# Exhibit E - San Mateo Medical Center Infection Control and Interim Life Safety Measure policies

# 11.9.4

SUBJECT:	CONSTRUCTION, DEMOLITON, REMODELING OR RENOVATION INFECTION CONTROL
FUNCTION:	INFECTION CONTROL
AUTHOR:	INFECTION CONTROL

### **INTRODUCTION**

Hospital construction, demolition and remodeling activities can be a risk factor for certain nosocomial infections in patients, especially those who are immunosuppressed. Activities that disturb dust may be associated with transmission of Aspergillus, a fungus found in ceiling and wall spaces where dust has accumulated, whereby dispersing fungal spores which can be inhaled by a susceptible patient and cause disease. This policy is in accordance of the 2003 *CDC Guidelines for Environmental Infection Control in Health-Care Facilities*.

### PURPOSE

- 1. To ensure a safe environment.
- 2. To prevent the acquisition of health-acquired infections in patients, visitors and healthcare workers during hospital renovation or construction activities.

### POLICY

- 1. To ensure a safe environment, planning for new construction or renovation must be reviewed by the hospital Infection Control Committee and the Director of Infection Control and/or the Medical Director of Infection Control as planning commences for a project in or adjacent to patient care areas.
- 2. Infection Control will be participate as needed with the construction project planning to review traffic flow patterns, waste disposal, required barriers, etc as designated by the Infection Control Risk Assessment (ICRA).
  - a. SMMC requires all contractors, subcontractors, material suppliers, vendors, employees, or agents to be bound by these same requirements. Before any on-site construction begins, a pre-construction meeting will be held and instruction on all requirements and expectations regarding infection control in the construction area will be communicated.
  - b. HEPA equipped air filtration machines, not less than 100 FPM shall provide airflow into construction areas at barricade entrances with doors fully open. HEPA equipped air filtration machines shall be connected to normal power and shall run continuously.
  - c. SMMC Plant Operations or Infection Control Departments may modify performance requirements for certain activities. Modifications made by SMMC personnel do not relieve the Contractor of compliance with proper infection control procedures.
  - d. Plant Operations or designee will routinely monitor construction/renovation areas.

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- 3. Infection Control will monitor construction areas periodically. Environmental monitoring will be performed if appropriate. Whenever safe levels are exceeded, the project manager will be notified to correct conditions immediately.
- 4. All work shall be stopped on the project whenever a hazardous infection control deficiency exists.
- 5. Infection Control will offer education on health hazards of fungal spores to project managers and department managers/staff.
- 6. An Infection Control Permit is required for Class 3 or higher procedures and any activity in a group 4 Infection Control Group.
- 7. Plant Operations Department will confirm specified air velocity whenever barricades are erected or modified on an "as needed" basis. Plant Operations Department will make sure air quality is monitored "as needed" throughout the project.

# AUTHORITY

1. A SMMC Safety Officer, Director of Plant Operations, and/or Infection Control Practitioner has the authority to stop work of any project when a breach of the SMMC Construction and Renovation Policy and Procedure has been detected.

### DEFINITIONS

1. Construction activity types.

The construction activity types are defined by the amount of dust generated, the duration of the activity, and the amount of shared HVAC systems. Contact Safety Department, Plant Operations Department, and Infection Control Department if any activity is questionable under these guidelines.

<u>Type A – Inspections and Non-Invasive Activities</u>: 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.

<u>Type B – Small scale, short duration activities which create minimal dust</u>: 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.

<u>Type C – Any work which generates a moderate to high level of dust or requires demolition</u> <u>or removal of any fixed building components or assemblies</u>: Includes, but is not limited to, sanding of wall for painting or wall coverings, removal of floor coverings, ceiling tiles and casework, new wall construction, minor ductwork or electrical work above ceilings, major cabling activities, and any activity which cannot be completed within a single work shift.

<u>Type D – Major demolition and construction projects</u>: Includes, but is not limited to, activities which require consecutive work shifts, heavy demolition or removal of a complete ceiling system and new construction.

2. Infection Control Risk Groups.

	GR	OUP 1	GROUP 2		GROUP 4
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	LOWEST	MEDIUM	MEDIUM-HIGH	HIGHEST	
1.	Office areas	1. All other patient care	1. ED/Urgent Care	1. Surgery	
2.	Engineering	units (e.g., ultrasound,	2. Radiology/MRI	2. Cardiac	į
3.	Environmental	rehabilitation)	3. PACU	catheterization	
	Services	2. Admitting	4. Nuclear Medicine	3. Intensive Care	
4.	Medical Records	3. Cafeteria	5. Admission/discharge	Units	
		4. Laboratory	units	4. Oncology	
			6. EKG,EEG, RT	5. Anesthesia	
			7. Dialysis,	6. Endoscopy	
			8. Wound Care	7. Pharmacy	
			9. Central supply	admixture	
			10. Lab	8. Radiation	
			11. Pediatrics,	therapy	
			12. Med Surg	9. Sterile	
			13. Rehab Services – P.T.	processing	

3. Construction Activity/Infection Control Matrix

Infection Control consultation is required when the construction activity and risk level indicates that Class III and Class IV control procedures are necessary.

CONSTRUCTION ACTIVITY				
RISK LEVEL	TYPE "A"	TYPE "B"	TYPE "C"	TYPE "D"
Group 1	Ι	II	II	<b>III/IV</b>
Group 2	Ι	II	III	IN I
Group 3	Ι	III	III/IV	IN.
Group 4	III	III/IV	III/IV	INV

		Control Procedures by Class – Infection Control Construction
	1.	Execute work by methods to minimize raising dust from construction operations.
Class I	2.	Immediately replace any ceiling tile displaced for visual inspection
as	$\begin{vmatrix} -1 \\ 3 \end{vmatrix}$	Minor demolition for remodeling
0	] .	
1999 AND A CREATE	1	
	1.	Provides active means to prevent airborne dust from dispersing into atmosphere.
	2.	Water-mist work surfaces to control dust while cutting.
	3.	Seal unused doors with duct tape.
N N	4.	Block off and seal air vents.
lax	5.	Wipe surfaces with disinfectant.
. Q	6.	Contain construction waste before 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 or work area.
	9.	Remove or isolate HVAC system in areas where work is being performed.
	1.	Obtain infection control permit before construction begins.
	2.	Isolate HVAC system in area where work is being done to prevent contamination of the duct
	3.	system. Complete all critical barriers or implement control cube method before construction begins.
	4.	Maintain negative air pressure within work site using HEPA-filtered air filtration units.
j	- <del>.</del> 5.	Do not remove barriers from work area until complete project is thoroughly cleaned by
Class III	5.	environmental services department.
SSS	6.	Vacuum work area with HEPA-filtered vacuums.
G	7.	Wet mop with disinfectant.
	<i>8</i> .	Remove barrier materials carefully to minimize spreading of dirt and debris associated with
	0.	construction.
	9.	Contain construction waste before transport in tightly covered containers.
		Cover transport receptacles or carts. Tape covering.
	11	Remove or isolate HVAC system in areas where work is being performed.
<u> </u>	1.	Obtain infection control permit before construction begins.
	2.	Isolate HVAC system in area where work is being done to prevent contamination of the duct
	2.	system.
	3.	Complete all critical barriers or implement control cube method before construction begins.
	4.	Maintain negative air pressure within work site using HEPA-filtered air filtration units.
	5.	Seal holes, pipes, conduits, and punctures appropriately.
		Construct anteroom and require all personnel to pass through this room so they can be
		vacuumed using a HEPA vacuum cleaner before leaving the work site or they can wear cloth or
		paper coveralls that are removed each time they leave the work site.
Orse IIV	7.	All personnel entering the work site are required to wear shoe covers.
E.	8.	Do not remove barriers from work area until completed project is thoroughly cleaned by the
	~•	environmental services department.
	9.	Vacuum work area with HEPA-filtered vacuums.
		Wet mop with disinfectant.
		Remove barrier materials carefully to minimize spreading of dirt and debris associated with
	-	construction.
	12.	Contain construction waste in tightly covered containers before transporting.
		Cover transport receptacles or carts. Tape covering.
		Remove or isolate HVAC system in areas where work is being done.

