

**SECTION 01061**  
**OSHA REQUIREMENTS - SAFETY AND HEALTH REGULATIONS**  
**INFECTION CONTROL GUIDELINES**  
**VAMC Salisbury North Carolina**

**PART 1 - OSHA REQUIREMENTS**

**1.1 GENERAL**

- A. Contractors are required to comply with the Occupational Safety and Health Act of 1970. This will include the safety and health standard found in CFR 1910 and 1926. Copies of those standards can be acquired from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20420
- B. Training:
  - 1. Beginning January 1, 2005, all employees of general contractor or subcontractors shall have the 10-hour OSHA certified Construction Safety course and /or other relevant competency training, as determined by VA CP with input from the ICRA team.
  - 2. Submit training records of all such employees for approval before the start of work.
- C. In addition, Contractor will be required to comply with other applicable Medical Center policies and safety regulations. These policies and regulations will be presented to the Contractor at the pre-construction meeting. Each of the Contractor's employees will be required to read the statement of policies and regulations and sign an acknowledgment that such policies and regulations are understood. Signed acknowledgment will be returned to the Project Superintendent.
- D. Contractors involved with the removal, alteration, or disturbance of asbestos type insulation or materials will be required to comply strictly with the regulations found in CFR 1910.1001 and the appropriate EPA regulations regarding disposal of asbestos. Assistance in identifying asbestos can be requested from the Medical Center's Industrial Hygienist and the Project Engineer.
- E. Contractors entering locations of asbestos contamination (i.e. pipe basements) shall be responsible for providing respiratory protection as required to their employees and ensuring respirators are worn in accordance with OSHA (CFR 1910.1001 (g)). Asbestos contaminated areas shall be defined on project drawings. The minimum equipment requirements will be a half-mask air-purifying respirator equipped with high efficiency filters and disposable Tyvek coveralls.
- F. Contractor, along with other submittals, and at least two weeks prior to bringing any materials on-site, must submit a complete list of chemicals the Contractor will use and MSDS for all hazardous materials as defined in OSHA 1910.1200 (d) Hazard Determination. Contracting Officer shall have final approval of all materials brought on site.
- G. The Medical Center Safety and Occupational Health Specialist will closely monitor all safety aspects of the project. Severe or constant violations may result in an immediate work stoppage or request for a Compliance Officer from the Occupational Safety and Health Administration.
- H. During all phases of demolition, construction and alterations, Contractors are required to understand and strictly follow NFPA 241 Standard for Safeguarding Construction,

Alteration and Demolition Operations. The Medical Center's Safety and Occupational Health Specialist and Industrial Hygienist will closely monitor the work area for compliance. Appropriate action will be taken for non-compliance.

## PART 2 - SPECIFIC VA MEDICAL CENTER FIRE & SAFETY POLICIES, PROCEDURES & REGULATIONS

### 2.1 INTRODUCTION

- A. The safety and fire protection of patients, employees, members of the public and government is one of continuous concern to this Medical Center.
- B. Contractors, their supervisors and employees are required to comply with Medical Center policies to ensure the occupational safety and health of all. Failure to comply may result in work stoppage.
- C. While working at this Medical Center, Contractors are responsible for the occupational safety and health of their employees. Contractors are required to comply with the applicable OSHA standards found in 29 CFR 1910 for general industry and 29 CFR 1926 for construction. Failure to comply with these standards may result in work stoppage and a request to the Area Director of OSHA for a Compliance Officer to inspect your work site.
- D. Contractors are to comply with the requirements found in the National Fire Protection Association (NFPA) #241, Building Construction and Demolition Operations and NFPA #51B, Fire Prevention in Use of Cutting and Welding Processes.
- E. Questions regarding occupational safety and health issues can be addressed to the Medical Center Safety and Occupational Health Specialist or the Medical Center Industrial Hygienist.
- F. Smoking is not permitted in any interior areas of the Medical Center, including all interior stairwells, tunnels, construction and/or service/maintenance sites. (Note: This includes interior posted patient smoking areas). Compliance with this policy by your direct and subcontracted labor force is required.

### 2.2 HAZARD COMMUNICATION

- A. Contractors shall comply with OSHA Standard 29 CFR 1926.59 Hazard Communication.
- B. Contractors shall submit to the VA Safety and Occupational Health Specialist, copies of Material Safety Data Sheets covering all hazardous materials to which the Contractor and VA employees are exposed.
- C. Contractors shall inform VA Safety and Occupational Health Specialist personnel of the hazards to which VA personnel and patients may be exposed.
- D. Contractors shall have a written Hazard Communication Program, which details how the Contractor will comply with 29 CFR 1926.59.

### 2.3 FIRES

All fires must be reported. In the event of a fire in your work area, use the nearest pull box station and also notify Medical Center staff in the immediate area. Emergency notification can also be accomplished by dialing ext. 3333.

This is the emergency phone only. Be sure to give the exact location from where you are calling. If a Contractor has experienced a fire and it was rapidly extinguished, you still must notify the Medical Center Safety Staff immediately (ext. 3333) such that an investigation of the fire can be accomplished. Delay in reporting a fire is unacceptable.

## 2.4 FIRE ALARMS, SMOKE DETECTION AND SPRINKLER SYSTEM

If the nature of your work requires the deactivation of the fire alarm, smoke detection or sprinkler system, you must notify the Resident Engineer and Medical Center Safety Staff. Notification must be made well in advance such that ample time can be allowed to deactivate the system and provide alternative measures for fire protection. Under no circumstance is a Contractor allowed to deactivate any of the fire protection systems in this Medical Center.

