



North Carolina
State Employee
Safety & Health Handbook

The N.C. Industrial Commission, Safety Department has accepted for filing the rules in this handbook as the official safety and health rules under G.S. 97-12 N.C. Workers Compensation Act, for all State agencies or universities.

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EMERGENCY NUMBERS

Facility # for General Emergency:

Medical Emergency, Ambulance or Rescue:

Fire:

Police:

Poison Control Center:

Safety and Health Director:

Workers Compensation Administrator:

If you are in danger, sound alarm to others, leave the area. Then immediately report the emergency .

*Give your name

*Phone number you are calling from

*Location of Emergency

*Nature of accident or injuries

*Condition and number of injured, what is being done

*Stay on the phone until told to hang up

GOVERNORS MESSAGE

February 18, 2002

Dear Fellow State Employee:

Safety is a top priority of my administration and we are dedicated to enhancing workplace safety for all state employees. This safety and health handbook is a tool that is designed to help promote a safe working environment and eliminate personal injuries and illnesses from occurring in the workplace.

Since the terrorist attacks of September 11th, we have been introduced to the possibility of new hazards within the workplace - biological and chemical agents that are odorless, tasteless and invisible to the human eye. We must now, more than ever before, consider safety in the workplace to be a shared responsibility, requiring us all to do our part. And although the guidelines contained in this handbook are excellent, they cannot cover every situation. We must use our own good common sense and realize that there is no one-size-fits-all approach to workplace safety.

I ask that you join me in making a commitment to safety and health in the workplace so that we may fulfill our respective duties to the citizens of North Carolina.

With kindest regards, I remain



Very truly yours,

Michael F. Easley

PURPOSE

This handbook is designed to give State employees a firm understanding of the States concern for protecting its employees from job related injuries or illnesses and to inform and educate employees in areas of preventive safety and health.

The following pages contain only some of the highlights of the Safety and Health Regulations for general industry and construction under the North Carolina Occupational Safety and Health Act (NCOSHA) and other regulatory groups. It is not intended as a complete manual on safety and health, but should be used as a guide to the prevention of the more common hazards in State government. Failure to include some safety and health standards does not give license to ignore such standards.

For specific standards applicable to your agency or university, contact your Safety and Health Director.

COMPLAINT PROCEDURE

The complaint procedure is established to ensure open communication between all levels of employment to foster a safe and healthful workplace. There shall be neither reprisals nor sanctions taken against any employee for bringing managements attention to a safety and health problem.

If after registering a complaint or concern with your supervisor, you feel the need to process the complaint further, contact your Safety and Health Director or your Personnel Director.

NORTH CAROLINA STATE GOVERNMENT SAFETY AND HEALTH RULES

Employee Responsibilities :

- North Carolina State Government conducts a safety and health program for preventing injuries to employees and the public, protecting the health of its employees and preventing damage to State and private property.
- Each employee is to place safety and health requirements as first importance in the performance of their work duties for the State of North Carolina. The protection of fellow employees and the public on State property is a shared responsibility of every employee.
- An employee is responsible for notifying his/her immediate supervisor of a violation or deficiency in safe and healthful working conditions and for recommending possible corrective measures. Additionally, the employees immediate supervisor is to be notified of every injury, accident or near miss regardless of how trivial such accident or incident may appear at that time.
- Every employee is required to participate in the States program to ensure that quality service with safety and health is the cornerstone of the States program.
- Obey safety instructions, rules, policy and procedures. Use provided and installed safety devices and safety equipment.
- Do not use defective tools and other equipment without proper guarding.
- Report unsafe conditions or practices to your immediate supervisor.
- All injuries, including minor first aid treatment, occurring on the job and any illness associated with the job shall be reported promptly and in writing to your supervisor. Questions concerning medical treatment of these injuries/illnesses should also be addressed to the supervisor.
- Good conduct is expected - horseplay or fooling around will not be tolerated.
- All fires, accidental damage to property, State vehicle accidents, hazardous material spills and other emergency occurrences, no matter how slight, must be reported to the agency or university Safety and Health Director via your supervisor.
- Properly dispose of all hazardous materials in an acceptable and lawful manner. Your supervisor and/or your Safety and Health Director can advise you of the required disposal method and practice.
- Working while impaired by alcohol or illegal drugs is specifically forbidden. Use of prescription drugs, which may affect your alertness or work abilities, must be reported to your

supervisor.

- Failure to comply with or enforce Safety and Health Rules and Regulations may result in disciplinary action up to and including dismissal. Violation of work rules is a job performance issue and shall be dealt with through job performance disciplinary process.

The rules in this book are designed for your protection and benefit. Additionally, you should keep this book at your workplace for ready or immediate access, as you would any important job related personal property. If you are confronted with a situation not covered in this book, consult your supervisor before going ahead.

Agency or University Responsibilities:

- The agency or university shall develop and maintain an effective occupational safety and health program, including life safety and property protection. No agency or university shall knowingly require an employee to work in conditions that are hazardous without proper training and personal protective equipment.
- Frequent and regular inspections of the workplace, materials and equipment shall be made by trained persons designated by each agency or university.
- Unsafe tools, materials or equipment shall be tagged, locked or removed from the workplace to prevent their use.
- The agency or university shall instruct each employee how to recognize and avoid unsafe conditions, unsafe work practices and the regulations and/or standards applicable to their work environment to control or eliminate any hazards.
- The agency or university shall provide all medical services required to effect a cure involving on-the-job injuries or illnesses. This medical service may be through in-house medical treatment, a selected physician panel, or referral to competent medical providers. The agency or university is responsible for compensation to the employee for wages lost from work and/or any disability rating as a result of the on-the-job injury/illness.
- All employees, escorted visitors and contractors shall be informed of hazards before entering a designated hazardous, caution, or restricted area; shall use required personal protective equipment; and shall adhere to safety and health procedures immediately upon access to the area.
- The agency or university shall provide appropriate personal protective equipment (PPE), conduct a hazard assessment, develop engineering controls and/or provide training in the use of PPE whenever there is exposure to hazardous conditions.
- The agency or university will designate safety and health committees as required, assuring equal representation in the composition of the committees between management and employees.

GENERAL SAFETY AND HEALTH RULES



ASBESTOS

An employee shall not remove or disturb asbestos, or material suspected of containing asbestos. Asbestos may be contained in materials such as:

- Adhesives and mastics

- ceiling areas
- duct work
- flooring
- floor tiles
- insulation
- lab fume hoods
- piping
- vented enclosures

If there is any damage to materials or items suspected of containing asbestos, the Safety and Health Director should be notified immediately.

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CONFINED SPACE

OSHA defines a confined space as a space that is large enough for an employee to enter or break the plane of entry, has restricted means of entry or exit, has unfavorable natural ventilation and is not designed for continuous employee occupancy.

Examples of confined spaces include, but are not limited to:

<ul style="list-style-type: none"> • digester • manholes • sewers • silos 	<ul style="list-style-type: none"> • tanks • tunnels • trenches • vaults
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Agencies shall identify all confined spaces and maintain a confined space entry policy and procedure.

