

## Pre-Construction Risk Assessment

### Infection Control / Safety Construction Permit

<b>Location of Construction: Bldg. #</b> 1, 2, 4, 6, 7, 8, 9, 10, 18, 39, 59, 138 & 63	<b>Project Start Date:</b>
<b>Project Coordinator:</b> Thomas Stepien, Project Manager / COR	<b>Estimated Duration:</b>
<b>Contractor Performing Work:</b>	<b>Permit Expiration Date:</b>
<b>Supervisor:</b>	<b>Telephone:</b>

1. **Description of project:** 542-13-115 - Contractor shall supply all necessary tools, labor, equipment, materials, and supervision required to install a new chemical monitoring assembly in the well house (Building 63), water towers, and in the mechanical rooms of 12 campus buildings (1, 2, 4, 6, 7, 8, 9, 10, 18, 39, 59, and 138), including associated telemetry systems and exterior equipment enclosures. Scope also includes the installation of new temperature gauges in the most remote plumbing chase of the 12 buildings on the hot water, hot water return and cold water lines. Additionally, the scope includes the addition of thermostatic mixing valves and anti-scald devices, and the replacement of faucets as identified on the drawings. Construction includes all associated: plumbing materials, earthwork; concrete flatwork and reinforcement; water piping, pipefittings and supports; appurtenances, heating and controls equipment; electrical and communications wiring / conduit back to main electrical panels; and wall / ceiling / roof repairs at conduit penetrations, as necessary.

#### Construction Activities

The following projects do not require completion of the Pre-construction Risk Assessment form:

1. Paint and wallpaper in business offices and non-patient areas.
2. Paint in patient room if closed for painting and less than 3 SF of wall needs patched. Filter for room unit changed after painting.
3. Installation of soap dispenser/needle box/paper towel holder in patient room
4. Repair of window blind.
5. Ceiling tile replacement for areas less than 50% of the total square footage of the room, if not in business offices and non-patient areas.
6. Ceiling tile replacement for area less than 52 X 2 tiles in a patient area if patient is out of the immediate area and clean up can be accomplished before patient returns.
7. Minimum repair of nurse call system/TV/Bed/Telephone.
8. Check or replace electric outlet.
9. Replace light bulb.
10. Unstop sink/commode with no water on floor.
11. Unstop commode when water on floor requires maintenance to have Housekeeping clean area immediately.
12. Repair medical gas outlet. (Front Body)
13. Air balance readings.
14. Check air-conditioning.

Yes	No	
	X	<b>Will there be noise generated that will impact a department adjacent to, above, or below the construction area?</b>
		a. If so, these departments must be notified.
		b. How are you going to reduce the noise to an acceptable level?
Yes	No	
	X	<b>Will there be vibration generated that will impact a department adjacent to, above, or below the construction area?</b>
		a. If so, these departments must be notified each time this type of work will be performed.
		b. How are you going to reduce the vibration to an acceptable level?
Yes	No	
X		<b>Are Emergency Procedures in place and posted on each job for accidental events that could greatly impact Patient Care or Life Safety to the facility? Included in these procedures are such things as:</b>
		<ul style="list-style-type: none"> <li>• Emergency telephone numbers of key departments.</li> <li>• A plan that describes where main valves, switches, and controls are for the area in case of an emergency.</li> <li>• A plan for unexpected outages.</li> </ul>
		<b>Environment</b>
Yes	No	<b>Are any of the following environmental hazards present?</b>
X		Will hazardous chemicals be used on this project? How will fumes and odors be controlled? <i>MSDS Sheets are required. IF YES SUBMIT LIST OF CHEMICALS. FUMES WILL BE EXHAUSTED TO THE OUTSIDE.</i>
	X	Is asbestos abatement required on this job? If so, notify Safety and FES at the activation.
	X	Will there be hot work done on this project? If there are, then a hot work permit must be posted on the job site. All hot work must have a fire watch assigned to each area while the hot work is being performed.
	X	Will there be a Confined Space Entry required on this project? If so, the Medical Center's confined space entry program must be followed.
		<b>Utility Failures</b>
Yes	No	<b>Will any of the following systems be out of service at any time during the project?</b>
		<ul style="list-style-type: none"> <li>• Fire alarm (If out for more than 4 hours, Interim Life Safety Measures must be implemented.)</li> <li>• Sprinkler (If out for more than 4 hours, Interim Life Safety Measures must be implemented.)</li> </ul>
X		• Electrical – Operations beyond the face of the breaker box panel must be de-energized.
X		• Domestic water – Notification to affected departments before shut down required.
		• Oxygen
		• Sewage
		• H V A C