4. Description of Required Infection Control Precautions by Class matrix.

### **PERFORMANCE REQUIREMENTS**

### 1. Planning Phase

- 1. Infection Control Department will participate in project kick-off meeting
- 2. Infection Control Department personnel will be involved in the planning phases for all renovation and new construction projects specific to the following major components (schematic design):
  - a. number and placement of isolation rooms.
  - b. air handling systems.
  - c. number and placement of hand washing facilities.
  - d. staff and patient traffic patterns for the duration of the project.
  - e. relocation decisions regarding patient care areas, storage areas, etc.
  - f. water supply and plumbing.
  - g. waste containment, transport and disposal.
  - h. selection of finishes and surfaces that can be effectively cleaned (in clinical areas).
  - i. accommodation of personal protection equipment.
  - j. storage of moveable modular equipment.

### 2. Operational Phase

- 1. Medical Waste Removal
  - a. Prior to the start of the renovation or construction project, hospital personnel must remove any medical waste, including sharps containers, from the areas to be renovated or constructed.
  - b. Infection Control department will be notified immediately if unexpected medical waste is encountered.
- 2. Integrity of Barrier Walls
  - a. The integrity of the barrier walls will assure a complete seal of the construction zone from adjacent areas.
  - b. Depending on the location of the project, adjacent uses and duration of project, barrier walls will consist of:
    - Rigid construction or
    - Fire-rated plastic sheeting
  - c. Barrier walls will be dust proof with airtight seals maintained at the full perimeter of the walls as well as all penetrations. (Two-foot overlap flaps for access to entry if fire-rate plastic sheeting is used.)
- 3. Environmental Control
  - a. Negative air pressure will be maintained within the construction zone with no disruption of the air systems of the adjacent areas, depending on project location.
  - b. Constant negative pressure, if required within the construction zone, will be monitored with an alarm device, which will be maintained and monitored by construction personnel. Optimally, construction-zone air will be exhausted directly with no potential for re-circulation. If an existing exhaust system cannot be located and a tie into re-circulated are system is necessary, a pre-filter and high efficiency filter (95 percent) will be used prior to exhaust to prevent contamination of the duct. Ventilation filters will be changed as needed. Industrial grade HEPA equipped air filtration machines capable of filtering 300-800 CFM of an air flow into construction area and not less than 100 FPM at barricade entrances with doors fully open. HEPA equipment shall run continuously.

- c. Demolition debris will be removed in tightly fitted covered carts using specific traffic patterns. If transport outside of construction areas is necessary, cart wheels will be cleaned before exiting construction area.
- d. Exterior window seals must be assured to minimize infiltration of outside excavation debris. Windows will remain closed at all times.
- e. When using demolition chutes, chute opening must be sealed when not in use. If conditions dictate, chute and dumpster will be sprayed with water to maintain dust control.
- f. When openings are made into existing ceilings, use Control Cube or place polystyrene enclosure around ladder sealing off opening, fitted tight to ceiling and floor. Provide thorough cleaning of existing surfaces that become exposed to dust.
- g. Removal of construction barriers and ceiling protection shall be done carefully outside of normal work hours. After the removal of construction barriers and ceiling protection, vacuum and clean all surfaces free of dust.
- h. When access panels are opened in occupied areas for work above ceilings, use Control Cube or polyethylene enclosure around ladder sealing off opening, fitted tight to ceiling and floor.
- i. Adhesive mats or carpets at barricade entrances and in the anteroom shall be kept clean and changed as necessary to prevent accumulation and tracking of dust.
- j. An anteroom will be used to maintain negative airflow from clean area to work area.
- k. All existing ventilation ducts within construction area will be blocked off. Method for blocking ducts shall we airtight.
- 4. Traffic Control (Public)
  - a. Designated entry and exit procedures will be defined for each construction project where applicable.
  - b. All egress pathways will be free of debris
  - c. Unauthorized personnel will not be allowed to enter the construction zone.
  - d. Only designated elevators will be used for construction activities during scheduled times.
- 5. Cleaning and Disposal
  - a. The construction zone will be maintained in a clean manner by the contractors and will be swept daily or more frequently as needed to minimize dust.
  - b. A HEPA filtered vacuum will be used for all outside areas, not under negative pressure.
  - c. Adjacent entry areas need to be damp mopped daily or more frequently to minimize dust.
  - d. Walk-off mats will be used to minimize tracking of dust into adjacent areas and will be changed as needed.
  - e. Environmental Services will be responsible for the routine cleaning of adjacent areas and for the terminal cleaning of the construction zone prior to the opening of the newly renovated or constructed area.
  - f. Construction waste must be contained before transported. Sealed plastic bags for containment and/or cover are appropriate.

- 6. Contractor Personnel Requirements
  - a. Clothing will be free of loose soil and debris.
  - b. Personal protective equipment, including protective face shield, gloves and N-95 respirators will be utilized as appropriate for the task at hand.
  - c. Contractors entering sterile/invasive procedure areas will be provided with a disposable jump suit head covering and shoe coverings, which must be removed prior to exiting the work area.
  - d. Removal of construction barriers and ceiling protection shall be done carefully.
- 7. Permits/Submittals
  - a. Submit report of infection control procedures, including location and details of barrier.
  - b. An Infection Control Permit is required for Class III or higher procedures and any activity in a Group 4 Infection Control Group. Refer to shaded area on
  - c. Construction Activity/Infection Control Matrix.
  - d. When required, obtain Infection Control Permit from Infection Control before beginning any demolition or construction work.
  - e. Permit to be displayed at entrance to work area during entire construction period.
  - f. Return permit at completion of work.
- 8. Quality Control
  - a. The Infection Control Department will monitor biological counts in vicinity of construction work on an as needed basis. Whenever safe levels are exceeded, contractor will be notified to correct conditions immediately.
  - b. All work shall be stopped on the project whenever a hazardous infection control deficiency exists. Contractor shall take immediate action to correct all deficiencies.
  - c. Failure of Contractor correct such deficiencies will result in corrective action taken by the hospital and deducting all costs from the contract.