## 2.5 SMOKE DETECTORS

False alarms will not be tolerated. You are required to be familiar with the location of the smoke detectors in your work area. When performing cutting, burning or welding or any other operations that may cause smoke or dust, you must take steps to temporarily cover smoke detectors in order to prevent false alarms and maintain cleanliness of the smoke detectors. Failure to take the appropriate action will result in the Contracting Officer assessing actual costs for government response for each false alarm that is preventable. Prior to covering the smoke detectors, the Contractor will notify the VAMC Safety Staff, who will also be notified when the covers are removed at a minimum at the end of each work day.

## 2.6 HOT WORK PERMIT

- A. Hot work is defined as operations including, but not limited to, cutting, welding, thermal welding, brazing, soldering, grinding, thermal spraying, thawing pipes, or any similar situation. If such work is required, the Contractor must notify the Resident Engineer no less than one day in advance of such work. The VAMC Safety Staff will inspect the work area and issue a Hot Work Permit authorizing the performance of such work.
- B. All hot work will be performed in compliance with NFPA 241, Safeguarding Construction, Alteration, and Demolition Operations, and NFPA 51B, Fire Prevention in Use of Cutting and Welding Processes, and applicable OSHA standard. A hot work permit will only be issued to individuals familiar with these regulations.
- C. A hot work permit will only be issued when the following conditions are met:
  1. Combustible materials are located a minimum of 35 feet from the work site, or protected by flameproof covers or shielded with metal or fire-resistant guards or curtains.
  2. Openings or cracks in walls, floors, or ducts within 35 feet of the site are covered to prevent the passage of sparks to adjacent areas.
  3. Where cutting or welding is done near walls, partitions, ceiling, or roof of combustible construction, fire resistant guards or shields are provided to prevent ignition.

4. Cutting or welding on pipes or other metal in contact with combustible walls, ceilings or roofs is not undertaken if the work is close enough to cause ignition by conduction.
  5. Fully charged and operable fire extinguishers, appropriate for the type of possible fire, are available at the work area.
  6. When cutting or welding is done in close proximity to a sprinkler head, a wet rag is laid over the head during operation.
  7. Assure that nearby personnel are protected against heat, sparks, cut off, etc.
  8. Assure that a fire watch is at the site. Make a final check-up 30 minutes after completion of operations to detect and extinguish any smoldering fires.
- D. A fire watch shall be provided by the Contractor whenever cutting, welding, or performing other hot work. Fire watcher(s) shall:
1. Have fire-extinguishing equipment readily available and be trained in its use.
  2. Be familiar with facilities and procedures for sounding an alarm in the event of fire.
  3. Watch for fires in all exposed areas, sound the fire alarm immediately, and try to extinguish only within the capability of the portable extinguishing equipment available. In all cases if a fire is detected the alarm shall be activated even if the fire is extinguished.
  4. Maintain the watch for at least a half-hour after completion of operations to detect and extinguish smoldering fires.
- E. A Hot Work Permit will be issued only for the period necessary to perform such work. In the event the time necessary will exceed one day, a Hot Work Permit may be issued for the period needed; however, the VAMC Safety Staff will inspect the area daily. Hot work permit will apply only to the location identified on the permit. If additional areas involve hot work, then additional permits must be requested.
- F. Contractors will not be allowed to perform hot work processes without the appropriate permit.
- G. Any work involving the Medical Center's fire protection system will require notification of the VA Safety Staff and Resident Engineer. Under no circumstances will the Contractor or employee attempt to alter or tamper with the existing fire protection system.
- H. Upon completion of all hot work, the VA Safety Staff will be notified to perform an inspection of the area. It is recommended that the inspection take place approximately 30 minutes after the hot work is completed to confirm that sparks or drops of hot metal are not present.

## 2.7 TEMPORARY ENCLOSURES

Only non-combustible materials will be used to construct temporary enclosures or barriers at this Medical Center. Plastic materials and fabrics used to construct dust

barriers must conform to NFPA #701, Standard Methods of Fire Tests for Flame-Resistant Textiles and Films.

## 2.8 FLAMMABLE LIQUIDS

All flammable liquids will be kept in approved safety containers. Only the amount necessary for your immediate work will be allowed in the building. Flammable liquids must be removed from the building at the end of each day.

## 2.9 COMPRESSED GAS CYLINDERS

Compressed gas shall be secured in an upright position at all times. A suitable cylinder cart will be used to transport compressed gas cylinders. Only those compressed gas cylinders necessary for immediate work will be allowed in occupied buildings. All other will be stored outside of buildings in a designated area. Contractor will comply with applicable standards compressed gas cylinders found in 29 CFR 1910 and 1926 (OSHA).

## 2.10 INTERNAL COMBUSTION ENGINE-POWERED EQUIPMENT

Equipment powered by an internal combustion engine such as saws, compressors, generators and etc. will not be used in an occupied building. Special consideration may be given for unoccupied buildings only if the OSHA and NFPA requirements have been met.

## 2.11 POWDER ACTIVATED TOOLS

Powder activated tools will be kept in a secured manner at all times. When not in use, the tools will be locked up. When in use, the operator will have the tool under his immediate control.

## 2.12 TOOLS

- A. Under no circumstances is equipment, tools and other items of work to be left unattended for any reason. All tools, equipment and items of work must be under the immediate control of your employee.
- B. If for some reason a work area must be left unattended, then it will be required that tools and other equipment be placed in an appropriate box or container and locked. All toolboxes, containers or any other device used for the storage of tool and equipment, will be provided with a latch and padlock. All tool boxes, containers or any other device used for the storage of tools and equipment, will be locked at all times except for putting in and removing tools.
- C. All doors to work areas will be closed and locked when room are left unattended. Failure to comply with this directive will be considered a violation of VA Regulations 1.218 (b), Failure to comply with signs of a directive and restrictive nature posted for safety purposes, subject to a \$50.00 fine. Subsequent similar violations may result in both imposition of such a fine as well as the Contracting Officer taking action under the Contract's Accident Prevention Clause (FAR 52.236-13) to suspend all contract work until violations such may be satisfactorily resolved or under FAR 52.236-5 Material and Workmanship Clause to remove from the work site any personnel deemed by the Contracting Officer to be careless to the point of jeopardizing the welfare of Facility patients or staff.

- D. You must report to the VA Police Department, Ext. 3333, any tools or equipment that are missing.
- E. Tools and equipment found unattended will be confiscated and removed from the work area.

#### 2.13 LADDERS

It is required that ladders not be left unattended in an upright position. Ladders must be attended at all times or taken down and chained securely to a stationary object.

#### 2.14 SCAFFOLDS

All scaffolds will be attended at all times. When not in use, an effective barricade (fence) will be erected around the scaffold to prevent use by unauthorized personnel.

#### 2.15 EXCAVATIONS

All excavations left unattended will be provided with a barricade suitable to prevent entry by unauthorized persons.

#### 2.16 STORAGE

You must make prior arrangements with the Project Inspector for the storage of building materials. Storage will not be allowed to accumulate in the Medical Center buildings.

#### 2.17 TRASH AND DEBRIS, CLEANING

You must remove all trash and debris from the work area and perform at least general cleaning on a daily basis. Trash and debris will not be allowed to accumulate inside or outside of the buildings. You are responsible for making arrangements for removal of trash from the Medical Center facility.

#### 2.18 PROTECTION OF FLOORS

It may be necessary at times to take steps to protect floors from dirt, debris, paint, etc. A tarp or other protective covering may be used. However, you must maintain a certain amount of floor space for the safe passage of pedestrian traffic. Common sense must be used in this matter.

#### 2.19 SIGNS

Signs must be placed at the entrance to work areas warning people of your work. Signs must be suitable for the condition of the work. Small pieces of paper with printing or writing are not acceptable. The VAMC Safety Officer can be consulted in this matter.

#### 2.20 ACCIDENTS AND INJURIES

Contractors must report all accidents and injuries involving your employees. The Contractor may use the VAMC for emergency care only.

#### 2.21 CONFINED SPACE ENTRY

- A. Contractor will be informed that the workplace contains permit required confined space and that permit space entry is allowed only through compliance with a permit space program meeting the requirements of 29 CFR 1910.146 and 1926.21 (b)(6).
- B. Contractor will be apprised of the elements including the hazards identified and the Medical Center's (last employer) experience with the space that makes the space in question a permit space.
- C. Contractor will be apprised of any precautions or procedures that the Medical Center has implemented for the protection of employees in or near permit space where Contractor personnel will be working.
- D. Medical Center and Contractor will coordinate entry operations when both Medical Center personnel and Contractor personnel will be working in or near permit spaces as required by 29 CFR 1910.146 (d)(ii) and 1926.21 (b)(6).
- E. Contractor will obtain any available information regarding permit space hazards and entry operation from the Medical Center.
- F. At the conclusion of the entry operations the Medical Center and Contractor will discuss any hazards confronted or created in permit spaces.
- G. The Contractor is responsible for complying with 29 CFR 1910.246 (d) through (g) and 1926.21 (b)(6). The Medical Center, upon request, will provide rescue and emergency services required by 29 CFR 1910.246 (k) and 1926.21 (b)(6).

## 2.22 CONTRACTOR PARKING

There will be no parking on the grass or Contractor vehicle parking at work sites. Contractors will deliver supplies, tools etc., drop them off at the work site, return their vehicles to the designated project parking area. The designated parking area is as noted on the project plans or in the specifications. Under no circumstances will the contractor park in designated patient parking areas.

## 2.23 SMOKE BARRIER PENETRATION PERMIT (See Attachment D)

Contractor shall obtain smoke barrier penetration permit from Medical Center Safety Office prior to penetration of any defined smoke barrier. Comply with Medical Center policies and requirements for this work.

## 2.24 CONTRACT HEALTH ASSESSMENT

Any contracted individual who will be working in patient care areas (or with persons who provide direct patient care), or working closely with other employees, or with patient care items, MUST provide documentation of the following:

- PPD Skin Test – results from the last three months will be accepted. If PPD is positive, the individual MUST provide documentation of the absence of active TB (Chest X-ray).
- Hepatitis B immunization, or declination – those contracted individuals who will have contact with blood, body fluids, or other potentially infectious materials MUST provide documentation of a Hepatitis B Vaccination series or declination.
- Documentation of Bloodborne Pathogen Training must be maintained.

It is the contractor's responsibility to provide documentation of all the above prior to starting work. Copies of the documentation are to be maintained with the project/contract files. The Contracting Officer and Resident Engineer should be notified of any changes in individual status with appropriate documentation. In the event of an exposure, it is required that the contractor (employer) has a plan that must be followed to protect the individual contract worker. Records must be maintained as required by CFR 1910.1030.

## 2.25 ASBESTOS WORK AND OTHER HAZARDOUS MATERIAL ABATEMENT

Contractor shall follow all contract requirements for work with asbestos and other hazardous materials abatement. Contractor is responsible for submitting all waste manifests to show proper disposal of materials prior to completion of project.

W. G. (BILL) HEFNER VA MEDICAL CENTER  
SALISBURY, NORTH CAROLINA

---

MEDICAL CENTER MEMORANDUM 659-138-25

DECEMBER 30, 2010  
**CHANGE 1**

---

PROJECT DEVELOPMENT AND IMPLEMENTATION

---

1. PURPOSE: To establish medical center policy and procedure for the development of construction projects to ensure compliance with all applicable code and VA requirements and implementation that provides necessary aspects of the project scope in a cost effective manner.

2. POLICY:

a. It is the policy of the Salisbury VA Medical Center (SVAMC) to design projects that comply with VA Construction Standards, VA Barrier-Free Design Handbook, Life Safety Code, Uniform Plumbing Code, VA HVAC Design Criteria, Uniform Building Code, Local Building Codes, National Fire Protection Association (NFPA) Codes and medical center Infection Control Policy.

b. All designs for new construction will include accessibility to parking lots, including reserved parking. All SVAMC buildings will have at least one entrance/exit that is accessible to the handicapped. This includes, but is not limited to, handicap ramps, automatic doors or doors with appropriate hardware to render them accessible to the handicapped, Braille signage, tactile warning strips and handrails.

c. The SVAMC will also provide handicap accessibility to all public areas, amenities, and elevators.

3. RESPONSIBILITY:

a. Project Design (Development Phase):

(1) Requesting services will provide project scope input prior to and during the design phase, which will incorporate criteria and special requirements for equipment and procedures related to the design area. Upon completion of the design, the using service chief will sign the design drawing.

(2) Project design staff, including architect/engineering (A/E) firms, shall certify to the Chief, Facilities Management Service (FMS) that all applicable codes have been met by initialing the "Drawn By" and "Checked By" blocks on the project drawings. When a project is designed or developed for construction that impacts life safety or fire protection with greater than 50% of the work involving fire safety improvements or changes, the A/E for the design must have a Fire Protection Engineer or staff who is a qualified professional with knowledge of NFPA Fire Codes in accordance with VHA

Directive 2005-007, Fire Code Reviews Of Delegated Construction Projects, dated February 15, 2005. A/E firms shall also apply their seals.

(3) The project design staff will review the H-08-13 "Checklist for Barrier Free Design" and other design criteria to assure projects are designed to eliminate all deficiencies. Special attention shall be paid to new parking areas, building entrances, public amenities, and elevators. The project design staff and an Infection Control representative will perform an infection control assessment and complete associated checklists (see Attachment B) using the Infection Control Guidelines (see Attachment A).

(4) Chief, FMS shall be responsible for certifying that each project complies with the appropriate codes.

(5) Copies of the approved drawings and specifications are prepared for the CO, so that the construction phase may be accomplished.

b. Project Construction (Implementation Phase):

(1) After contract award the Contracting Officers Technical Representative (COTR) will participate in the pre-construction conference held with the CO, the contractor, Infection Control representative, Safety representative, Maintenance and Operations representative and a representative from the requesting service. In this meeting the COTR will provide the contractor with information regarding safety regulations, permit requirements for welding/open flame devices and confined space entry, policies on parking, identification badges, door keys, smoking, hazardous materials and waste management, fire safety and prevention and control of infection. Additionally the contractor will receive samples of a safety letter, cost breakdown, progress schedule graph, daily log, progress payment request form and payroll sheet, as well as a construction fire safety checklist and an infection control checklist (Attachment C).

(2) Prior to beginning construction activities, the COTR, along with an Infection Control representative, will complete an infection control risk assessment, and, where indicated by the assessment, an infection control construction and pre-occupancy checklist (Attachment A). These documents will be used throughout the construction phase to assure compliance with infection control requirements.

(3) Prior to beginning construction activities, the COTR and a Safety representative will complete a safety assessment, and, where indicated by the assessment, develop interim life safety measures to be used throughout the construction phase to assure compliance with the Life Safety Code. Interim Life Safety Measures are to be developed if at any time the effectiveness of the fire protection system is decreased.

(4) During the construction phase, the COTR will make regular site visits to assure compliance with the drawings and specifications and all safety and infection control



1. All renovation or construction projects will be reviewed with Infection Control during the planning phases.
2. Infection Control will participate in meetings and area walk-through inspections as necessary.
3. All construction workers, including subcontractors, and Facilities Management employees, must follow the infection control procedures as described in the guideline.
4. Appropriate pre-employment screening must be completed prior to starting work in clinical areas.

## CONSTRUCTION PHASE

### 1. Medical Waste

- a. Hospital staff shall ensure the removal of any medical waste, including sharps containers, from areas to be renovated or constructed PRIOR to the start of the project.
- b. Infection Control shall be notified by Facilities Management staff immediately if unexpected medical waste is encountered.

### 2. Barrier Walls

Construction or renovation sites must be separated from patient-care areas and critical areas such as SPD and Pharmacy by barriers that keep the dirt and dust inside the worksite.

- a. The integrity of the barrier walls must assure a complete seal of the construction area from adjacent areas.
- b. Rigid construction or fire-rated plastic sheeting (4 or 6 mil thickness) are used, depending on the location of the project, adjacent uses, and duration of the project.
- c. Walls will be dustproof with airtight seals maintained at the full perimeter of the walls as well as all penetrations.

### 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. A HEPA (High Efficiency Particulate Accumulator) filter vacuum system rated at 95% capture of 0.3 microns (effective for pollen, mold spores, and dust particles) shall be installed to insure continuous negative air pressures within the work area. There should be no recirculation of air, and ventilation filters will be changed as needed.
- b. Demolition debris will be removed from the construction area in tightly fitted covered carts using specified traffic patterns daily.
- c. Tacky or walk-off mats shall be utilized immediately outside the construction zone to remove dust and soil from shoes, cart wheels, etc. as personnel exit the area. The tacky mat must be large enough to cover the entire exit and is changed whenever necessary, usually at least twice per day.
- d. Exterior window seals must minimize infiltration of outside excavation debris. Windows will remain closed at all times.

e. When using demolition chutes, chute openings must be sealed when not in use. The chute and damper should be sprayed with water, as necessary, to maintain dust control.

f. Control, collection and disposal must be provided for any drain liquid or sludge encountered when demolishing plumbing.

#### 4. Traffic Control

a. Designated entry and exit procedures will be defined (in conjunction with any necessary Interim Life Safety Measures) 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

a. The construction zone and adjacent entry areas shall be maintained in a clean and sanitary manner by the contractors and will be swept and wet mopped daily or more frequently as needed to minimize dust generation.

b. Environmental Management Service may 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. Specific responsibility will be defined in the construction contracts.

#### 6. Personnel Requirements

a. Clothing shall be free of loose soil and debris upon exiting the construction zone.

b. Personal protective equipment, including face shield, gloves, and N95 respirators will be utilized as appropriate.

c. Personnel 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.

1) Tools and equipment must be damp-wiped prior to entry and exit from sterile and invasive procedure areas.

2) Tools and equipment soiled with blood and body fluids will be cleaned with an approved germicide.

d. All contractors, subcontractors and Facilities Management employees shall receive infection control training as it relates to construction.

## 7. Environmental Monitoring

a. Infection Control, in conjunction with Facilities Management and Safety, will plan for environmental monitoring as appropriate for the project.

### COMPLETION PHASE

1. After completion of construction, ventilation will meet specifications as mandated by regulatory bodies.
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 in service. Infection Control shall be notified prior to the flushing.
4. Industrial Hygiene shall certify that water supply lines are safe for use.

### COMPLIANCE MONITORING

1. Medical Center staff (Contracting Officer (COTR), Safety Representative and Infection Control) and the contractor will conduct compliance monitoring as necessary. The following parameters may be monitored:

- a. Air handling
- b. Integrity of barrier walls
- c. Dress code
- d. Environmental control
- e. Traffic control
- f. Personal protective equipment
- g. Water supply

Attachment B

W.G. 'BILL' HEFNER VETERANS AFFAIRS MEDICAL CENTER  
June 2004

RISK ASSESSMENT MATRIX: IC GUIDELINES FOR CONSTRUCTION			
CLASS	CONSTRUCTION ACTIVITY	RISK	PRECAUTIONS REQUIRED

CLASS I	<p>Type A: Inspection and Non-Invasive Activities.</p> <p>Includes, but is not limited to:</p> <ol style="list-style-type: none"> <li>1. Small scale removal of ceiling tiles for visual inspection or minor installation.</li> <li>2. Painting (but not sanding).</li> <li>3. Wallcovering, electrical trim work, minor plumbing, and activities that do not generate dust or require cutting of walls.</li> </ol>	<p>Low or Moderate Risk Patients Only High Risk Requires Class II Precautions</p>	<ol style="list-style-type: none"> <li>1. Execute work by methods to minimize raising dust from construction operations.</li> <li>2. <b>Immediately replace a ceiling tile displaced for visual inspection.</b></li> </ol>		
CLASS II	<p>Type B: Small scale, short duration activities that create minimal dust.</p> <p><b>Includes, but is not limited to:</b></p> <ol style="list-style-type: none"> <li>1. <b>Access to chase spaces.</b></li> <li>2. <b>Cutting of walls or ceiling where dust migration can be controlled.</b></li> </ol>	<p>Low or Moderate Risk Patients Only High Risk Requires Class III Precautions</p>	<ol style="list-style-type: none"> <li>1. Notify staff in the immediate area.</li> <li>2. Provide active means to prevent airborne dust from dispersing into air.</li> <li>3. Water mist work surfaces while cutting.</li> <li>4. Seal unused doors with duct tape.</li> <li>5. Block off and seal air vents.</li> <li>6. Place dust mat at entrance/exit of area.</li> <li>7. Contain construction waste before transport in tightly covered containers.</li> <li>8. <b>Upon completion, wipe work surfaces with disinfectant, wet mop and/or vacuum and remove isolation of HVAC system.</b></li> </ol>		
CLASS III	<p><b>Type C: Work that generates a moderate to high level of dust or requires demolition or removal of any fixed building components and assemblies or new construction.</b></p> <p>Includes, but is not limited to:</p> <ol style="list-style-type: none"> <li>1. Sanding of walls for painting or wall covering.</li> <li>2. Removal of floor coverings, ceiling tiles, and casework.</li> <li>3. New wall construction.</li> <li>4. Uncontained duct, HVAC or electrical work above ceiling.</li> <li>5. Major cabling activities.</li> <li>6. Any other project where high levels of dust are generated.</li> </ol>	<p><b>Moderate or High Risk Patients only Low Risk Requires Class II Precautions</b></p>	<p>In addition to Class II Precautions above,</p> <ol style="list-style-type: none"> <li>1. Obtain IC concurrence before construction begins.</li> <li>2. Complete all critical barriers, i.e., sheetrock, plywood, plastic, to seal from non-work area or implement control cube method (cart with plastic covering/sealed connection to work site with vacuuming prior to exit) before construction begins.</li> <li>3. Isolate HVAC system in area and maintain negative air pressure within work site.</li> <li>4. Cover transport receptacles or carts.</li> <li>5. Seal holes, pipes, conduits, and punctures.</li> <li>6. Personnel required to ensure shoes are not tracking when leaving the work site.</li> <li>7. Upon completion, do not remove barriers until inspected by Safety and IC and thoroughly cleaned by FMS. Remove barrier materials carefully to minimize spreading of dirt and debris.</li> </ol>		
<b>PATIENT RISK GROUP</b>					
<b>Low Risk Group</b>		<b>Medium Risk Group</b>		<b>High Risk Group</b>	
<p><b>Administrative Offices</b> Lobbies Public Corridors Elevators Day Rooms Canteen Retail Store</p>		<p><b>Outpatient, Urgent Care and Primary Care Clinics</b> Laboratory Radiology and Nuclear Medicine Physical Therapy Respiratory Therapy Pharmacy Food Services Interim Care and Medical Units</p>		<p>SPD Storage/Sterilization Intensive Care Units TB Negative Pressure isolation rooms Operating Room</p>	

W.G.'Bill' Hefner Medical Center

June 2007

<b>CONSTRUCTION RISK REDUCTION PLAN</b>			
Location of Construction: _____		Project Start Date:	
Contractor Performing Work:		Estimated Duration:	
√	<b>CONSTRUCTION ACTIVITY</b>		√
	Type A: Inspection, non-invasive, minor		Low Risk
<b>X</b>	Type B: Small scale, short duration, moderate levels.		<b>X</b> Medium Risk
	Type C: Major activity generates moderate to high levels of dust.		High Risk
√	<b>INFECTION CONTROL PRECAUTIONS</b>		
	<b>CLAS SI</b>	1. Execute work by methods to minimize raising dust from construction operations. 2. Immediately replace any ceiling tile displaced for visual inspection.	

<b>X</b>	<b>CLAS S II</b>	1. Provides 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. Place dust mat at entrance and exit of work area. 6. Contain construction waste before transport in tightly covered containers. 7. Upon completion, wipe work surfaces with disinfectant, wet mop and/or vacuum and remove isolation of HVAC system.
	<b>CLAS S III</b>	In addition to Class II Precautions above, 1. Obtain IC concurrence before construction begins. 2. Complete all critical barriers or implement control cube method before construction begins. 3. Control airflow: Isolate HVAC system in areas where work is being performed and maintain negative air pressure within work site. 4. Cover transport receptacles or carts.	5. Seal holes, pipes, conduits, and punctures appropriately 6. Personnel are required to ensure shoes are not tracking dust and soil when leaving the work site. 7. Upon completion, do not remove barriers until inspected by Safety and Infection Control and thoroughly cleaned by FMS. Remove barrier materials carefully to minimize spreading of dirt and debris.

**INTERIM LIFE SAFETY MEASURES**

√	CLASS	ACTIVITY	ILSM PRECAUTIONS
<b>X</b>	CLASS I	Minor: No breach of fire detection, alarm or fighting systems. No egress or access blockage.	None required beyond routine general safety precautions. Ensure egress. Ensure access for Emergency forces. Ensure operational Life Safety Systems. Prohibit smoking.
	CLASS II	Moderate: Short-term breach of fire detection, alarm or fighting systems < a single work shift. Blockage of egress or access but second means available.	In addition to Class I ILSMs, apply at-the-site measures. Notify staff in the immediate area. Control combustible loads. Repair/construction staff immediately available at the site. Compensate for compartmentalization deficiencies? Each single breach of fire barrier immediately replaced.
	CLASS III	Major: Multiple or continuous breach of fire detection, alarm or fighting systems. Blockage of egress or access. Work > a single shift.	In addition to Class I and II ILSMs, obtain Safety Manager concurrence before construction begins. Construct temporary smoke tight barriers of non-combustible materials. Provide additional fire fighting equipment. Designate alternative exit/access routes. Increase Hazard Surveillance. Provide additional education to applicable Medical Center Staff/Incident Response Team Conduct 2 fire drills per shift in local areas vs. all areas. Notify Emergency Forces.

Additional Requirements including air quality, noise, vibration, utility failure issues, ILSM, emergency procedures or other issues not addressed above: **CONTRACTOR WILL NEED TO ENSURE DEMOLITION DUST IS NOT BLOWN INTO BUILDINGS OR DUCT SYSTEMS.**

Exceptions/Additions to this permit. .

SIGNATURES:	Date:	Date:	Date:
Project Coordinator		Safety Manager	
Chief, FMS		Infection Control	



**Infection Control Program  
Construction Rounds Checklist**

**Project:** \_\_\_\_\_

<b>LOCATION</b>	<b>INFECTION CONTROL</b>
<b>1</b>	Monitor barrier for integrity and airflow from clean to dirty (Construction)
<b>2</b>	Demonstrate compliance with traffic patterns, both construction worker and debris/worker movement.
<b>3</b>	Floors free of visible track dirt in clinical corridors and support areas.
<b>4</b>	Demonstrate compliance with cover clothing.
<b>5</b>	Demonstrate use of equipment to prevent airborne particle material from migrating to patient care areas to include: portable HEPA filters, HEPA filtered vacuums, self-closing construction doors, or appropriate use of exhaust fans or debris chutes. Negative air pressure in construction site when indicated.
<b>6</b>	Doors closed to construction site and appropriate signage in place.
<b>7</b>	Demonstrate appropriate debris transport: covered cart, dedicated elevator, designated route, etc.
<b>8</b>	All windows, doors, and debris chutes to the outside are closed and secured after hours.
<b>9</b>	Carpet or other track dirt compliance aids (tacky mats) are in place at the doors leading to the hospital/clinic/support space. Housekeeping notified for "as needed" cleaning.
<b>10</b>	Water leakage must be handled in an emergent fashion in occupied areas. Immediate control of large leaks may necessitate drying. (<72 Hrs.)
<b>11</b>	Areas cleaned at the end of the day. Trash emptied in break area.
<b>12</b>	Pest control - No visible signs of mice, insects, birds, or squirrels or other vermin.
<b>13</b>	Roof protection in place for projects on the roof.

COMMENTS/CORRECTIVE ACTION:

---

---

---

---

---

---

---

---

---

---

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Attachment C

INFECTION CONTROL ORIENTATION  
CONSTRUCTION SERVICE WORKERS

*The goal of the Infection Control Program is to identify and reduce the risks of acquiring and transmitting infections among patients, employees, physicians and other licensed independent practitioners, contract service workers, volunteers, students and visitors. Pre-employment health screening may be required prior to beginning work in patient care or other designated high-risk areas.*

During construction, renovation and minor improvement projects, hidden infectious disease hazards may be released into the air, carried on dust particles or on clothing - for example, fungal organisms such as *Aspergillus*. *Aspergillus* species may be found in decaying leaves and compost, plaster and drywall, and settled dust. These organisms usually do not cause problems in healthy people, but may be a risk for already sick patients. *Aspergillus* and other fungal organisms can cause illness and even death in premature babies, transplant patients, cancer treatment patients, and patients with lung problems or poor immunity. Therefore, it is critical that you do your part to keep our patients, employees, and visitors as safe and healthy as possible. We, in turn, will make conditions as safe as possible for you.

1. Medical Waste:

- a. Environmental Management Services will remove any waste, including sharps containers (for used needles and syringes), from construction areas prior to the start of projects.
- b. If you (contract workers) find any needles, syringes, sharp medical objects. Do not touch them. Please notify the COTR, who will notify Infection Control.

2. Barrier Walls:

- a. The construction areas **MUST** be kept separated from patient care areas by barriers that keep the dust and dirt inside the worksite.
- b. The walls must provide a complete seal of the construction area from adjacent areas (walls may be rigid or 4 or 6 mil thickness plastic).

3. Environmental Control:

- a. Negative air pressure must be maintained within the construction area.
- b. Demolition debris is removed in tightly fitted covered carts - use specified traffic patterns.
- c. Sticky or walk-off mats are placed immediately outside the construction zone and changed whenever necessary to control the spread of dust and dirt.
- d. Exterior window seals are to be used to reduce the amount of outside excavation debris coming into the building.
- e. If demolition chutes are used, they must be sealed when not in use; the chute and damper should be sprayed with water, as necessary to maintain dust control.
- f. Control, collection and disposal must be provided for any drain liquid or sludge found when demolishing plumbing.

4. Traffic Control:

- a. Use designated entry and exit procedures.
- b. Keep all pathways free from debris.
- c. No unauthorized personnel should be allowed to enter construction areas.
- d. Use designated elevators only.

5. Cleaning:

- a. Keep the construction area clean on a DAILY basis.
- b. Dust and dirt **MUST** be kept to a minimum.

6. Workers:

- a. Clothing must be free of loose soil and debris when exiting the construction area.
- b. Use personal protective equipment (masks, face shields, etc.) as indicated for the task at hand.
- c. Handwashing is the best method of reducing the transmission of infection: always wash your hands with soap and water after visiting the restroom, before eating, and when leaving the construction site.

-END OF SECTION-

## Fire/ Smoke Barrier Penetration Permit WG (Bill) Hefner VA Medical Center

- I. **PURPOSE:** To provide guidance for maintenance and restoration of the integrity of all walls such: all smoke and fire barriers to include all pipe chases, floor slabs and corridor walls above and below the ceiling.
- II. **POLICY:** This SOP establishes the assurance that any time a penetration is made in any space {smoke barriers, fire barriers, pipe chases, OI&T closets, mechanical rooms {et-al}, floors and any walls above or below the ceiling} it shall be sealed to assure that smoke and fire will not spread to adjacent space. It is required by the NFPA Life Safety Code 101 that the integrity of all walls and floors are maintained to prevent the migration of smoke or fire. This includes all vertical {wall} and horizontal {floor} penetrations.
- III. **RESPONSIBILITIES:** - The responsibility of assuring that all walls and floors are free of penetrations lies collectively with Facilities Management Service (FMS), Office of Information and Technology (OI&T), Police Service. All will be responsible for assuring that when fire barriers and smoke barriers, floor and walls are breeched by work necessitating penetrations are to be sealed with approved fire caulk as listed in paragraph IV par "a" below.
  - a. *FMS, Police and OI&T:* – All walls and floors are to be considered as fire/smoke barrier partitions. If penetrations are made by *FMS, Police and OI&T* staff they must be sealed with approved fire caulking material to assure smoke and fire proof integrity at close of business. *FMS, Police and OI&T* will assure that this critical step is done. See Attach "A".
  - b. *Contractors* – All contractors who must perform work on fire/smoke barrier partitions et-al as indicated above are responsible to seal them with approved fire caulking material and assure smoke and fire integrity. See Attach "A".
  - c. *Contracting Officers Technical Representative (COTR)* – All FMS, OI&T, Police staffs who are COTR's on projects that necessitate the breeching of fire & smoke barriers shall have the duty of assuring that the vendors/contractors performing the work shall correctly seal all penetrations. The COTR responsible shall include this requirement in all projects at this Medical Center. See Attach "A".
- IV **PROCEDURES:** - Prior to making any penetrations, the individual performing the work will obtain the Barrier Penetration Permit from Safety. Any time construction requires penetration through a smoke or fire barrier, pipe chase any wall or floor in order to route conduit, communication cables, piping for various utilities through the barrier, this must be sealed with approved fire proofing material. Other materials such as fiber glass insulation, rock-wool insulation, drywall compound is not compliant. If the penetration is made in order to route conduit or piping through the barrier, a seal preventing the migration of smoke or fire must be made around the materials that pass through the fire and smoke barrier to include all floor penetrations and wall penetrations. This shall be done with a suitable fire stopping material.

**Fire/ Smoke Barrier Penetration Permit  
WG (Bill) Hefner VA Medical Center**

- a. Only the following types of fire stopping material shall be acceptable:
  - 1. Hilti Brand:
    - i. FIRE STOP PUTTY STICK CP-618
    - ii. FIRE CAULK FS-ONE 259579
    - iii. FIRE PLUG CP-658T 378288
    - iv. FIRE STOP MORTAR CP-637
    - v. FIRE STOP BOARD CP-6755
  - 2. 3M BRAND
    - i. BLUE FIRE CAULK FD-150+
- b. Proof of material used must be verified prior to use. This will be filed with the permit. See Attach "A".
- c. Work Area Pre-Inspection:
  - 1. Check both sides of barrier for safety and to ensure no utilities or obstructions.
  - 2. Check for need to cover smoke heads, or disable devices in immediate area.
  - 3. Establish ILSM if work will be longer than close of business when permit is granted.
  - 4. Workable and appropriate fire extinguishers are in work area.
- d. Issuing Permit: {Refer to Attach A}
  - 1. One copy will be made for the requestor; the original kept by issuing office to be returned to Safety.
- e. Closing out Permit: {Refer to Attach A}
  - 1. All permitted work will be inspected for closeout by the issuing manager and the requestor at the end of each work day.
  - 2. All penetrations/breeches made fire or smoke barriers, walls and floors must be filled with fireproof material prior to requestor leaving for the day.
  - 3. Complete the appropriate sections of the permit on the original page.
  - 4. Copy/print original for the issuing manager and send original to FMS, Safety Manager.
    - a. This can be scanned in to be sent email, or sending a hard copy

  
Peter R Bader  
Ch. FMS  
Date 12-19-11

 (acting Chief)  
Steve Elliott  
Ch. Poljce.  
Jason Harrington  
Date 12/19/11

  
Deborah Gunn  
Ch. OI&T  
Facility CIO  
Date 12/19/2011

**Fire/ Smoke Barrier Penetration Permit**  
**WG (Bill) Hefner VA Medical Center**  
Standard Operating Procedure # 138-999

Date: _____	Building: _____	Location: _____
Nature of work to be done: _____		
Material to pass through: _____		
Comments: _____		

<b><u>PERMISSION GRANTED</u></b>	
VA Shop: _____	Contractor: _____
Name/Title: _____	Name/Title: _____
Time started: _____	
Permission granted by: _____	Representing: _____

<b><u>CLOSE OUT</u></b>	
Penetration sealed with approved Fire Caulking: Y_____ N_____	
<b>If not; must be sealed prior to closing out this permit and by end of day.</b>	
Time Complete/Accepted: _____	
Closed out by: _____ Representing: _____	
Follow up Issues identified during inspection: _____	
<b>THIS PERMIT SHALL BE KEPT ON FILE IN SAFETY B-21-B.</b>	

- Photo copy for requestor.
- Original for Safety Manager, Fire Safety, COTR or designee

ATTACHMENT: D

Employee \_\_\_\_\_ Contractor \_\_\_\_\_

**REQUEST APPROVAL**

Purpose of work to be done:

\_\_\_\_\_

Describe material passing thru barrier: i.e.: cable, conduit, pipe, duct

\_\_\_\_\_

Type of barrier wall:

- Smoke barrier
- One-hour fire barrier
- Two-hour fire barrier
- Non-rated wall

New penetration or reopening of existing penetration: \_\_\_\_\_

Employee \_\_\_\_\_ Contractor \_\_\_\_\_

Safety Manager *or designee* grants permission to perform this work:

Name/Title \_\_\_\_\_

Date \_\_\_\_\_

Time started: \_\_\_\_\_

**CLOSE OUT/INSPECTION**

Penetration sealed with approved Fire  
Caulking: Y \_\_\_\_\_ N \_\_\_\_\_

**If not; must be sealed prior to closing  
out this permit.**

*Safety Manager or designee: final  
inspection completed by:*

Name/Title \_\_\_\_\_

Date \_\_\_\_\_

Time ended: \_\_\_\_\_

Date: \_\_\_\_\_

Building, \_\_\_\_\_

Floor, \_\_\_\_\_

Room #, \_\_\_\_\_

Follow up Issues identified during  
inspection:

\_\_\_\_\_  
\_\_\_\_\_

**THIS PERMIT SHALL BE KEPT ON FILE  
IN SAFETY MANAGEMENT.**

This permit is required for any  
penetrations to smoke or fire barrier,  
pipe chase, any wall or floor throughout  
the W.G. (Bill) Hefner VA Medical Center.

Stairwell #, \_\_\_\_\_

Floor, \_\_\_\_\_

Service/function: \_\_\_\_\_