Yes	No	
	X	<p>Will there be any work that will require activation of the Interim Life Safety Measures during this project? Some things that trigger ILSM's to be implemented are but not limited to:</p> <ul style="list-style-type: none"> <li>Any construction that impacts an EXIT or stairs,</li> <li>Any construction that impacts major breaches in a fire or smoke wall,</li> <li>Taking the main fire protection system out of service (sprinkler),</li> <li>Taking the main fire alarm system out of service,</li> <li>Taking the "area" fire or fire alarm systems out of service for more than 4 hours within a 24-hour period.</li> </ul>
		Implementation of the ILSM requires a fire watch and the ILSM forms to be completed (forms are to be obtained from the Medical Center Fire Department)
<b>Additional Safety Concerns</b>		
Yes	No	
	X	Will construction affect exit routes from occupied areas adjacent to construction site?
	X	Will project affect traffic patterns in area?
		<b>The following must be completed prior to any construction activities.</b>
		<ul style="list-style-type: none"> <li>Separation wall must be constructed prior to project beginning.</li> <li>Fire protection systems must remain intact.</li> <li>Provide extra fire extinguishers in work areas.</li> <li>Maintain exit lights in work area.</li> <li>Maintain negative air in construction area (24/7) through duration of project.</li> <li>There cannot be any return air from within the construction area to the rest of the building.</li> <li>Redirect exiting not to go through construction area.</li> <li>Put signs on doors into construction area "Construction Area – Do Not Enter".</li> <li>Maintain daily logs and keep a current Hot Work Permit.</li> <li>Place tacky mats at doors interior and exterior exiting construction area.</li> <li>All debris removal must be by covered cart.</li> <li>Maintain clean and orderly work area.</li> <li>How will this project affect the departments above, below and adjacent to this project?</li> </ul>
<b>Air Quality and Infection Control</b>		
The construction activity types are defined by the amount of dust that is generated, the duration of the activity, and the amount of shared HVAC systems. Contact CVAMC's Safety Office and Infection Preventionist if any activity is questionable under these guidelines.		
Yes	No	
	X	<p>Will dust be generated during this project?  <i>If yes, explain location of and plan for interim dust barriers or attach floor plan with barriers clearly marked.  Dust barriers, ICRA walls will be in place and maintain for the duration of the project.</i></p>
	X	<p>Will debris removal be necessary? <i>If yes, explain plan for debris removal and control.  <b>DEBRIS CARTS AND DUMPSTERS WILL BE USED AND COVERED</b></i></p>
	X	Negative airflow ventilation and filtration in place and assessed for effectiveness.
	X	Exhaust fans in place and functioning.
	X	Is supply duct to area closed and HEPA filtration unit in place and functioning in adjacent patient care area?
	X	Will work be done in sterile area? <i>If so, how are you going to maintain sterile atmosphere in work area and access to and from work area?</i>
<b>Type A</b>		
Inspections and Non-Invasive Activities or Small scale, Short duration Activities		
Yes	No	
		Removal of ceiling tiles for visual inspection (e.g. 1 tile per 50 square feet)
		Painting (but not sanding)
		Wall covering—Describe work to be done:
		Electrical trim work. Describe:
X		Minor plumbing. Describe: Installation of mixing valves and direct reading equipment.
<b>Type B</b>		
Small scale, short duration activities that create minimal dust.		
Yes	No	
		Installation of telephone and computer cabling
		Access to chase spaces
		Cutting of walls or ceiling where dust migration can be controlled.