# 3. Completion Phase

- 1. After completion of construction, ventilation will meet specifications as mandated by regulatory bodies. Filter will be visually inspected for plugging or leakage.
- 2. The area will be thoroughly cleaned and disinfected before being placed into service.
- 3. Water supply lines will be flushed before placing newly renovated or constructed areas into service. Infection Control Department must be notified prior to flushing.
- 4. Certification that water supply lines have been disinfected in accordance with state and local regulatory bodies as required.

# A. Compliance Monitoring

- 1. The Plant Operations Director will conduct compliance monitoring as necessary. The following parameters will be monitored:
  - a. air handling
  - b. integrity of barrier walls
  - c. dress code
  - d. environmental control
  - e. noise
  - f. traffic control
  - g. water supply
- 2. Infection Control will monitor periodically

### **B.** Products and Materials

- 1. Sheet Plastic: Fire retardant polystyrene, 6-mil thickness.
- 2. Barrier Doors: Solid core wood in metal frame, painted.
- 3. Industrial grade HEPA- filtered units capable of a filtration rate of 300 800 CFM with primary and secondary filters.
- 4. Exhaust Hoses: Heavy duty, flexible steel reinforced; Ventilation Blower Hose, WPG.
- 5. Adhesive Walk-Off Mats: Provide minimum size mats of 24 inches x 36 inches.
- 6. Disinfectant: Hospital approved disinfectant or equal.
- 7. Control Cube: Portable ceiling Access Module, "Kontrol Kube Jr." with heavy duty vinyl enclosure.

### C. Barriers

- 1. Closed door with masking tape applied over the frame and door is acceptable for projects that can be contained.
- 2. Construction, demolition or reconstruction not capable of containment within a single room must have the following barriers erected.
  - a. Airtight plastic barrier that extends from floor to ceiling. Seams must be sealed with duct tape to prevent dust and debris from escaping.
  - b. Drywall barriers erected with joints covered or sealed to prevent dust and debris from escaping.
  - c. Seal all penetrations in existing barrier airtight.
  - d. Barriers at penetration of ceiling envelopes, chases and ceiling spaces to stop movement of air and debris.
  - e. Anteroom or double entrance openings that allow workers to remove protective clothing or vacuum off existing clothing.
  - f. At elevator shafts or stairways within the field of construction.
  - g. Overlapping flap minimum 2 feet wide at polyethylene enclosures for personnel access.

### **INFECTION CONTROL PROCEDURES**

### GENERAL

- A. Maintain manpower and equipment including dust mops, wet mops, brooms, buckets and clean wiping rags for cleaning fine dust from floors I adjacent occupied areas.
- B. Contain work areas outside of construction barriers, including spaces above ceilings, with full height polyethylene sheet barrier, tightly taped.
- C. Cleanup dust tracked outside of construction area immediately.

# IMPLEMENTATION

- A. Temporary construction barriers and closures above ceilings shall be dust tight.
- B. Removal of debris shall be in tightly covered containers draped with a damp blanket.
- C. Adhesive mats or carpets at barricade entrances and in the anteroom shall be kept clean and changed daily, or as necessary, to prevent accumulation of dust.
- D. Any dust tracked outside of barrier shall be removed immediately. Cleaning outside barrier to be by HEPA filtered vacuum or damp mop.
- E. Any ceiling access panels opened for investigation beyond sealed areas shall be replaced immediately when unattended.

- F. Block off all existing ventilation ducts within the construction area. Method of capping ducts shall be dust tight and withstand airflow.
- G. When openings are made into existing ceilings, use Control Cube or provide polystyrene enclosure around ladder sealing off opening, fitted tight to ceiling and floor. Provide thorough cleaning of existing surfaces which become exposed to dust.
- H. Removal of construction barriers and ceiling protection shall be done carefully, outside of normal work hours. Vacuum and clean all surfaces free of dust after the removal.
- I. When access panels are opened in occupied areas for work above ceilings. Use control Cube or polyethylene enclosure around ladder sealing off opening, fitted tight to ceiling and floor.
- J. All vacuuming outside areas not under negative pressure to be with a certified HEPA filtered vacuum.
- K. Construct anteroom to maintain negative airflow from clean area through anteroom and into work area.

### **RESPONSIBLITIES: GENERAL and by ACTIVITY CLASS**

- A. The Contractor is responsible for obtaining the Infection Control Permit from the Project Manager and Infection Control prior to commencing construction.
- B. The Faculties Director, Facilities Project Manager, Safety Officer and Infection Control Department will evaluate every work order. They reserve the right to add requirements to a project on an individual basis.
- C. The Infection Control Department will make periodic visits to work site to ensure compliance of policy.
- D. Class I
  - 1. Execute work by methods to minimize raising dust from construction operations.
  - 2. Immediately replace any ceiling tile displaced for visual inspection.
  - 3. Refer to Procedures on Minor Disruption for Remodeling and Procedures for Construction Facilities and Temporary Controls.
  - 4. Cleanup and disposal in accordance with defined Procedures on Cleanup and Disposal.
- E. Class II.

Provide active means to prevent air-borne dust from dispersing into atmosphere. Water mist work surfaces to control dust while cutting.

Seal unused doors with masking tape.

Block off and seal air vents.

Wipe work surfaces with disinfectant.

- F. Class III
  - 1. Obtain Infection Control Permit from Infection Control before construction begins.
  - 2. Isolate HVAC system in area where work is being doe to prevent contamination of duct system.
  - 3. Complete all critical barriers before construction begins or implement control cube method.
  - 4. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units.
  - 5. Contain construction waste before transport in tightly covered containers
  - 6. Cover transport receptacles or carts with cart lid and then cover with damp blanket.
  - 7. Wet mop and/or vacuum with HEPA filtered vacuum before leaving work areas.

- 8. Place dust mat at entrance and exit of work area.
- 9. Remove isolation of HVAC system in areas where work is being performed.
- G. Class IV.
  - 1. Obtain Infection Control Permit from Infection Control 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 ass through this room so they can be vacuumed using an 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 ear shoe covers. Shoe covers must be changed each time the worker exits the work Area.
  - 8. Provide adhesive walk-off mats a entrance to work Area within the anteroom. Replace used mats with new mats in accordance with manufacturer's recommendations.
  - 9. Do not remove barriers from work area until completed project is inspected by Infection Control and thoroughly cleaned by Environmental Services Department.
  - 10. Vacuum work area with HEPA filtered vacuums.
  - 11. Wet mop area with disinfectant.
  - 12. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction.
  - 13. Contain construction waste before transport in tightly covered containers.
  - 14. Cover transport receptacle or carts. Cover cart wit lid and then with damp blanket.
  - 15. Remove isolation of HVAC system in areas where work is being performed.

### ENVIRONMENTAL MONITORING

- A. Contractor is responsible for maintaining equipment and replacement of HEPA and other filters in accordance with manufacturer's recommendations.
- B. Infection Control will perform Field inspection and testing if indicated.
- C. Engineering will confirm specified air velocity whenever barricades are erected or modified.
- D. Facilities Project Manager will be responsible for obtaining and monitoring air quality throughout project as requested by Infection Control.

### ENFORCEMENT

- A. For breach of this infection control policy the hospital will stop the work of the Project and the Contractor shall pay for all associated costs incurred by the hospital as well as for correction for the work.
- B. The Infection Control or Facilities will record the following: Document each violation with photographs
   Extract Contractor or Department information from the work log. Maintain a record of all infection control violations.
- C. Violations of infection control policies may affect status as a responsible Contractor for bidding future work. Facilities have the right to impose a \$500.00 fine for each violation.

# ADDITIONAL REQUIRED INFECTION-CONTROL MEASURES FOR INTERNAL CONSTRUCTION AND REPAIR PROJECTS INFECTION-CONTROL MEASURES:

- A. Prepare for the project:
  - 1. Use a multi-disciplinary team approach to incorporate infection control into the project.
  - 2. Conduct the risk assessment and a preliminary walk-through with project managers and staff.
- B Educate staff and construction workers.
  - 1. Educate staff and construction workers about the importance of adhering to infectioncontrol measures during the project.
  - 2. Provide educational materials in the language of the workers.
  - 3. Include language in the construction contract requiring construction workers and subcontractors to participate in infection-control training.
- C. Issue hazard and warning notices.
  - 1. Post signs to identify construction areas and potential hazards.
  - 2. Mark detours requiring pedestrians to avoid the work area.
- D. Relocate high-risk patients as needed, especially if the construction is in or adjacent to a Protective Environment area.
  - 1. Identify target patient populations for relocation based on the risk assessment.
  - 2. Arrange for the transfer in advance to avoid delays.
  - 3. At-risk patients should wear protective respiratory equipment (e.g., a high-efficiency mask) when outside their PE rooms.
- E. Establish alternative traffic patterns for staff, patients, visitors, and construction workers.
  - 1. Determine appropriate alternate routes from the risk assessment.
  - 2. Designate areas (e.g., hallways, elevators, and entrances/exits) for construction worker use.
  - 3. Do not transport patients on the same elevator with construction materials and debris.
- F. Erect appropriate barrier containment.
  - 1. Use prefabricated plastic units or plastic sheeting for short-term projects that will generate minimal dust.
  - 2. Use durable rigid barriers for ongoing, long-term projects.
- G. Establish proper ventilation.
  - 1. Shut off return air vents in the construction zone, if possible, and seal around grilles.
  - 2. Exhaust air and dust to the outside, if possible.
  - 3. If recirculated air from the construction zone is unavoidable, use a pre-filter and a HEPA filter before the air returns to the HVAC system.
  - 4. When vibration-related work is being done that may dislodge dust in the ventilation system or when modifications are made to ductwork serving occupied spaces, install filters on the supply air grilles temporarily.
  - 5. Set pressure differentials so that the contained work area is under negative pressure.
  - 6. Use air flow monitoring devices to verify the direction of the air pattern.
  - 7. Exhaust air and dust to the outside, if possible.
  - 8. Monitor temperature, air changes per hour (ACH), and humidity levels (humidity levels should be <65%).
  - 9 Use portable, industrial grade HEPA filters in the adjacent area and/or the construction zone for additional ACH.

10.Keep windows closed, if possible.

- H. Control solid debris.
  - 1. When replacing filters, place the old filter in a bag prior to transport and dispose as a routine solid waste.
  - 2. Clean the construction zone daily or more often as needed
  - 3. Designate a removal route for small quantities of solid debris.
  - 4. Mist debris and cover disposal carts before transport (i.e., leaving the construction zone).
  - 5. Designate an elevator for construction crew use.
  - 6. Use window chutes and negative pressure equipment for removal of larger pieces of debris while maintaining pressure differentials in the construction zone.
  - 7. Schedule debris removal to periods when patient exposures to dust is minimal.
- I. Control water damage.
  - 1. Make provisions for dry storage of building materials.
  - 2. Do not install wet, porous building materials (i.e., sheet rock).
  - 3. Replace water-damaged porous building materials if they cannot be completely dried out within 72 hours.
- J Control dust in air and on surfaces.
  - 1. Monitor the construction area daily for compliance with the infection-control plan.
  - 2. Protective outer clothing for construction workers should be removed before entering clean areas.
  - 3. Use mats with tacky surfaces within the construction zone at the entry; cover sufficient area so that both feet make contact with the mat while walking through the entry.
  - 4. Construct an anteroom as needed where coveralls can be donned and removed.
  - 5. Clean the construction zone and all areas used by construction workers with a wet mop.
  - 6. If the area is carpeted, vacuum daily with a HEPA-filtered-equipped vacuum.
  - 7. Provide temporary essential services (e.g., toilets) and worker conveniences (e.g., vending machines) in the construction zone as appropriate.
  - 8. Damp-wipe tools if removed from the construction zone or left in the area.
  - 9. Ensure that construction barriers remain well sealed; use particle sampling as needed.
  - 10. Ensure that the clinical laboratory is free from dust contamination.
- K. Complete the project.
  - 1. Flush the main water system to clear dust-contaminated lines.
  - 2. Terminally clean the construction zone before the construction barriers are removed.
  - 3. Check for visible mold and mildew and eliminate (i.e., decontaminate and remove), if present.
  - 4. Verify appropriate ventilation parameters for the new area as needed.
  - 5. Do not accept ventilation deficiencies, especially in special care areas.
  - 6. Clean or replace HVAC filters using proper dust-containment procedures.
  - 7. Remove the barriers and clean the area of any dust generated during this work.
  - 8. Ensure that the designated air balances in the operating rooms (OR) and protective environments (PE) are achieved before occupancy.
  - 9. Commission the space as indicated, especially in the OR and PE, ensuring that the room's required engineering specifications are met.

### RESOURCES

- A. Guidelines for Design and Construction of the Hospital and Health Care Facilities. 1996-1997; 2001
- B. APIC State-of-the-art report: The Role of Infection Control During Construction in Health Care Facilities. April 2000, AJIC
- C. Association for Professionals in Infection Control and Epidemiology. Tool Kit Infection Control During Construction and Renovation. 1999
- D. Infection Control During Construction. A Guide to Prevention and JCAHO Compliance. 2002
- E. Managing Water Infiltration into Buildings. University of Minnesota. Environmental Health & Safety. 1998
- F. Centers for Disease Control and Prevention. (2003). Guidelines for environmental infection control in health-care facilities: recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee.