Do not enter a confined space or break the plane of entry with any part of your body if you are not trained in and have fully implemented the confined space entry procedure.

Entry into confined space can be extremely dangerous. Possible hazards can include:

- **Oxygen deficiency**
- **Fire, explosion hazards**
- **Exposure to dangerous vapors and toxic gases**
- **Physical hazards**

OSHA estimates that almost sixty six percent (66%) of the deaths in confined spaces each year result from people attempting rescue.

All personnel involved in or having responsibility for entry into confined spaces must be thoroughly familiar with permit entry and rescue procedures. Detailed agency or university procedures are issued in a separate document. Regulations governing entry into confined spaces are specified by OSHA 29CFR, 1910.146.

EMERGENCY RESPONSE PLAN



Obtain and learn your agencies specific emergency response plan for your workplace for fire, chemical release, severe weather, bomb threat, etc. The following general rules and actions should be learned before an emergency and followed in the event of an emergency.

Before an Emergency:

- Obtain your agencies Emergency Response Plan from your supervisor.
- Learn how to contact emergency services.
- Locate local fire alarms or other emergency alarm systems and learn how to operate them.
- Learn the location of all exits, (exit stairs) from your work area, and determine a primary and alternate exit routes.
- Know your designated meeting area outside the building for your accountability and that of your co-workers.

When an Emergency Occurs:

- Immediately respond by following agency or university plans for the appropriate emergency response
- Follow your agency or university plan for the assistance of persons with disabilities.
- If a fire alarm sounds, always immediately evacuate the building.
- Do not run. Do not use elevators. Use stairwells in multi-story buildings. Report to your designated meeting area outside the building immediately.
- If you have a visitor, escort them to your designated meeting area. Do not re-enter the building after an emergency evacuation until you have been instructed by management.



ELECTRICAL SAFETY

Training by your supervisor is essential for all work environments. It shall include basic information on electrical safety as it relates to that environment. Employees whose jobs require them to work on or near exposed energized parts are required to be trained in electrical-related safety practices that pertain to their respective job assignments.

- All electrical work shall follow all Federal and State requirements and good industry practices. To the maximum extent possible, work on electrical equipment or circuits shall be done with the power off.
- A safety warning and tagging system shall be used to ensure that all power is removed from the system. (See the Lock- out/Tagout section for more information). Circuits shall be checked with the proper equipment before work is started to ensure that no voltage is present.
- The non-current carrying metal parts of portable and/or plug connected equipment shall be grounded or protected by an approved system of double insulation.
- Extension cords used with portable electric tools and appliances shall be three-wire grounded type and be protected by (GFCIs) Ground Fault Circuit Interrupters.
- Keep working spaces, walkways and similar locations clear of cords so as not to create a hazard to employees.

- Worn, frayed or damaged electric cords or connectors shall not be used and shall be tagged Danger, Out of Service, Do Not Use.
- Extension cords shall be protected from accidental damage which may be caused by traffic, sharp corners, or projections, pinching in doors or elsewhere.
- Extension cords are considered temporary wiring by the National Electrical Code, which limits their use to a maximum of 90 days.

Ground Fault Circuit Interrupters

Ground Fault Circuit Interrupters (GFCI) shall be used on power circuits serving outlets in damp, wet or outdoor locations and in any other areas where people using electrical equipment may become grounded.

Temporary Wiring and Lighting

All receptacle outlets at construction sites that are not a part of the permanent wiring of the building or structure shall have approved ground-fault circuit interrupters. These outlets shall comply with the National Electrical Code (NEC) and NC-OSHA requirements. Temporary wiring shall be de-energized when not in use.

Temporary lights shall be equipped with guards to prevent accidental contact with the bulb. Guards are not required when the construction of the reflector is such that the bulb is deeply recessed. Temporary lights shall not be suspended by their electric cord unless cord and lights are designed for this means of suspension.



FALLS

Falls can be prevented.

- Always use handrails when using stairs.
- Use caution when walking on surfaces which contain ice, snow, rock, oil, water or other adverse or unstable material or condition.
- Immediately clean up spills.
- Prevent fall hazards by keeping stairs, walkways, aisles and walk areas clear of boxes, loose materials, wires and other objects.
- Select shoes for comfort and safety that are compatible with your work environment.
- Do not stand or climb on a desk, chair, or other unstable surface to reach for an object. Use a ladder. (See section on Portable Ladders and Scaffolds).



FIRE PREVENTION

Know the emergency plan for your work area. Request a copy of the Emergency Response and Evacuation Plan from your supervisor.

- You have a personal responsibility in the prevention and control of fires. Familiarize yourself with the location of fire equipment in the area where you work and the proper method of

turning in a fire alarm. If you are to use portable fire protection equipment (such as fire extinguishers), you must be trained in the use of portable fire protection equipment and updated as necessary.

- Obey all rules, regulations and signs for fire safety such as those controlling smoking, open flames and other sources of ignition and those controlling the storage, handling and use of flammable liquids or other hazardous materials.
- Practice good housekeeping and fire prevention.
- Flammable liquids shall be handled and stored in approved safety containers equipped with flame arrestors and spring actuated caps.
- Do not store acids and bases or oxidizers and reducers in the same cabinet due to the possibility of extremely violent reaction between the two.
- Store all poisons separately.
- Keep hand operated fire equipment such as extinguishers, hoses, etc. fully accessible, mounted, and unobstructed at all times.
- If you use a fire extinguisher or any other fire equipment, notify your supervisor at once so that it can be immediately replaced and serviced.
- If your clothing catches fire, smother the flame by rolling on the floor or ground. Never run, as this could cause the flames to spread.
- Do not clean clothing with gasoline, solvents or other flammable gasses or liquid. A spark may ignite your clothing.
- Do not use oil or grease on any oxygen equipment such as cylinders. Oxygen under pressure unites with oil and grease with explosive violence.



FIRST AID

General

First aid is the immediate emergency treatment provided for injury or sudden illness before professional medical care is available.

Never minimize the seriousness of an injury or illness. If in doubt, seek medical attention.

In the event of an emergency, immediately call for emergency services.

DO NOT ATTEMPT TO RENDER FIRST AID UNLESS YOU KNOW WHAT YOU ARE DOING OTHERWISE INJURIES MAY BE AGGRAVATED.

First Aid Kits should be available for treatment of minor cuts and scratches. The availability of first aid kits is not a substitute for obtaining medical treatment. Routine administration of first aid for other than minor cuts and scratches must be performed by certified or trained first aid personnel (by the American Red Cross of N.C. ; Office of Emergency Medical Services; National Safety Council; etc.) or licensed medical personnel.

Universal precautions must be implemented by the first aid provider to protect against infectious disease. (See Biological Hazards - Bloodborne Pathogens).



HOUSEKEEPING/SANITATION

Good housekeeping is essential in maintaining safe working conditions.