<b>Type C</b>		Any work that generates a moderate to high level of dust or requires demolition or removal of any fixed building components or assemblies.
Yes	No	
		Sanding of walls for painting or wall covering
		Removal of x <input type="checkbox"/> floor coverings <input type="checkbox"/> ceiling tile <input type="checkbox"/> casework (>50% of surface area) Describe:
		New wall construction
		Minor ductwork or electrical work above ceilings
		Major cabling activities
		Activity cannot be completed within a single work shift
<b>Type D</b>		Major demolition and construction projects.
Yes	No	
		Will require heavy demolition or removal of a complete ceiling system
		New construction
		Activities which require consecutive work shifts

GROUP 1 LOWEST	GROUP 2 MEDIUM	GROUP 3 HIGH	GROUP 4 HIGHEST
1) Office areas 2) Hallways 3) FES/EEMS areas	1) Bldg. #69 Therapy areas 2) Respiratory Therapy 3) Outpatient Clinics 4) CBOCs 5) Mental Health Units 6) VACANT AREA ADJACENT TO OCCUPIED AREA 7) CLCs (1B Med, 59B, 138A, 138B)	1) Pharmacy 2) Radiology/ CT Scanner 3) Urgent Care 4) Laboratories 5) AMCU	1) SPS, AMCU, 2) Respiratory Isolation Rooms – 1B Med RM 244B, Urgent Care Bldg, 2, Rm B06D
Contact the Infection Preventionist or Safety Office for risk assessment of any area not listed above.			

**CLASSIFICATION OF REQUIRED PREVENTIVE MEASURES**

CONSTRUCTION ACTIVITY- INFECTION CONTROL RISK GROUP	TYPE "A"	TYPE "B"	TYPE "C"	TYPE "D"
Group 1	I	I	II	III/IV
Group 2	I	I	III	IV
Group 3	II	III	III/IV	IV
Group 4	III	III/IV	III/IV	IV

An Infection Control—Safety Construction Permit is required for Class III or higher projects. Refer to shaded area on Construction Activity/Risk Group Matrix (above).

<b>CLASS I</b>	1. Execute work by methods to minimize raising dust from construction operations.	2. Immediately replace any ceiling tile displaced for visual inspection.
<b>CLASS II</b>	1. Provide active means to prevent air-borne dust from dispersing 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 surfaces with disinfectant.	6. Contain construction waste before and during transport in tightly covered containers. 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 as needed. 9. Remove or isolate HVAC system in areas where work is being performed.

CONSTRUCTION ACTIVITY (from previous page) Check type of activity		INFECTION CONTROL RISK GROUP (see above) Check risk group	
X	TYPE A: Inspection, non-invasive activity	X	GROUP 1: Lowest Risk
	TYPE B: Small scale, short duration projects		GROUP 2: Medium Risk
	TYPE C: Activity generates moderate to high levels of dust, requiring >1 work shift for completion		GROUP 3: High Risk
	TYPE D: Major duration and construction activities Requiring consecutive work shifts		GROUP 4: Highest Risk

CLASS III	<ol style="list-style-type: none"> <li>1. Obtain infection control permit before construction begins.</li> <li>2. Isolate HVAC system in area where work is being done to prevent contamination of the duct system.</li> <li>3. Complete all critical barriers before construction begins.</li> <li>4. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units.</li> <li>5. Contain construction waste before and during transport in tightly covered containers.</li> <li>6. Seal holes, pipes, conduits, etc. appropriately.</li> </ol>	<ol style="list-style-type: none"> <li>7. Place dust mat at entrance and exit of work area. Replace as needed.</li> <li>8. Do not remove barriers from work areas until Completed project is inspected by Safety and Epidemiology Depts. And thoroughly cleaned.</li> </ol> <p><b>After work is completed:</b></p> <ol style="list-style-type: none"> <li>9. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. Remove isolation of HVAC System.</li> </ol>
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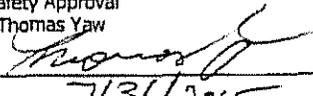
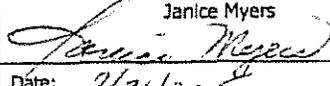
Class IV	<ol style="list-style-type: none"> <li>1. Obtain infection control permit before construction begins.</li> <li>2. Isolate HVAC system in area where work is being done to prevent contamination of duct system.</li> <li>3. Complete all critical barriers or implement control cube method before construction begins.</li> <li>4. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units.</li> <li>5. Seal holes, pipes, conduits, and punctures appropriately.</li> <li>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.</li> </ol>	<ol style="list-style-type: none"> <li>7. All personnel entering work site are required to wear shoe covers.</li> <li>8. Contain construction waste before and during transport in tightly covered containers. Cover transport receptacles or carts. Tape covering.</li> <li>9. Do not remove barriers from work area until completed project is inspected by Safety and Epidemiology Departments and thoroughly cleaned.</li> </ol> <p><b>After work is completed:</b></p> <ol style="list-style-type: none"> <li>10. Vacuum work area with HEPA filtered vacuums.</li> <li>11. Wet mop with disinfectant.</li> <li>12. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction.</li> <li>13. Remove isolation of HVAC system</li> </ol>
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**Additional concerns for all classes:**

1. Signature of Record all onsite construction workers for review of Fire and Life Safety Procedures at Coatesville VAMC.
2. Review of Infection Prevention Training and Construction Safety Checklist.
3. Maintain manpower and equipment including dust mops, wet mops, brooms, buckets, and clean wiping rags for cleaning fine dust from floors and adjacent occupied areas.
4. Contain work areas outside of construction barriers, including spaces above ceilings, with full height polyethylene sheet barrier, tightly taped.
5. Clean up dust tracked outside of construction area immediately.
6. Temporary construction barriers and closures above ceiling must be dust tight.
7. Removal of debris must be in covered containers.
8. Intermediate jobs that create a moderate amount of dust inside room and is made negative by use of HEPA-equipped unit with minimum 10 ACH, and all air discharged outside, HEPA unit must run 2 hours after completion of job and Housekeeping must clean room before unit is removed from room. All work and use of HEPA unit must be documented and Copy forward to Infection Prevention and Control and Safety. NOTE: all duct vents to be sealed off during work!

**Additional Requirements or Concerns:**

- THIS PROJECT IS TYPE A , GROUP 1 , CLASS 1
- SUBMIT EMERGENCY PROCEDURES TO BE POSTED
- POST PCRA AND APPROPRIATE CONSTRUCTION SIGNAGE FOR LIMITED ACCESS AND PROPER PPE IN WORK AREA
- CONTRACTOR TO NOTIFY COATESVILLE VAMC CO, COTR, POLICE AND SAFETY OFFICE IF A FEDERAL OR STATE REGULATOR ARRIVE ONSITE TO INSPECT JOBSITE.
- TB risk assessment: for 2014 probability / severity is a 2, which requires continuing evaluation including the annual risk assessment for Coatesville VAMC (CY 2013) places the facility in what the CDC defines as medium risk. Based on the number of infectious TB patients hospitalized in the last year (<6) and TST / Quantiferon conversion data among healthcare workers the risk is low for transmission. The risk of tuberculosis transmission within the facility will be assessed annually and as needed.
- Dumpsters to have 6' high chain link enclosures.
- No eating, drinking or smoking on the jobsite.

Permit Request By Thomas Stepsis 	Safety Approval Thomas Yaw 	Infection Preventionist Approval Janice Myers 
Date: 04.01.15	Date: 7/31/2015	Date: 7/31/2015