### ATTACHMENTS

- Control of Airborne Contaminants During Hospital Construction, etc
- Door Knob Sign
- Emergency Water Shutdown Survey
- IC Construction Permit
- IC Steps during Emergency Water Shutdown
- Interim Life Safety Daily Monitoring
- Pre-Occupancy Project Documentation Sheet
- Project Site Assessment Tool
- Rounds Compliance Monitor
- Sample Set of Signs

		Infection Control Construction	on Pe	ermit	1 of 1	
				P	ermit No:	
Loca	ation of	of Construction:		Proj	ect Start Date:	
Project Coordinator			Esti	mated Duration:		
Cont	tracto	r Performing Work		Perr	nit Expiration Date:	
Supervisor:			Tele	ephone:		
YES	NO	CONSTRUCTION ACTIVITY	YES	NO	INFECTION CONTROL RISK GROUP	
		TYPE A: Inspection, non-invasive activity			GROUP 1: Least Risk	
		TYPE B: Small scale, short duration, moderate to high levels			GROUP 2: Medium Risk	
		TYPE C: Activity generates moderate to high levels of dust, requires greater 1 work shift for completion			GROUP 3: Medium/High Risk	
<u>at ta</u>		TYPE D: Major duration and construction activities Requiring consecutive work shifts			GROUP 4: Highest Risk	
CLAS		<ol> <li>Execute work by methods to minimize raising dust from construction operations.</li> <li>Immediately replace any ceiling tile displaced for visual inspection.</li> </ol>	3.	Minor D	emolition for Remodeling	
CLASS II		<ol> <li>Provides active means to prevent air-borne dust from dispersing into atmosphere</li> <li>Water mist work surfaces to control dust while cutting.</li> <li>Seal unused doors with duct tape.</li> <li>Block off and seal air vents.</li> <li>Wipe surfaces with disinfectant.</li> </ol>	7. 8. 9.	covered Wet mop before le Place du Remove	construction waste before transport in tightly containers. o and/or vacuum with HEPA filtered vacuum aving work area. st mat at entrance and exit of work area. or isolate HVAC system in areas where work performed.	
CLASS III 1. 2. 3.		2. Isolate HVAC system in area where work is being done to prevent contamination of the duct system.	7. 8.	Vacuum work with HEPA filtered vacuums. Wet mop with disinfectant Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. Contain construction waste before transport in		
Date		4. Maintain negative air pressure within work site utilizing ti			vered containers.	
Init	tial	<ul> <li>HEPA equipped air filtration units.</li> <li>5. Do not remove barriers from work area until complete project is thoroughly cleaned by Env. Services Dept.</li> </ul>	11.	<ol> <li>Cover transport receptacles or carts. Tape covering</li> <li>Remove or isolate HVAC system in areas where w is being performed/</li> </ol>		
Class I	IV	<ol> <li>Obtain infection control permit before construction begins.</li> <li>Isolate HVAC system in area where work is being done to prevent contamination of duct system.</li> <li>Complete all critical barriers or implement control cube</li> </ol>	8.	All personnel entering work site are required to wea shoe covers Do not remove barriers from work area until comple project is thoroughly cleaned by the Environmental Service Dent		
Date		<ul><li>method before construction begins.</li><li>4. Maintain negative air pressure within work site utilizing</li></ul>		Service I Vacuum	Dept. work area with HEPA filtered vacuums.	
Init		<ol> <li>HEPA equipped air filtration units.</li> <li>Seal holes, pipes, conduits, and punctures appropriately.</li> <li>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> <li>Wet mop with disinfectant.</li> <li>Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction.</li> <li>Contain construction waste before transport in tig covered containers.</li> <li>Cover transport receptacles or carts. Tape coverir 14. Remove or isolate HVAC system in areas where being done.</li> </ol>		with disinfectant. barrier materials carefully to minimize g of dirt and debris associated with tion. construction waste before transport in tightly containers. ansport receptacles or carts. Tape covering. or isolate HVAC system in areas where is	
Additio	onal Req	juirements:				
Dot- 1		12 House un intermente d'availant en en en en instal			Exceptions/Additions to this permit Date	
Date I		12 Hour uninterrupted exchange required	Initia	-	noted by attached memoranda	
	Request	l By;		it Author	IZCU Dy.	
Date:	•		Date:			

## **PRE-CONSTRUCTION RISK ANALYSIS**

# Date of Survey

# Scope of Work

# Area Surveyed

# Project Name

# Surveyors

	YES	N O	N/A
nd construction site?			
hazards present?			
liation, Biohazards,			
naron, Bronazaras,			
ected?			
		-	
			· ·
		<b> </b>	
gress?			
g? If yes, When:			
guisher's/fire			
0			
he "No Smoking			
-			
ucted? If no, see below			
1?			
ire equipment available?			
ceeds the usual ambient			
tion generate any			
	generate any quipment?		

# SUBJECT:INTERIM LIFE SAFETY MEASURE (ILSM) POLICYDEPARTMENT:FACILITIES AND ENGINEERINGAUTHOR:DIRECTOR OF ENGINEERING

### PURPOSE :

To define the Interim Life Safety Measures (ILSM) implemented to protect occupants during periods when the Life Safety Code is not met or during periods of construction.

### POLICY :

San Mateo Medical Center will institute and document Interim Life Safety Measures to temporarily compensate for hazards posed to buildings and grounds during construction and at any time there is a deficiency in meeting the Life Safety Code. The deficiencies are evaluated using the ILSM criteria checklist. ILSM are proactive administrative actions that are special measures to compensate for increased life safety risk. These include, but not limited to:

- 1. Ensuring free and unobstructed exits. Staff receives additional information/communication when alternative exits are designated. The hospital will post signage identifying the location of alternate exits to everyone affected.
- 2. Buildings or areas under construction must maintain escape routes for construction workers at all times, and the means of exiting construction areas are inspected daily.
- 3. Ensuring free and unobstructed access to emergency services and for fire, police, and other emergency forces.
- 4. Ensuring that fire alarm, detection, and suppression systems are in good working order. A temporary but equivalent system must be provided when any fire alarm and detection system is impaired.
- 5. Temporary systems must be inspected and tested monthly. The completion date of the tests will be documented.
- 6. Ensuring 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.
- 7. Providing additional fire-fighting equipment.

Implementation: 5/95 Reviewed and Approved by: Director of Engineering

Date:

**5/98, 5/01, 5/04, 2/06**, 6/09,6/12

- 8. Providing additional training to those who work in the hospital on the use of fire-fighting equipment.
- 9. Prohibiting smoking throughout the organization's buildings and in and near construction areas.
- 10. Developing and enforcing storage, housekeeping, and debris-removal practices that reduce the building's flammable and combustible fire load to the lowest feasible level.
- 11. Conducting a minimum of two fire drills per shift per quarter.
- 12. Increasing surveillance of buildings, grounds, and equipment, with special attention to excavations, construction areas, construction storage, and field offices.
- 13. Training staff to compensate for impaired structural or compartmentalization features of fire safety.
- 14. Conducting organization wide safety education programs to promote awareness of firesafety building deficiencies, construction hazards, and ILSMs.
- 15. The hospital notifies the fire department or the off-site monitoring company and initiates a fire watch when a fire alarm or sprinkler system is out of service more than 4 hours in a 24-hour period in an occupied building. Notifications and fire watch times will be documented.
- 16. The Interim Life Safety Measure (ILSM) policy will include criteria for evaluating when and to what extent the hospital follows special measures to compensate for increased life safety risk.