- Keep your work area clean and material properly stored; keep walkways and floor areas clear of slip, trip and fall hazards.
- Place all waste and debris in designated containers for proper disposal.
- Do not litter. Properly dispose of refuse in suitable waste containers or recycle whenever possible.
- Clean up all water or beverage spills.
- If hazardous chemical spills are identified, barricade the spill area and notify the Safety and Health Director or designated person for clean up.
- Store oily waste or rags and other flammable waste in approved safety containers that have lids.
- Maintain three (3) feet clearance from all electrical panels, 150 volts or less. Do not store materials in or near switch boxes, switchboards, in mechanical equipment rooms, attics, and telephone switch gear rooms.
- Do not block or obstruct exit routes.
- Do not obstruct access to fixed ladders, stairways, electrical switches, fire fighting, rescue or any emergency equipment.
- Keep tools stored neatly in designated area and materials securely racked or stored.
- Wash your hands before eating.



HAZARD COMMUNICATION PROGRAM

OSHA Hazard Communication Standard

The NCOSHA Hazard Communication Standard requires employers to provide employees with information concerning the hazards associated with the chemicals in their workplace. This standard requires:

- A written hazard communication program
- Labels on containers
- An inventory of chemicals
- Posting area warning signs
- Availability of Material Safety Data Sheets
- Chemical safety training and information sessions when new chemicals are introduced into the workplace.

Laboratories with a Chemical Hygiene Plan are exempt from the OSHA Hazard Communication Standard.

Responsibilities

The agency or university head or his/her designee is responsible for compliance with the provisions of the Hazard Communication Program. Specific responsibilities include the periodic review of agency or university operations that use or store hazardous chemicals to ensure that:

- Containers are properly labeled;
- Appropriate signs have been posted;

- Material Safety Data Sheets are available;
- Chemical safety training has been provided; and
- An inventory of hazardous chemicals is maintained.

The Safety and Health Director will coordinate implementation of the Hazard Communication Program.

Definition of Hazardous Chemicals

As identified in the Hazard Communication Standard, chemicals with one or more of the following hazardous properties are subject to the Standard:

Physical Hazards: combustible, flammable, explosive, reactive, pressurized (compressed gases);

Health Hazards: toxic, carcinogenic, corrosive, irritant, or sensitizer.

A chemical is considered to be carcinogenic if it has been evaluated by the International Agency for Research on Cancer (IARC) and found to be a carcinogen or potential carcinogen, or if it is listed as a carcinogen or potential carcinogen in the *Annual Report on Carcinogens* published by the National Toxicology Program (NTP), or if it is regulated by OSHA as a carcinogen.

Labels and Other Forms of Warning

Chemical manufacturers, importers, or distributors are required to ensure that each container for hazardous chemicals is labeled with the identity of the hazardous chemical(s), appropriate hazardous warnings, and the name and address of the chemical manufacturer, importer or other responsible party. State agencies or universities are to ensure that chemicals they receive are labeled with the identity of the hazardous chemical(s) and appropriate hazard warnings.

Warning signs are to be displayed in areas where there may be airborne hazardous chemicals. This would include areas such as welding; operation of internal combustion engines, indoor application of paint, or adhesives; grinding and sanding operations; and removal of asbestos containing materials. The person responsible for producing the above potentially hazardous environments is responsible for posting the area warning signs. All pipes containing hazardous chemicals are to be labeled.

Chemical Inventory

A current inventory of all hazardous chemicals present in the workplace is to be maintained. The inventory should be kept with the Material Safety Data Sheet (MSDS) file.

Material Safety Data Sheets (MSDS)

Chemical manufacturers are required to send a Material Safety Data Sheet (MSDS) with the initial shipment of a chemical. The MSDS contains detailed information about physical and chemical properties of the chemical, the physical and health hazards, safe handling precautions, spill clean-up procedures, emergency and first aid procedures.

State agencies and universities are to maintain all MSDSs received and make them readily available to their employees in a file, notebook or by FAX upon request. If an MSDS for a chemical is not received, the chemical manufacturer or distributor should be contacted to obtain the MSDS. Efforts to obtain the MSDS are to be documented by either a telephone log or with copies of correspondence.

Information and Training

All employees who work in areas where there are hazardous chemicals are to receive chemical safety training. This training is to be documented and provided at the time of initial employment and before a new hazard is introduced in the workplace.

Hazardous chemical safety training is to include the following essential information:

- Interpreting information on labels and MSDSs
- Location of hazardous materials in the workplace
- Location and availability of material safety data sheets
- Acute and chronic effects of chemicals
- Safe handling procedures
- Personal protective equipment
- Methods used to detect leaks and releases
- Emergency procedures and how to obtain First Aid
- Spill clean-up and waste disposal

Your supervisor or the Safety and Health Department may be contacted for Hazard Communication Program Training for new employees.

In addition to the training provided by the Safety and Health Department, the Work Unit Supervisor is to provide training for the specific chemicals used or stored in the work area and whenever a new hazard is introduced. A record of training provided by the agency or university is to be maintained in the employers files for review by OSHA inspectors. A copy is to be forwarded to the Safety and Health Department for recording in the employee safety training

permanent file. The record is to include: employee name, ID number, outline of the training, date and time of training, and name of the person providing the training.

Contractors

The Safety and Health Department is to be notified when contractors are to work in areas covered by the Hazard Communication Program. The Safety and Health Director or designee will inform the contractor that they may encounter hazardous chemicals at their work location and the name of the agency or university person(s) from whom chemical safety information is available.

Contractors who use hazardous chemicals at State facilities are to provide a list of the chemicals to be brought on the property and to maintain a copy of the MSDSs at the work-site.



HEALTH HAZARDS

Contaminants

Health hazards include air contaminants such as:

- Dusts - Asbestos, lead, silica, wood dusts
- Mists - Acid, Oil, Paint, Poisons
- Gases - Carbon monoxide, waste anesthetic gases, etc.
- Vapors - Degreasing vapors, trichloroethylene, etc.

- Fumes - Metal fumes from welding, cutting and soldering.
- Employees may be exposed to the toxic effects of these health hazards through ingestion, skin absorption or through breathing into the respiratory system.
- Excessive exposure may result in an immediate acute effect or the toxic effect could occur only after years of continuous exposure.
- The Workplace Requirements Program for Safety and Health requires all potential and suspect health hazards be evaluated by trained personnel to determine if a health hazard exists. If a hazard is found to exist, precautions are to be taken to protect employees.
- Employees are to become familiar with the agency's or university's Hazard Communication Program concerning training, labeling and safety precautions for using and handling hazardous materials. Material Safety Data Sheets (MSDSs) that are available to employees describe the hazards in detail, their effects, safety and health precautions and emergency procedures.
- If you are concerned that a potential health hazard may exist, contact your supervisor or Safety and Health Director so that an evaluation can be made and appropriate action can be taken to protect all employees.
- **BE AWARE OF HAZARDOUS CHEMICALS IN YOUR WORKPLACE. READ THE LABELS.**
- Never mix cleaning compounds or other chemicals.
- Learn what effects could occur in the event of excessive exposure.
- Take the proper precautions to protect yourself and your fellow employees from exposure. Do not work with hazardous materials until you have been trained.
- Report any unusual symptoms to your doctor or medical provider immediately.



Biological Hazards

Biohazards are biological agents or substances present in or arising from the work environment which present or may present a hazard to the health or well-being of the worker or the community.

Biological agents and substances include, but are not limited to infectious and parasitic agents, non-infectious microorganisms such as some fungi, yeasts, plant and plant products, and animal and animal products which cause occupational diseases.

Generally, biohazards are either:

- Infectious microorganisms
- Toxic biological substances
- Biological allergens or
- Any combination of these.

Biological agents can be found in numerous settings, but are primarily found in training, clinical, diagnostic research, and laboratory activities where viable microorganisms or clinical materials containing infectious agents are handled.

Employees are to be trained on what biological hazards may be encountered and which control measures and work practices are to be used in order to have a safe work place. In addition, employees should be familiar with and refer to their facility's biosafety operations manual which identifies the hazards that may be encountered and specific practices and procedures designed to minimize or eliminate risk.

Bloodborne Pathogens

Employees who have occupational exposure to human blood, body fluid, pathogens, or body parts are required to receive training in work practices, methods of exposure and universal precautions. Employees exposed to blood or other body fluids should contact the agency or university Safety and Health Director immediately and request information on the agency or university exposure control plan and the employer

provided hepatitis vaccinations. **The most important element is strict adherence to the specified practices and procedures and use of personal protective equipment (PPE).** Immediate washing of hands and contaminated areas of the body shall be implemented should an exposure to bodily fluids occur.



LABORATORY SAFETY

All laboratory workers are required to attend training that describes the NIOSH Laboratory Standard, Hazardous Material Handling and Waste Disposal Regulations, where to find chemical safety information, emergency procedures, and required Laboratory Safety Plans. See your supervisor or Safety and Health Director for the Laboratory Chemical Hygiene Safety Plan.

Basics

- Know the location of all exits, emergency safety equipment and emergency procedures.
- Do not smoke, eat, or drink in the laboratory.
- Do not use your sense of smell to identify chemicals/hazards.
- Do not use mouth suction in filling pipettes with chemical reagents.
- Use a suction bulb or other mechanical device to suction/transfer chemicals.
- Never force glass tubing into rubber stoppers.
- Use safety devices and PPE for handling hot items.
- Label all containers of chemicals including waste containers.
- Confine long hair and loose clothing.
- Never conduct experiments while alone in the laboratory.
- Always wear eye protection when in the lab and additional PPE as required when handling or exposed to chemicals.
- Use the proper laboratory hoods designed to control chemical fumes, mist, vapors, and biological and radioactive agents.
- Turn off all hot plates, open burners and other potentially hazardous devices when leaving the laboratory.
- Work surfaces in the chemical or biological laboratory are to be decontaminated and cleaned daily and after spills.
- Minimize the production of aerosols.
- Do not store food in refrigerators with chemical, biological or radioactive materials.
- Decontaminate solid and liquid waste that contain organisms.
- Properly label hazardous waste for disposal.



SAFE LIFTING

- Get proper exercise, maintain a good diet and manage stress. To reduce strain on lower back,

build up leg and abdominal muscles and keep off excess weight. Swimming and walking are good exercises for people with back problems.

- Do not place objects on the floor if they must be picked up again later.
- Use a mechanical device, if possible, and inspect the device before use. If the object is too heavy, large or awkward, get help.
- Avoid lifting above your shoulder height. Use a ladder or step stool to move objects at these heights.
- Push rather than pull an object. While pushing, maintain your lumbar curve and push with your legs.
- Always wear slip-resistant shoes and check to ensure footing is firm.
- Check the path before lifting and/or moving the load so you know where to put the load and to ensure the path is clear and well-lighted.
- Spread your feet apart to keep a wide base of support.
- Bend at your knees instead of at your waist and maintain your lumbar curve at all times.
- Hold the object you are lifting as close to your body as possible. Avoid a long reach to pick up an object.
- Lift slowly, smoothly and without jerking.
- Avoid unnecessary twisting. Turn your feet, not your hips or shoulders. Leave enough room to shift your feet so as not to have to twist.
- Take your time and use the same techniques when setting down the object.
- Report work-related back pain to your supervisor.



LOCKOUT - TAGOUT - CONTROL OF HAZARDOUS ENERGY

The Control of Hazardous Energy is required before servicing, repair, maintenance, inspection or exposure to equipment or areas where a hazard may be presented by uncontrolled energy, including the flow of solids, liquids or gasses into confined spaces or environments.

All employees who will be working on equipment where the unexpected energizing, start-up or release of hazardous energy could cause injury shall follow a Lockout/Tagout (LO/TO) procedure that follows the NIOSH 29 CFR 1910.147.

Lockout is the process of blocking the flow of energy from a power source to a machine or piece of equipment and keeping it blocked out.

Lockout is accomplished by installing a lockout device at the power source or energy supply so that equipment cannot be operated and liquids gasses or solids cannot be allowed to flow. A lockout device is a lock, block, or chain that secures a switch, valve, or lever in the off position.

Locks are provided by your supervisor and can be used only for lockout purposes.

Tagout is accomplished by placing a tag on the power source. The tag acts as a warning not to operate or restore energy. Tags must clearly state: DO NOT OPERATE, and must be applied by hand.

Removal of Equipment or System From Service

This procedure shall include the following steps:

- Preparation for shutdown (including notification of affected employees).
- Equipment or system shutdown

- Equipment or system isolation
- LO/TO Device Application
- Dissipation of Stored Energy
- Verification of Isolation

Release from Lockout/Tagout

- Inspection
- Notification of Employees
- Removal of LO/TO Device(s)
- Operation of Energy Isolation Devices

Contact your supervisor for training in LO/TO procedures, locks and tags.



MACHINE GUARDING

Safeguards on machines are designed to protect you from injury. The basic types of hazardous mechanical motions and actions are:

Motions	Actions
Rotating (including in-running nip points)	Cutting
	Puncing
Reciprocating	Shearing
Transverse	Bending

To reduce a potential injury follow these basic rules:

- Safeguard any machine part, function or process which may cause injury.
- Never start a machine unless you have been trained in the use of the machine.
- Never start a machine unless required personal protective equipment (PPE) is on, in use and you are wearing appropriate clothing. (See PPE section).
- Do not wear loose clothing, neckties, rings or other jewelry. If your hair is long, tie it back.
- Never start a machine unless guards are in place and in good condition.
- Treat an unguarded machine as if it were out of order. Tag the machine Danger, Out of Order - Do Not Use.
- Report all missing guards to your supervisor immediately.
- No guard barrier or enclosure should be adjusted or removed for any reason, unless you are trained to do the work, have the permission of your supervisor and adjust machines as part of your job.
- Never service or perform maintenance on a machine without disconnecting power and implementing the lockout - tagout procedure.

MEDICAL SURVEILLANCE



When you work with certain toxic chemicals, infectious diseases, biological agents, excessive noise, or wear respiratory protection, you are required to be medically evaluated. Contact your Safety and Health Director for specific requirements in the North Carolina Occupational Safety and Health Standards.



MOTOR VEHICLES

Drivers License Requirements

You shall not operate a State vehicle unless you possess and can present a valid drivers license. If you are required to drive a State vehicle or personal vehicle for State business and have had your driving privileges suspended or license revoked, you must report this condition to your supervisor immediately.

Commercial Drivers License (CDL)

Commercial Drivers License are required and must be current for every State employee who operates a motor vehicle designed or used to transport passengers or property in the following instances:

- If the vehicle has a gross weight rating of 26,001 or more pounds.
- If the vehicle is designed to transport 16 or more passengers, including the driver, or
- If the vehicle is transporting hazardous materials and is required to display a placard in accordance with the Hazardous Materials Transportation Act (49CFR Part 172, Subpart F).

A special endorsement on a CDL also is required in order to haul hazardous materials, transport passengers, pull double trailers, or drive tank vehicles. Additional information on CDLs is in the North Carolina Commercial Drivers Manual.

Employees required to maintain a CDL are subject to Drug and Alcohol Testing.

Vehicle Operations

- Vehicle operators are responsible for knowledge of and compliance with all State and local laws and ordinances governing the use and operation of motor vehicles.
- Before starting, make sure the vehicle is in safe operating condition before each trip. Check all lights, horn, windshield wipers and washer, brakes, tires, fuel gauge, rearview mirrors, seat belts, and windows for clear visibility.
- Drivers are responsible for reporting vehicle defects and maintenance needs in writing to their supervisor, vehicle manager, or rental agent. Vehicles with safety deficiencies are to be removed from service for repair.

Vehicle Parking

- Avoid high risk parking areas. Seek well lighted areas. Always set parking brake when parking. Remove keys and lock parked vehicle. Do not leave a parked vehicle running when not

attended.

Whenever possible, position vehicle so that backing will not be necessary. If a vehicle must be backed, it is the drivers responsibility to:

- Visually check the area behind the vehicle immediately prior to backing up,
- When ever possible, request another employee to check the area in back of the vehicle and act as a signal person. This person shall remain in full view of the driver during the backing operation and clear of the vehicle and other obstructions.

Safety Belts

Seat belts and shoulder harnesses shall be worn by drivers and passengers in State vehicles whenever the vehicle is in motion on public or private thoroughfares and roads. Employees who drive their personal vehicles or rental vehicles for State business or who are passengers in personal vehicles or rental vehicles being used for State business, shall also wear safety belts and harnesses, where provided.

- Infants and children to age four (4) are required to be secured in child safety seats; all children under age 12 in the front and back seats are required to wear seat belts.

Responding to Emergencies

During emergencies, no job is so important that it requires you to operate a vehicle in a manner that is considered unlawful or unsafe. Although it is important when responding to an emergency call to get to the scene as soon as possible, it is your responsibility to drive safely - and arrive safely. An emergency call does not permit you to disregard traffic laws and regulations.

Accidents

Any accident, involving a State vehicle, regardless of the extent of the damage, is to be investigated by a police officer with jurisdiction in the area. Accident report forms and instructions are located in the glove compartment of each vehicle.



NOISE

Excessive noise levels may exist when operating certain equipment or machinery. Exposure to high noise levels could result in a gradual loss of hearing which may not be noticeable to the individual.

If noise levels exceed safe limits as prescribed by NIOSH, employees must be protected by either engineering control or by a hearing conservation program which includes hearing protection (ear plugs or ear muffs) and appropriate hearing tests.

If you suspect you are exposed to high noise levels in the workplace, contact your supervisor so that the noise level can be measured by trained individuals.



OFFICE SAFETY

General

Following safe work procedures in the office can prevent many accidents.

- Running in offices is not permitted.
- When walking in a passageway, keep to the right.
- Accidents can result when persons stand in front of doors, so stand away from the path of the door swing.
- Prevent fall and trip hazards, by keeping stairways, isles and walk areas clear of boxes, loose materials, wires and other small objects.
- Immediately clean up spilled liquids.
- Do not attempt to carry stacks of materials which are high enough to obstruct vision.
- Always use handrails when using stairways.
- Proper attention should be given to the act of ascending or descending stairs.
- Falls on stairs occur when persons are distracted through conversation or by turning to another person while descending.
- Dont lean from a chair to pick up objects from the floor.
- Dont propel a chair across the floor while seated.
- Be careful sitting down. Sit in the center of a chair and not on the edge. Watch out for chairs on casters which can be inadvertently pushed from under you when you attempt to sit down. Place your hand behind you to make sure your chair is in place before you settle into it.
- Dont stand on a chair, stools or other unstable surface to reach for an object. Use a ladder.
- Dont sit on the edges of desks, tables, boxes, or low filing cabinets.
- Place wastebaskets, briefcases, umbrella stands, and similar objects where they will not present a tripping hazard.
- To prevent slip and falls select shoes for comfort and safety that are compatible with your work environment.
- Dispose of broken glass properly to prevent injury to others during waste handling. Bag and wrap broken glass with heavy paper to prevent penetration by sharp edges and identify contents. Sharps such as razor blades shall be disposed of in a impermeable closed container. Medical waste sharps require immediate deposit in biohazard sharps containers and hazardous material controls for disposal.
- Use with caution, razor blades, knives, scissors, and other objects with sharp edges or points. Keep razor blades in protective containers. Never keep loose razor blades in desk drawers.
- Never fasten envelopes with pins or staples. Exercise care to avoid paper cuts.
- Fasten loose papers together with paper clips or staples, never with pins. Exercise care when loading or using staple machines. Use a proper staple remover for removing staples. Properly dispose of broken staple remover.
- Keep fingers away from the sharp edge of paper cutters. Never leave a cutting knife in a raised position. All guillotine type paper cutters shall have a finger guard; other types of paper cutters shall have proper finger protection.
- Do not indulge in any form of horseplay, such as propelling paper clips, rubber bands, etc. Horseplay is strictly prohibited.
- Wear shoes at all times.
- Properly store office supplies.

ERGONOMICS

Ergonomics is the science of fitting the job to the worker. When there is a mismatch between the physical requirements of the job and the physical capability of the worker, musculoskeletal disorders

(MSDs) can result. Musculoskeletal disorders (MSDs) are a category of injuries that affect the body's muscles, bones, ligaments, tendons, and nerves. Where feasible, the following MSD risk factors should be avoided: repetition and inadequate work/rest scheduling, forceful exertions, awkward and extreme positions of the body and sustained or static positioning of the body. Be sure to report to your supervisor any existing discomforts that last more than a week. If you and your supervisor are unable to identify the source or find a solution, contact your Agency Safety Director for assistance.

As a State employee, you are in the best position to evaluate the tasks you do each day whether it be computer data entry, microsurgery or plumbing. The tips provided below are intended to provide you with the information and basic tools necessary to assess and correct your own job.



Computer Workstations

Here are some suggestions for setting up your workstation properly:

- Sit with your lower back against the chair, your upper legs parallel to the floor and your feet flat on the floor or on a footrest.
- Adjust your table and chair so that your elbows are bent at right angles and your forearms are approximately parallel to the floor.
- Keep your wrists neutral (straight) by using a wrist rest that is the same height as the keyboard.
- Place your mouse (or other pointing device) on a surface close to and at the same height as your keyboard.
- Position your monitor directly in front of you, approximately an arms length away, with the top of the screen at or slightly below eye level. Tip the monitor back at an angle similar to that used when reading a book.
- Use a document holder to position work at eye level and close to the screen.
- Adjust your lighting and monitor to prevent glare or use an antiglare filter.
- When performing tasks involving repetitive motions or awkward positions, take periodic stretching breaks or alternate with other tasks.

See Ergonomics - Other Helpful Tips on page 53-54.



Filing Cabinets

Filing cabinets are a major cause of accidents and should be used with care.

- When caution is ignored, filing cabinets can pinch, cut, crush, or trip a user. Always be alert for a top heavy filing cabinet. It might tip over if a drawer is opened. Heavy filing cabinets shall be secured to prevent this.
- Exercise care in opening and closing file drawers. Open one file drawer at a time and close it with the handle, making sure your fingers are clear. Never close a drawer with your knee, elbow or any other part of your body other than your hand. **Close each drawer immediately after use, even if you plan to reopen it in a short time.**
- Never climb on open file drawers.
- Properly store small non-slip step stools (used to access upper file cabinets) out of passageways.
- Wear finger guards to avoid paper cuts.



Fire Hazards

- Flammable solvents and cleaning solutions shall be dispensed only from approved safety containers.
- Solvent soaked or oily rags used for cleaning office equipment shall be kept in metal, self-closing waste cans and contents properly disposed of daily.
- Smoking is prohibited where there is exposure to flammable solvents.
- Solvents shall be handled carefully to avoid personal injury or possible damage to materials and equipment.
- Do not throw matches, cigars, cigarettes, etc., into wastebaskets; smoldering butts can cause fires. Ashtrays should be made of non-combustible material, large and deep enough to prevent butts from spilling, rolling off or falling out.
- Displays and decorations shall be fire retardant or non-combustible. Keep decorations out of aisles, stairs, passageways, and exits. Before using any decorative electric lighting device, check for loose connections, frayed wiring, broken sockets, or other defects. Any defective electrical device shall be replaced or repaired. Electrical devices shall bear the listed label, i.e. UL, FM, etc.
- Always disconnect decorative lighting when leaving the work area for the day.
- All electrical appliances with a heating element shall be unplugged at the end of the workday.
- Do not use extension cords as permanent wiring.



Lifting and Moving Objects

- Serious strains often result from improper lifting and handling of boxes and bundles, office supplies, ledgers, office machines, etc. Such objects shall be moved with a hand truck or unpacked and handled in smaller parcels.
- Bulky objects shall be carried in such a way as not to obstruct the view ahead or interfere with the use of handrails on stairways. (See General Safety Rules - Lifting).



Office Machines

- Do not place computers - or other office equipment too close to the edge of a desk or other surface.
- Machines that tend to creep during operation shall be fastened down or secured with rubber feet or rubber mats.
- Electric office machines shall be properly grounded or double insulated to safeguard against electrical shock.
- If you are unfamiliar with the proper grounding procedures, see your supervisor. Notify your supervisor of any convenience outlets that are not three-hole grounding receptacles or that are damaged.
- Exercise care to prevent electrical cords on office machines and telephones from becoming tripping hazards. Avoid stretching cords between desks or across aisles. If such a procedure is temporarily unavoidable, employ some means of calling attention to the cord and/or tape the cord to the floor or place in a wire cover.

- Extension cords should not be used. Notify your supervisor if additional outlets are required.



PERSONAL PROTECTIVE EQUIPMENT (PPE)

Your supervisors annual hazard assessment of the job will be used to identify required Personal Protective Equipment.

Head Protection - is required to protect employees head where there is a danger of head injury from impact and falling or flying objects. Class A hard hats are required for construction and general industry where there is no exposure to electrical shock or burns. Class B hard hats are required when additional protection is required to protect the head against high voltage electricity. Reference ANSI-Z-89.1-1986.

Ear Protection - shall be used as required to protect employees from noise when engineering controls cannot reduce noise to acceptable levels.

Eye and Face Protection - shall be used when exposed to hazards such as flying particles, molten metal, dust, chemicals, gasses, steam, vapors, objects, biological hazards, potentially injurious glare, light or heat radiation, or other potentially harmful exposures which may cause injury to the eye or face.

Respiratory Protective Equipment - must be used as part of a comprehensive respirator program when required to protect employees from airborne contaminants which, when measured, are above the Threshold Limit Value in NIOSH Standards. Contact your supervisor for the hazard assessment training and required personal protective equipment.

Foot Protection (safety shoes) - is required to protect employees working in areas where there is a danger of foot injuries due to falling or rolling objects, exposure to piercing the sole or where protection is needed against electrical or chemical hazards.

Protective footwear shall comply with ANSI-Z-41-1991 American National Standard for Personal Protection - Protective Footwear.

Hand Protection - as required by established standards to protect employees from physical, biological, chemical, radiation, or electrical hazards.

Gloves used for electrical protection must be marked as to class of equipment and whether or not they are ozone-resistant and shall meet the ASTM D-120-87 Specification for Rubber Insulating Gloves.

Fall Protection - (safety harness, lifelines and lanyards). As required to protect employees from falling while working at heights of six (6) feet or more not protected by standard guardrails or safety nets or as required when working in confined spaces.

State Government has a PPE Policy and Guide in the State Personnel Manual, and your agency or university may have specific requirements, therefore, contact your supervisor to determine the equipment needed to perform your job safely.

PORTABLE LADDERS AND SCAFFOLDS



Ladders

- All ladders must be inspected frequently and rechecked for soundness and proper working condition prior to daily use.
- Ladders which have developed defects shall be withdrawn from service for repair or destruction and tagged or marked as Dangerous, Do Not Use.
- Check for overhead power lines or obstructions before erecting a ladder.
- Do not use ladders on or near power lines or other electrical devices.
- Trained personnel shall use only listed fiberglass ladders for limited authorized electrical work.
- Straight and extension ladders must be tied-off and secured to the upright structure against which they lean.
- Non self-supporting ladders shall be used at an angle such that the horizontal distance from the top support to the foot of the ladder is approximately one quarter (1/4) of the working length of the ladder (the distance along the ladder between the foot and the top support).
- Ladders must extend three (3) feet above the point of support of eaves, gutters or roof line and should be tied off.
- Use a ladder with safety feet which are suitable and positioned firmly on the floor, ground or concrete, which provides a stable flat level surface.
- Work facing the ladder with both feet on the rungs.
- Only one person is permitted on a ladder at a time unless ladder design specifies otherwise.
- Ladders shall not be used as guys, braces, or skids, or for other than their intended purposes for which they were designed.
- Ladders shall be maintained free of oil, grease and other slippery hazards.
- Ladders shall not be loaded beyond the manufacturers maximum rated capacity.
- Raise and lower tools or equipment by a hand line and canvas tool bag.
- Do not reach out more than an arms length from a ladder. If necessary descend the ladder and move the ladder to a better location.
- Step ladders must be fully opened and set level.
- Do not stand on the top step of a stepladder.
- Do not use the bracing on the back legs of a stepladder for climbing.
- Ladders shall be maintained in good condition at all times, the joint between the steps and side rails shall be tight, all hardware and fittings securely attached and the movable parts shall operate freely without binding or undue play.

All mechanical components of the ladder shall be maintained in good condition to assure proper performance.

Reference OSHA General Industry Standard - 1910.25, 1910.26, 1910.27. Construction. Std. 1926.1054 and 1926.1060.

Scaffolds

The use and construction of scaffolds shall follow all Federal, State and Local legal requirements, and good industry practice.

- Only competent employees authorized by the supervisor shall erect scaffolds, platforms and

staging. Scaffolds and their parts shall be sound, rigid and capable of supporting at least four times their maximum intended loads.

- The footing or anchorage for scaffolds shall also be sound, rigid and capable of carrying four times the maximum intended load without settling or displacement.
- Unstable objects shall not be used to support scaffolds or planks.
- A safe means shall be available to enter the work platform.
- Platforms shall be sufficiently wide and secured to prevent slipping.
- Guardrails, toe boards, and outriggers shall be used when necessary.
- Guardrails and toe boards are required on all open sides where the platform is greater than six (6) feet above the ground or floor. Scaffolds that are six (6) feet above the ground with a minimum horizontal dimension of less than 45 inches shall have both guardrails and toe boards. Guardrail screens shall be used.
- Scaffold wheels shall be lockable and shall be locked when employees are on the scaffold.
- No scaffold shall be moved while in use or occupied.
- No welding, burning or open flame work shall be performed on any scaffolds suspended by fiber or synthetic rope.
- Scaffolds shall not be loaded in excess of the maximum workload for which they were intended.
- Any scaffold damaged or weakened from any cause shall be immediately repaired and shall not be used until repairs have been completed.
- All other types of mobile or pneumatic scaffolding shall be operated only by trained employees assigned by the supervisor.
- Equipment shall be inspected prior to use and maintained in good operating condition.
- Any defective or damaged equipment shall be tagged Dangerous, Out of Service, Do Not Use.

All scaffolds, platforms, and staging shall comply with OSHA General Industry Standard 1910.28-29 and Construction Standard 1926.451-453.



Powered Industrial Trucks/Material Handling Equipment

- Do not operate equipment unless you have been trained or are receiving training from a qualified person.
- Operators of forklifts and other specialized vehicles shall be properly licensed for the equipment being operated. This license is in addition to a NC vehicle operators license.
- All vehicles shall receive a thorough inspection prior to operation. This should include fluid levels (oil, water, hydraulics), brakes, horns, tires (if so equipped), steering, all running lights, safety warning lights, fire extinguisher and any other components that are important for the safe operation of your machine.
- Defective or damaged items requiring maintenance or repair shall be reported to your supervisor for correction before the use or operation of the equipment.
- Operators should clear steps or ladders as much as possible of snow, ice, and mud before mounting or dismounting equipment. Use handholds or handrails, if they are provided, and follow the same method to exit as used when entering the cab. Never try to step out (frontwards) when dismounting.
- Never jump from the cab or any other part of the equipment.
- Operators shall use seat belts or other restraints where provided.
- Operators shall follow the start-up procedures and system test for the particular machine and shall insure that it is operating properly before attempting any work.

- If, while operating the equipment, the operator detects any unsafe condition or defect in operation, he shall report it to his supervisor.
- Equipment shall be operated in a safe manner at all times, keeping the load under complete control. All manufacturers operating procedures and load ratings must be adhered to.
- Operators shall obey all speed and traffic regulations and other applicable equipment rules.
- Operators shall be especially cautious when operating where vision is limited.
- Pedestrians must be given their right of way.
- Operators shall not permit passengers to ride on equipment unless the equipment is designed with seats and seat belts to accommodate them.
- Refueling of all internal combustion engines shall be conducted in a well ventilated area with the engine turned off.
- Smoking or open flames shall not be allowed in the refueling or battery recharging area.
- All equipment shall be secured in the proper manner at the end of the work shift. Forks, blades or buckets shall be lowered to ground level and master controls and levers placed in the proper positions. All brake systems must be set.
- Your Safety and Health Director, supervisor, or designated trainer will provide you with additional information on your particular machine. However, remember that your own good judgment as well as common sense are important in the safe operation of your equipment.



TOOLS - HAND AND POWER

- Use required Personal Protective Equipment safety glasses, safety goggles and face shields, etc. when operating or working near hand or power tools.
- Hand and power tools shall be maintained in safe operating condition.
- Power operated tools and equipment guards shall be inspected before each use and shall not be removed or tampered with.
- Portable electric power tools shall be double insulated or grounded, using a three conductor cord and a three prong plug. Electric on/off switches shall operate properly.
- Any damaged, defective or unsafe plug, cord or tool shall be reported to your supervisor immediately. The Tagout program shall be implemented. (See Lockout Tagout section).
- Tools and other materials shall not be left on stepladders, scaffolds, roofs or other places where they may be dislodged and fall.
- Impact type hand tools such as drift pins, wedges, and chisels shall be kept free of mushroomed heads.
- The wooden handles of tools shall not be cracked or splintered and shall be kept tight in the tool.
- Floor and bench mounted abrasive wheels shall be provided with safety guards (protection hoods), maximum exposure shall be not more than 90 degrees.
- All bench grinders shall contain a safety guard and grinding wheel maintained for safe operation.
- Work rest must be rigidly supported and readily adjustable. Work rest shall be kept at a distance not to exceed one-eighth (1/8) inch from the surface of the wheel. Side grinding is not permitted.
- Tongue guards shall be installed and maintained within 1/4 of the wheel.
- Grinding wheels shall fit freely on the spindle and not be forced on.
- All employees using abrasive wheels shall be protected by eye protection equipment which meets ANSI-Z-87.1-1989 and the eye shield should be maintained and permanently attached to the floor or bench grinder.

- All fixed power driven metal or wood working tools and equipment shall be provided with a labeled disconnect switch near the tool or equipment, that can either be locked or tagged in the off position.
- All portable, electric circular saws shall be equipped with guards above and below the base plate or shoe. When the tool is withdrawn from the work, the lower guard shall automatically and instantly return to the covering position.

Powder Actuated Tools

Any proposed use of powder actuated tools shall be both coordinated with and have the authorization of your supervisor and the supervisor of the area in which the tool will be operated and the Safety and Health Director.

Powder actuated tools shall be operated:

- Only by employees licensed for the make and model of the tool being used. The operator shall have the license at the job site during firing.
- The powder actuated tool shall be protected at all times from misuse or unauthorized use by:
 - Being in the hands of the operator
 - Being locked in a container
 - Being removed from the site
- Follow all manufacturer safety instructions when using powder actuated tools.



TRENCHING AND EXCAVATIONS

Excavation work shall follow State legal requirements, including Building Code Requirements and N.C. Occupational Safety and Health Standards (NC OSHA Standard 29CFR 1926, Subpart P). Excavations include, but are not limited to, operations such as drilling, digging and trenching.

The following brief overview of safety controls must be followed in addition to all specific requirements which are required for the job and by N.C. Occupational Safety and Health Standards.

- Before any excavation work begins, underground utilities shall be identified and the location marked of underground pipes, electrical conductors, gas lines or other structures.
- Evaluation is required of the trenching site by a competent person who knows and is trained to identify soil types, proper protective systems and hazardous conditions.
- Competent person - one who is capable of identifying existing and predictable hazards in the working area and who has authority to take prompt corrective action to eliminate hazards and to stop work in hazardous excavations.
- Conduct a daily inspection of the excavation and the adjacent areas prior to work and as needed during the workday.
- If there are any unsafe conditions, work shall stop in the excavation and personnel shall be removed until the problems are corrected.
- Monitor and recognize hazardous atmospheres.
- Monitor and recognize hazardous conditions such as vibration, external loads, weather conditions, ground water conditions and confined spaces.
- Check all protective material or equipment for any damage.
- When excavations are deeper than four (4) feet, ladders or steps shall be located so that a worker does not need to travel more than 25 feet in the excavation before being able to exit.

See (NCOSHA) confined space standard 29CFR-1910.148 for testing before employees enter for excavations greater than four (4) feet in depth.

- Each employee in an excavation shall be protected from cave-ins by an adequate protective system designed in accordance with NCOSHA Standard 1926, Subpart P.
- Protective systems are required for excavations less than five (5) feet in depth whenever examination of the ground by a competent person indicate a potential cave in hazard.
- When excavations are deeper than five (5) feet, the sides shall be provided with a protective system (shored, braced or sloped sufficiently) to protect against hazardous ground movement.
- When heavy equipment will be operated nearby, the shoring or bracing shall be able to withstand this extra load regardless of the depth of the excavation.
- For any excavation that a person will enter, all dirt, debris and excavation material shall be effectively stored or retained at least two (2) feet from the edge of the excavation.

Signs and Barricades

All excavations into which a person could fall or trip shall be guarded. While work is being performed in or near the opening, the guards surrounding the area shall be maintained. Barricades at least 3 to 5 feet high and spaced no further than ten (10) feet apart shall be provided. Additionally, yellow and black Caution, Do Not Enter construction tape shall be stretched securely between the barricades. Excavations should be covered and not left open overnight, whenever possible.

Additional illuminated barricades are required where vehicular traffic is possible.

Reference (NCOSHA 29CFR 1910.145 and 1926.202).



WORKPLACE INJURIES AND ILLNESSES

If you have an accident or if you are injured on the job you should immediately notify your supervisor.

If your injury requires medical treatment, follow the agency or university procedures regarding medical treatment. With reference to occupational disease, an employee must give notice to the employer when the employee is first informed by a competent medical authority of the nature and work related causes of the illness.

If you have questions about coverage or benefits under workers compensation you should contact your Workers Compensation Administrator.

WORKPLACE VIOLENCE

North Carolina State Government is committed to providing a safe and healthy environment to all employees and to the public that we serve. Your agency has developed a workplace violence policy, including procedures for the prevention and management of incidents and threats of violence. The intent of this policy is to provide for a workplace that is free from violence by establishing preventative measures, holding perpetrators accountable and by providing assistance and support to victims.

In maintaining a violence-free workplace, the State is guided by and in support of the Federal Occupational Safety and Health Act of 1970 which requires employers to provide their employees

with a safe and healthy work environment. Workplace violence includes, but is not limited to, intimidation, threats, physical attack, domestic violence or property damage and includes acts of violence committed by State employees, clients, customers, relatives, acquaintances or strangers against State employees in the workplace.

All employees are encouraged to be alert to the possibility of incidents and threats of violence. Your agency policy prohibits retaliation against any employee who, in good faith, reports a violation. Every effort will be made to protect the safety and anonymity of anyone who comes forward with concerns about a threat or act of violence.

If you are a victim of workplace violence, which includes domestic violence, your agency will make every effort to provide support and reasonable security measures for you. You are encouraged to talk with your supervisor, Human Resources Office or you may call the State Employees Assistance Program at (919) 733-9545 or 1-800-543-7327 for confidential assistance.

ERGONOMICS - OTHER HELPFUL TIPS:

- If a repetitive job is awkward, try to find a better way to accomplish it.
- When using vibrating tools, try to insulate the vibration from your hands with gloves, padding, etc.
- Keep your wrist in a neutral position as much as possible, *not bent or twisted*.
- Use your whole hand to grasp objects, *not just your thumb and index finger*.
- Alternate easy and hard tasks that require the use of your hands.
- Give your hand and wrist time to recover after forceful movements.
- Don't carry heavy objects for long periods. Use jacks, carts, dollies, etc. whenever possible.
- Increase the diameter of the handles of tools and equipment with tape, foam or other materials to help reduce the force of your grip and to spread the pressure more evenly over the hand.
- Keep your hands warm to promote circulation.
- **Sleeping:** Avoid sleeping on stomach or hands or with your hands bent at the wrist. Curl up on side with a pillow between the knees or on back with pillow under the knees.
- **Sitting:** Sit with your knees slightly higher than your hips with lower back against a firm backrest or pillow and feet flat on the floor or foot rest. Move, cross and uncross your legs frequently.
- **Driving:** Move seat forward so wrists rest on top of steering wheel. Sit up straight with your knees slightly above your hips, with support for your lower back. Check the position of the mirrors and **BUCKLE YOUR SEAT BELT!**
- **Standing:** Stand straight and maintain lumbar curve. Avoid bending at your waist. For prolonged standing, use a low footstool for alternate resting of your legs and for altering your stance.
- **Walking:** When walking, maintain an erect posture, watch where you are going and wear slip-resistant, comfortable and supportive shoes. Wearing quality work shoes with slip-resistant heels and soles can prevent the majority of slips, trips and falls.
- When stepping down from a height of more than eight inches, step down backwards, not forward.



OFF-THE-JOB SAFETY AND HEALTH

The State of North Carolina is vitally concerned with your safety and health off-the-job as well as at the workplace.

Experience indicates, however, that many individuals tend to leave their training at work. Employees should strive to follow the same safe practices in outside activities as they use on the job and to make off-the-job safety and health an extension of the States program.

(Please sign, detach, and return to your supervisor.)

I hereby acknowledge receipt of a copy of the

North Carolina State Government Safety and Health Handbook

I understand that it is my responsibility to become familiar with and abide by these instructions, insofar as they apply to the duties which I shall perform for State Government. (A copy of this certification will be filed with the employees personnel records.)

Employees Signature:
Agency or university:
Date: