

THE UNIVERSITY OF CONNECTICUT HEALTH CENTER

**ENVIRONMENTAL, HEALTH, and SAFETY (EHS)
POLICIES, REGULATIONS AND RULES**

for

**CONSTRUCTION, SERVICE, and MAINTENANCE
CONTRACTORS**



**Contractor EHS Manual
August 13, 2012**



TABLE OF CONTENTS

I. UCHC POLICY, REGULATIONS AND RULES AFFECTING ALL CONTRACTORS.....	5
<i>OVERVIEW</i>.....	5
<i>INTRODUCTION</i>	5
<i>CONTRACTOR RECEIPT ACKNOWLEDGEMENT FORM</i>	6
<i>UCHC SPECIFIC WORK RULES AND POLICIES</i>	9
JOBSITE SECURITY, BARRICADES AND FENCING.....	6
NOISE EMISSIONS	11
VAPOR AND PARTICULATE EMISSIONS IN OCCUPIED SPACES.....	11
WELDING EMISSIONS	12
DUST CONTROL MEASURES / PLAN	12
COMBUSTION ENGINES - INDOORS	12
SENSITIVE WORK AREAS.....	13
<i>Laboratories</i>	13
<i>Research Animal Facilities</i>	13
<i>Hospital and Patient Care areas</i>	13
<i>Contractor Safety Orientation and Training</i>	14
HAZARDOUS MATERIALS	14
<i>Exposure to Health Center Products</i>	16
<i>Clearances</i>	17
WORKING IN OCCUPIED AREAS.....	18
SERVICE INTERRUPTIONS AND SHUTDOWNS.....	18
EMERGENCY MANAGEMENT	23
EMERGENCY EQUIPMENT.....	29
ENTRANCES AND EXITS	30
TRAFFIC SAFETY AND PARKING	30
LOADING DOCKS/RECEIPT OF MATERIAL	30
SECURITY FOR CONTRACTORS	31
IDENTIFICATION BADGING AND BACKGROUND CHECKS	31
HARASSMENT POLICY	32
LOITERING AND SOLICITATION	32
SMOKING.....	32
PROHIBITED ITEMS.....	32
WEAPONS AND FIREARMS.....	33
TIMES WORK CAN OCCUR.....	33
ENVIRONMENTAL, HEALTH, AND SAFETY INSPECTIONS	33
SAFETY INSPECTIONS	33
<i>STORAGE AT JOB SITE</i>	31
<i>CONTRACTOR HEALTH AND SAFETY PLAN</i>	33
TRAINING	34
10 HOUR CONSTRUCTION SAFETY COURSE	34
COMPETENT PERSONS	35
SAFETY REPRESENTATIVE	35
JOB HAZARD ANALYSIS	36
INCIDENT REPORTING	37

<i>EHS PROGRAM ENFORCEMENT</i>	38
II. ENVIRONMENTAL REQUIREMENTS	40
<i>AIR POLLUTION CONTROL</i>	40
<i>EROSION AND SEDIMENTATION CONTROL</i>	40
<i>DEWATERING ACTIVITIES</i>	40
<i>ENVIRONMENTAL PERMITS AND LICENSES</i>	40
<i>SPILL PREVENTION AND RESPONSE</i>	41
<i>HOUSEKEEPING AND WASTE DISPOSAL</i>	41
<i>HAZARDOUS MATERIAL DISPOSAL</i>	42
<i>RECYCLING</i>	43
III. HEALTH & SAFETY REQUIREMENTS	44
<i>CHEMICALS, HAZARDOUS MATERIALS, COMMUNICATION OF HAZARDS AND MSDS</i>	44
<i>SPECIFIC TOXIC SUBSTANCES OF CONCERN</i>	44
ASBESTOS	44
LEAD BASED PAINT	45
<i>PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING</i>	45
MINIMUM PPE FOR CONSTRUCTION AREAS ON UCHC CONSTRUCTION SITES	46
ADDITIONAL PPE CONSIDERATIONS	46
<i>RESPIRATORY PROTECTION</i>	47
<i>CONFINED SPACE ENTRY</i>	47
<i>EYEWASHES AND SAFETY SHOWERS</i>	48
<i>FIRST AID AND MEDICAL SERVICES</i>	48
<i>FALL PROTECTION</i>	48
ROOF WORK	49
FLOOR OPENINGS	50
LADDERS	50
<i>ROOFTOP EXHAUST FANS</i>	50
<i>COMPRESSED GAS CYLINDERS</i>	50
<i>HOT WORK / BURN PERMIT</i>	51
<i>FIRE SAFETY</i>	53
<i>FIRE PROTECTION IMPAIRMENTS</i>	55
<i>ELECTRICAL SAFETY</i>	55
<i>LOCKOUT/TAGOUT (HAZARDOUS ENERGY CONTROL)</i>	59
<i>CRANES AND HOISTS</i>	60
<i>MOBILE EQUIPMENT/WORK PLATFORMS</i>	64
<i>AERIAL LIFTS</i>	64
<i>INDUSTRIAL POWERED VEHICLES</i>	65
<i>LASERS AND RADIOACTIVE DEVICES</i>	65

<i>POWER-ACTUATED TOOLS</i>	<i>66</i>
<i>SIGNS, SIGNALS AND BARRICADES</i>	<i>66</i>
<i>EXCAVATION AND TRENCHING</i>	<i>66</i>
<i>BLASTING</i>	<i>67</i>
<i>SCAFFOLDS.....</i>	<i>67</i>
V. APPENDIX.....	78
<i>CONTRACTOR RECEIPT ACKNOWLEDGEMENT FORM</i>	
<i>CONTRACTOR EMERGENCY RESPONSE INFORMATION SHEET</i>	
<i>POLICY NUMBER 2001-3 BACKGROUND AND FEDERAL SANCTIONS CHECKS</i>	
<i>UCHC FIRE DEPARTMENT SOP #3.6 HOT WORK / BURN PERMITS</i>	

I. UCHC POLICY, REGULATIONS AND RULES AFFECTING ALL CONTRACTORS

OVERVIEW

The Environmental, Health, and Safety (EHS) Guidelines establish requirements for managing safety for the University of Connecticut Health Center (UCHC) campus. This information is intended only as general, high level strategy and information and should not be interpreted as being all inclusive of all requirements.

It is the responsibility of each Contractor to comply with the policies and intent of this manual as well as all applicable federal, state, local, and UCHC requirements. This document does not relieve the contractor of the responsibility and obligation to comply with all applicable local, state and federal regulations, laws, ordinances or statutes, as well as State of Connecticut and local building codes. It is every contractor's, their subcontractor's, delivery persons and vendor's responsibility to seek out and understand workplace safety precautions, and to take those actions that will allow them to work safely and effectively in their assigned work areas. It is ultimately your responsibility to exercise educated, sound judgment, and to use your own experience and expertise to incorporate EHS considerations into everything you do.

INTRODUCTION

At UCHC, our students, patients and workforce are our most valuable resource. No one aspect of our objective is more important than providing a safe and secure workplace and operating in an environmentally sound manner. Strong Environmental, Health, and Safety (EHS) programs will prevent injuries, control losses, and minimize environmental impacts. We expect contractors to join us in providing a workplace free of uncontrolled hazards to people, the environment and our campus. All construction, service and maintenance contractors must comply with all federal, state and local laws, as well as UCHC's Environmental, Health, and Safety policies and procedures and UCHC's Code of Ethics and Harassment Policy.

UCHC's contractor safety effort is not intended to directly manage the safety of contractors or their personnel. While UCHC shall communicate known hazards, Contractors are expected to manage Environmental, Health, and Safety hazards, risks and programs for their employees and subcontractors. Our goal is to clearly communicate our EHS philosophy and expectations to all Construction, Service and Maintenance Contractors that do business with the University.

UCHC EHS requirements may be stricter than government regulations. Regulatory compliance is a minimal expectation. Contractors shall, therefore, evaluate the contents of this document as it pertains to the work to be performed on UCHC properties. Contractors shall ensure that their employees and subcontractors understand these requirements.

Before starting work at UCHC, contractors are advised to contact the appropriate UCHC Project Representative to exchange pertinent safety information and to review applicable EHS guidelines and standard operating procedures (SOPs.)

CONTRACTOR RECEIPT ACKNOWLEDGEMENT FORM

An authorized contractor representative must sign the Contractor Receipt Acknowledgement form (see Appendix V) prior to commencing work, with a copy being submitted to the UCHC Project Representative. The signature indicates an acknowledgement and understanding of the requirements of this document.

EHS MANAGEMENT SYSTEM

The work interface and cooperation of contractors shall be managed between contractors to maximize safety and efficiency and to prevent the construction activities having any uncontrolled affect on site operations. The following meetings and systems will be introduced and deployed throughout the duration of the contract:

Management Safety Leadership Team (MSLT)	Monthly
Project Operations/White Board Meetings	Daily
Contractor Safety Co-ordination Meeting	Weekly
Individual Contractor Meeting	Weekly
Kick Off Safety Meeting	As Required
Tool-box Talk	Minimum 1 weekly
Daily Safety Briefing and Pre task Plan writing	Daily
Safety Leadership Team (SLT)	Weekly
Contractor Safety Performance	Weekly and Monthly

Monthly MSLT (Management Safety Leadership Team) Meetings:

Attendees: UCHC Project Safety Management, Construction Management Senior Management, Contractors Senior Management, Program HSE Manager, Willis Safety Manager

The Construction Manager will Act as chairperson of the Safety Leadership Team to ensure it is effective and that monthly meetings are held and attended by all contractor representatives to promote Beyond Zero Culture of Caring for Incident and Injury Free work place among the construction team.

- Agenda:
- To oversee and correct any deficiencies to the full project HSE management system and visibly support HSE planning and policies.
 - To ensure resources are available for safety.
 - To review site leading HSE metrics and safety performance trends.
 - To review 30 day Look Ahead Schedules for HSE Issues
 - To modify, update, review the H&S Plan.

Frequency: Monthly

Venue: UCHC Project Office

Project Operations/White Board Meetings

Project specific daily meetings in which safety, protocol and any other construction related activities are discussed. All contractors' supervisors shall attend this meeting.

There will be a weekly project meeting in which safety will be discussed and in addition to this there will also be a specific safety meeting to deal with information in relation to incidents/incidents, leading and lagging indicators, tool box talk topics and general safety initiatives and information.

Periodic meetings may be called outside of these normal scheduled meetings at Jacobs' discretion.

Contractor Weekly Safety Co-ordination Meeting:

Attendees: Safety; Construction Manager, Contractor Senior Management, Contractor Safety Management, UCHC HSE Representative.

Agenda: Review Subcontractor HSE Issues.

Review incidents/incidents.

Review weekly audits.

Review leading metrics from SPA Assessment, Safety Suggestions, etc.

Collate and review Tool Box Talk and Safety Meeting process.

Look ahead at future activities, method statements, SPA's etc.

To implement site wide HSE action plans

Review of new hire plans for the next month

Review needs for access and lighting

To promote HSE generally.

Frequency: 1/week

Venue: UCHC Project Office

The following subjects relating to safety shall be reviewed and any significant events or actions necessary shall be recorded in the minutes of the meeting:-

- a. authorizations to proceed with work
- b. occurrence of incidents, dangerous incidents or near-misses
- c. site leading HSE metrics and safety performance trends
- d. changes to safety supervision
- e. notifications to or from regulatory authorities
- f. hazardous activities planned in next few weeks
- g. approval of method statements for hazardous activities

- h. status and consequences of environmental permits
- i. use of work permits
- j. safety promotion activities
- k. increase or decrease in project manpower
- l. Review of environmental audit

A copy of the weekly site audit report shall be attached to the minutes of the meeting.

Weekly Individual Contractor Coordination Meeting:

Attendees: The contractor Site Manager, contractor Safety Advisor, CM Coordinator for contractor, Project Safety Manager, subcontractors Site Manager, and Subcontractors Safety Advisor

- a. Review Subcontractor and Subcontractor HSE Issues.
- b. Review incidents/incidents.
- c. Review weekly audits.
- d. Review leading metrics from Pre Task Planning Assessment, Safety Suggestions, etc.
- e. Collate and review Tool Box Talk and Safety Meeting process.
- f. Look ahead at future activities, method statements, Pre task Planning etc.
- g. To implement site wide HSE action plans
- h. Review of new hire plans for the next 3 weeks
- i. Review needs for access and lighting
- j. To promote HSE generally.

Contractor Safety Kick-off Meetings:

Attendees: Site Manager, Contractor Owner/Principle, Contractor Site Manager, Contractor Safety Advisor, Coordinator for Contractor, Project Safety Manager for the Contractor, and where applicable Subcontractor Owner/Principle, Subcontractors Site Manager, and Subcontractors Safety Advisor

Held as needed as new contractors come on board. UCHC and CM shall be given three days notice of any meetings.

Weekly Tool Box Talks:

Contractor and Subcontractor Trade Supervisors are required to hold weekly tool box talks with their construction workers. Meeting topic, discussion points, and attendance shall be recorded in a report and copies issued to the UCHC Safety Manager for inclusion in the safety file.

Daily Safety Briefings

All subcontractors and subcontractor personnel are required to hold a daily safety meeting. During this time the Pre-Task Plan will be completed. Meeting topic, discussion points, and attendance shall be recorded in a report and copies kept on file.

Safety Leadership Team (SLT):

Attendees: Select individuals from UCHC, Construction Managers and contractors representing Management, Supervision, Employees and HSE for the project.

The team meets weekly for 1 hour. Subcommittee meetings may also be held with select members of the committee to work on specific issues.

The objective of the HSE Employee Involvement Committee is to find, record, and change at-risk behaviors through employee involvement in the Pre-Task Assessment Process.

The committee will establish a charter, perform a baseline survey and subsequent surveys, develop a Pre-Task Assessment implementation Plan, and manage the Pre-Task Assessment Process which includes training observers, collecting data, analyzing the data, implementing improvements, and evaluating the effectiveness of improvements.

Subcontractor safety Performance:

The UCHC Safety Manager shall review the results of the safety inspections, and of any incidents reported in between inspections, to assess the performance of the construction subcontractors. Performance trends shall be indicated in the weekly and monthly safety report.

UCHC SPECIFIC WORK RULES AND POLICIES

JOBSITE SECURITY, BARRICADES AND FENCING

Contractors conducting construction/renovation activities shall ensure that the health and safety of UCHC students, patients and workforce is not adversely affected. Exposure to physical and chemical hazards by the general public shall be minimized using engineering controls. Barricades, barriers, fencing and signs shall be used. Signs, signals and barricades shall meet OSHA requirements. Any changes in planned construction activities shall be brought to the attention of the UCHC Project Representative and the appropriate notification can be made to all affected UCHC staff, patients and students. The Contractor shall secure the job site after work hours to prevent unauthorized entry. The Contractor shall coordinate procedures to allow authorized UCHC access.

INTERIM LIFE SAFETY MEASURES (ILSM)

ILSM are a series of administrative actions required to temporarily compensate for the significant hazards posed by construction activities. ILSM apply to all construction/maintenance workers, are implemented upon project development, and must be continuously enforced through project completion. ILSM are intended to provide a level of safety comparable to that described in the Life Safety Code. Project Managers / Contractors of UCHC must implement ILSM whenever

construction or maintenance activities impair or interrupt features of the life safety emergency egress, detection, alarm, containment or extinguishing systems.

Some examples of ILSM include posting of temporary signage and notification of occupants of alternate emergency exits and escape routes, and fire watch assignment when detection or alarm systems are deactivated.

Every construction or renovation project must be evaluated to determine if ILSM need to be implemented during the course of the work. An ILSM Assessment Form must be filled out and approved by UCHC. The project manager and the contractor should partner with the appropriate UCHC departments to develop an ILSM Plan, prior to beginning work.

PROTECTION OF THE PUBLIC

Access to the Site

No work shall be performed in any area occupied by the public unless specifically reviewed and permitted by UCHC. In that the project interfaces with the public, precautions to be taken include, but are not limited to:

Each Contractor shall take such necessary action as is needed to protect and maintain public use of sidewalks, entrances to buildings, lobbies, corridors, aisles, doors, exits and vehicular roadways.

The Contractor shall protect the public with appropriate sidewalk sheds, canopies, catch platforms, fences, guardrails, barricades, shields, and adequate visibility as required by laws and regulations of governing authorities. Such protection shall guard against flying materials, falling or moving materials and equipment, hot or poisonous materials, flammable or toxic liquids and gases, open flames, energized electric circuits or other harmful exposures.

Guardrails shall be made of rigid materials complying with the requirements for standard guardrails as defined by OSHA and the Project Safety Plan. Temporary sidewalks, ramps or stairs shall be provided with guardrails on both sides whenever permanent sidewalks, ramps or stairs are obstructed by the work. UCHC may authorize barricades, secured against incidental displacement, meeting the requirements of local authorities, where fences, sheds, walkways and/or guardrails are impractical. During the period when any barricade, fence, shed, walkway, or guardrail is removed for the purpose of work, a watchman shall be placed at all openings.

Appropriate warnings, signs and instructional safety signs shall be conspicuously posted where necessary. In addition, a signalman shall control the moving of motorized equipment in areas where the public might be endangered. Warning lights, including lantern, torches, flares and electric lights, meeting the requirements of governing authorities shall be provided and maintained from dusk to sunrise along guardrails, barricades, temporary sidewalks and at every obstruction to the public. These warning signs and lights shall be placed at both ends of such protection or obstruction and not over 20 feet apart alongside of such protection or obstructions. With respect to operations being performed on public roadways, all DOT and/or municipality requirements towards public safety will be strictly observed.

Access to the site is limited to the entrance designated for construction traffic as indicated on the site plans issued with the construction documents. At no time should Contractor personnel or vehicles obstruct traffic on public streets or Owner entry driveways.

All material deliveries shall be scheduled in advance with the Project Superintendent and shall be completed within the time segment allocated for the specific delivery.

A temporary fence (minimum of 6 feet in height) in compliance with laws and regulations of governing authorities shall be provided and maintained around the perimeter of operations on the project site to control access to the work by employees, to protect the public, and to restrict access by unauthorized individuals

Authorized Visitors

All visitors to the site are required to register with UCHC upon arrival. Each Contractor will be expected to regulate their visitors accordingly. All visitor passes expire upon departure from the site and are to be surrendered to the gate security guard or Construction Manager representative.

Parking

Parking shall be in designated areas only. All vehicles delivering materials to the Project shall be authorized to do so only by UCHC. Unauthorized vehicles may be removed at the direction of UCHC and all towing charges will be the responsibility of the vehicle Owner.

Fire hydrants and all designated fire lanes shall remain clear at all times for the use of emergency vehicles.

Employee Identification

Where required, all project site employees

NOISE EMISSIONS & VIBRATIONS

Contractors are required to comply with OSHA's Noise Standard. In addition, Contractors will be asked to cease work activities when noise or vibration levels to UCHC employees, patients, students can be expected to meet or exceed OSHA's Action Level of 85 dBA (8-hour TWA) or be disruptive to normal UCHC activities. Activities can resume when engineering or work practice controls reduce the level of noise below OSHA requirements and the vibration level to a point it is not disruptive. Should this not be feasible, work must be scheduled for a time when UCHC employees, students, patients and work activities are not impacted.

INFECTION CONTROL

See the UCHC Infection Control Policy for details regarding the Infection Control Plan and Requirements.

VAPOR AND PARTICULATE EMISSIONS IN OCCUPIED SPACES

Contractors conducting painting operations or other activities that create vapor or particulate producing activities (sealing, grinding, welding, spraying, stripping, chemical etching, adhesive application, roofing, sweeping, etc.) must take into account the location of their activities, and the impact to UCHC staff, faculty, patients and students, other contractors, active research or academic efforts. Vapor emissions from the above-described activities have the potential to adversely affect indoor air quality and interfere with the Health Center's operations.

Contractors using vapor emitting products must submit MSDS sheets for review and prepare an air quality control plan that will prevent these products from negatively impacting building occupant air quality. Contractors should be prepared, as required by job conditions, to provide air monitoring equipment, ventilation equipment, and engineering controls to document and maintain acceptable indoor air quality.

In the event that suitable indoor air quality cannot be achieved, Contractors should be prepared to schedule activities outside of normal working hours, and protect their employees with an OSHA compliant respiratory protection program.

Also to be considered is the location of air intakes when conducting any vapor or particulate emitting work as well as operating power equipment outside of occupied buildings.

WELDING EMISSIONS

Contractors shall erect appropriate shields to prevent incidental exposure to welding emissions to students, faculty, staff, patients and other contractors. If welding is occurring in an occupied building, the contractor must supply a “smog hog” type filtering unit to remove welding smoke, fumes and /or vapors. An air quality control plan shall be submitted to the UCHC Project Representative to address steps taken to monitor and control welding emissions.

DUST CONTROL MEASURES / PLAN

Contractors performing demolition and/or renovation work should prepare a written **Dust Control plan** and submit it to the UCHC Project Representative. The Plan must be submitted to and accepted by the UCHC Project Representative. The Plan must be project specific and contain detailed methods for controlling dust and other construction-related airborne materials.

Contractors should manage dust that may contain Hazardous Materials with additional care to meet Applicable Law and industry standards and to avoid contamination of persons or property

The contractor must follow Environmental Control Requirements indicated within the project specifications and ICRA (Infection Control Risk Assessment) guidelines when doing work within any Patient Care Areas or if directed by the UCHC Project Representative..

COMBUSTION ENGINES - INDOORS

Contractors shall not operate combustion engines, such as those in vehicles, compressors, generators, welding machines and power tools, inside buildings unless they connect the exhaust to an approved venting system.

Do NOT refuel with the engine running. Contractors shall store fuel (gasoline, diesel and/or LPG) outside UCHC buildings in approved storage areas.

In most instances, UCHC prohibits the use of propane-fueled vehicles inside buildings. The lifting tasks of some projects, however, may require propane-fueled lift equipment. In such cases, the contractor shall consult with the UCHC Project Representative, the UCHC Office of Research Safety (ORS) and the UCHC Fire Department.

SENSITIVE WORK AREAS

Many locations within UCHC are sensitive or special areas, including laboratories, analytical equipment rooms, research animal facilities, patient care areas, and classrooms. As a result, additional steps may be needed to minimize noise, vibration, dust, odors, or other nuisance conditions associated with the Project. Although these kinds of impacts are generally most acute for Work occurring in or very close to occupied buildings, they can also pose problems on new construction sites. The UCHC Project Representative will communicate special or sensitive conditions about the space, occupants, or neighbors during Project planning and act as a liaison with other UCHC departments to establish appropriate levels of protection or control. Depending upon the size, duration, and scope of the Project, as well as the nature of any adjacent sensitive areas, UCHC may require that the Contractor participate in a pre-construction meeting to inform nearby building occupants of the Work and any needed controls.

Laboratories

Contractors and their Subcontractors of Any Tier should avoid entering active laboratories and related support spaces. If Work requires regular entry into laboratories or other sensitive areas, a Safe Entry plan will be provided to the Contractor by the UCHC Project Representative in consultation with lab personnel and the UCHC Office of Research Safety. For a one-time entry into a laboratory or other special area, the Contractor must coordinate the entry with the UCHC Project Representative. Warning signs on the door may provide specific information about potential hazards in the room. While in a laboratory or other sensitive area, Contractors and their Subcontractors of Any Tier should not touch, move, or otherwise disturb anything in the space until potential hazards have been explained and approval given by the UCHC Project Representative.

Research Animal Facilities

Research animal facilities are highly controlled environments with significant security restrictions against non-authorized entry. To protect the health and safety of Contractor personnel entering animal facilities as well as the health and well-being of animals within these facilities, anyone needing access to an animal facility for construction or renovation related Work must coordinate the entry with the UCHC Project Representative. Any specific questions about animals and animal facilities should be directed to the UCHC Project Representative, who in turn will work with the UCHC ORS and CLAC to address them.

Hospital and Patient Care areas

All work in or adjacent to the Hospital or Patient Care areas must be planned and done in a manner so that patient care is not compromised. Procedures must be followed so that the environment for patient care is fully maintained. Such procedures must assure that fire protection, life support, electrical, medical gas systems serving such adjacent areas are not compromised. Equally important is the control of contamination (e.g., dust, noise, vibration). Each project will have specific Infection Control Risk Assessment (ICRA) requirements for the control of construction related dust which is critical to prevent viable organisms from being released with such dusts which could adversely impact patient health. In addition patient privacy and HIPPA rules must be accounted for when working within these areas.

CONTRACTOR SAFETY ORIENTATION AND TRAINING

Contractors may be required to attend an orientation / Training session, which cover UCHC Contractor Safety requirements and project specific procedures and protocols. The orientation is often conducted by ORS during project pre-construction job meetings and includes a review of UCHC EHS requirements. Contractors are encouraged to use the orientation session as an opportunity to become familiar with UCHC EHS expectations and for questions about applicable UCHC safety procedures.

All Employees shall attend the UCHC New Employee Safety Orientation prior to their starting work on the first day on the project. Contractor personnel absent from the physical project site for more than 30 days will re-attend the New Employee Safety Orientation before returning to work on the site.

In addition to the UCHC orientation, contractors are required to conduct a **project specific** orientation/training session for all new hires. This will cover issues relative to the contractors operations.

Indoctrination

Newly employed, promoted and/or transferred personnel shall be fully instructed in the safety practices required by their new assignments. Initial instructions for new project personnel will include discussion of the project's basic safety regulations. The contractor will document instructions for the personnel file.

SUBSTANCE ABUSE POLICY

UCHC strictly prohibits the use, sale, attempted sale, manufacture, possession, distribution, cultivation, transfer, or dispensing of any illicit substance. This includes the use or possession of prescription medications without a valid prescription.

Contractors and Subcontractors shall implement a Drug, Alcohol, and Contraband Policy, including post incident testing, which meets the requirements of the Contractor's policy. Key elements of the Contractor's policy, except where prohibited by law, are:

- Pre-access/Pre-assignment testing current to within six months prior to initial assignment to work on the UCHC's project.
- Post-incident testing of any worker involved in a project-related workplace incident that results, or could have resulted, in
 - injury to any person requiring medical treatment beyond first aid,
 - any type of medical attention given by a third-party medical services provider (hospital, clinic, doctor, etc.),
 - a motor vehicle incident, or
 - property damage.

Post-incident testing must be conducted as soon as possible after the incident occurs.

- Reasonable suspicion testing upon reasonable suspicion by UCHC or constructor

management that a worker is under the influence of a prohibited substance. In such cases, worker(s) shall be immediately removed from the project and surrender their project credentials. Personnel so removed may only be allowed to return with a negative test result and written permission of the Contractor.

- Periodic random or unannounced testing for workers randomly selected or chosen by job classification or worksite. The percentage of the workforce, or the number of workers, selected for testing shall be specified on a project specific basis and stated in the project's Site Safety Plan.

Possession or use of alcohol in a UCHC, Contractor-, or subcontractor-provided vehicle is prohibited.

Any worker whose drug or alcohol test is positive will be removed from the project and required to surrender their project credentials.

Refusal to submit to drug or alcohol testing, or attempts to tamper with, adulterate, dilute, or otherwise tamper with a test sample will be treated the same as a positive test result.

Contractors shall adopt collection, chain-of-custody, and other related procedures consistent with sound industry practice and UCHC requirements.

If the UCHC suspects that a worker is in possession of illegal drugs, alcohol, or contraband, the UCHC may request the individual to submit to a search of his or her person, personal effects, vehicles, lockers, and baggage. The UCHC may also conduct random searches of individuals entering or leaving the work site. Any suspected contraband will be confiscated and may be turned over to law enforcement, as appropriate. If an individual is asked to submit to a search and refuses, that individual will be considered insubordinate, will surrender their project credentials, will be escorted off the job, and will not be allowed to return.

UCHC shall have the right to review the contractor's Drug, Alcohol, and Contraband Policy and to audit the contractor's implementation of their program at the jobsite.

Contractors shall comply with all applicable federal, state, and local alcohol and drug-related laws and regulations.

HAZARDOUS MATERIALS

Contractors are responsible for the safe and lawful receipt, handling, storage, transport, use, and disposal of all materials used in their Work, including chemical products or hazardous wastes generated from the Work. Contractors must coordinate the disposal of all hazardous materials with UCHC ORS. The UCHC ORS must sign-off on all disposal paperwork to ensure proper disposal. Contractors planning to use volatile chemical products (e.g., paints, adhesives, sealants, coatings, cleansers) should inform the UCHC Project Representative and the Office of Research Safety, of the planned use and be prepared to apply any safeguards or controls legally required or otherwise needed to protect their employees, workers Subcontractors of Any Tier, their workers or other personnel, and adjacent University occupants from injury. Since many laboratories and related rooms are under "negative" air pressure relative to surrounding hallways and corridors, airborne releases (e.g., dusts, off-gases, vapors, odors) from nearby construction can travel long distances and enter such areas. Contractors working near occupied University spaces should develop plans to contain the vapors, dusts, and fumes released from their operations so that laboratories, other sensitive areas and their occupants are not impacted.

Exposure to Health Center Products

In the unlikely event that a Contractor employee, or Subcontractor of Any Tier or other worker or personnel is exposed to Hazardous Materials used by University staff, the Contractor should contact the UCHC Project Representative immediately for assistance in identifying and evaluating the potential source. Material Safety Data Sheets for products used in UCHC operations are available to Contractors or their designated representatives during ordinary business hours. During off-hours, Contractors should contact the UCHC Public Safety Department (7777 from any UCHC phone, or (860) 679-2121 from any non-UCHC phone), which in turn will summon the UCHC Office of Research Safety for assistance.

First Aid Facilities

In formulating the Emergency Action Plan, the Contractors shall use the appointed facility as directed by the construction manager and UCHC (if we opt for Medcor we should insert their info here). A minimum of two contractor workers of each contractor on site shall possess certification in first aid and CPR on each shift. Need to discuss this. Should this be based on number of employees on site? Do we want to add info about the UCHC Occupational Health clinic and ER here as well?

Bloodborne Pathogen Exposure Policy

a. Bloodborne Pathogen Policy - Purpose

The purpose of this policy is to provide each contractor with directions to assist in limiting occupational exposure to blood and other potentially infectious materials.

b. General

- (1) The OSHA Bloodborne Pathogens Standard does not apply to contractor employees because these employees are not “reasonably anticipated” to come in contact with blood and other potentially infectious materials as a result of performing their job duties. This standard is intended to apply to those types of employees who as a part of their assigned duties may come into contact with infectious materials. These include medical personnel, ambulance personnel, medical laboratory personnel, funeral employees, etc. **NOTE:** “Good Samaritan” acts such as assisting a co-worker with a nosebleed or laceration are not to be considered as occupational exposures and are not subject to the OSHA Bloodborne Pathogens Standard.
- (2) Contractors and their employees are cautioned however, that any contact with blood or other body fluids or tissues may be a source of infectious materials. These infectious materials include but are not limited to; cerebrospinal fluid, pleural fluid, amniotic fluid, saliva, semen, vaginal secretions, any body fluid visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids.

- (3) Contractors are advised that the best protection from infection caused by contact with an infectious material is washing the exposed body parts with soap and water and avoiding getting body fluids into open breaks in the skin. Disposable latex gloves used as undergloves when working with hazardous waste material can provide added protection from infectious materials.
- (4) Any contractor employee who is exposed to potentially infectious materials on the job shall immediately contact their supervisor who will contact the appointed medical center who will direct appropriate testing and any therapy which may be required.
- (5) Medical records for any employee exposed to a potentially infectious material shall be included in the employee's medical monitoring record and retained for the duration of employment plus 30 years. This provision is to make sure that the records be kept confidential. The records are to contain the name and social security number of the employee, Hepatitis B immunity, results of any examinations, medical testing and follow-up procedures, a copy of the healthcare professional's written opinion, and a copy of the information provided to the healthcare professional.
- (6) All contractors and employees shall be informed of the contents of this policy. This shall include; notification that normal work practices of these employees do not make them subject to the provisions of the OSHA Bloodborne Pathogens Standard, that first aid procedures on a co-worker are considered "Good Samaritan" acts and are exempt, what materials constitute an infectious hazard, and what precautions to take to prevent exposure.

Clearances

The Contractor shall not begin Work in areas with known or potentially Hazardous Materials or building components until the space where the Work is to be performed has been cleared by UCHC. Once the space is cleared, the Project Representative will notify the Contractor.

Certain spaces (i.e., laboratory exhaust ductwork, waste or vacuum plumbing) may not be fully accessible for clearance surveys before the start of Work. As these areas of work are uncovered /exposed, the Contractor shall contact the UCHC Project Representative so arrangements may be needed for additional surveys or sampling as the Project progresses.

If the Contractor or its Subcontractors of Any Tier encounter any suspected hazardous material during the Project, the Contractor should bring this to the attention of the UCHC Project Representative as soon as possible. Work in the immediate area should stop until it is appropriately surveyed or sampled by the UCHC Office of Research Safety or its agent and cleared. This precaution also applies to any suspicious materials identified during excavation, trenching, or other subsurface Work.

WORKING IN OCCUPIED AREAS

In occupied facilities contractors must be sensitive to the fact that the safety and comfort of hundreds of students, patients and staff can be altered by the most innocent mistake. Unless approved to do so and accompanied by authorized University personnel, contractors must not:

- tamper with/alter/or adjust heating and ventilation equipment
- tamper with/alter/or adjust valves and controls that could impact water pressure and/or water temperature
- tamper with/alter/or adjust fire alarms, fire protection equipment, detection systems, emergency exits

The UCHC Project Representatives must be made aware of any authorized alterations to the above listed equipment. Care must also be given to maintaining work areas and air quality with respect to gypsum board dust, particles from insulation, sawdust, etc.

SERVICE INTERRUPTIONS AND SHUTDOWNS

The UCHC Project Representative will coordinate service interruptions with affected UCHC customers. Contractors shall notify the UCHC Project Representative a minimum of 2 weeks, or as early as possible, in advance of any planned service interruptions, i.e., electricity, air conditioning, water, phone/data. Incidental or unscheduled interruptions shall be reported immediately to the Environmental Control Center (ECC) telephone number: (860) 679-2338 and UCHC Project Representative. The UCHC Project Representative will coordinate service interruptions with affected UCHC customers.

Utility Avoidance Policy

Each contractor shall be required to comply with CT's "Call Before You Dig" regulations and shall complete a Pre-Excavation Checklist prior to breaking ground – See Checklist below:

PRE EXCAVATION CHECK- LIST

Crew Foreman _____ DIG SAFE Ticket # _____ Contact # _____
Date _____

Complete a pre-excavation walk-out of the entire job site. Your objective is to visually inspect the dig area to ensure all utilities are marked. Look for signs of utilities that may not be marked such as, above-ground pedestals, gas meters, man-hole covers, drains, or utility poles with cable risers. If you find these indicators and suspect that there is an unmarked utility **DO NOT PROCEED**. Notify DIG SAFE that an unidentified line has been discovered.
When you have completed your walk-out, complete the following check list:

1) Verify that the One-Call ticket covers the ‘Scope of work’ and ‘Work to begin’ date:

- ❖ I have verified the DIG SAFE ticket covers the ‘Scope of work’
- ❖ I have verified the DIG SAFE ticket ‘Work to begin’ date

2) What marked utilities did you observe?

- Gas (Yellow) Electric (Red) Telephone (Orange) Cable TV (Orange) Water (Blue)
 Sewer (Green)

3) Based on visual observation, did you see signs of any unmarked utilities?

- Yes No

❖ If Yes, please identify?

- Gas (Yellow) Electric (Red) Telephone (Orange) Cable TV (Orange) Water (Blue)
Sewer (Green)

- ❖ I have notified DIG SAFE of the unmarked Utility

4) Photograph the entire proposed work area including all locate marks.

- ❖ I have photographed the entire site prior to excavation
- ❖ I have photographed existing locate/markings

5) Advise your crew members of the following: If they have to cross a marked Utility they must HAND DIG ONLY within 18” of the locate marks plus half the diameter of the buried facility.

RESPECT THE MARKS!

- ❖ I have advised my crew of the 18” hand dig rule

IN THE EVENT OF DAMAGE

- Notify DIG SAFE and your supervisor
- Complete the reverse side of this form
- Photograph entire area and damage location

PHOTOGRAPHY TIPS

- Make sure the correct date & time stamp is active on your camera
- Photograph the excavation itself (damage location)
- Take photos from multiple vantage points and of surrounding area (360 degrees)
- If the utility was mis-marked, photograph the locate marks/flags (include tape measure in photo)
- If the utility was not marked, photograph the entire area and approaches to the cut site
- Show a quantifiable location/address (street sign, house number, mail box number etc.)
- Facility depth (include tape measure in photo)
- Remember!! You can never take too many photos

In the event of a utility hit, Contractors shall immediately stop work and notify UCHC. The following Utility Damage Report shall be completed by the Contractor and submitted to UCHC within 24 hours:

UTILITY DAMAGE REPORT

Part A – Date and Location

*Date of Damage _____ *Street Address _____
 *City _____ *State _____
 *Nearest Intersection _____

Part B – Affected Utility

Electric Natural Gas Sewer Water Telephone Cable TV
 *What type of Service?
 Service/Drop Main Fiber Optic *Depth of damaged facility _____

Part C - Locating and Marking

*Was the DIG SAFE Center notified? Yes No If Yes, provide the locate ticket number _____
 *Were facility marks visible in the area of excavation? Yes No
 *Were facility marks accurate? Yes No
 *What were facilities marked with? Paint Flags Paint & Flags
 *What type of painted locate marks were present?
 Duct Bank (Diamond Pattern) Single Line (With Buffer) Single Line (Without Buffer)
 *Have you taken Photos (Required) Yes No * What is the distance between the locate marks? _____

Part D - Excavation Information

*Type of Excavation Equipment?
 Backhoe/Track hoe Boring Auger Trencher Directional Drill Drilling
 Hand tools Probing Device
 *Type of work Performed?
 Installing Gas Pipeline Installing Electric Cable Joint Trench Installing Telephone
 Installing Cable TV Installing Poles Installing Anchors Other, Please specify _____
 *Location of dig site Private property Utility Easement Road right-of-way

Part E – Describe how the incident occurred

Part F - Diagram



General Foreman Name _____

General Foreman Phone # _____

Crew Foreman Name _____

Crew Foreman Phone # _____

Job # _____

Crew # _____

EMERGENCY MANAGEMENT

In an emergency, whether it involve fire, personal injury, or utility, all Contractor personnel must know how to protect themselves and provide immediate notification to emergency response organizations (fire, police, medical, etc.). It is critical that all Contractor personnel know where to find emergency contact information, know who to call, the location of the nearest phone, fire alarm pull station, fire extinguisher, emergency eyewash station, emergency shower, and exits from the worksite and building. In the event of an emergency, the Contractor must immediately report the emergency by calling 7777 on any campus telephone or by dialing (860) 679-2121 on an outside telephone. Contractors are required to post emergency response information and use the **Contractor Emergency Response Information Sheet** (see Appendix V of this manual).

Emergency situations may include, but are not limited to:

- Incidents and injuries;
- Observed smoke or fire;
- Chemical or hazardous material spills;
- Property damage;
- Severe weather impacts, and
- Security threats

When reporting an emergency, please provide the following:

- Your name, phone number and location;
- The location of the incident (building name, floor and room number);
- Nature and extent of the incident (injury, incident, spill, smoke/fire, damage, etc.);
- The name and amount of the material spilled (if applicable); and
- The safest route to the spill (if applicable).

UCHC emergency response personnel (UCHC Fire Department) will be dispatched immediately. The Contractor shall wait at the nearest location deemed safe until Emergency Services personnel arrive.

EMERGENCY PROCEDURES - MEDICAL SERVICES

Contractor's Responsibilities

Prior to commencement of work, provisions must be made for prompt medical attention in case of serious injury. Each contractor shall have a minimum of two First Aid/CPR trained individuals on the project and inform UCHC of their name.

Ensure that adequate first aid supplies shall be easily accessible when required.

Provide proper equipment for prompt transportation of the injured person to a physician or hospital, or a communication system for contacting necessary ambulance service.

Telephone numbers and addresses of the physicians, hospital and ambulance shall be conspicuously posted.

Contractor shall complete and provide to UCHC an "Employer's First Report of Injury" within 24 hours of any/all incidents involving work activities associated with the project. Contractors are advised to maintain their own OSHA 300 Log as an OSHA requirement.

Contractor shall ensure that each of its lower-tier contractors meet these medical requirements.

If the injured employee is released by the doctor for light or restricted work duty, the Contractor shall make available restricted duty work for the injured employee.

Each occupational illness or injury shall be reported immediately by Contractor's employee to Contractor's first aid attendant and UCHC.

Contractor's first aid attendant or other competent person shall treat the injured employee as often as necessary to ensure complete recovery, or until a decision is made to seek medical treatment. Contractor must provide for the prompt transportation of the injured person to a hospital or other emergency facility.

A representative of the Contractor shall drive the injured employee to the medical facility and remain at the facility until the employee is ready to return. Contractor's representative shall carry necessary forms; i.e., authorization slips, return to work notices to the medical facility.

If it is necessary for the Contractor's first aid attendant to accompany the injured employee, provisions must be made by Contractor to have another employee, properly trained and certified in first aid/CPR, available to render same during the absence of the regular first aid attendant.

If the employee is able to return to the project site the same day, he/she must return with a statement from the doctor stating same and containing such information as date, employee's name, date of return to regular or restricted duty, date he/she is to return to doctor, diagnosis, signature and address of doctor. If the injured employee is unable to return to the project site the same day, the employee who transported him/her should bring this information back to the project site and report it to UCHC.

If it is necessary to call the outside medical facility, The Project Manager should make this call while the injured employee is being transported.

Medical cases requiring ambulance services would be such cases as severe head injuries, amputations, heart attacks, severe bleeding, stopped breathing, etc. Should ambulance service be necessary, the following procedures should be taken immediately:

- Contact Contractor first aid attendant or nearest employee properly trained and certified in first aid. While first aid is being administered, contact UCHC immediately.

UCHC may retain on-site medical services. If so, Contractor shall coordinate first aid, notification, and off-site clinic procedures as required.

EMERGENCY PROCEDURES - ALARMS, FIRE, BOMB, WEATHER, ENVIRONMENTAL, PUBLIC DEMONSTRATION

In order that necessary emergency services may be supplied promptly, each contractor and subcontractor shall post in a conspicuous place a list of emergency telephone numbers along with the type of information to be transmitted for each emergency situation.

All incidents are to be handled by the ranking person present, with whoever is available to assist. The ranking person shall direct someone to notify first-aid personnel, and to call for emergency services as necessary. The Project Superintendent is to be notified as soon as this can be done without delaying assistance to the injured. He will then take appropriate action.

In incidents resulting in injury to personnel, individuals qualified to administer first-aid will assist the injured, will stabilize their condition, and will arrange for transportation to a hospital if further treatment is required.

Except when necessary to avoid further injury, or to prevent additional damage to the work, equipment will not be moved, or the position of items, parts, pieces, controls, etc. will not be changed until photographs have been made and notes taken by the Project Superintendent or the person designated to make the investigation and report. As soon as the Project Superintendent can release the area from this constraint, contractors concerned will clean up and make repairs to return to a normal situation.

Where a specific procedure has not been established, reasonable judgment should be used in determining what course to follow.

Alarms

UCHC shall be notified of all emergencies and notify the appropriate emergency service of the incident and initiate appropriate action.

Fire alarms within the area of new construction will consist of three short blasts on an air horn located at the means of egress, stairway, ladder, or building entry.

Telephone notification of the UCHC fire department will be initiated immediately after sounding the air horn alarm. Telephones are available in the project site office. Radio contact with the project site office and UCHC shall be used to inform all concerned regarding the fire.

A continuous long blast on the air horn may be used to summon first aid assistance in the event of an incident.

Incident Involving Serious Injury or Death

The following procedures are established in the event of an incident involving serious injury or death to employees or members of the general public.

Individuals qualified to administer first-aid will assist the injured, will stabilize their condition, and will arrange for transportation to the hospital emergency room if further treatment is required. UCHC is to be notified immediately. Immediate notification (within 8 hours) of the local OSHA office is required in the event of a fatality or serious injuries, which may lead to a fatality.

All non-essential personnel shall be removed and/or kept back from the area.

Rescue personnel shall be provided assistance as requested.

No comments shall be made. All inquiries shall be referred to the Project Manager.

No on-site photographs are to be taken without the specific approval of the Project Manager and the Project Superintendent.

Contractor shall make a full investigation and file an Incident/Injury Report within twenty-four (24) hours of the occurrence. Any additional investigation information after the 24-hour period shall be submitted as soon as it is received.

Within the immediate area of the incident scene, nothing is to be disturbed nor removed after proper evacuation of the injured personnel. Except when necessary to avoid further injury,

equipment will not be moved, or the position of items, parts, pieces, controls, etc. will not be changed until photographs have been made and notes taken by the Project Superintendent or other person designated to make the investigation and report.

As soon as UCHC can release the area from the above constraint, contractors concerned will clean up and make repairs to return to a normal situation.

Property Damage Incidents

The following procedures are established in the event of an incident involving property damage. UCHC is to be notified as soon as this can be done without delaying efforts to prevent further damage.

He will then take appropriate action and direct other personnel to assist as necessary.

Efforts shall be taken to protect against further damage where possible.

All non-essential personnel shall be removed and/or kept back from the area.

No comments shall be made. All inquiries shall be referred to UCHC.

No on-site photographs are to be taken without the specific approval of UCHC. Contractor shall make a full investigation and file an Incident/Injury Report within twenty-four (24) hours of the occurrence.

Within the immediate area of the incident scene, nothing is to be disturbed nor removed after proper evacuation of the injured personnel. Except when necessary to avoid further injury, equipment will not be moved, or the position of items, parts, pieces, controls, etc. will not be changed until photographs have UCHC.

As soon as UCHC can release the area from the above constraint, contractors concerned will clean up and make repairs to return to a normal situation.

Severe Weather

The following procedures are intended to prepare the project site in the event of severe weather conditions. Since severe weather may be reasonably anticipated to occur during the duration of the project, yet without significant advance warning, all work activities and project site conditions must be planned with a concern for emergency preparations.

Each contractor, at the time of mobilization, shall deliver to UCHC a complete list of the contractor's supervisors with the complete after-hours telephone numbers. The list shall be kept current and shall be updated accordingly.

Each contractor shall insure that his field trailers and his sub-tier contractors' field trailers are anchored in at least three locations.

Upon notification of a Severe Weather Watch by the U. S. Weather Bureau, the following actions are to be initiated:

Each contractor having on-site generators which are fuel-powered is requested to notify UCHC of the numbers and wattage. Generators may be needed to provide temporary power for rescue or clean-up activities.

All materials shall be secured to prevent them from becoming air borne during high winds.

Particular attention needs to be given to picking up scrap materials and hauling or covering trash containers.

Crawler and mobile cranes shall have booms lowered at the end of the shift. Cranes not capable of lowering booms shall be permitted to weather-vane or free-swing. Check to assure that swinging booms will not contact other objects such as power lines, structures, etc.

Sufficient flashlights, batteries, and bulbs shall be provided to assigned emergency response personnel.

A supply of fresh batteries shall be maintained at the project for use in an emergency response.

Other Major Catastrophe

Examples of other major catastrophes include:

- Major fire.
- Collapse of large portions of structures or large sections of scaffolds.
- Heavy damage by wind or floods.
-

The owner's security or local authorities will be provided with an emergency call list to summon the contractor's personnel to the site in the event of a major catastrophe outside working hours, on Saturdays or Sundays, etc.

The Contractor's Project Superintendent or his best-qualified alternate will cooperate fully with the directives of the hospital staff or local emergency authorities in the event of a major catastrophe.

He will take any or all of the following actions as appropriate.

1. Stop work.
2. Call for assistance from outside: fire trucks, ambulances, electricians, life flight helicopters, Civil Defense Support, police.
3. Initiate fire fighting; tie down building, etc.
4. Call for site evacuation, to clear site access roads.
5. Issue instructions to supervisors and to others as necessary.
6. Set up security control at the disaster area.
7. Set up communications center in site trailers: radio/telephone.
8. Call in operators for heavy equipment such as front loaders, cranes, etc.
9. Other actions considered necessary in the particular situation.

Bomb Threat

When a bomb threat is received or if a suspicious article is found, Contractor will take the following actions:

Work shall be stopped immediately and the project and office shall be evacuated of all personnel.

A head count will be made to assure that all are present.

Local police, fire or bomb disposal authorities shall be notified. A search of the premises will be made as directed by appropriate authorities.

If a suspicious article is found, DO NOT TOUCH IT, notify the appropriate authorities.

Do not allow anyone except authorized personnel to re-enter the area.

If necessary to stop or detour traffic away from the affected area, local police or flagmen shall be utilized.

No comments shall be made. All inquiries shall be referred to UCHC.

No on-site photographs are to be taken without the specific approval of UCHC.

UCHC shall make a full investigation and file a report within twenty-four (24) hours of the occurrence.

If repeated threats occur within a short period of time, UCHC will evaluate the situation and take appropriate action. This action may include shutting down the project site for that day.

Environmental Spill

In the event of a spill of environmentally damaging materials, immediate response is required to prevent or minimize the impact this event will have upon the environment and the public welfare.

All personnel shall continue to observe standard precautions for handling the materials as detailed in the manufacturer's product Material Safety Data Sheet (MSDS), including the use of personal protective equipment.

Where conditions warrant, the contractor shall have emergency spill containment supplies available for immediate use.

The following general procedures apply to the immediate response which must be initiated:

Immediately, all personnel in the immediate area of the release shall be alerted to the hazardous material and the nature of the immediate danger to themselves and the environment. As soon as possible, UCHC shall be notified and requested to initiate emergency containment and clean up procedures.

The UCHC Fire Department shall be notified to mobilize their hazardous materials response units and shall be given the necessary information regarding the materials that were released.

If safe to do so, every effort shall be made to contain the materials within berms, by absorbent materials, or through other appropriate means, until proper handling and disposal personnel may be mobilized at the site.

Particular attention needs to be taken to avoid contamination of surface water, storm sewers, sanitary sewers, ground, plants and animals.

All non-essential personnel shall be removed and kept back from the area.

No comments shall be made. All inquiries shall be referred to the Project Manager.

No on-site photographs are to be taken without the specific approval of the Project Manager and the Project Superintendent.

Contractor shall make a full investigation and file an Incident Report within twenty-four (24) hours of the occurrence. For incidents that include personal injury, an Incident/Illness Report will also be filed.

Within the immediate area of the incident scene, nothing is to be disturbed nor removed after proper evacuation of personnel. Except when necessary to avoid injury or further injury, equipment will not be moved, or the position of items, parts, pieces, controls, etc. will not be changed until photographs have been made and notes taken by the Project Superintendent or other person designated to make the investigation and report.

Contractor shall initiate the response of available environmental remediation contractors.

As soon as the site has been cleared by the environmental remediation contractor, the Project Superintendent will release the area for contractors concerned to clean up and make necessary repairs to return to a normal situation.

Public Demonstrations

When a public demonstration is expected or occurs, Contractor will take the following actions:

- Work on the project site shall continue where not encumbered by the public demonstration; however, work in the immediate area shall be stopped and all project employees shall be evacuated. A head count will be made to assure that all are present.
- Local police shall be notified, and all employees shall cooperate fully with the law enforcement authorities.
- Do not allow anyone except authorized personnel to enter the project site. All visitor passes are revoked and all visitors shall be escorted from the project site.
- If necessary to stop or detour traffic away from the affected area, local police or flagmen shall be utilized.
- No comments shall be made. All inquiries shall be referred to the Project Manager.
- No on-site photographs are to be taken without the specific approval of UCHC.
- Contractor shall make a full investigation and file a report within twenty-four (24) hours of the occurrence.
- If repeated public demonstrations occur within a short period of time, UCHC will evaluate the situation and take appropriate action. This action may include shutting down the project site for that day or obtaining a judicial restraining order.

EMERGENCY EQUIPMENT

Contractors may not block or obstruct access to emergency equipment, such as first aid kits, eyewash stations, safety showers, fire extinguishing equipment, fire hydrants, transformers and emergency generators.

Contractors may not relocate, obstruct or disable emergency equipment without prior permission of the UCHC Project Representative.

ENTRANCES AND EXITS

Contractors may use only those entrances and exits designated for the work area. UCHC posts emergency exits with appropriate signs and often equips them with exit alarms to discourage unauthorized use. Contractors who need to disable door alarms shall obtain prior approval from the UCHC Project Representative. The UCHC Fire Department may also have alarms on some doors that will need to be secured.

Exit doors shall not be blocked. The storage of construction materials, equipment or debris in exit corridors is not allowed.

TRAFFIC SAFETY AND PARKING

Contractors shall observe speed limits, stop signs, no parking signs, crosswalks and other traffic rules. Contractors shall park in areas designated by the UCHC Project Representative. Vehicles parked in fire lanes, reserved areas or roadways are subject to towing. Contractors may not park or drive on sidewalks or landscaped areas unless permitted by the UCHC Project Representative. UCHC is not responsible for contractor vehicles or their contents. There is a limited amount of parking at UCHC thus, non-essential vehicular traffic must be minimized.

Service vehicles, material delivery and, construction equipment needed on site (i.e steel deliveries and staging of concrete trucks) must be coordinated in advance with your UCHC Project Representative and UCHC Department of Public Safety. In addition, areas shall be approved for concrete truck wash out by the UCHC Project Representative.

In addition, the following circumstances will require approval from the designated UCHC Project Representative or the UCHC Department of Public Safety 72 hours prior to start of activity:

- Road blockage or restriction must specify the purpose for the road blockage, the exact location(s) of the road blockage, the extent of blockage/passage, the preferred date and time of the requested blockage and the required duration of the blockage.
- Using access or egress routes that interact with pedestrian traffic flow.

Contractors shall provide a trained,(if required certified), traffic flagger for deliveries that require blockage, including partial roadway blockage for equipment or material deliveries. In addition, a review of the job hazard analysis is required to ensure that changes in traffic flow are carried out in the safest manner.

Contractor parking must follow the requirements and instructions of the UCHC Department of Public Safety.

LOADING DOCKS/RECEIPT OF MATERIAL

Contractors may utilize UCHC docks for loading or unloading material and equipment. Due to the high volume of UCHC shipping and receiving traffic, contractors shall make prior arrangements through the UCHC Project Representative or UCHC Office of Materials and Resource Management. Contractors shall make every effort to unload promptly and move to a designated parking space.

Deliveries directed to UCHC's docks must identify whom to contact on arrival. Generally, UCHC cannot receive material not ordered on UCHC purchase orders. In the event these materials are inadvertently received, UCHC assumes no responsibility for their disposition.

Workers shall follow loading dock safety procedures. This includes, but is not limited to ensuring dock locks and chocks are utilized during loading and unloading.

STORAGE AT JOB SITE

It is the responsibility of the Contractor to secure any materials or equipment at the job site. Industrial and construction materials to be stored outside shall be approved by the UCHC Project Representative after evaluation of security and environmental issues, including secondary containment requirements, storm water runoff concerns, potential for water damage or mold growth on construction materials, etc.

The UCHC Project Representative may designate a storage area for industrial and construction materials or project-specific storage limitations. Mechanical and electrical equipment rooms may not be used for storage.

The UCHC Project Representative shall approve storage areas in advance of materials being stored.

SECURITY FOR CONTRACTORS

Contractors are responsible for awareness, knowledge, and full compliance with all applicable rules, regulations, laws, and practices applicable to Subcontractor's Work that are prescribed by UCHC, State of Connecticut and any local government or agency that governs the safety and health of employees, students, faculty, and the general public as well as protection of the environment. These include, but are not limited to, regulations promulgated by the following: Occupational Safety and Health Administration (OSHA), Environmental Protection Agency (EPA), Department of Transportation (DOT), Department of Energy, Nuclear Regulatory Commission (NRC).

IDENTIFICATION BADGING AND BACKGROUND CHECKS

ALL personnel of Contractors, Subcontractors and Vendors who will be working within UCHC buildings must obtain an Identification badge from the UCHC Department of Public Safety.

Badges will not be issued without a background check performed by the UCHC Department of Public Safety.

Each background check takes approximately 2 weeks and costs around \$75.00.

Contractors and Subcontractors must incorporate the necessary background checks within their project schedules. Refer to the UCHC **Background and Federal Sanctions Checks** policy for additional information (See Appendix V of this manual).

HARASSMENT POLICY

Within the framework of the President's Policy on Harassment contractors are advised that, sexual comments, whistling, extended staring, touching or otherwise harassing students, patients, faculty, employees and staff is prohibited. Sexual harassment will not be tolerated. Disciplinary action will be taken.

LOITERING AND SOLICITATION

Workers are expected to leave the site immediately upon completion of their job/project. Advertising or solicitation of any type on UCHC premises is prohibited.

SMOKING

UCHC is a smoke free campus. Smoking is not permitted anywhere inside any Health Center buildings. Smoking is not permitted outside buildings within 50 feet of any building entrance, unless the area is specifically designated by a "Smoking Permitted" sign. **Effective November, 2010 smoking will not be allowed on the campus grounds.** Smoking is not permitted near outdoor storage areas for flammable chemicals or when using flammable or combustible liquids outdoors. In addition, Contractors shall refrain from smoking near open windows, doors, or air intakes. Contractors who are found smoking in undesignated areas will be asked to leave the campus and may forfeit their right to access campus. A complete copy of the entire Smoking Policy (2003-44) is available for review upon request.

PROHIBITED ITEMS

UCHC prohibits alcoholic beverages, illegal drugs, firearms, ammunition and other weapons on its premises. UCHC may refuse entry to any person possessing such items, or suspected of being under the influence of alcohol or drugs.

Individuals (or contractor crews) found in the possession of alcohol and/or illegal substances will be immediately removed from the site. If alcohol and/or illegal substances are found on-site in a gang box, conex box, office, or vehicle, and the individual(s) responsible cannot be identified, the entire crew will be removed from the site. People "under the influence" of alcohol, illegal substances, or prescription drugs which are incorrectly used shall be removed from the site and suspended for a period of time as determined by the UCHC Project Representative up to and including permanent removal from the project.

It is UCHC's policy that the presence of designated drugs in an employee's system and/or the manufacture, sale, distribution, purchase, possession, dispensing and use of such drugs while engaging on UCHC property or while on UCHC premises are strictly prohibited. The drugs so designated by UCHC include illegal narcotics, depressants, stimulants and hallucinogens. The taking of prescription medication in the manner prescribed by a physician is an exception to this policy provided it does not impair a person's ability to perform his/her job.

Employees are prohibited from performing their job while under the influence of alcohol. The possession and/or consumption of alcohol on UCHC premises are prohibited. Violations of this policy will result in immediate removal from UCHC premises.

WEAPONS AND FIREARMS

Lethal and non-lethal weapons and firearms of all types, excluding knives used for construction activities, are prohibited from the UCHC Campus at all times.

TIMES WORK CAN OCCUR

All contractor work shall be conducted at the times agreed to within the framework of the contract and discussions with the UCHC Project Management. Derivations of work times must be approved by the UCHC Project Representative prior to commencement of contractor activities outside of normal work times.

ENVIRONMENTAL, HEALTH, AND SAFETY INSPECTIONS

Contractor work areas may be observed and inspected at any time to ensure compliance. UCHC and ORS staff or their designated representatives may perform inspections. In addition, a neutral third party may be secured to perform these inspections. Any deficiencies noted during the inspection must be corrected immediately. Violations could result in disciplinary action, fines and/or expulsion from UCHC property.

SAFETY INSPECTIONS

Contractors are required to conduct and document [daily/weekly/monthly](#) safety inspections of their work areas and practices, and those of their subcontractors. UCHC may conduct routine tours of work areas to evaluate Contractor safety performance, and will request correction of any observed deficiency. Contractors shall immediately correct hazardous conditions noted. These observations do not relieve the Contractors of their obligation to train their workers, provide a safe workplace for them, and insure that they are working safely. Records of these safety inspections will be made available upon request.

CONTRACTOR HEALTH AND SAFETY PLAN

Contractor shall submit a Site Specific **Health and Safety Plan (HASP)** to the UCHC Project Representative prior to commencement of the contracted work. The HASP is a working document which incorporates applicable regulatory rules and regulations, UCHC site requirements, UCHC Environmental, Health & Safety procedures and requirements, and any other standards (e.g., ANSI, NFPA, etc.) that may be applicable to the UCHC campuses and their facilities. **The HASP shall be job / site specific to identify potential hazards and necessary protection to protect contractor employees, UCHC staff, students, patients and visitors.**

The HASP is to be continuously updated as the project development dictates. Revisions to the HASP shall be reviewed and approved by the UCHC Project Representative or their designate.

The HASP Contents may include but not be limited to:

1. Definitions
2. Introduction
3. Project Health and Safety Organization
4. Project Description
5. Special Policies
6. General
7. Job Hazard Analysis
8. Training Requirements
9. Personal Protective Equipment
10. Medical Surveillance
11. Air Borne Particulate and Odor Control Plan
12. Site Control Measures
13. Personal Hygiene, Sanitation and Decontamination
14. Emergency Response and Contingency Plan (*coordinated with UCHC*)
15. Public Control Plan
16. Posted Regulations
17. Logs, Reports, and Recordkeeping
18. Spill Prevention Control Plan for Oil and Hazardous Materials (*coordinated with UCHC*)
19. Progressive disciplinary program

TRAINING

Contractors are fully responsible for the training of their employees assigned to work at UCHC. When training is required by law or regulation (e.g., hazardous waste operations or asbestos workers), the Contractor shall ensure that only trained workers are assigned to work at UCHC. In addition to meeting the regulatory requirements, it is UCHC's expectation that all personnel shall be adequately trained in proper techniques to safely perform the job assigned to them. Contractor personnel may also be required to complete certain UCHC-specific training prior to beginning work. Contact the UCHC Project Representative for additional guidance. Contractor training certificates shall be submitted along with the Health Safety Plan to the UCHC Project Representative prior to contract work commencement. UCHC management will periodically audit projects requiring properly training personnel.

10 HOUR CONSTRUCTION SAFETY COURSE

Contractors shall be in compliance with An Act Concerning Construction Safety. The bill requires all state or municipal contracts of \$100,000 or more for the construction or repair of a fully state-financed public building to require that the contractor provide that all its employees performing manual labor or telecommunications work have completed safety training. Manual laborers must complete a 10-hour construction safety course conducted in accordance with federal Occupational Safety and Health Administration (OSHA) Training Institute standards. Telecommunications workers must complete 10 hours in federal OSHA telecommunications safety training. Proof of course or training completion must be submitted to the labor commissioner within 30 days after the contract is awarded.

COMPETENT PERSONS

Regulations require “competent persons” for situations, such as, crane operations, electrical safety, excavations, fall protection, and scaffolds. UCHC expects (where applicable) contractors to have trained competent persons within line of sight of such activities. Contractors shall submit the names of all relevant Competent Persons along with proof of their Competent Person status prior to the commencement of their work. UCHC management will periodically audit projects requiring competent persons.

If a qualified competent person is not available, work will be stopped.

SAFETY REPRESENTATIVE

Contractor Safety Manager (CSM)

One, full-time Contractor Safety Manager shall be assigned for contractor that has 25 or more employees (including subcontractor employees) working in the field. (For example, if the Contractor has 15 direct hire employees and 10 subcontractor employees it will have at least one CSM covering safety.) This person will be responsible for carrying out the duties as described in this document. The Contractor Safety Manager shall have no other duties other than safety (dedicated). Additional Contractor Safety Representative are required for each additional 50 workers thereafter. When a Contractor Safety Manager is not required because the worker count falls below 25 employees, at a minimum, the Contractor will be responsible for having a Contractor Safety Representative (CSR) assigned. In addition, UCHC reserves the right to require that Contractor to supply a CSM in the event that the Contractor demonstrates the inability to manage safety in accordance with requirements.

Contractor Safety Representative (CSR)

Contractor Employee assigned safety responsibilities for shift work and distinct work locations as required. The CSR reports to the CSM. Additional Site Safety Representative personnel shall cover shift work and distinct locations as required. The Contractor can delegate the CSR duties to an on-site Field Supervisor. CSR responsibilities cannot be delegated to an office or staff employee.

Subcontractor Safety Representative (SSR)

Subcontractor Employee assigned the responsibility of implementing the Contractor’s Site Safety Plan.

Contractor Safety Manager and Representative Requirements

1. The CSM shall be identified in writing to UCHC prior to the commencement of work.
2. The CSM shall have a minimum of five (5) years of qualified project safety representative (primary project duty) experience on similar type construction project.
3. The contractor shall submit the resume of the CSM candidate to UCHC Safety for review, prior to the start of on-site work.
4. UCHC reserves the right to direct the removal and replacement of the CSM if necessary.
5. The CSM shall be provided for the duration of the contract. The Contractor Safety Representative(s) shall be provided for the duration of the work when the Contractor and it’s Subcontractors are at the project site.
6. A CSM or CSR shall be present at all times when work is taking place.
7. The Contractor shall maintain a list of Contractor and Subcontractor Safety Representatives. This list shall be available for review upon request.

Subcontractor Representative Requirements

1. Each Subcontractor must have a designated Subcontractor Safety Representative (SSR) who is assigned the responsibilities for managing all safety aspects with their subcontractor.
2. The SSRs must be approved by the Contractor based on their experience and qualification to administer and manage safety programs. SSR will need to be reported to UCHC.
3. UCHC reserves the right to direct the removal and replacement of the SSR if necessary.
4. The SSR shall be provided for the duration of the contact. The SSR(s) shall be provided for the duration of the work when the Subcontractors are at the project site.
5. SSR shall be present at all time when work is taking place.

JOB HAZARD ANALYSIS

Prior to commencement of Work on a Project, the Contractor shall prepare a Job Hazard Analysis (JHA) for each trade. The Contractor shall submit the JHA to the UCHC Project Representative before beginning work on the Project. The Contractor shall keep all JHAs in a bound notebook in an easily accessible location for the length of the Project. The Contractor shall update the JHA's as necessary and provide updates to UCHC Project Representative throughout the Project and in a timely manner.

Since the hazard associated with construction and renovation often changes as projects progress, the contractor must plan and update the hazard analysis to reflect these changes.

Pre-mobilization

The Contractor, before mobilizing to the project site, shall attend a pre-construction "award" meeting with UCHC to understand the project conditions and safety requirements.

A project site tour shall be made to confirm the Contractor's awareness of potential safety hazards.

Appropriate methods, equipment, devices and material shall be provided by the contractor to assure a safe work place.

The Contractor shall provide or develop his own project specific safety program and submit it to UCHC for review prior to starting work at the project site.

Such review shall not relieve the Contractor of responsibility for safety, nor shall such reviews be construed as limiting in any manner. It is the Contractor's obligation to undertake any action that may be required to establish and maintain safe working conditions at the project site.

HAZARD ANALYSIS

Prior to beginning work, each contractor shall prepare a hazard analysis that defines the activities to be performed and identifies the sequence of the work, the specific hazards, and the methods to be used to eliminate or minimize each hazard.

The hazard analysis shall be submitted prior to, and will be reviewed during the pre-construction meeting by UCHC, and the contractor's supervisors and safety representative. The hazard analysis shall be written in a form acceptable to UCHC.

Hazard Analysis shall be done when the scope of the work or conditions change.

Each Contractor Foreman will inform their work crew of the Hazard Analysis for their work activity each day prior to start of work or when conditions change.

Each contractor shall submit for review by UCHC a site specific safety program which addresses all the elements of this safety plan as they will be implemented by the contractor, its contractors, vendors and suppliers.

The hazard analysis will be included as an appendix to the contractor's site-specific safety program.

Each Contractor foreman will inform their crew of the Daily Safety Pre-Task Plan for their work activity each day before the work for the shift starts or when conditions change.

Each crew member will sign the daily pre-task plan before they start the work activity for the shift. The Contractor or sub-Contractor foreman will carry the signed daily pre-task plan form during the work shift for safety referenced audit.

The previous daily pre-task plans shall be submitted to the CM by the start of the next work day shift.

I have several sample daily pre-task safety forms – we need to choose one and insert in the appendix.

INCIDENT REPORTING

In order to maintain a safe and secure work environment, contractors shall immediately report any incidents or observations that may affect the safety of their employees, UCHC employees, students, patients, staff, or the general public.

Unsafe acts or behavior - Report unsafe behaviors and conditions immediately to the UCHC Project Representative. Stop work if an imminent danger exists. Work will cease until the contractor corrects the issue to the satisfaction of the UCHC Project Representative.

Incidents, Injuries, Near-Miss - Within 24 hours of an incident or injury, contractors shall report details of all such incidents to the UCHC Project Representative and UCHC Public Safety. The contractor will document an incident investigation on all injuries other than first aid cases as defined by OSHA Record Keeping Guidelines. The contractor will submit a copy of the incident investigation and corrective actions to the UCHC Project Representative within 48 hours of the incident.

Emergencies - Contractors should be familiar with emergency reporting guidelines. When reporting emergencies by telephone (7777 in-house, (860) 679-2121 outside phone), include the building and the exact location, room number, the type of emergency and a callback name and telephone number. Stay on the line until the emergency operator ends the call. The contractor

should remain available to provide information to the emergency responders as needed. Contractors are responsible for implementing their own system for accounting for employees during an emergency. Contractors shall work with the UCHC Project Representative to ensure a system is in place for safeguarding employee safety during a campus emergency that requires either evacuation or shelter-in-place.

Security Issues - Notify any UCHC Police Officer or call UCHC Public Safety to report any issue causing security concern. This may include theft, threats or acts of violence, malfunctioning or disabled security devices and violations of security policies or procedures.

EHS PROGRAM ENFORCEMENT

It is the responsibility of each Contractor to comply with the policies and intent of this manual as well as all applicable federal, state, local, and UCHC requirements.

The procedures below outline a three-step, progressively administered system to correct compliance problems. However, if in the opinion of UCHC, non compliance issues are considered severe, the Contractors' contract may be terminated at any time of the individual(s) may be denied access to the project.

Non-Serious Violation - A safety violation that has a direct relationship to the safety of the project but in all probability would not result in an injury or property loss.

Serious Violation - A safety violation that has a direct relationship to the safety of the project and could possibly result in a serious injury and/or property loss.

Serious Intentional Violation – Violations that may have potentially severe consequences, or place individual(s) in imminent danger. A serious intentional violation may result in immediate dismissal. Examples of serious intentional violations include:

- Smoking in designated no-smoking areas.
- Possession of alcohol, firearms, and/or illegal drugs.
- Fighting or belligerent behavior.
- Tampering with emergency equipment.
- Working without a valid shutdown notification, hot work permit, or application of a lockout/tag out.
- Working without proper fall protection, placing a person in imminent danger.
- Entering excavations/trenches without appropriate sloping, shoring, or other protective measures, placing a person in imminent danger.
- Entering areas designated and marked as “Do Not Enter”, placing a person in imminent danger.
- Operating equipment without valid licensing or training certification.
- Not reporting work related injuries and/or damage to UCHC equipment or property.

- Failure to correct recognized safety hazards.
- Repeated or multiple safety violations of the same nature.
- Other acts, which indicate a subcontractor employee's, disregard toward his/her safety, the safety of others, or neglect of proper care of UCHC property/equipment.

Action Level One

If a Contractor fails to comply with an applicable HSE standard, UCHC will issue a written "Notice of Safety Non-Compliance" to the Contractor's site representative. UCHC will also forward a "Warning Letter for Safety Non-Compliance" and a copy of the Notice of HSE Non-Compliance to the Contractor's President or Operations Manager. Copies of these documents shall be forwarded to the UCHC Operations and HSE Managers.

Action Level Two

If item(s) of HSE non-compliance are not corrected by Action Level One, or if the contractor repeatedly fails to comply with the applicable HSE regulations, UCHC will issue a "Written Notice of Temporary Job Suspension" to the Contractor. The Contractor's work may not resume until the UCHC Representative and the Contractor's senior level manager or equivalent have met and the Contractor has proposed corrective actions that are acceptable to UCHC. Actions that may be considered include, but are not limited to:

- Removal of certain personnel from the project,
- Alteration of the Contractor's job procedures, or
- Implementation of corrective action by the UCHC with back charges to the Contractor.

The Contractor shall not resume work until UCHC accepts the proposed corrective actions. RUMC will document and keep on file the meeting results in the form of meeting minutes.

Action Level Three

If Action Levels One and Two do not result in the Contractor's HSE performance being brought into compliance, contract termination may result. UCHC may terminate the contract after verifying that the HSE adherence procedure has not been followed and after giving the Contractor applicable notice. Contractors that have a contract terminated in accordance with this procedure are ineligible to participate in future Contractor projects until they have implemented and demonstrated corrective actions to improve their deficiencies. Only written approval from UCHC can reinstate a Contractor's eligibility.

II. ENVIRONMENTAL REQUIREMENTS

AIR POLLUTION CONTROL

Contractors must abide by good management practices to ensure that their daily activities do not adversely impact the air quality. These shall include, but not be limited to:

- Contractors shall retain fuel slips for construction vehicles/equipment that are refueled on site. Low sulfur Diesel fuels or “biofuels” are required.
- No open burning is allowed on the UCHC Campus.
- Vehicles shall NOT be operated near building fresh air intakes, and shall be equipped with exhaust scrubbers to minimize impact to indoor air quality.
- Equipment shall not be allowed to idle for excessive periods of time when not in use.
- Solvent or other noxious emissions shall be evaluated as part of the work planning process to determine engineering control requirements prior to field implementation of the scope of work.

EROSION AND SEDIMENTATION CONTROL

When excavation or demolition activities are conducted at exterior locations on the UCHC campus, the Contractor shall be responsible for compliance with all local, state, and federal regulations related to Erosion and Sedimentation Control. All engineering controls shall comply with **Connecticut Guidelines for Erosion and Sedimentation Control, as amended (2002 Guidelines for Erosion and Sedimentation Control)**.

DEWATERING ACTIVITIES

The discharging of stormwater and dewatering wastewaters is typically covered under the State of Connecticut’s General Permit program. Contractors shall notify their UCHC Project Representative before pumping groundwater or precipitation from their work area. Only clean water, with neutral pH, can be discharged. If necessary, a settling pond for removal of silt before final discharge must be used.

A General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities is required for projects with disturbance of one or more acres, regardless of project phasing.

ENVIRONMENTAL PERMITS AND LICENSES

Contractors and other service providers may be asked to work with or on behalf of UCHC Project Representatives to secure environmental permits. In some cases, the Contractor may submit the permit application. Contractors are responsible for following the requirements in the environmental permits. Project permits shall be on file with the project documents and shall be made available upon request.

Under no circumstances shall a contractor use a material in an application that is banned under the Toxic Substances Control Act (40 CFR 700-799).

SPILL PREVENTION AND RESPONSE

To maintain Spill Prevention, Control and Countermeasure (SPCC) compliance the storage of fuel and other types of oil and grease products in above ground bulk storage tanks and containers (55 gallons or greater) should be avoided. Contact UCHC's ORS should your project require the storage of oil or grease products in bulk storage tanks and containers.

Personnel involved in fuel transfer operations shall be familiar with transfer operations and the use of the spill clean-up materials. Spill clean-up materials must be available during fuel transfer operations from fuel delivery vehicle to site equipment.

In the event of a spill, the Contractor is responsible for immediately reporting any and all spills to the UCHC Fire Department by dialing 7777, the UCHC Office of Research Safety and UCHC's Project Representative upon discovery. Spills or unplanned releases include spilling, spraying, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment of any chemicals or hazardous substances, hazardous materials, oils or petroleum products must be reported immediately.

Contractors shall be solely responsible for all environmental remediation, including all costs required to address any spill or release of oil, fuel or hazardous material as a result of their operations at any UCHC project. In the event of a spill or release, remediation shall be completed in accordance with all applicable federal, state and local regulations, ordinances, orders and directives, UCHC ORS and the UCHC Fire Department. Clean-up by UCHC of Contractor spills or releases will be charged back to the Contractor(s) responsible for the release.

Contractors who import chemical-based products to UCHC properties shall provide a spill control kit, compatible with the material to be used, and sized to accommodate a failure of the largest single container they plan to import. Spill kits shall be immediately available in the work areas where chemicals will be stored or used.

Operators of hydraulically operated equipment shall also maintain a minimum of one spill control kit sized to accommodate the largest reservoir in their inventory.

The UCHC Fire Department is staffed and stocked to deal with most spills that occur on the UCHC Campus. For a copy of the SPCC Plan, please ask your UCHC Project Representative.

HOUSEKEEPING AND WASTE DISPOSAL

All Project work areas and premises should be maintained in a clean, healthy and sanitary condition. Work areas, passageways and stairs, and walkways in and around buildings and structures should be kept clear of debris and maintained free of dangerous depressions and/or obstructions. Debris and scrap material should be removed from the immediate work area on a daily basis.

All waste and construction debris generated on a UCHC work site must be removed and properly disposed in compliance with local, state, and federal regulations.

- Contractors must supply their own waste collection containers, unless other means of disposal is agreed upon with the UCHC Project Representative prior to the start of work.
- The receptacle must be in good condition and labeled with the Contractor's name and the containers contents.
- Contractor construction debris must be removed from the worksite daily.
- Never place any trash or material in the "RED BAG" or Medical Waste Containers located though out the Health Center.

Areas around waste collection containers must be kept clean of debris.

HAZARDOUS MATERIAL DISPOSAL

Contractors are fully responsible for the proper disposal of all hazardous wastes that they generate while at UCHC. Hazardous waste may be generated from construction and renovation activities and a variety of other contractor's activities at UCHC.

Common hazardous wastes generated include:

- Waste solvents and solvent soaked rags;
- Waste oils and lubricants generated by a variety of operations including motor vehicles, elevators, plant maintenance, etc. UCHC has an SPCC Plan (Spill Prevention, Control and Countermeasure Plan) in place due to the amount of fuels, gas and oil storage on campus. The Contractor should be aware of what this document contains and how it pertains to any activities you may be undertaking on the UCHC Campus.
- Unused chemicals and other hazardous substances, such as strong acids and bases, paints, aerosol cans, etc. that are no longer needed, do not meet specifications, are contaminated, have exceeded their storage life, or are otherwise unusable;
- Waste ethylene glycol and other coolants;
- PCBs, batteries, lead paint and other miscellaneous materials including, contaminated rags and wipes, broken mercury-containing lamps (i.e. fluorescent lamps) and thermometers.

UCHC ORS is available to assist Contractors with hazardous waste management procedures including disposal, although these activities remain the responsibility of the Contractor. The Contractor in coordination with UCHC ORS must promptly remove and dispose of any regulated or hazardous waste generated by the Contractor (oil, paint, solvents, gasoline, etc.) from the site.

Contractors shall provide documentation to their UCHC Project Representative verifying proper treatment or disposal of hazardous and regulated waste.

This documentation shall be provided no later than thirty-days (30) from the date the regulated or hazardous waste is transported for treatment or disposal. UCHC will withhold payment for any invoiced disposal services that are not fully supported with all required regulatory documentation. UCHC ORS must sign off on all disposal paperwork to ensure proper disposal.

RECYCLING

UCHC encourages Contractors to recycle as much as possible, consistent with good practices and economic realities. UCHC requires that contractors shall recycle, at a minimum, the following materials:

- Corrugated Cardboard.
- Clean dimensional wood.
- Glass containers
- Uncoated asphalt, bricks, and concrete (ABC).
- Metals including, but not limited to, stud, trim ductwork, piping, reinforcing steel (rebar), roofing, other trim, steel, iron, galvanized sheet steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze.
- Electronic components, computers, CRTs, printers, televisions, stereos, etc.
- Used motor oil and other recyclable petroleum products
- Any other materials for which reuse, salvaging, or recycling results in a net cost that is equivalent to or less costly than landfill disposal or incineration.

Recyclable solid waste generated at UCHC by contractors and their subs must be placed in properly designated receptacles supplied by the Contractor. The receptacle must be in good condition, labeled with its contents (e.g., glass, cardboard, scrap metal, used oil) and, if exposed to precipitation, covered. Receptacles must be emptied on a regular basis. Contractors cannot use UCHC receptacles unless otherwise approved by their UCHC Project Representative.

Contractors shall not place unlike wastes in containers made available for recyclable materials and should also be aware that the State of Connecticut has banned the following waste streams from in-state incineration or landfill disposal. These items may not be included in waste destined for incineration or landfills in any quantity:

- Lead-acid batteries
- Leaves and Yard Waste
- Whole Tires
- White Goods (Appliances)
- Cathode Ray Tubes (CRTs) including computer monitors
- Metal, Plastic and Glass Containers
- Recyclable Paper

Resale or recycling of UCHC materials requires UCHC/State of Connecticut approval. The Contractor must provide written evidence that resold or recycled material was disposed in the manner and location approved by UCHC.

III. HEALTH & SAFETY REQUIREMENTS

CHEMICALS, HAZARDOUS MATERIALS, COMMUNICATION OF HAZARDS and MSDS

1. Chemicals and hazardous materials used at UCHC shall be accompanied by a Material Safety Data Sheet (MSDS). Prior to use of the material(s), Contractors shall provide an MSDS to the UCHC Project Representative for distribution to affected University departments and areas. Material Safety Data Sheets (MSDS) are required for various chemicals, solvents, paints, thinners etc., in the workplace. Any scope of work involving the use of chemicals cannot be adequately planned without the information contained in the MSDS (i.e.: acceptable exposure levels, personnel exposure monitoring requirements, instructions for safe use, required personal protective equipment, etc).
2. Contractors and their employees shall comply with all regulatory requirements in the management of the chemicals and materials they use at UCHC. Contractor personnel should be thoroughly familiar with the information contained in the MSDS and shall use the chemicals safely. If the use of the material has the potential for exposure to UCHC personnel (students, faculty, employees or patients) the UCHC Project Representative shall consult ORS before starting the job. ORS is available to make recommendations to minimize exposures to chemicals or hazardous materials. Contractors shall be aware that vapors and/or odors from chemicals can travel long distances. Every attempt shall be made to minimize or eliminate the potential for exposure.
3. Contractors are responsible for managing their chemical containers according to federal, state, and local regulations. Contractors shall remove any remaining chemicals or unused hazardous material products within 24 hours of their completed use on a project, unless approval is received from the UCHC Project Representative to leave the material on site.
4. Contractors shall use the minimum quantity of chemicals necessary to perform the day's work. Portable containers shall not exceed five-gallon capacity without a UCHC Project Representative's and ORS's approval.
5. Special precautions shall be observed prior to using any chemicals or hazardous materials in mechanical, electrical or air distribution rooms. The UCHC Project Representative and ORS must be notified prior to use of chemicals in these areas.

SPECIFIC TOXIC SUBSTANCES OF CONCERN

ASBESTOS

1. Asbestos-containing materials (ACM) and Presumed Asbestos-Containing Materials (PACM) exist in most University buildings. Contractors shall not disturb asbestos-containing materials in UCHC facilities during the course of any renovation or demolition activities, including installations or repair work. Contact the UCHC Project Representative for information about the location of ACM within the project area.

2. All Contractors must comply with OSHA training requirements for their employees who may contact, but not disturb, ACM. This is considered Class IV work and requires, at a minimum, 2 hours of asbestos awareness training.
3. Should suspect ACM or PACM be found during work activities, the Contractor will stop all work immediately and contact the UCHC Project Representative. No work shall be attempted that could result in a release of ACM to the environment.
4. In the event of an asbestos emergency (release to the environment), isolate and secure the area. Immediately contact the UCHC Project Representative and Public Safety (7777 in-house or (860)-679-2121 outside line) and identify the nature and extent of the asbestos emergency.

LEAD BASED PAINT

1. Lead Paint exists in many UCHC facilities. While EPA, HUD, and the Connecticut Department of Public Health (CTDPH) are concerned only with residential paints that are dated pre-1978, for childhood poison control issues, OSHA considers all residential paint, even that post-1978 as *contaminated* with lead. Exposure levels for lead in the construction industry are regulated by 29 CFR 1926.62. Many construction activities, such as hand scraping and sanding, light demolition, grinding, welding, cutting and burning have been shown to expose workers to airborne levels of lead that exceed OSHA's Permissible Exposure Limit (PEL). Contractors must follow OSHA regulations when any paint surfaces can be impacted.
2. While lead-based paint test data exists for some UCHC buildings, Contractors must use documented lead-safe work practices in all University buildings. Contact the UCHC Project Representative to review test data as necessary.

PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING

1. The contractor shall provide workers with personal protective equipment (PPE) such as safety glasses, respirators, hard hats, gloves, and safety shoes when performing certain activities or when working in designated areas. The contractor shall ensure PPE is available and used appropriately. The UCHC Project Representative will stop work at if appropriate PPE is not in place.
2. Contractors are responsible for assessing hazards and associated risks, for selecting and providing PPE, and for providing adequate training to personnel on inspection and use. It is UCHC's expectations that PPE shall be properly maintained, appropriate for the task, and shall comply with applicable regulations.
3. Contractors must control their work zones and effectively communicate the hazards of the work zone and required personal protective equipment to all UCHC Representatives requiring access to those work zones. The contractor shall be responsible for controlling access and will deny access to any UCHC Representative or other party not wearing the proper protection.

MINIMUM PPE FOR CONSTRUCTION AREAS ON UCHC CONSTRUCTION SITES

The following items are the minimum PPE for all construction areas at UCHC:

- Safety glasses with rigid side shields (ANSI Z87.1, or equivalent) shall be worn at all times when in the construction environment and in any area where eye hazards exists. Safety goggles may be worn over non-safety prescription eyewear.
- Hard Hats (ANSI Z89.1 or equivalent) shall be worn at all times where overhead hazards exist (e.g. construction, environmental operations, operations or maintenance environment), regardless of the workers activities. This includes welders when using welding hoods.
- Hard-toe footwear (ASTM F2413, or equivalent) shall be worn by all workers when in the construction environment or in areas where there is a danger of foot injuries due to falling, rolling, or piercing objects or when employee's feet are exposed to electrical hazards.
- Long Pants;
- Long-sleeved shirts are required when working in a production building, utilities, or any pipe rack that contains production piping or utilities; and
- Professional appearance is required. Shirts with four inch sleeves are required; muscle shirts, tank tops, or tee shirts with inappropriate graphics or slogans are prohibited.
- Gloves, appropriate for the hazard present, shall be worn when hands are exposed to absorption of harmful substance, cuts, abrasions, punctures, biological hazards, chemical burns, thermal burns, or harmful temperature extremes.
- High-visibility reflective safety vest (ANSI/ISEA 107, Class II, or equivalent) must be worn by all personnel, working on or near construction activity. Class III vest shall be worn when workers are working near active highways, roads, or parking lots.

ADDITIONAL PPE CONSIDERATIONS

- Fall retention harness with arresting lanyard as required.
- Ear plugs or ear muffs if the work will involve employee exposures to loud noises (>85 dB)
- Respiratory protection (written respiratory protection program and medical monitoring required)
- Non-conductive, insulated gloves, boots, and blankets as required by the NEC.
- NOMEX or approved fire resistant clothing as required by NFPA
- Fire / heat resistant gloves with gauntlets
- UV protective goggles / face shield
- Impact resistant face shield
- Electrical Hazard rated (EH) safety shoes for working in substations or while performing work on live parts.

RESPIRATORY PROTECTION

UCHC expects each contractor and its subcontractor shall manage their own Respiratory Protection Program. The Contractor shall ensure that only employees formally trained and qualified in respiratory protective device use shall use respirators. Each of the contractor's employees and its subcontractors must be fitted and tested to assure the respirator provides adequate protection as per OSHA regulations.

Respiratory protection requirements for specific jobs shall be documented in the contractor's Standard Operating Procedures and the contractor's Written Respirator Program.

CONFINED SPACE ENTRY

Contractors who may need to enter a confined space at UCHC as part of service delivery shall conduct entry under a Permit-Required Confined Space (PRCS) program at least as stringent as that required by OSHA. Permit-required confined spaces may include, but are not limited to, storage tanks, in-ground vaults, boilers, trenches, manholes, lift stations, and valve pits. Contact the UCHC Project Representative and the ORS for a listing of known permit-required confined spaces.

If during the course of work, the Contractor encounters a confined space that has not been previously identified by UCHC, the Contractor must notify the UCHC Project Representative so that the space can be assessed by the Project Representative in consultation with ORS.

Prior to conducting work in or around Permit-required Confined Space, contractors shall notify the UCHC Project Representative. Upon this notification, UCHC shall provide the contractor with information relative to the known or anticipated hazards of the space. Upon completion of the confined space entry, the contractor will notify the UCHC Project Representative and provide information on any unexpected hazards that were encountered.

Contractors are expected to comply with the OSHA Permit-required Confined Space Standard. Therefore, they are expected to:

1. Have a permit space entry program in place that meets the OSHA standard.
2. Ensure their employees are properly trained.
3. Have the equipment and resources available to ensure a safe entry, including atmospheric testing equipment, protective clothing, hard hats, respirators, life-lines, ventilation equipment and safety harnesses etc.
4. Notify the University Fire Department at (860) 679-4291 prior to conducting any permit entry at UCHC.
5. **Provide for emergency rescue. The contractor must arrange for the appropriate level of rescue services required based on the potential for the types and severity of the rescue that may be required. Documentation on the rescue procedure, authorized rescuers, training and equipment must be available on site prior to conducting confined space entries requiring rescue services.**

The use of University services or equipment by contractors to perform an entry is strongly discouraged. If University and contractor personnel will be working together during an entry, or an unforeseen circumstance requires the use of University services or equipment, the UCHC Project Representative must secure a waiver and release from the contractor.

EYEWASHES AND SAFETY SHOWERS

Contractors are responsible for supplying eyewashes and safety showers for their employees while performing work on the UCHC campus. They will ensure these units are in full operational compliance for use during an emergency. The Contractor is responsible for assessing the adequacy of all units to be used, whether permanent or temporary, and to ensure that they are in full operations compliance.

FIRST AID AND MEDICAL SERVICES

Contractors are responsible for ensuring that first aid and medical services are available for their employees. UCHC is available to assist with emergency first aid, as necessary. Dial 7777 from a campus telephone or (860) 679-2121 from any outside phone to summon emergency assistance. The contractor is responsible for recording and reporting injuries and illnesses as required by OSHA.

FALL PROTECTION

Once a worker leaves the floor, an elevated work situation is created and a proper work platform must be provided per OSHA. 100% fall protection is required in areas where the fall hazard is 6 feet or greater from the worker's foot-level, or where the individual is working over dangerous equipment on this project. Such protection must be approved guardrails, nets or personal fall arrest systems.

Anchorage points for tie off shall be able to sustain a minimum load of 5000 lb. per person and be located at or above the workers shoulder level. If no anchorage point exists at or above shoulder level, special lanyards shall be utilized to ensure fall arrest forces cannot exceed OSHA limits. Anchor points shall be at a sufficient height to allow the lanyard to arrest the fall prior to the employee impacting with the surface or equipment below. Small diameter pipes, cable trays and electrical conduit are not to be used for anchors or platforms. Anchor points must be within 6 feet of the worker or else a retractable lanyard must be utilized. Lanyards shall not be strung together.

ELEVATED WORK - FALL PROTECTION

A 100% Fall Protection Plan, including protection systems, shall be developed by the contractor for all work with a fall exposure greater than 6-feet with a copy provided to UCHC prior to start of work.

Materials and equipment shall not be installed or released from elevated locations in an uncontrolled manner, and areas below elevated work locations shall be barricaded off to exclude all persons (i.e.- installation of conduit, pipe, steel, etc.).

Controlled Access Zones, Safety Monitoring, and Warning Lines are not permitted on this project.

When wire rope is used as guardrails providing fall protection, all connections & splices shall be loop type connections with a minimum of three (3) wire rope clamps when used as a guardrail and three (3) wire rope clamps when used as a horizontal lifeline. Turnbuckles shall be installed at suitable intervals to maintain the required tautness of the wire rope but in no instance less than one per linear section of 100 feet and one at every corner.

Cold-rolled metal studs are prohibited from use for guardrail or handrail systems. All anchorages for wire rope cable will be capable of withstanding a minimum of 200 pounds force if the wire rope is used as a guardrails system or a minimum of 5,000 pounds force per person attached if the wire rope is used as an anchorage for a personal fall arrest system.

When wire rope is used as a horizontal lifeline, the system shall be designed by a registered professional engineer and maintained by a competent person. Design, installation, and maintenance of this system must meet all OSHA requirements at a minimum.

Leading Edge Policy- Any employee working on any elevated work platform or ladder within 6' of a leading edge that has a drop of 6' or more shall be 100% tied-off using a personal fall arrest system.

Personal Fall Protection systems shall also be worn and used by all employees when working six (6') feet or more above the ground/floor or whenever working in a precarious position.

Only approved full-body safety harnesses with two (2) double-locking lanyards are approved for use on this project as a part of a personal fall protection system.

100% tie-off requires connecting the second lanyard before disconnecting the first one.

All lanyards are to be as short as possible, but in no event longer than six (6') feet.

Shock absorbing lanyards must be used unless a Self-Retracting Lanyard is in use.

Wire rope lanyards are prohibited unless approved by UCHC.

Only lanyards labeled and approved for tieback use shall be used to tieback to the lanyard as a choker around an anchor.

Safety Harness and lanyard shall also be worn and attached to the manufacturer's approved anchorage when working out of aerial lifts and to vertical drop lines when working from suspended scaffolding.

Vertical safety lines shall only be used by one individual at a time.

The Contractor shall pre-plan fall protection anchorage points around all stairwells, shafts, building perimeter and leading edges with a fall potential of 6' or greater.

ROOF WORK

Working on a roof within six feet of the edge requires appropriate fall protection (railings or warning lines with safety monitors or personal fall protection).

Contractors shall not work on roofs without prior approval from the UCHC Project Representative. Access to the roof will be controlled. Only authorized persons designated by the contractor shall be granted access. Contractor must obtain other appropriate permits as needed i.e. Hot Work, Confined Space Entry, etc.

FLOOR OPENINGS

Working within six feet of a floor opening (skylight, hole, open hatch, etc.) requires appropriate fall protection. Floor openings (holes) shall be protected with a fixed cover, using materials of sufficient strength to support any imposed load or to equal the design floor loading capacity, or shall be guarded by a standard OSHA-compliant fixed railing system with toe boards on all exposed sides except at entrances to stairways.

When floor openings are protected with covers, the cover shall be clearly marked: “**Danger- Hole – Do Not Remove**” and secured in place.

LADDERS

The following guidelines apply to all UCHC facilities per OSHA:

- All ladders must be in good condition and free of any broken or defective parts.
- Metal or conductive ladders are prohibited from UCHC worksites.
- Any ladders with broken or split rails, rungs, steps, or any defective parts must be removed from the UCHC property.
- Portable ladders must be securely footed and equipped with suitable safety shoes to prevent slippage.
- Workers shall not place ladders in door swing areas unless the door is locked or otherwise blocked from striking the ladder.
- Ladders must extend a minimum of (3) three feet beyond the landing surface and be securely tied at this point to prevent any movement. When used against beams, pipes, or similar supports, workers shall secure ladders to prevent shifting, slipping, or being knocked over.
- Stepladders must only be used in the open and locked position.
- Work from ladders at heights over 6’ shall require personal fall protection
- All ladders marked with the contractors name

ROOFTOP EXHAUST FANS

Roof top Exhaust fans located at the Health Center are capable of discharging potentially hazardous vapors. Contractors shall not conduct work around rooftop exhaust fans without obtaining approval /clearance from the UCHC Project Manager and the UCHC ORS.

COMPRESSED GAS CYLINDERS

1. Cylinders shall be properly secured and labeled to identify contents in accordance with OSHA’s Hazard Communication Standard.

2. Workers shall close valves when cylinders are idle, empty or moved. Valve protection caps shall be in place when cylinders are moved or stored.
3. Contractors shall keep cylinders a safe distance or shielded from Hot Work.
4. Contractors shall comply with OSHA requirements on the separation of cylinders containing incompatible chemicals.
5. Cylinders shall only be hoisted using approved hoisting carts.
6. All cylinders shall be marked with the contractors name.

HOT WORK / BURN PERMIT

UCHC utilizes and enforces the use of a Hot Work / Burn permit system to help minimize the risk associated with Hot Work. We encourage contractors to provide suggestions or alternative methods on ways to avoid Hot Work. For instance, can bolted flanges be used? Can the welding be done outside?

If Hot Work shall be performed the contractor must follow **UCHC's Fire Departments Standard Operating Procedure #3.6 Hot Work / Burn Permits** (see Appendix V of this manual).

WELDING, CUTTING AND BURNING – HOT-WORK

A suitable, approved fire extinguisher shall be ready for instant use in any location where welding is done. Screens, shields, or other safeguards must provided by the contractor performing the work for the protection of men or materials, below or otherwise exposed to sparks, slab, falling objects, or the direct rays of an electric arc.

Welders shall wear approved eye and head protection. Worker assisting the welder shall also wear protective glasses, head protection and protective clothing.

Adequate exhaust ventilation shall be maintained at all welding and cutting work areas.

A dedicated fire watch shall be present at all welding operations and remain for at least 1 hour after the hot work has halted.

Electric Arc Welding

Electric welding equipment, including cables, shall meet the requirements of the National Electric Code.

All arc welding and cutting cables shall be of the completely insulated flexible type capable of handling the maximum current requirements of the work.

Leads shall be inspected before each use. Those in need of repair shall not be used and shall be placed out of service and removed from the project site at the end of the shift. Welding leads shall not be repaired with electrical tape.

The frames of all arc welding and cutting machines shall be grounded either through a third wire in the cable connecting the circuit connector or through a separate wire which is grounded at the source of the current.

All ground connections shall be inspected to insure that they are mechanically strong and electrically adequate for the required current.

Welding practices shall comply with all applicable regulations.

Work permits shall be obtained daily, prior to any welding operations on the site.

Gas Welding or Cutting

When gas cylinders are stored, moved, or transported, the valve protection cap shall be in place.

When cylinders are hoisted, they shall be secured in an approved cage or basket.

The valve cap shall never be used for hoisting.

All cylinders shall be stored, transported, and used in an upright position.

If the cylinder is not equipped with a valve wheel, a key shall be kept on the valve stem while in use.

At the end of each work day or if work is suspended for a substantial period of time, compressed gas cylinder valves shall be closed, regulators will be removed and properly stored, and valve caps replaced.

Cylinders containing oxygen or acetylene or other fuel gas shall not be taken into confined spaces.

Cylinders containing oxygen or acetylene or other fuel gas shall be stored in designated areas outside the structure as approved by UCHC Fire Department.

No one shall use a cylinder's contents for purposes other than those intended by the supplier.

All hose used for carrying acetylene, oxygen or other fuel gas shall be inspected at the beginning of each working shift. Defective hose shall be removed from service.

Oxygen cylinders and fittings shall be kept away from oil and grease. Oxygen shall not be directed at oily surfaces, greasy clothes or hands. Regulators, gauges, backflow check valves, and torches shall be kept in proper working order.

All oxygen/acetylene setups shall have a 'flashback arrestor' style check valve installed as per manufacturer's recommendations.

An approved fire extinguisher (minimum 20#) shall be readily available.

Appropriate personal protective equipment, such as burning glasses, shields, and/or gloves shall be used.

Adequate exhaust ventilation shall be maintained at all welding and cutting work areas. Work permits shall be obtained daily, prior to any burning or cutting operations on the site.

WORK PERMIT PROCEDURES

Hot Work

Hot work is defined as a process or procedure that could result in a fire if not properly controlled. Common types of hot work are welding, burning, cutting, brazing, soldering.

Hot Work Permits are required for all new construction and renovation work in all existing buildings owned, leased, or occupied by UCHC.

Hot work will usually be permitted only during normal working hours. Permits will be issued the day before work is to be accomplished, and the work area will be inspected to verify that adequate control has been established. A copy of the permit will be available at the point of work.

An adequate number of fire extinguishers, provided by the Contractor, will be available within 50-feet of the point of work for which a permit is issued.

The Contractor will take the necessary precautions when welding or burning above walls to assure that protection is maintained on both sides of the wall and those areas below are protected on multilevel buildings.

A fire watch whose sole duty is only to fire watch will be present in these type areas at all times during hot work operations. Inspection of the permit area one hour post-completion of all hot work is required of the Contractor.

FIRE SAFETY

1. UCHC prohibits smoking in its facilities and on its campus. Violators may be asked to leave the premises on first offense.
2. Contractors should be familiar with the location of fire alarm activation devices (pull stations,) portable fire extinguishers and at least two exit routes from the work area. Contractors shall not obstruct access to exits, exit routes or fire equipment or prop open stairwell doors.
3. All fires shall be reported by activating the nearest fire alarm station, followed by dialing the appropriate UCHC EMERGENCY NUMBER. Dial 7777 from any UCHC phone or (860) 679-2121 from an outside phone.
4. Contractors shall be trained in the proper use of portable fire extinguishers if conducting fire watch duties as part of the Hot Work / Burn Permit process. Contractor-supplied fire extinguishers shall be clearly marked and have current inspection. Contractors shall provide their own portable fire extinguishers for any hot work unless other arrangements have been made with the UCHC Project Representative.
5. Flammable and combustible liquids are easily ignited and thus shall meet all the labeling, use, storage and disposal requirements outlined in the Chemicals and Hazardous Materials section in this document.
6. Only the UCHC Fire Department shall open a fire hydrant or standpipe. Contractors may not use UCHC fire hoses unless prior approval has been obtained from the UCHC Project

Representative and Fire Department. Water supply flow tests shall be arranged with the UCHC Fire Department, Facilities and FM Global.

7. Contractors performing welding, torch cutting, soldering, grinding, using high temperature heat gun and other forms of "Hot Work" shall adhere to the special requirements listed in the Hot Work section of this document. Hot Work shall not be conducted during times when sprinkler systems have been impaired.
8. Provide a fire extinguisher as prescribed by UCHC Fire Department in the construction areas, along with evacuation plans and Air Horns for emergency signals. The use of an air horn and evacuation plans should be described within the Contractor's Site Specific Health and Safety Plan.

FIRE PROTECTION

Contractor shall be responsible for fire protection in its work and operational areas, including offices, tool rooms, and storage areas, twenty four (24) hours per day, seven days per week through the duration of this Contract.

The contractor, as required by OSHA and the local fire protection code, must provide appropriate fire suppression equipment.

A sufficient number of fire extinguishers of the type and capacity required to protect the work and ancillary facilities shall be provided in readily accessible locations.

A minimum size of 20 pounds for multi-purpose ABC chemical extinguishers is required on the project.

A fire watch and at least one fire extinguisher of appropriate size & type will be provided by the contractor for all Hot Work Operations.

Chemical extinguishers must not be used to attempt to cool Hot Work; water is the preferred medium for cooling of Hot Work.

Hot Work Permits are required to be completed by the Contractor before starting any activities that create fire, sparks, cinders, slag, etc.

Only metal safety containers approved by UL and the Local Fire Marshall, and properly labeled as to their contents, are to be used for handling and/or storage of flammable liquids in quantities more than one gallon.

All temporary Contractor's offices, storage sheds, workmen's shanties, etc. are to be located outside of and a minimum of 50 feet away from structures under construction.

All tarpaulins and plastic used for temporary covers shall be of fire resistance manufacture.

All insulation materials required for the curing of concrete shall be non-combustible.

Dumpsters containing combustible materials shall be located a minimum of 50 feet away from structures under construction.

Contractor must provide a competent fire watch for after-hours operation of any / all temporary heaters.

Work shall be scheduled such that the installation of water supplies, sprinkler systems, and fire hose will closely follow completion of floors and areas.

Temporary Heating

Temporary heating devices should not be installed or used by anyone on the job until authorized by the Project Superintendent and cleared with the UCHC Fire Department. Electric Space heaters shall not be used. When tarpaulins or canvas coverings are used on the project, they must be a U.L. listed material made of a fire resistant material with a flame spread rating of 15 or less. These materials should be securely fastened.

FIRE PROTECTION IMPAIRMENTS

1. Contractors shall take precautions to prevent damage to fire protection systems. Report damage immediately to the UCHC Project Representative.
2. Contractors who need to disable a fire protection system shall contact the UCHC Project Representative and the UCHC Fire department. Notify the UCHC Project Representative of any planned fire protection impairment at least forty-eight (48) hours in advance to obtain for an approval to shutdown. This applies to sprinklers, fire mains, fire pumps, and fire alarm system components.
3. A Fire Watch is required by the UCHC Fire Department whenever fire protection equipment is disabled for more than 4 hours within a 24 hour period. The contractor is responsible for the cost of all fire watches associated with their work.
4. During fire protection equipment impairments, all operations that present a fire hazard will be suspended. These would include all types of hot work. Fire protection systems should be restored as soon as possible by the end of the workday. Fire watch personnel may be required during fire system impairments.
5. Contractors shall not suspend materials or equipment on sprinkler pipes, valves or supports.

ELECTRICAL SAFETY

OSHA's regulations related to electrical safety recognize two key hazard management tactics: elimination of the hazard through shut down and isolation (Lock Out / Tag Out); or when live circuits must be maintained, protection from contact through the use of guarding, insulation, and protective equipment.

The following is a partial list of items to consider when working with or near energized systems:

- Contractors will comply with OSHA Subpart K Electrical regulations, the National Electric Code and NFPA 70E 2004.

- Contractors shall comply with the OSHA “Lock-Out/Tagout” Standard when working with de-energized equipment or circuits. Contractors shall identify the switches that energize the affected circuits or equipment. Due to their ability to store residual electrical energy, high voltage circuits shall be grounded on both sides of affected workers. Contact the UCHC Project Representative for assistance in identifying the locations of energy isolating devices.
- All permanent and temporary electrical work shall be done in accordance with National Electric Code, OSHA and other applicable standards.
- Contractors installing electrical service will label circuit breakers and disconnect panels as to their purpose. Proper PPE, including arc-flash protection, shall be worn when working on live equipment, per NFPA 70E 2004.
- Electrical extension cords and temporary feeders shall be three-wire grounded units using NEMA grounded receptacles and plug caps connected to a ground fault circuit interrupter" (GFCI) protection at the source when using electrical tools/equipment.
- Electrical cables or wires that are placed across roadways, doors or isles shall be secured to the floor or roadway and protected from damage.
- Contractors shall use explosion-proof equipment (i.e. Class I, Division I) in areas containing combustible or flammable vapors, dusts or fibers. Cords, connectors, and equipment shall be inspected to verify that they are free of defects.
- Frayed or cut electrical cords, or cords with damaged plugs or missing ground plugs shall be immediately removed from service, rendered unusable, and removed from the site. Defective tools cannot be stored in tool or gang boxes on site.
- The UCHC Project Representative reserves the right to confiscate and destroy any defective tool or cord immediately upon discovery if the defective tool or cord has not been rendered unusable.
- All temporary power or systems shall be removed at the conclusion of the work.
- Overhead power lines should be clearly marked and shielded (and de-energized if necessary) if cranes, material hoists, aerial lifts, excavators, or similar equipment will be operated in the area.

LOCKOUT/TAGOUT PROCEDURES

The contractor must adhere and strictly follow either the Project Lockout and Tagout requirements, the owner’s requirements or the contractors own requirements, whichever is the most stringent.

No employee is permitted to work on any energized circuit.

All circuit disconnects must be locked in the open position or otherwise appropriately identified with affixed tags stating "DANGER - DO NOT ENERGIZE" or other equivalent wording prior to working on the system or equipment.

Lockout Devices

Only individually keyed padlocks shall be used. Padlocks are to be painted per the craft color code for easier detection and craft identification.

A lockout device of the standard scissor type that will allow the placing of more than one padlock is required, when more than one tradesman is working on a circuit or mechanical process.

A piece of chain or cable may be necessary to complete a lockout on some valves or controls and shall be used wherever needed.

Danger Tags

'Danger Tags' are not 'Danger Signs', and shall not be used where a sign is needed.

Two standardized Danger Tags shall be used on this project. They are described as follows:

"DANGER - DO NOT USE": This tag must be attached to each padlock on a lockout.

"UNSAFE - DO NOT USE": This tag does not require an attachment to a padlock, but may be used if needed. This tag shall be used to identify tools, equipment, vehicles, etc.

Procedure

If device, valve, switch, or piece of equipment is locked out, a "Danger Tag" shall be attached.

No device, valve, switch or piece of equipment shall be operated with a "Danger Tag" and/or lockout attached regardless of circumstances! ! !

Systems consisting of electrical components will be checked, locked and tagged first by electrical craft employee working on the circuit.

The electrical craft will be the first lock on, and the last lock off. Where placing of lock is not feasible, the circuit conductor will be disconnected from the breaker and tagged out.

The panel cover must be of the type that will cover all breakers when closed and must be equipped with a hasp in order to secure a lock to prevent the panel door from being opened. If panel cover is of a type that cannot be locked closed, a cover must be secured over the panel cover and be locked closed and tagged while any work is being performed on any of those circuits.

If the above cannot be accomplished, each circuit will be tagged out as prescribed and an electrician will stand by the panel board to prevent breakers from being tampered with. This physical presence will continue daily until the work is complete.

All "Danger Tags" must be dated and signed. Also on tag, must be the intended work and equipment for which tag has been placed.

If employees of more than one craft or crew are to work on a system, circuit, machinery, or component, the supervisor from that craft shall place his individual lock and tag; and verify that the system, circuit, machinery or component being tagged, is indeed the system that is to be worked on.

Only the person that placed the lock and tag shall remove them without special authorization from the Project Manager, Construction Manager or Craft Superintendent. Padlocks, Lockout Devices and "Danger Tags" shall be made available as specified above. Padlocks shall be color coded for craft identification and shall only be used by that craft for lockout purposes, i.e. valves, switches, electrical components, etc.

Padlocks shall be issued from the contractor responsible where a sign in/out log will be maintained.

Locks and tags shall be issued to the foremen or supervisor responsible for the craft performing the work. The contractor of each craft discipline will be responsible for assuring all padlocks are personally identified, that will be used for lock and tag purposes.

The Contractor Superintendent(s) will be responsible for ordering their own craft's padlock. A master key will also be provided. Any employee(s) or person(s) found to have removed another's lock and/or tag will be subject to disciplinary action up to and including dismissal from the project.

Special Situations

When due to the nature of work, a supervisor who has employees assigned to work on systems that are between construction and client turnover that is to be locked and tagged out in order to perform work, the below shall be applied:

Prior to the electrical foreman de-energizing the system, the foreman will ascertain whether system or device has been turned over and accepted by the client; If system is signed off, the client shall assume responsibility for de-energizing system and becoming the tagging authority.

Contractor Electrical foreman/craft journeyman places lock and tag and tries to engage the equipment. The electrical journeyman or lead man will meter the tagged equipment to verify that it is de-energized.

Operating Facilities and Equipment

All systems covered under this section whether electrical, mechanical or other, are considered those systems where no future construction activity is warranted.

Electrically Operated Systems

Client representative or designee de-energizes system demonstrating accuracy to construction electrical supervisor, then locks and tags. Construction electrical foreman/journeyman ascertains that fuses, breakers or throws have been removed, when applicable, tags, locks and tries system. Electrical foreman/journeyman, meters the side of the system to be worked on to verify it is de-energized and safe. Upon completion of work, the journeyman removes their lock/tag and advises the construction electrical supervisor. Client representative or designee clears system, removes lock and tag and re-energizes if necessary.

Other Systems

Plant engineer or designee de-energizes system and makes system safe. Client mechanics or designee(s) makes first break in flanges, places blanks, blinds or valves, and demonstrates that the system is empty and decontaminated. Construction (Client) Coordinator or designee verifies that the system is de-energized and tagged. Construction Craft supervisor locks, tags and tries system, surrenders the key to the journeyman who will then perform the assigned task. Upon completion of work, the journeyman will return the key to the assigned supervisor and tag and lock are removed. Construction (Client) Coordinator or designee assures that system is clear, and then removes lock and tag. Client mechanics or designee(s) re-energize system.

Construction

All systems under this section whether electrical, mechanical or others, are considered those systems that are still in the construction phase. Equipment or circuits that are de-energized shall be maintained inoperative at their main power source and shall have locks and tags attached to prevent incidental turn on. A staff member shall be designated from the electrical department (Superintendent or General Foreman), to assume the responsibility, for the removal of locks and tags, and activation of power from the main switchgear through end line component.

- Workspace required to access and service electrical systems shall not be used for storage.
- When normally enclosed live electrical systems are opened for service work, passageways shall be barricaded or guarded to prevent contact with energized equipment. Proper calorie rated PPE shall be worn when working around live or otherwise exposed equipment.
- Electrical connections shall be coordinated with a UCHC electrician.
- Electrical tie-ins shall be conducted only on de-energized (locked out and tagged out) systems.
- When planned, live electrical work is necessary due to the inability to shut down a critical load, a pre-task safety meeting conducted by the contractor's electrically qualified person with all participants is required. Detailed written procedures shall be utilized whenever live electrical work is deemed necessary and performed and discussed in the meeting along with necessary PPE requirements.
- Unauthorized, live tie-ins to electrical services will result in the immediate and permanent exclusion of the worker from all UCHC facilities.
- After a contractor performs repairs, maintenance or installations, verification to ensure that the electrical equipment components are operationally intact and that no electrical hazard exists upon re-energization shall be performed before UCHC qualified employees shall attempt to re-energize the electrical equipment. This verification can be performed by qualified persons from the Facilities Electric Shop or a qualified third party, at the discretion of the Facilities Electric Shop supervisor.
- Remember: Isolate it, Lock it, Tag it, and Try it.

LOCKOUT/TAGOUT (Hazardous Energy Control)

The Contractor will assure proper isolation and control of hazardous energy on affected equipment and machinery. Contractors will comply with the OSHA "Lock-Out/Tagout" Standard including training and equipping workers. Contractors are expected to maintain a written program and work cooperatively with UCHC personnel for multiple lockouts.

Lockout/Tagout procedures must be exchanged and coordination of procedures must be discussed between the Contractor and UCHC during a pre-job meeting.

All concerned University employees must be effectively informed of the restrictions and prohibitions associated with the Contractor's Lockout/Tagout procedures.

CRANES AND HOISTS

1. The contractor shall not use UCHC-owned or leased crane or hoist equipment, unless contractually indemnified to do so or unless they have signed a separate indemnification authorizing them to do so.
2. Before lifting the first load of the day, the contractor shall verify the hoist system will operate properly by conducting documented inspections. These inspection documents should be made available upon request of the UCHC Project Representative.
3. Contractors shall not leave suspended loads unattended. When moving a suspended load, the operator shall assure personnel are clear of the path of transport. Workers will not stand or walk under suspended loads.
4. **Loads cannot travel over occupied portions of buildings. The Contractor must develop a rigging plan when planning on moving loads over occupied areas. The Contractor and the UCHC Representative shall review the plan and coordinate vacating areas along the load path.**
5. Crane operators and riggers shall be thoroughly trained and competent in the use of such equipment. The contractor shall provide a “competent person” (as required by OSHA) to oversee and/or perform lifting operations.
6. Contractors shall establish a restricted work area using barricades and other appropriate controls to minimize the hazards to personnel from swinging or falling objects.

Crane Safety Program

General Obligations

1. Compliance will be in accordance with the Occupational Safety and Health Administration’s (OSHA), American National Standards Institute (ANSI)/American Society of Mechanical Engineers (ASME) standards.
2. All cranes meeting the definition defined under Subpart CC will be covered under this policy, including tower cranes. These cranes must be larger than one (1) ton to comply with the policy.
4. Operators of cranes (mobile, barge or tower) must be certified by an accredited agency and licensed by the State of Connecticut for the particular crane they are licensed to use.
5. Riggers must be certified and qualified prior to being authorized to connect a load to a hook.
6. All riggers/signalpersons of tower cranes must utilize blue vests with high visibility striping and equipped with air horns to notify everyone of a lift.
7. All riggers/signalpersons of land/water based mobile cranes will utilize a hardhat ID and if necessary equipped with air horns to notify everyone of a lift.
8. Cranes must sound horns prior to lifting.

9. Competent Persons must be assigned as lift directors by the Contractor prior to being authorized to oversee any crane activities.
10. Assembly/Disassembly (A/D) Director must be assigned by the Contractor prior to overseeing any crane assembly/disassembly or tower erection/climbing/dismantling work

All A/D workers must be trained by the A/D director prior to any erection activities.
A Pre Task Plan must be developed to meet this requirement.
11. A tower crane erection/climbing/dismantling plan must be submitted prior to mobilizing onsite.
12. Dedicated Spotters must be trained and assigned prior to any crane work near power lines or any other energy source.
13. The fall protection requirements for UCHC apply to all crane work. UCHC policy recognizes six (6) feet across the board, including erection/dismantling, maintenance, inspection or any other work.
14. Qualified Person must be deemed qualified and assigned by the Contractor prior to any crane activities, more specifically any crane activities involving critical lifts.
15. Inspections must be done in accordance with the various OSHA, ANSI/ASME, and company requirements.
16. All cranes must be considered and certified safe for use by the A/D Director and an Independent 3rd Party Crane Inspector prior to any lifts taking place and after all testing and inspections are complete. This includes boom changes, crane modifications or any other significant configuration.

Daily Inspections

Shall be performed by a competent person designated by the contractor in accordance with the manufacturer's recommendation and ANSI B30 Standard for the type of crane being inspected and the most current version. This inspection shall be completed prior to each shift starting work.

Operation

No work shall proceed without evidence of a current annual inspection meeting UCHC requirements.

No claims will be accepted for losses sustained by the contractor for delays caused by failure to comply with these requirements.

Cranes and other powered lifting devices shall be inspected by the operator: After set up and prior to initial lift. Before each shift. After every malfunction.

All crane outriggers shall be fully extended and shall be supported by adequate timber shoring at all times regardless of the existing surface material(s).

In the event that outriggers cannot be fully extended due to encumbrances, the lift shall be made as if being lifted without the use of outriggers (from rubber).

The use of a functioning “Anti two-Blocking” devices to prevent contact between the load block or overhaul ball and the boom is required on this project.

This feature will be tested on a daily basis. The load line(s) will be secured to a substantial anchorage point when work has been stopped or at the end of the day or shift.

Operational Aids - Anti two-blocking device

Telescoping Boom Cranes

Telescopic boom cranes manufactured after February 28, 1992, shall be equipped with a device which automatically prevents damage from contact between the load block, overhaul ball, or similar component, and the boom tip (or fixed upper block or similar component). The device(s) must prevent such damage at all points where two-blocking could occur.

Temporary alternative measures: Clearly mark the cable (so that it can easily be seen by the operator) at a point that will give the operator sufficient time to stop the hoist to prevent two-blocking, and use a spotter when extending the boom.

Lattice Boom Cranes

Lattice boom cranes manufactured after Feb 28, 1992, shall be equipped with a device that either automatically prevents damage and load failure from contact between the load block, overhaul ball, or similar component, and the boom tip (or fixed upper block or similar component), or warns the operator in time for the operator to prevent two-blocking. The device(s) must prevent such damage/failure or provide adequate warning for all points where two-blocking could occur.

Lattice boom cranes, and derricks, manufactured one year after the effective date of this standard shall be equipped with a device which automatically prevents damage and load failure from contact between the load block, overhaul ball, or similar component, and the boom tip (or fixed upper block or similar component). The device(s) must prevent such damage/failure at all points where two-blocking could occur.

Exception. The requirements do not apply to such lattice boom equipment when used for dragline, clamshell (grapple), magnet, drop ball, container handling, concrete bucket, marine operations, and pile driving work.

Temporary alternative measures. Clearly mark the cable (so that it can easily be seen by the operator) at a point that will give the operator sufficient time to stop the hoist to prevent two-blocking, or use a spotter.

Special Procedures

A lift procedure shall be developed by the Contractor for the following and submitted to UCHC prior to the lift taking place:

- Critical Lift (defined as when lifting a load where the weights are at or over 75% of the rated capacity of the crane and rigging as determined by the manufacturer);
- Multi-Crane Lift; 100 Tons or greater Lift;
- Any application that deviates from the manufacturers recommendations; Any lift within 25 feet of railroad tracks;
- Any lift where the swing radius travels over a public domain or right-of-way;

- When special or unique hazards are under or adjacent to the load at any time during the lift;

When UCHC determines such a procedure is necessary.

The Lift Procedure will include a Hazard Analysis developed by the Contractor and submitted to UCHC along with Pre-Lift meetings, which shall be held at 30 days prior to the lift, the day prior to the lift and immediately prior to the lift with the actual workforce doing the lift.

All concerned parties must be present for the meetings with minutes of the meeting recorded by the Contractor.

The Lift Procedure will include documentation of calculations which incorporates weight deductions of all rigging equipment, a load chart for the crane(s) that will be used, a site plan and layout sheet which will include the path of travel of the load, swing radius protection and any other necessary factors.

A Critical Lift Checklist or equivalent, shall be used.

The crane operator(s) shall be proficient in the operation of the crane(s) and licensed in the State/City where the operation is being performed. Certification by the National Commission for the Certification of Crane Operators (NCCCO) is required.

Record Keeping

All records pertaining to crane inspections shall be kept with the crane or in the trade contractor's site field office.

If during any safety inspection, the operator or supervisor cannot produce the required crane inspection documentation, the operator shall immediately cease operation of the crane in a safe manner and shall not resume operation until proper documentation is provided.

Where crane operators are required to be licensed by the State where the project is being built they shall have a current license and provide a copy to UCHC when requested.

Duplicates of Certification records shall be maintained on project site by Contractor and made available to UCHC upon request.

The contractor shall provide evidence of competency of the operator to UCHC.

Rigging

A Competent Rigger appointed by the Contractor shall perform all rigging equipment.

Rigging equipment shall be inspected by the Contractors designated Competent Person prior to its initial use on the job site and prior to each shift thereafter to ensure that it is safe.

Records of all inspections will be kept on the site and shall be made available to UCHC upon request.

All rigging equipment that is defective or damages shall be immediately removed from the project site.

The headache ball hook and all other rigging hooks, with the exception of “shake-out” hooks, must be equipped with a self-closing keeper or “mouse”.

Chain slings are prohibited from use for any lifting operation unless specifically designed for a unique application.

“Tag Lines” shall be provided and used when hoisting all loads aloft.

All hooks used for overhead lifting shall be equipped with safety latches or alternate lifting methods such as clamps will be used.

Shake-out/sorting hooks may only be used for unloading materials from trucks and will not be used for overhead lifting.

Only one ‘eye’ is permitted on any lifting hook.

A shackle must be used if two (2) or more eyes of a sling are to be placed on a lifting hook.

MOBILE EQUIPMENT/WORK PLATFORMS

Unless permitted by the UCHC Project Representative, and supported by appropriate indemnification in the contract language, contractors shall not use UCHC-owned aerial work platforms.

Contractors shall assure trained personnel operate mobile equipment, such as extendable boom lifts, scissors-type lifts, and cranes. The contractor shall provide trained personnel to assist the operator in clearing building fixtures or other obstructions when raising, lowering or advancing the equipment.

For outdoor projects, workers may not operate cranes, aerial platforms, power shovels, or similar equipment within fifty (50) feet of overhead utilities without prior approval from the UCHC Project Representative.

AERIAL LIFTS

Only documented, trained personnel shall be allowed to operate Aerial Lifts per OSHA. Aerial lifts (boom lifts) shall only be used for lifting personnel and their tools and must not be used as material hoists.

The manufacturer’s load limitations and operating requirements must be complied with.

Personnel working in aerial lifts must be tied off to anchorages specifically designed for that purpose (railings do not meet fall protection anchorage requirements).

Aerial lifts that are not equipped with such anchorages shall not be used.

Work shall only be accomplished from the floors of the baskets and must not involve climbing on basket railings, ladders, or other elevating platforms.

OSHA defined Frequent and Periodic inspections will be performed in accordance with manufacturer’s recommendations. Copies of these inspection reports shall be kept on site. Belting off to an adjacent pole, structure or equipment while working from an aerial lift shall not be permitted.

INDUSTRIAL POWERED VEHICLES

1. Industrial powered vehicles (more commonly known as Powered Industrial Vehicles or PIVs) include vehicles such as forklifts, powered pallet jacks, manned rail or wire-guided equipment or other vehicles that allow operators to move large or heavy loads. The contractor shall ensure their employees or subcontractors have had appropriate and effective training for the operation of PIVs in compliance with OSHA standards. Contractors should implement a method, such as identification badges or vests that clearly identifies trained operators. Workers may not use UCHC owned or leased PIVs unless they are contractually indemnified to do so or have signed a separate indemnification authorizing them to do so.
2. Workers operating PIVs shall conduct and document daily pre-use equipment inspections to assure that it is in safe operating condition. The documentation shall include the vehicle inspected, day of inspection and specific safety items inspected. Vehicles with malfunctioning safety features shall be tagged out and labeled “DO NOT OPERATE” and removed from service until repairs are completed. Documentation shall be made available upon request.
3. Battery charging shall be performed in areas designated by UCHC where an eyewash station is readily available. Appropriate PPE will be used during all battery charging operations. Refueling shall be performed in areas with adequate ventilation. Workers shall not refuel vehicles while the engine is running.

TOOLS AND EQUIPMENT

1. In general, Contractors shall provide their tools, equipment and secure storage for valuable tools. Contractors may not use tools owned by UCHC unless authorized by the UCHC Project Representative
2. Contractors shall inspect and maintain tools in safe condition using them only for jobs in which they are intended per OSHA.
3. When using pneumatic tools, the contractor shall disconnect hoses from air supply when not in use.
4. Contractors shall ensure that precautions are taken to prevent tools, equipment, materials, debris, etc. from falling from elevations.

LASERS, RADIO FREQUENCY AND RADIATION PRODUCING DEVICES

Contractors using Class IIIB or IV lasers or radioactive devices shall license, register and use such devices in accordance with all applicable regulations. Contractors will be required to provide evidence of current licenses for workers and registrations throughout the project to the UCHC Project Representative. All work utilizing these types of devices must be coordinated with UCHC ORS.

POWER-ACTUATED TOOLS

1. Prior to using power-actuated tools, authorization and approval are required by the UCHC Project Representative. Contractors shall ensure powder-actuated tools are used only by trained and, if required, licensed personnel. Power-actuated tools shall not be left unattended or available to unauthorized persons. These tools may not be used in explosive or flammable atmospheres.
2. Explosive-actuated tools shall meet the American National Standard Institute “Safety Requirements for Explosive Actuated Fastening Tools” and all other regulatory and applicable agency standards. Workers may not use any tool that does not meet appropriate design standards.

SIGNS, SIGNALS AND BARRICADES

1. At the entrance to the construction site or locations the following signage must be posted: “Construction Area”, “Restricted Area”, “Hard Hats, Safety Glasses, and Work Boots Required”.
2. When Lasers are being used “Laser in Use” Signs shall be posted.
3. Parking areas shall be conspicuously marked “Parking for Construction Only” or “No Parking”.
4. Locations where construction is occurring within an active building, work areas shall be barricaded to restrict and eliminate potential access and exposures to the public.
5. Cones, Tape, Guardrails, etc. maybe used to delineate and secure work zones based on the potential exposure and traffic at the locations.

EXCAVATION AND TRENCHING

1. Prior to excavating or trenching, contractor shall be responsible for utility marking, signage and barricades, shoring, and following applicable confined space entry procedures.
2. The contractor shall mark “limits of proposed excavation” locations of underground utilities before digging and contact “Call Before You Dig (CBYD 800-922-4455 or www.cbyd.com) as required by law. This is necessary to prevent service interruption or hazards from damaged utility lines. The contractor is responsible for marking out all utilities that are not located by “Call Before You Dig”. Hand digging is required near underground facilities such as electrical, gas, water or steam lines.
3. The contractor shall comply with the OSHA Excavation Standards and other regulatory requirements associated with the work. If the Contractor encounters any suspect material (i.e. discolored soil, pipe not on UCHC’s excavation package drawings), the Contractor shall stop immediately and contact his UCHC Project Representative.
4. The contractor will place warning signage on all sides of a trench or excavation to prevent pedestrians from crossing the opening.

5. The contractor will provide a “competent person” as required by OSHA Excavation Standards to inspect the excavation area and protective systems. Excavations greater than 20 feet deep require excavation protection plans that are designed and executed under the supervision of a professional engineer licensed in the State of Connecticut. This would apply to sloping, use of trench shields (trench boxes) and shoring systems.
6. Contractor shall utilize the appropriate protective system (sloping, trench shields (trench boxes) or shoring per OSHA for all excavations five feet or greater in depth and/ or as site conditions require. Excavation and trench work at shallower depths may require protection when the workers’ chest height is less than the depth of the excavation or trench.
7. Ramps shall be constructed per OSHA by the competent person.
8. Contractors will backfill as soon as possible once the work has been completed. To the extent possible, contractors will backfill by the end of each workday to avoid the hazards of open excavations, particularly at night. For projects that cannot be back-filled by the end of the day, the contractor will adequately barricade the excavation and/or provide steel plate covers.

BLASTING

Blasting is not allowed on UCHC projects.

SCAFFOLDS

All scaffolding, staging, and work platforms must satisfy the applicable OSHA regulations and manufacturer’s erection requirements. The proper use of scaffolding requires that:

- Scaffold erection /dismantling shall be directed by the Contractor’s competent person and in accordance with the manufacturer’s specifications or the design and specifications of a licensed professional engineer; specifications shall be available on site.
- The scaffold shall be equipped with an inspection tag with daily notations by the competent person that the scaffold has been inspected and approved for use.
- All scaffold planking shall be free of imperfections (Class A scaffold lumber), shall completely cover the entire work area, and comply with all lapping and overhang requirements as defined by OSHA scaffolding requirements.
- Planks shall be free of holes, saw cuts, and other defects. The contractor will provide and install toe boards, screens, or other suitable guards around the perimeter of elevated work surfaces to prevent falling objects from striking personnel below.
- Scaffold platforms more than six feet above any working surface must be equipped with a top rail (42” height), mid rail (21” height), and a toe board (4” high) on all open sides and ends. If the manufacturer’s requirements are more stringent (i.e. mobile staging less than 45" wide), they shall supersede these minimum requirements.
- Scaffold erectors or dismantlers shall tag any incomplete scaffold assembly as “**Incomplete - Do Not Use**” or other similar form of posted warning.

SCAFFOLDING

The Contractor's designated Competent Person shall inspect all scaffolds prior to each work shift with written documentation provided to UCHC on a daily basis. Any contractor using scaffolding shall provide to UCHC the name of their Competent Person along with the content of the Competent Person's training program and proof of Scaffold User Training for all employees who may work on scaffolding.

All scaffold planking shall be free of knots and cracks and shall completely cover the work platform.

Only planking that has been inspected and color-coded GREEN on the ends is permissible for use in platform construction.

Un-inspected or damaged planking shall be color-coded RED on the ends and cannot be used for platform construction.

Planking made from nominal grade lumber is not allowed for scaffold platform use.

All scaffolds shall be constructed by a competent person and supervised by a qualified person designated by the Contractor.

Signage shall be posted while erecting scaffolding, removing scaffolding, and any other time the scaffold is out of service.

100% six foot Fall protection will be rigorously enforced during scaffold erection and dismantling.

An approved scaffold inspection and tagging system shall be implemented and maintained.

All scaffolds shall bear a tag, signed and dated by the contractor's competent person, denoting that the scaffold has been inspected and is safe to use prior to any employee utilizing that scaffold that day.

Maintenance of the scaffold system is by the Contractor that erected the scaffold.

Scaffold Tagging

The use of scaffold tags is mandatory. A competent person shall tag all scaffolds. No one shall work from a scaffold that does not have a tag on it.

Scaffold tagging procedures shall not be used as a substitute for the building of an incomplete scaffold. Scaffolds shall be built as completely as possible.

Scaffold Tags

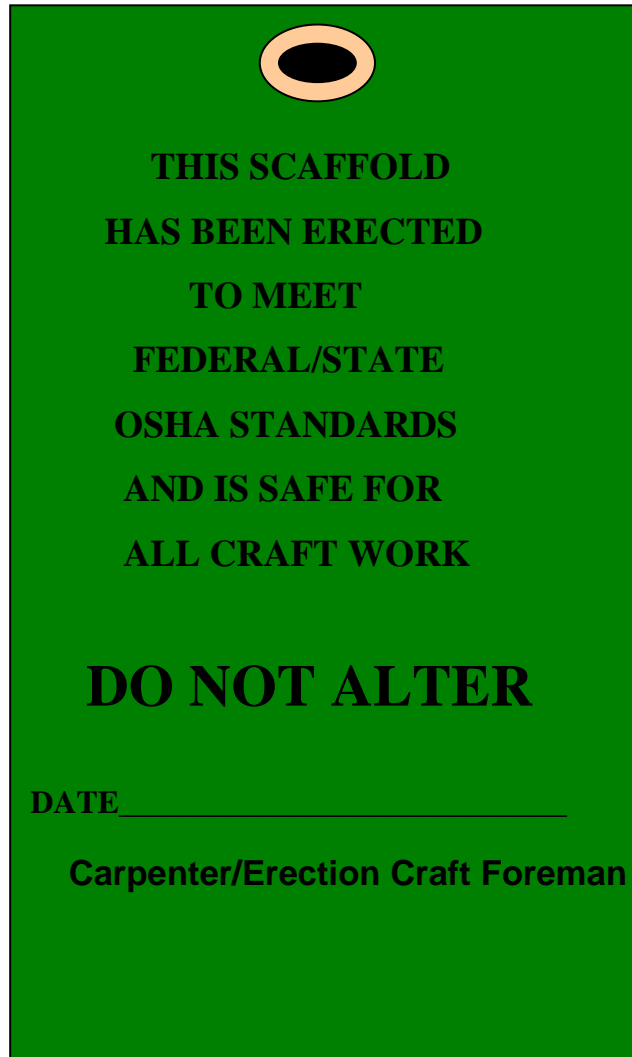
Green Tag - to be placed in scaffolds that comply with all Federal OSHA regulations (see **Exhibit A below**).

Yellow Tag - to be placed on scaffold that are structurally sound, but an accessory such as a handrail cannot be installed due to the location of the scaffold, or the nature of the work that is to be performed. Fall Protection is required on all yellow-tagged scaffolds. (See **Exhibit B below**).

Red Tag - to be placed on scaffolds that are being constructed or dismantled or scaffolds that are damaged and defective (see **Exhibit C below**).

Exhibit A

Green Scaffold Tag



**THIS SCAFFOLD
HAS BEEN ERECTED
TO MEET
FEDERAL/STATE
OSHA STANDARDS
AND IS SAFE FOR
ALL CRAFT WORK**

DO NOT ALTER

DATE _____

Carpenter/Erection Craft Foreman

Exhibit B

Yellow Scaffold Tag



**THIS SCAFFOLD DOES
NOT MEET**

**FEDERAL/STATE OSHA
SPECIFICATIONS**

**EMPLOYEES WORKING
FROM THIS SCAFFOLD
MUST WEAR AND USE
APPROVED
FALL PROTECTION**

DATE _____

Carpenter/Erection Craft Foreman

Red Scaffold Tag



STEEL AND PRECAST CONCRETE ERECTION

Erection Plan

A Site Specific erection plan will be prepared by the Steel Erection Contractor's Qualified Person and reviewed with the UCHC Project Safety Manager and Contractor prior to start of work.

Erection of structural members will not begin until the erection plan has been submitted and reviewed.

The Erection Contractor's Qualified Person shall approve all changes in the safety erection plan.

A copy of the erection plan shall be maintained at the project site showing all approved changes with a copy provided to UCHC.

The implementation of the erection plan shall be under the supervision of a competent person.

A safe means of access to the level being worked shall be maintained. Climbing and sliding on columns or diagonals, is not allowed.

Containers, buckets, bags, etc. shall be provided for storing or carrying bolts or rivets. When bolts, drift pins, or rivet heads are being removed, a means shall be provided to prevent incidental displacement.

Tools shall be secured in such a manner to prevent incidental falling.

100% six foot fall protection provisions such as lifeline attachments, dynamic fall restraints and other fall protection provisions shall be considered during shop drawing preparation, shall be incorporated in fabricated pieces, and shall have safety lines or devices attached prior to erection wherever possible.

For the protection of other crafts on the project, signs shall be posted in the erection area by the Erection Contractor reading, "Danger – Overhead Work" and "Only Ironworkers Allowed In This Area".

This will include shakeout areas, erection areas and the load travel path from the storage area to the erection area.

Only qualified personnel will be permitted to work as 'riggers'. Trade Contractor will submit names with qualifications to UCHC for review before any lifting activities are performed.

Correspondence must be on Company letterhead and signed by an officer of the Company.

Material shall not be hoisted to a structure unless it is ready to be put into place and secured.

When loads are being hoisted, all personnel are to be prevented from walking or working under the load.

No one shall be permitted to ride a lifting load under any circumstances.

When lifting loads, only one 'eye' is permitted on a lifting hook.

Shackles of appropriate size and grade must be used if two or more eyes of a sling are involved.

Chains are not permitted to be used for any lifting operation.

When setting structural steel, each piece shall be secured with not less than two bolts at each connection and drawn up 'wrench tight' before the load is released.

Bundles of metal decking or small material shall be so secured as to prevent their falling out from the rigging.

All metal decking will be secured in place as soon as practical but in no instance will decking remain unsecured at the end of the workday.

A tag line shall be used to control all loads.

Christmas treeing (multiple lifts) of more than three pieces is not allowed.

Crane Personnel Platforms will not be used for any purpose without the written approval of UCHC.

Pre-cast / Pre-stressed Concrete, Stone or Exterior Systems

The Erector will provide UCHC the following: A written erection plan prepared by a Company Officer or Professional Engineer indicating complete details of all phases of erection that shall include the following at minimum:

- Crane lift plans with load calculations based on the cranes to be used and various setup locations
- Written stabilization plans for all phases including the use of temporary guying and bracing for columns and wall panels
- Written documentation of temporary connection details for use until permanent connections are completed including capabilities of workers doing the installation, types of welds and/or adequacy of bolted connections
- Listing of competent persons, for fall protection, crane operation, and erection along with phone numbers for emergency contact
- 100 % six foot Fall protection plan in accordance with UCHC's Safety Plan including leading edge protection for during and after installation. Sequencing breaks and end of workday protective measures must also be detailed. Interior floor-hole protection shall be provided per OSHA requirements.
- Custody of guardrail cables following completion of precast erection. Erector to present a plan detailing how cables will be safely removed utilizing Personal Fall Arrest Systems or safety nets.
- Proof of training for all erection crew members.
- Delivery locations for trailers including adequate ground preparation and plans for unloading.
- Wind loading considerations including when operations will be suspended due to high winds.
- Any proposed filed modifications to the approved Erection Plan shall be approved by a Company Officer or the Professional Engineer of Record, added to the plan, which shall be available at the jobsite. A copy shall be submitted to and reviewed with UCHC prior to any change.

Adjustment of precast members, after initial placement, which requires the lifting of the members in any manner, shall not be made unless wire rope safety tiebacks are used or the members are attached to the crane load line.

Chains are not permitted to be used as slings.

Chain pulleys (chain-falls) are permitted with proof of required inspections and certification.

Fall Protection

All employees engaged in all erection activities including connecting, bolting-up, decking, welding or any other activity that exposes them to a fall of 6 feet or greater shall be provided with and use fall protection.

This protection shall be either a personal fall protection system consisting of a full-body harness, double shock absorbing lanyard, and anchorage OR a guardrail system OR a safety net system. Neither "Controlled Access Zones" nor "Safety-monitor systems" are permitted.

Metal Decking will not be considered a form of fall protection.

The exception contained within OSHA Standard 1926.501 (b) (12) allowing for a written fall protection program in lieu of other requirements is not acceptable for this project and is prohibited.

100% six foot fall protection requirements shall be rigorously enforced during steel/precast erection with any observed violation being cause for removal from the project.

These requirements apply to both steel & precast concrete erection.

Permanent Floors

Permanent floors shall be installed as soon as practical following the erection of structural members.

At no time shall there be more than four floors or 48 feet of unfinished bolting or welding above the foundation or uppermost-secured floor.

Temporary Flooring

The erection floor shall be solidly planked or decked over its entire surface except for access openings.

Planking shall be not less than 2 inches thick, full size undressed, and shall be laid tight and secured against movement.

Perimeter Protection

A guardrail system of two (2) 1/2-inch diameter wire rope cables shall be erected at approximately 42-inches from the finished floor deck and at the intermediate point immediately following the erection of beams and columns that are connected to provide adequate strength.

All sequence breaks will require a two-cable assembly.

Wire rope guardrails shall be flagged with high visibility tape at intervals of not more than 6 feet.

Perimeter cable guardrails systems, as specified above, will also be provided at all roof top elevations.

An engineered, horizontal lifeline, made from wire rope, will be installed at the perimeter of the building.

Columns shall be drilled to accommodate the lifeline at an appropriate height as designed by the engineer.

All connections will be 'loop connections' with appropriate hardware and will be made with a minimum of three (3) wire rope clamps.

Guardrail systems will not be used as a horizontal lifeline as part of the personal fall arrest system unless designed by a Registered Professional Engineer and installed under the supervision of the steel erector's competent person.

Additionally, at least three (3) wire rope clamps shall be specified and installed at all connections. Turnbuckles will be installed at suitable intervals to maintain tightness of all wire rope installations.

In no instance will there be less than one turnbuckle installed per perimeter side.

Electrical cords, welding leads and pneumatic hoses will not be suspended from guardrail systems.

Perimeter Protection is to remain in place for the protection of other trades and will be maintained by the Erector until it is no longer required.

Precast Leading Edge Protection

During the erection of precast decking, the Erector shall maintain a barricade system a minimum of one 'bay' back from the leading edge to insure other trades will not enter the erection area.

Also, a guardrail / cable system will be installed at the end of the shift for all leading edges / sequencing breaks.

Open Stairwell Protection

The stair erector whether steel or precast is responsible for providing a guardrail system as described above for all stairwell openings as well as for providing handrails for the stair system(s).

The stair erector shall install stairwells as soon as possible to facilitate safe access from floor to floor.

The tread pans of these stairwells shall be poured or temporarily filled to enable their safe usage as soon as possible.

Heat Stress Monitoring Plan

The climate combined with the requirements for protective equipment (PPE) may create heat stress for on-site workers. Because of the number of factors involved, all workers should be monitored for heat stress.

Monitoring requirements and work/rest schedules recommended for workers wearing permeable clothing such as cotton or synthetic work clothes should be followed in accordance with the current American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values for Heat Stress.

ACGIH recommendations for monitoring requirements and work/rest schedules recommended for workers wearing semi-permeable or impermeable ensembles can not be used. Instead, workers should be monitored when the temperature exceeds 70 degrees F. Monitoring should consist of measuring the heart rate, oral temperature and body water loss. The recommended physiological monitoring frequency for workers is contained in the Occupational Safety and Health Manual for Hazardous Waste Site Activities (NIOSH/OSHA/USCG/EPA) and will be followed.

Additional worker training will include identification of signs and symptoms of heat disorders (i.e., heat rash, heat cramps, heat exhaustion, and heat stroke).

The monitoring will be performed by a person with current first aid certification who is trained to recognize the symptoms of heat stress. In general, environmental monitoring shall be conducted as follows:

- The Contractor's Safety Manager will carefully observe the condition of all workers for the signs of heatstress which include dizziness, pale skin, extreme sweating, rapid shallow breathing and muscle cramps. In extreme cases, red-hot dry skin and convulsions may be observed indicating possible heat stroke

The following measures will be taken to reduce the chances of heat stress occurring:

- Monitor temperatures in work areas, including inside tanks where personnel are working.
- Increase rest periods in a cool shady area.
- Electrolyte replenishment fluids, such as Gatorade, should be consumed before starting work and during breaks. Quantity will be based on individual need. Water is not as effective as liquids specifically made for electrolyte replenishment.

Heat stroke is a serious medical emergency. Workers exhibiting symptoms of heat stress or heat stroke should receive first aid medical attention immediately. First aid for heat stroke includes the following:

- Keeping the victim level.
- Rapidly cooling the victim with cool water or rubbing alcohol.
- Obtain medical attention as necessary.

Cold Stress Monitoring Plan

Workers who are exposed to temperatures below -10 degrees F with wind speeds more than 5 MPH shall be medically certified by a Physician as suitable for such exposure. The contractor shall provide the appropriate clothing and warm shelter for the rest periods.

At air temperature of 36 degrees F or less, workers who become immersed in water or whose clothing becomes wet will immediately be provided a change of clothing and treated for hypothermia.

When manual dexterity is not required of a worker, he/she will be provided with, and wear, gloves at the following temperatures:

- Sedentary work, 60 degrees F
- Light work, 40 degrees F
- Moderate/heavy work, 20 degrees F

When fine work is required to be performed with bare hands for more than 10 to 20 minutes in an environment below 50 degrees F, provisions will be established for keeping the workers hands warm.

The following measures will be taken to reduce the likelihood of cold stress occurring

- Extremities, ears, toes, and nose shall be protected from extreme cold by protective clothing.
- Employees performing light work and whose clothing may become wet shall wear an outer layer of clothing which is impermeable to water.
- Outer garments must provide for ventilation to prevent wetting on inner clothing by sweat.
- If clothing is wet, the employee shall change into dry clothes before entering a cold environment.

Due to the added danger of cold injury due to evaporative cooling, workers handling evaporative liquids such as gasoline, alcohol or cleaning fluids, at air temperatures below 40 degrees F shall take precautions to avoid soaking clothing or contact with the skin.

Work/warm-up schedules included in the current ACGIH Cold Stress Limit Values shall be followed.

Worker training shall include the signs and symptoms of cold disorders (i.e., frostnip, trench foot, frostbite, blood vessel abnormalities and hypothermia).

Environmental monitoring shall be conducted at air temperatures below 45 degrees F the temperature shall be monitored.

Workers shall be excluded from work in cold weather conditions (30 degrees F or below) if they are suffering from diseases or taking medication which interferes with the normal body temperature regulations or reduces tolerance to work in cold environments.

IV. APPENDIX

CONTRACTOR RECEIPT ACKNOWLEDGEMENT FORM

CONTRACTOR EMERGENCY RESPONSE INFORMATION SHEET

POLICY NUMBER 2001-3 BACKGROUND AND FEDERAL SANCTIONS CHECKS

UCHC FIRE DEPARTMENT SOP #3.6 HOT WORK / BURN PERMITS