### PROCEDURE :

Each of the above fourteen Interim Life Safety Measures will be implemented as per the following procedure:

- 1. If exits are compromised, alternate exits will be chosen and signs will be installed to guide visitors and staff alongside the safest route. Provide "No Exit" signs and provide new evacuation maps.
- 2. Special emphasis will be given in these areas to ensure free access to all.
- 3. a). A temporary, but equivalent system shall be provided when any fire system is impaired.b). Temporary system must be inspected and tested monthly.

### (Cont'd.)

c). Documentation of the contractor's temporary fire system equivalent plan and inspecting and testing reports are to be submitted to the Director of Facilities.

- 4. Inspector of record to ensure compliance and document. Notification is given to all construction personnel before starting projects.
- 5. Additional fire extinguishers to be put in the compromised area by Engineering and staff training to be done at the time of delivery and as needed.
- 6. Notification will be given to all construction personnel before starting projects. Facilities Director, Safety and Security Officer will do additional monitoring in construction and adjacent areas.
- 7. Notification to be given to all construction personnel before starting projects. Facilities Director and Safety & Security Officer will do monitoring.
- 8. All major projects will have additional surveillance and monitoring of affected areas with emphasis on excavations, pedestrian and vehicle traffic flow, equipment and supply storage areas. Excavations are to be barricaded and well lit at night. Construction areas must be cleaned up each day.
- 9. Notification given to Facilities Director on any compartmental deficiencies and staff training will be done as needed.
- 10. The staff will be kept current on any affected ILSM's and actions at the appropriate meetings, e-mails.

### INTERIM LIFE SAFETY MEASURES (ILSM) MATRIX KEY

ILSM # 1	Ensuring Egress	Provide and maintain alternative egress routes and exits, install temporary EXIT directional signage and provide training for using alternate
		exits. Inspect exits in affected areas on a daily basis
ILSM # 2	Emergency forces access	Ensure exterior building access points are unobstructed, maintain primary and/or alternate vehicular access and notify emergency response agencies when alternative access points are required
ILSM # 3	Emergency forces notification	Notify the fire department (or other emergency response group) and initiate a fire watch when a fire alarm or sprinkler system is out of service more than 4 hours in a 24 hour period in an occupied building
ILSM # 4	Ensuring operational life safety systems	Provide a temporary but equivalent fire alarm system when any fire system is impaired. Inspect and test temporary systems monthly
ILSM # 5	Fire Watch	See Fire Watch Policy
ILSM # 6	Temporary construction barriers	Temporary barriers must be smoke tight or made of non-combustible or limited combustible materials that will not contribute to the development or spread of fire
ILSM # 7	Additional fire fighting equipment	Provide additional firefighting equipment and training in it's use. Contractor is responsible in construction areas
ILSM # 8	Prohibiting smoking	Prohibit smoking throughout the facility including exterior construction sites
ILSM # 9	Controlling combustible loading	Monitor debris removal to maintain the lowest possible fire loading
ILSM # 10	Conducting 2 fire drills per shift in all areas	Conduct 1 additional fire drills per shift per quarter
ILSM # 11	Conducting 2 fire drills per shift in local area	Conduct 1 additional fire drills per shift per quarter
ILSM # 12	Increased hazard surveillance	Increase hazard surveillance of buildings, grounds and equipment including excavations, construction areas, staging areas, storage areas, field offices etc.
ILSM # 13	Compartmentation training of personnel	Provide training to compensate for impaired structural or compartmentalization features of fire safety
ILSM # 14	Conducting organizational training on life safety	Conduct safety education programs to promote awareness of construction hazards, building deficiencies and temporary measures
ILSM # 15	Conducting additional training of incident response plan	Conducting additional training of incident response plan

# INTERIM LIFE SAFETY MEASURES EVALUATION CRITERIA

Date of Survey

Scope of Work

Project Location

Project Name

Project Manager

Facility Manager's Signature

		YES	NO	N/A
1	Will existing exit egress routes from occupied areas remain			
	unchanged/impaired/blocked?			
2	Will exit stairs remain unobstructed and fire separated?			
3	Will existing corridor width be reduced?			
	Will the construction site require tailored traversing of egress to			
	provide emergency exiting?			
4	Will the construction area require additional exit routes?			
3	Will fire and smoke compartments remain intact and			
	unchanged?			
4	Will fire alarm system remain functional and unchanged?			
5	Will fire suppression systems remain functional and unimpaired?			
	Will a hot work permit be necessary for heat-producing activities			
	that could be sources of ignition?			
6	Will construction area be separated by noncombustible smoke			
	tight partitions?			
7	Will there be an increase in debris, trash, and/or combustible fire load?			
8	Will additional fire-fighting equipment be available in the			
	construction area?			
9	Will construction workers be trained in the Facilities fire plan?			
10	Will construction workers be trained in the use of fire extinguishers?			
11	Will access to the Emergency Department be unobstructed?			
12	Will emergency access for the local fire department remain			
	unobstructed?			
	Will special training to compensate for structural, compartment,			
	or code deficiencies be needed?			
13	Other			
	Is an Interim Life Safety Measures Plan required?			1

# INTERIM LIFE SAFETY DAILY MONITORING

Date of Survey			
Inspector			
Area Surveyed			
Project Number			
Project Name			
	YES	NO	N/A

YES NO	
--------	--

NO	ľ
	1

A. EX	ITS		
1.	Do exits provide free and unobstructed egress?		
2.	Did personnel receive training for alternative exits?		
3.	Are means of egress in construction area inspected daily?		
4.	Is there free and unobstructed access to Emergency Department/Services and		
	for emergency forces?		
	RE EQUIPMENT		
1.	Are fire alarms, detection, and suppression systems in an operational		
	function?		
2.	Are fire alarms, detection, and suppression systems impaired?		
3.	Have temporary fire alarm, detection, and suppression systems been		
	inspected and tested monthly?		
4.	Have training and additional fire equipment been provided for personnel?		
	RE SYSTEM		
	Power properly secured at the end of each workday?		
2.	Has the no smoking policy been implemented in and adjacent to the		
	construction areas?		
3.	Are construction areas free of storage and housekeeping materials, food,		
	food waste, and debris for daily operations to reduce flammable and		
	combustible fire load of the building?		
4.	Has there been a minimum of two fire drills conducted per shift per quarter?	 	
5.	Has hazard surveillance in construction area been inspected daily?		
6.	Have safety education programs been conducted to ensure awareness of any		
	Interim Life Measures Life Safety Code deficiencies and construction		
D OI	hazards.		
	NERAL SAFETY	<b>.</b>	
1.		 	
2.	Are hand and safety rails in place and in good condition?		
3.	Are extension cords grounded and in good condition?		
4.	Are power tools in good condition?		
5.	Are hard hats used regularly?	 	
6.	Are cutting and welding operations properly conducted?	 ╉─────┤	
7.	Are new employees instructed in Right-To-Know regulations?	 ┨────┤	
8.	Do fire watch personnel receive appropriate training?	 	
9.	Are all construction activities conducted in a safe manner?	 4 4	
10.	Does all scaffolding comply with OSHA requirements (1926.421)?	┦───┤	
11.	Are employees trained in fall hazards in work areas near roof edge?		

Ε.	IN	FECTION CONTROL		
	1.	No construction activity takes place within 25 feet of existing fresh air		
		intakes?		
	2.	Materials used (i.e., fire retardants) comply with necessary safety regulations.		
	3.	Monitoring of impervious construction barriers to verify negative pressure.		
	4.	Demonstrated compliance with traffic patterns.		
	5.	Demonstrated compliance with appropriate use of cover garbs when outside construction area.		
	6.	Demonstrated use of appropriate equipment to prevent airborne particulate matter/debris; this includes HEPA filtration units, HEPA vacuum equipment, and continuous use of exhaust fans.		
	7.	Ducts remain sealed/capped.		
	8.	Doors are closed and gaskets/hardware are intact.		
	9.	Methods of debris transport are monitored and found to be consistent with processed designed to minimize airborne particulate matter/debris.		
	10.	All windows and doors remain closed to prevent circulation of dust/debris.		
	11.	Carpet or adhesive strips are clean and available at doorways for shoe dust collection.		
	12.	Areas are found to be cleaned at the end of each day.		
	13.	No signs of water leakage.		
	11.	No signs of pests.		

### **Additional Comments**

\_\_\_\_\_

Hospital Project Manager	Date	
Contractor	Date	

SUBJECT:	ABOVE-CEILING WORK PERMIT
DEPARTMENT:	FACILITIES AND ENGINEERING
AUTHOR:	DIRECTOR OF ENGINEERING

### POLICY/PURPOSE STATEMENT

San Mateo Medical Center is required by the 2000 Life Safety Code to ensure penetrations in fire and smoke partitions are sealed and to properly support wires above ceiling spaces. The penetrations and improperly supported wires are the result of utilities such as conduit, pipe, duct work, communication lines and television lines being installed without being properly supported and penetrations in walls not being properly sealed. This procedure outlines the Above Ceiling Work Permit Program.

### PROCEDURE

- 1. An above ceiling Work Permit (see attached permit) is required for any work performed other than by Facilities & Engineering personnel above the ceiling level within the main building at San Mateo Medical Center, and must be secured prior to beginning any work. The permit may be secured from the Facilities & Engineering Department.
- 2. The permit must be completely filled out by the person requesting the permit and authorized by the Director of Engineering or his designee. The permit must be in the possession of the person performing the work at all times while the work is under way.
- 3. The person performing the work must notify the appropriate inspector prior to the commencement of work, before any work is concealed and after the work is completed. Work may not proceed until the inspections are complete.
- 4. Prior to beginning of any work, the area must be inspected by the persons desiring or performing the work and the appropriate inspector. Any pre-existing conditions should be noted on the permit.
- 5. All penetrations and attachments must be made in accordance with the Uniform Building Code, with California amendments, the 2000 Life Safety Code and the UL Fire Resistance Directory.
- 6. Supporting work from the ceiling grid is prohibited.

Implementation: 5/95 Reviewed and Approved by: Director of Engineering

Date:

<mark>5/98, 5/01, 5/04, 2/06</mark>, 6/09,06/12

7.	Any damage to the ceiling or other structures shall be repaired before the work is
	approved.

### SAN MATEO MEDICAL CENTER ABOVE-CEILING WORK PERMIT

Name	Date
Department/Company	
Phone	FaxFax
Location	Room #
Description of Work	
Wiring to be installed or modified	:
Communication	Door Control
Fiber Optic	Fire Alarm
Security	Telephone
Other	Electric low or high Voltage
HVAC	Television
How work will be supported:	
Deck	Existing Casework
Existing piping or conduit rack	0
Existing Cable Tray	New cable tray
Wall	Other
Will any penetration modifications	s be made to the visible ceiling or walls:
Yes No	
Describe:	
Start Date Time	Completion Date Time
Authorized to Proceed	Date

Interim Inspection	Date
Final Inspection	Date

SUBJECT:	HOT WORK PERMIT
DEPARTMENT:	FACILITIES AND ENGINEERING
AUTHOR:	DIRECTOR OF ENGINEERING

PURPOSE

To define the steps that should be taken to issue a hot work permit to lessen the possibility of accidental fires in or around the hospital.

### PROCEDURE

- 1. The hospital Supervising Stationary Engineer shall be solely responsible for issuing "hot work" permits to outside contractors and County Crafts personnel. The permit must be issued prior to the start of the work and returned to the Supervising Stationary Engineer at the time designated on the permit.
- 2. Before a "hot work" permit is issued, the work area shall be surveyed by the Supervising Stationary Engineer to determine if the area is free from combustible or hazardous materials and that adjacent equipment and operations are considered safe from any effects of the work.
- 3. All job sites involving "hot work" shall have a portable fire extinguisher of appropriate size and type at hand in the event an accidental fire is started. If the Supervising Stationary Engineer deems it necessary, a separate fire watch shall be maintained during the course of any "hot work."
- 4. The Supervising Stationary Engineer shall write on the back of the permit any special conditions that must be met before the work proceeds. The permit is to be displayed in an open and prominent location at the job site.
- 5. No "hot work" shall be performed on natural gas or oxygen lines unless the lines have been isolated, purged, and inspected by the Supervising Stationary Engineer and a permit has been issued for the work.
- 6. During the course of all maintenance and contractor work, the job site shall be kept free of combustible material when "hot work" is in progress. This includes volatile and hazardous liquids which when in the presence of heat will give off combustible or toxic vapors.

Implementation: 5/95 Reviewed and Approved by: Director of Engineering

Date:

<mark>5/98, 5/01, 5/04,</mark> <mark>2/06</mark>,02/09,01/12 7. No welding of flame cutting of ventilation ducts shall be permitted under any circumstances.



# HOT WORK PERMIT

The supervisor, in issuing this permit, certifies that all safety factors have been considered and cared for satisfactorily.

Return this permit upon completion of the job which it is to cover to the authorizing supervisor. The supervisor will write "complete", date and initial across the face of the permit.

#### **AREA OF HOT WORK:**

#### WORK TO BE DONE:

		YES	NO	NA
1.	Read the Hot Work Permit Procedure.			
2.	Work area and equipment has been made free of flammable, combustible, and hazardous materials.			
3.	Gas Test taken.			
4.	Is a fire extinguisher on the job?	<del></del>		
5.	Smoke alarms covered?	1.2001 (. <u>1.</u> 1.101		
6.	Lines disconnected and/or blanked?	and the state of the		
7.	is a fire watch provided?			-
8.	Adjoining equipment and operations considered ok from standpoint of possible effect on the job.			
<del>9</del> .	Other necessary precautions. SPECIFY:			

### APPROVAL

÷

APPROVED BY:\_

I have personally checked the conditions necessary and as specified. I authorize this "Hot" work to begin.

DATE: TIME:

HOT WORK PERMIT IS GOOD FOR \_\_\_\_\_HOURS ONLY.

THIS PERMIT CAN BE ISSUED FOR ONLY ONE SHIFT, IT BECOMES VOID AT THE END OF WORK SHIFT DAY.

#### DEPARTMENT OF PUBLIC WORKS SAN MATEO MEDICAL CENTER FACILITIES & ENGINEERING DEPARTMENT PHONE : (650) 573 2529 FAX : (650) 573 2027

### UTILITY SYSTEM SHUTDOWN NOTICE MUST BE SUBMITTED AT LEAST 3DAYS (72 HOURS) PRIOR TO SHUTDOWN

System :

Location/Building :

**Reason for Shutdown:** 

Date & Time of Work To Be Performed :

Areas Affected :

System Shutdown Sequence :

Name & Contact of the Person Requesting :

Name & Contact of the Responsible Person/Contractor :

Name of the Engineering Staff Assigned :

Shutdown Approved By :

**Director of Engineering :** 

**Supervising Stationary Engineer :** 

Notifications Made to the Departments :

E-mail:

Shutdown Notice Posted :

Note: Fire Alarm System Shutdown should be coordinated with PBX and Cal-Security. Keller Center to be notified before any strobes and chimes are tested.

SUBJECT:	FIRE WATCH PROTOCOL
DEPARTMENT:	FACILITIES AND ENGINEERING
AUTHOR:	DIRECTOR OF ENGINEERING

### POLICY

The Fire Watch Protocol will be initiated when the Fire Alarm and/or Sprinkler System malfunctions. This policy is applicable to medical all health and hospital facilities including the San Mateo Medical Center, Burlingame Long Term Care and Off-site clinics.

### PURPOSE

To initiate appropriate action to ensure the safety and well being of the patients, residents, staff and visitors in the event of the Fire Alarm and/or Sprinkler System malfunctioning. Once the fire alarm and/or sprinkler system malfunction has been detected, the Fire Marshall and Facility Engineer will be notified. The Facility Engineer will immediately begin the investigation and repair the malfunction.

### PROCEDURE

Every hour the designated person on duty will monitor the building by walking the unoccupied and occupied areas to check for the following conditions and complete the fire watch log. The designated personnel include security, engineering, and nursing supervisor staff that are knowledgeable and are trained to perform the fire watch functions.

- 1. Hallways, patient/resident rooms, mechanical/electrical spaces, roofs and unoccupied are free of fire hazards, combustibles or any other conditions that could develop into a fire hazard
- 2. Minimum clearances are maintained on hallways and exit pathways
- 3. Fire Extinguishers are full and dates are current
- 4. Malfunctioning equipment and supplies are out of service and labeled
- 5. Resident smoking confined to the smoking patio only and adherence to county/hospital smoking policy
- 6. Wall checked for hot spots
- 7. All areas checked for signs of smoke and/or combustion

The Fire Watch Protocol will be maintained until the Fire Marshall has given clearance.

Implementation: 5/95 Reviewed and Approved by: Director of Engineering

Date:

<mark>5/98, 5/01, 5/04, 2/06</mark>, 06/09,06/12

## FIRE WATCH LOG

Date	Time	Location	Comments	Signature
· · · · · · · · · · · · · · · · · · ·				
	- · · · · · · · · · · · · · · · · · · ·			
			· ·	
L				

Note: Check mark in location column indicates that all areas have been checked per the policy and procedure

### CONSTRUCTION RELATED TRAINING TO STAFF AND CONTRACTORS

- 1. Check in with Security Department/name tag
- 2. Exits
- 3. Emergency codes
- 4. Code Blue buttons and Nurse Call buttons
- 5. Fire alarm procedure
- 6. Location of Fire Extinguishers
- 7. Emergency phone number 2121
- 8. Paging number 3775
- 9. Smoking policy

Department -----

Contractor -----

Date -----

Staff Trainer-----

### LIFE SAFETY DEFICIENCY RELATED STAFF TRAINING

- 1. Unit Concept Defend In Place/"RACE"
- 2. Exits/Evacuation Procedure
- 3. Emergency codes
- 4. Fire alarm procedure
- 5. Location of Fire Extinguishers
- 7. Emergency phone number 2121
- 8. Paging number 3775
- 9. Smoking policy
- 10. Interim Life Safety Measures (ILSM) # (s) ------
- 11. Fire Safety Module Annual Training:

-Yes/No -Completed Date-----

Department -----

Date -----

Staff Trainer-----

Existing Significant Life Safety Deficiencies or	ILSM	ILSM	ILSM	ILSM	ILSM	ILSM									
<b>Conditions as a Result of Construction</b>	#1	# 2	# 3	# 4	# 5	# 6	#7	# 8	# 9	# 10	# 11	# 12	#13	# 14	#15
CODE DEFICIENCY															ļ
Problem with fire or smoke doors (latching etc.)							X	X	X		X	X	X		
Fire or smoke barriers with numerous unprotected								Х	X		X	X	X		
penetrations															
Missing or incomplete fire or smoke barriers							X	Х			X	X	X		X
Missing or impaired NFPA 101 required fire or smoke								Х					X		
damper															ļ
Fire alarm & sprinkler system impaired > 4 hours					X			X					X		
Hazardous use areas not properly separated from								X	X			X			
corridors															
Obstructed exit or exit discharge								X							ļ
Fire exit stairs discharge improperly			X				X	X		X			X	X	X
Excessive travel distance to an approved exit								X	X		X	X			
Lack of two remote exits								X	X		X	X	X		X
Nonconforming building construction type							X	Х	X	X		X		X	
Corridor walls do not extend to the structure								Х	X		X	X	X		
CONSTRUCTION/RENOVATION ISSUES															
Temporary relocation of exits to accommodate work	X							Х			X				
Obstructed exit or exit discharge	X							X			X			X	
Major renovation of an occupied floor	X			X		X	X	X	X		X	X	X		
Fire or smoke barriers with unprotected penetrations								X					X		
Fire alarm & sprinkler system impairment > 4 hours					X		X	X	X					X	
Accumulation of combustibles and/or materials		X				X	X	X							
Temporary construction doors not latching or missing								X	X			X		X	
hardware								·							
Activity involving ignition sources (welding, torching)							X	Х	Х						
Exterior construction work	X	X						X				X		X	
Replacing fire alarm system (out-of-service)			X	X	X			X	X	X		X			X
Installing sprinkler system (out-of-service)			X	X	X		X	X	X	Х		X			
Significantly modifying smoke or fire barrier walls						X		X	X		X	X	X		
Adding an addition to an existing structure	X	X	X	X		X		X		X				X	X
MAINTENANCE AND TESTING				1											
Taking a fire alarm system out-of-service			X	X	X			X							X
Taking a sprinkler system out-of-service			X	X	X			X							X
Disconnecting alarm devices			X		X			X			X				
		1			1										
	1														
· · · · · · · · · · · · · · · ·	1		1	1	1					· · · · ·	1				