of dry/percussion (water source is needed). <input type="checkbox"/> Install temporary ductwork. <input type="checkbox"/> Vacate the surrounding area(s). <input type="checkbox"/> Use carbon filters to remove odors. <input type="checkbox"/> Other (Comment Below) <input type="checkbox"/> None
Contractor Equipment Danger	Utility Needs
<input type="checkbox"/> Transport equipment to work site via elevator lift. <input type="checkbox"/> Other (Comment Below) <input type="checkbox"/> None	<input type="checkbox"/> Install temporary ductwork. <input type="checkbox"/> Identify safe access for workers to: <input type="checkbox"/> Electricity _____ (write in location) <input type="checkbox"/> Water _____ (write in location) <input type="checkbox"/> Other (Comment Below) <input type="checkbox"/> None
Operational Impact	Contractor Route Access
<input type="checkbox"/> Relocate all medical equipment to staff-accessible area (outside project area). <input type="checkbox"/> Schedule required outages with appropriate groups. <input type="checkbox"/> Other (Comment Below): <input type="checkbox"/> None	<input type="checkbox"/> Workers have designated route to avoid patient areas/hallways (describe below or on floorplans). <input type="checkbox"/> Elevator/Stairwell _____ to be used by workers (write in location). <input type="checkbox"/> Workers to use _____ restrooms (write in room no.). <input type="checkbox"/> Other (Comment Below) <input type="checkbox"/> None
Emergency Procedures	Other Risk Mitigation Efforts
<input type="checkbox"/> Other (Comment Below) <input type="checkbox"/> None	<input type="checkbox"/> Other (Comment Below) <input type="checkbox"/> None
Additional Comments	
5 – ICRA Committee Approval	
Date: _____	
Project Manager:	Hospital Epidemiology:
Capital Management:	Facilities Services:
Safety & Security:	Other: