

NCDOT



New Employee Safety & Health Handbook



Emergency Numbers

General Emergency: 911

Medical Emergency, Ambulance or Rescue: 911

Fire: 911

Police: 911

NCDOT Security Director: 919-707-4854

Poison Control Center: 800-222-1222

NCDOT Safety and Health Director: 919-707-4852

NCDOT Workers Compensation: 919-814-2226

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

NCDOT Employee Safety & Health Handbook

Prepared by:
NCDOT Safety and Risk Management

Published by:
North Carolina Department of Transportation

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Secretary's Safety Message

The North Carolina Department of Transportation is committed to protecting employees, subcontractors, clients and the public from injuries and occupational illness both on and off the job. This premise is an agency value of greatest importance. We are committed to a goal of ZERO injuries and incidents by a belief that all injuries and occupational illnesses are preventable, and by providing a safe and healthful work environment for all our employees. Operating safely, with constant focus on accident prevention, occupational health, and operational risk management is the most efficient way to manage our business.

This philosophy and our ability to sustain this process will be evidenced by the following guiding principles:

- Senior management is responsible to support and monitor the safety, health and operational risk management process.
- The line organization is responsible and accountable to lead and implement the safety, health, and risk management process.
- Supervisors shall possess the skills and competencies commensurate with project safety, health, and risk management responsibilities.
- All employees must comply with safety, health, and risk management requirements and accept that working safely is a condition of employment.
- We will accomplish our work utilizing effective accident prevention strategies such as safety engineering and design, training, people based safety, and administrative controls to safeguard against workplace hazards.
- We will work towards continuous improvement.
- We will foster a culture that aligns safety, health and risk management with the other business objectives of NCDOT.
- We will conduct our business in compliance with all regulatory requirements.
- The emphasis will be on Safety, Health, and Risk Management Planning Process and the reduction of incidents will be the measure of our success.



J. Eric Boyette
Secretary of Transportation

03/10 / 2020

Date:

Purpose

This handbook is designed to give new NCDOT employees a firm understanding of its commitment for protecting our employees from work-related injuries or illnesses. It also provides general information to employees regarding safety in the workplace.

NCDOT has an established Safety Program for preventing injuries to employees, protecting the health of its employees and preventing damage to State and private property.

The NCDOT Safety Program is covered in the following (2) Safety Manuals:

- NCDOT Workplace Safety Manual covering Safety Committees, Safety Meetings, Safety and Facility Audits, Incident Reporting for Injuries and Equipment Damage along with Incident Investigations and Safe Operating Procedures (SOPs).
- NCDOT Safety Policies and Procedures Manual addresses OSHA standards applicable to NCDOT.

The following pages contain only some of the highlights of the Safety and Health Regulations for general industry and construction under the Occupational Safety and Health Act (OSHA) and other regulatory groups. This handbook should be used as a guide to limit risk to some common hazards NCDOT employees may be exposed. Specific potential hazards applicable to your Unit will be discussed by your Supervisor.

All new NCDOT employees are required to attend New Employee Orientation within 30 day of hire and are required to read and be familiar with the contents of this Safety and Health Handbook. Acknowledgement will be required upon completion.

NCDOT Safety and Health Rules

Employee Responsibilities:

- Each employee must place safety and health as a priority in the performance of their work duties for NCDOT.
- The protection of fellow employees and the public on State property is a shared responsibility for every employee.
- Employees are responsible for notifying their immediate supervisor of any workplace safety hazards.
- Employees have the option to report safety hazards anonymously, using the NCDOT ANYRISK hazard reporting system. Report through:
 - * anyrisk.nc.gov
 - * Calling 1-866-361-1818
 - * Using Report A Workplace Hazard link on the Inside NCDOT portal home page
- Employees must notify their immediate supervisor of any injury, accident or near miss regardless of how minor it may appear at the time.
- Applicable Incident Reporting forms are available through Safety & Risk Management Workers Compensation Section. Questions concerning medical treatment of these injuries/illnesses should also be addressed to your supervisor.
- Every employee is required to participate in NCDOT's commitment to ensure quality service to the Public and internal customers with safety and health as the cornerstone of the NCDOT's safety program.
- Follow NCDOT Safe Operating Procedures, rules and Safety Policy and Procedures. Failure to comply with or enforce Safety and Health Rules and Regulations may result in disciplinary action up to and including dismissal.
- Working while impaired by alcohol or drugs is specifically forbidden. The use of prescription drugs, which may affect your alertness or work abilities, must be reported to your supervisor prior to beginning work.

- Properly dispose of all hazardous materials in an acceptable and lawful manner. Your supervisor and/or Safety and Risk Management can advise you of the required disposal method and practice developed by NCDOT Roadside Environmental Unit.
- Employees shall receive proper instruction and/or training prior to operating equipment.
- Use provided safety devices, equipment and personal protective equipment (PPE) as required.
- Employees shall wear, clean, maintain, and use prescribed personal protective equipment (PPE) for work that requires such equipment.
- Do not use defective tools.
- Only use properly guarded equipment.
- The rules in this book are intended for your protection and benefit. You should use this book as a reference and keep handy. If you are confronted with a situation not covered in this book, consult your supervisor before proceeding with the task.

NCDOT Responsibilities:

- NCDOT has developed and continually improves an effective occupational safety and health program, including life safety and property protection. NCDOT shall strive to provide a safe work environment and minimize workplace and on-the-job hazards.
- Frequent and regular safety audits of the workplace, materials and equipment shall be made by trained persons designated in Units throughout NCDOT.
- Unsafe tools, materials or equipment shall be tagged, locked or removed from the workplace to prevent their use.
- Supervisors shall instruct each employee how to recognize hazards, avoid unsafe conditions and work practices, along with the safe work practices to control or eliminate them.
- NCDOT shall provide all medical services required to address work-related injuries or illnesses.

* This medical treatment may include First Aid.

* For more serious injuries or illnesses, medical treatment should be obtained from one of the Network designated health care providers listed by NCDOT Workers Compensation Section.

Compensation to the employee for wages lost from work and/or any disability rating as a result of the on-the-job injury/illness is administered through NCDOT Workers Compensation Section.

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.

NCDOT 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.

General Safety and Health Rules

Asbestos

Employees shall not remove or disturb asbestos, or material suspected of containing asbestos. Your supervisor will make you aware of any asbestos present in the location you are working. Asbestos may be contained in materials such as:



- Adhesives and mastics
- Ceiling areas and duct work
- Flooring and/or floor tiles
- Insulation
- Piping in lab fume hoods
- Vented enclosures

The asbestos that may be present in these materials pose no risk to employees unless it is damaged or disturbed by maintenance type activities. If there is any damage or disturbance to materials or items suspected of containing asbestos, your supervisor and the Safety and Risk Management should be notified immediately.

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:

- digester
- tanks
- manholes
- tunnels
- sewers
- trenches
- silos
- vaults

NCDOT has identified all confined spaces and maintains 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 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

All personnel involved or having responsibility for entry into confined spaces must be thoroughly familiar with permit entry and rescue procedures. NCDOT Confined Space Entry SPP# 1910.146 can be found in NCDOT Safety Policy and Procedure Manual.

Emergency Action Plan

Obtain and learn the Emergency Action Plan for your Unit which addresses 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:

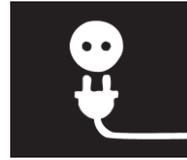
- Become familiar with your Unit's Emergency Action Plan from your supervisor.
- Learn how to contact emergency services.
- Locate local fire alarms or other emergency alarm systems and learn how to operate them.
- Learn the location of all exits from your work area and determine a primary and alternate exit route.
- 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 your Unit's Emergency Action Plan for the appropriate emergency response.
- If a fire alarm sounds, always immediately evacuate the building.
- Provide assistance for persons with disabilities.
- Do not run. Do not use elevators. Use stairwells in multi-story buildings. Report to your designated meeting area outside the building immediately until instructed by emergency services personnel.
- 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

Your supervisor is responsible for you to be trained in applicable electrical safety in your Unit to address hazards and safe procedures for the type of work tasks you may be involved.



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. All work on electrical equipment or circuits shall be done with the power off unless for troubleshooting.
- A safety lockout 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 protected by (GFCI's) Ground Fault Circuit Interrupters.
- Keep working spaces, walkways and similar locations clear of cords so as not to create a trip 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 use electrical equipment to ensure proper grounding and eliminate risk of electric shock.

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 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 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 of Portable Ladders and Scaffolds).



Fire Prevention

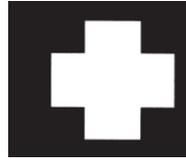
Know the Emergency Action Plan for your work area.



- 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 Practice good housekeeping and fire prevention.
- Avoid Daisy-Chaining, connecting surge protectors or power strips into each other which can cause overheating of wiring.
- 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.
- 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 flames 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 gases 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

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 911 for emergency medical services.



Do Not Attempt to administer First Aid or CPR unless you've been trained or know what you're doing otherwise Injury may be aggravated.

First Aid Kits are required in the workplace and at jobsites for the treatment of minor cuts and scratches. The availability of First Aid kits is not a substitute for obtaining medical treatment. First Aid for other than minor cuts and scratches should be performed by certified and trained First Aid personnel (by the American Red Cross of N.C.; American Heart Association; National Safety Council; etc.) or certified NCDOT First Aid/CPR/AED instructors.

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

General Housekeeping/Sanitation

Good housekeeping is essential to 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. Recycle when possible.
- Clean up all water or beverage spills.
- For hazardous chemical spills evacuate the area and notify your Supervisor or designated person responsible for hazard spill cleanup so the chemical can be identified, area barricaded and removed.
- Store oily waste or rags and other flammable waste in approved safety containers that have self-closing lids.
- Maintain three (3) feet clearance from all electrical panels. Do not store materials in mechanical, electrical or telephone equipment rooms.
- Never block or obstruct exit routes.
- Keep tools stored neatly in designated area and materials securely racked or stored.
- Wash your hands before eating.
- Medical waste sharps must be properly accumulated in biohazard sharps container. Contact your supervisor for details.

Hazard Communication Program

The OSHA Hazard Communication Standard has been revised to meet the provisions of the United Nations “Globally Harmonized System of Classification and Labeling of Chemicals” (GHS). Two significant changes contained in the revised standard, require the use of new labeling elements and a standardized format for Safety Data Sheets (SDSs), formerly known as Material Safety Data Sheets (MSDSs). The new label elements and SDS requirements improves worker understanding of the hazards associated with the chemicals in their workplace.

The OSHA 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; and
- Availability of Safety Data Sheets
- Chemical safety training upon initial assignment and when new chemicals are introduced into the workplace.

Chemical Inventory

A current inventory listing of all hazardous chemicals present in the workplace is to be maintained. Each Unit must have access to SDS for chemicals used at their location. NCDOT utilizes the 3E Company for access for SDSs utilizing the following methods:

- Internet access through 3E website established for NCDOT
- Call 3E Company for SDS (800-451-8346)
- Send Fax Request to 3E using Fax form
- Some Units may choose to maintain hard copies of SDSs for their location

For Internet access to SDSs, use the 3E website set up for NCDOT. Contact your supervisor or Safety & Risk Management for assistance. The chemical listing can also be obtained through this method. The advantage of Internet 3E access is that worksites and work locations do not necessarily have to maintain paper copies of SDSs. The availability and accessibility of SDSs should be determined by need.

Bloodborne Pathogens

Bloodborne pathogens are viruses that include, but are not limited to, HIV, hepatitis B and C pathogens which can be transferred to employees who have occupational exposure to human blood, body fluids, or other potentially infectious materials. DOT employees at risk of exposure include anyone administering First Aid or performing janitorial services. Training in safe work practices, methods of exposure and universal precautions is required.

Employees exposed to blood or other body fluids should immediately

- Wash contaminate parts of body with soap and water,
- Flush splashes to nose or mouth with water.
- Irrigate eyes with clean water.
- Contact their Supervisor for appropriate follow-up care.



Safe Lifting

Serious strains often result from improper lifting and handling of boxes, office supplies, and equipment or lifting objects too heavy for your capability. Such objects should be moved with a hand truck or unpacked and handled in smaller parcels.

- Avoid lifting objects that may be too heavy for you. If the object is too heavy, large or awkward; use a mechanical device such as hand cart or hand truck. If one is not available, get help lifting the object.
- Push rather than pull an object. While pushing, maintain your lumbar curve and push with your legs.
- Try to avoid placing objects on the floor if they must be picked up again later.
- Avoid lifting above your shoulder height. Use a ladder or step stool to move objects at these heights.
- Check your intended 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.
- To lift safely, 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 and lift slowly, smoothly without jerking.

- Avoid long reach to pick up an object; pull or slide it closer to you then lift it.
- 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.

Lockout/Tagout – Control of Hazardous Energy



The Control of Hazardous Energy is required before servicing, repair, maintenance, inspection or exposure to equipment where a hazard may be presented by uncontrolled energy and possibly unintended start-up.

All employees who will be working on equipment where the unexpected energizing, start-up or release of hazardous energy are required to be trained following NCDOT Lockout/Tagout Procedure SPP# 1910.147.

Machine Guarding

Moving machine parts create and workplace hazard. Safety Guards on machines are designated to protect you from injury. If you observe a machine where safety guards have been removed notify your supervisor.



Medical Surveillance

When you work with certain toxic chemicals such as lead or silica, wear respiratory protection or are exposed to excessive noise, you are required to be medically evaluated. This evaluation may include periodic physicals, blood or other biological testing, and other tests such as audiometric or pulmonary evaluations. If you work with any of these, check with your supervisor and/or Safety staff for details.



Motor Vehicles

Driver's License Requirements



Employees may not operate a state vehicle or their personal vehicle for NCDOT business unless you possess and can present a valid driver's license.

NCDOT may perform regular motor vehicle driver's license checks for any driver. 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. All drivers should attend a defensive driving course.

Commercial Driver's License (CDL)

Commercial Driver's License are required and must be current for every NCDOT employee who operates a motor vehicle designed or used to transport materials or passengers 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. CDL drivers should go through NCDOT Fleet Safety training program.

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.
- CDL drivers must perform a Pre-Trip Inspection on their vehicles each day prior to use.
- All other drivers should ensure their vehicles are in safe operating condition prior to 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 to their supervisor. Vehicles with safety deficiencies are to be removed from service for repairs.

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 driver's responsibility to visually check the area behind the vehicle or use a spotter prior to backing up. The spotter shall remain in full view of the driver during the backing operation and clear of the vehicle and other obstructions.
- To avoid backing out of a parking space, it is recommended and a better safety practice to back into the parking space.

Safety Belts

Seat belts and shoulder harnesses are required to be used by the driver and all occupants of any NCDOT vehicle.

Responding to Roadside Emergencies

During roadside emergencies, ensure that your vehicle is left in a position that minimizes exposure to your personal safety. Request roadside assistance from your supervisor. IMAP provides roadside assistance on Interstate roads if requested.

Motor Vehicle Accidents

Any accident, involving a State vehicle, regardless of the extent of the damage, should be investigated by a police officer with jurisdiction in the area. If there are serious injuries requiring emergency medical care, call 911 immediately. Accident report forms and instructions should be stored in the glove compartment of each vehicle. Follow instructions and notify your supervisor of the accident ASAP.

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 OSHA, employees must be protected by either engineering control or by a hearing conservation program which includes hearing protection (ear plugs or earmuffs) 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 safety staff.

Office Safety

General

Following safe work procedures in the office can prevent many accidents. Slips, trips and falls are the leading cause for office accidents.



- Prevent fall and trip hazards, by keeping stairways, isles and walk areas clear of boxes, loose materials, wires and other small objects.
- 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.
- Immediately clean up small spilled liquids. For larger spills, contact appropriate personnel responsible for housekeeping duties.
- 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 may occur when persons are distracted through conversation or by turning to another person while descending.
- Don't lean forward from chair to pick up objects on the floor as the chair move out from underneath you.
- Don't 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 be 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.
- Don't stand on a chair, stools, or other unstable surface to reach for an object. Use a ladder.
- Place wastebaskets, briefcases, umbrella stands, and similar objects where they will not present a tripping hazard.

- To prevent slips 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 an impermeable closed container. Medical waste sharps require immediate deposit in biohazard sharps containers and hazardous materials control 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.
- Always wear appropriate shoes for the office environment.
- Properly store office supplies.

Filing Cabinets

Filing Cabinets may pose a potential safety hazard 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 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.

Fire Hazards



- Flammable solvents and cleaning solutions shall be dispensed only from approved safety containers.
- Solvent soaked or oily rags used for cleaning equipment shall be kept in metal, self-closing oily waste containers. Contents must be properly disposed of using designated
- Smoking is prohibited where there is exposure to flammable solvents.
- Smoking is prohibited in any NCDOT facility or within 25' of any entrance. Smoke only in designated outdoors smoking facilities.
- Electrical appliances shall bear the listed label, i.e. UL, FM, etc.
- All electrical appliances with a heating element shall be unplugged at the end of the workday. Electric space heaters must have tip-over protection.
- Displays and decorations shall be fire retardant or non-combustible. Ensure any decorative electric lighting device is free of any defects and shut-off at end of the day.

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 should 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 Ergonomics

Office ergonomics simply put is setting up your workstation to fit you. Maintaining a neutral posture is a very important part of good office ergonomics.



- Neutral posture consists of sitting upright in your chair with straight back and thighs parallel to the floor, feet flat on the floor, elbows close to your body, and forearms, wrists, and hands in-line and roughly parallel to the floor when using keyboard and mouse.
- Your monitor should be positioned directly in front of you with keyboard on the work surface or keyboard tray located at height allowing neutral posture to be maintained when using keyboard and mouse.
- Avoid sitting for long periods of time.
If you are not able to adjust your workstation to fit you comfortable and you begin to experience discomfort, you may need an Office Ergonomic Assessment. Notify your supervisor who can request your Safety Staff to conduct an Ergonomic Assessment.

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.

- Notify your supervisor of any electrical 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 cord cover.
- Extension cords should not be used. Notify your supervisor if additional outlets are required.

Personal Protective Equipment (PPE)

Hazard assessments of the common tasks have been evaluated to identify required Personal Protective Equipment for each type of hazard and are indicated in Safe Operating Procedures (SOPs) in the NCDOT Workplace Safety Manual.

Head Protection - is required to protect employee's head where there is a danger of head injury from impact and falling objects.



Class E hard hats are required for NCDOT use which also protects from accidental electrical contact with overhead energized electrical lines.

Ear Protection - shall be used as required to protect employees from noise when engineering controls cannot reduce noise to acceptable levels of 85 dBA.

Eye and Face Protection - shall be used for potential exposure to hazards such as flying particles, dust, chemicals, gases, steam, vapors, objects, biological hazards, potentially injurious glare, light or heat radiation, or other 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 OSHA 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.

Hand Protection (Gloves) - 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 voltage class for Rubber Insulating Gloves.

Fall Protection (safety harness, lanyard and lifeline)

As required to protect employees from falling while working at heights of six (6) feet or more not protected by standard guardrails or other means.

Portable Ladders and Scaffolds

Ladders

- All ladders must be visually inspected for visual defects and proper working condition periodically and prior to use.
- Ladders which have developed defects shall be withdrawn from service for repair or destruction and tagged or marked as "Do Not Use."
- Always 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.
- 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 landing surface.



- 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 arm's length from a ladder.
If necessary, descend the ladder and move the ladder.
- 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 always be maintained in good condition, 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.

Scaffolds

The use and assembly of scaffolds shall follow manufacturer instructions and meet OSHA requirements.

- Only competent persons authorized by the supervisor shall oversee the erection of 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.
- Guardrails, toe boards, and outriggers shall be used as required by OSHA requirements.
- 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 on mobile scaffolds shall be lockable and shall be locked when employees are on the scaffold.
- No mobile scaffold shall be moved while in use or occupied.
- 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.
- Scaffolds and scaffold components shall be inspected by a competent person prior to use and maintained in good operating condition.
- Any defective or damaged equipment shall be tagged "Out of Service, Do Not Use".

Powered Industrial Trucks and Pallet Jacks



- Do not operate equipment unless you have been trained on the specific model you will be using.
- Operators of forklifts and powered pallet jacks must receive classroom safety training and on-hands skills evaluation.
- Daily inspection of forklifts is required and must be documented.
- Defective or damaged items requiring maintenance or repair should be reported to your supervisor for correction before the use or operation of the equipment.
- Operators should use 3 points of contact when mounting and dismounting forklift trucks.
- Never jump from the cab of the forklift.
- Operators are required to use seat belts on forklifts where provided.
- Operators should follow start-up procedures and test controls to ensure forklift is operating properly before attempting any work.
- If the operator detects any unsafe condition or defect in operation, it should be reported to their supervisor.
- Equipment shall always be operated in a safe manner, keeping the load under complete control. All manufacturers' operating procedures and load ratings must be adhered to.
- Operators should maintain a safe speed and sound horn when approaching intersections.
- Pedestrians must be given their right of way.
- Proceed with caution where vision is limited.
- Travel in reverse if load blocks vision.
- Never 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 supervisor, or designated trainer will provide you with additional information on your particular machine. However, remember that your own good judgement as well as common sense are important in the safe operation of your equipment.

Tools - Hand and Power

- Hand and power tools shall be maintained in safe operating condition. Do not use or operate an unsafe tool.
- Use Personal Protective Equipment safety glasses, safety goggles and face shields as required based on hazard assessment or SOP for Hand and Power Tools where exposure to eye hazard existing when operating or working near hand or power tools.
- All tools must be inspected before each use to ensure safe condition.
- Portable electric power tools shall be double insulated or grounded, using a three-conductor cord and a three-prong plug.
- Any damaged, defective, or unsafe plug, cord or tool shall be reported to your supervisor immediately. Unsafe tools shall be removed from service and tagged "Do Not Use".
- Safety guards on power tools shall not be removed or tampered with.
- Never use tools for a job it was not designed to do.
- Tools and other materials should 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.

Trenching and Excavations

Trenching and Excavation work shall follow NCDOT SPP 1926.650 for Excavation, Trenching and Shoring in compliance with OSHA requirements.



- Before any excavation work begins, underground utilities shall be identified and the location marked for all underground pipes, electrical and telephone conductors, gas, water, and sewer lines. Utilize the free NC811 underground utility locator service. Contact by phone or online. Allow (3) working days so plan ahead.
- 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 can identify 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.
- Conducts 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 located so that a worker does not need to travel more than 25 feet in the excavation before being able to exit are required.
- Employees in excavations deeper than 5 feet shall be protected from cave-ins by an adequate protective system utilizing shoring, bracing or sloping.
- 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 excavated material known as the “spoil pile” shall be effectively placed at least two (2) feet from the edge of the excavation.
- Signs and barricades should be place around all excavations into which a person could fall or trip.

Workplace Injuries and Illnesses

- If you have an accident or if you are injured on the job, you should notify your supervisor immediately.
- If your injury requires medical treatment, your supervisor should take you to one of NCDOT Workers Compensation network of preferred providers. Most Urgent Cares are included in the network.
- Follow NCDOT Workers Compensation instructions for submitting Workers Compensation Claims and submit required forms ASAP.
- If you have questions about coverage or benefits under workers’ compensation you should contact NCDOT Workers Compensation Section.



Workplace Violence

NCDOT is committed to providing a safe and healthy environment to all employees and to the public that we serve.

Workplace violence can take a range of forms. It can include, but is not limited to, emotional abuse, intimidation, bullying, stalking, threats, physical attack, and domestic violence or property damage.

Violence or threats of violence are prohibited. Such behavior on the part of any individual in or on any NCDOT property, including but not limited to, buildings, grounds, and vehicles, will not be tolerated. Employees who violate this policy will be subject to disciplinary action up to and including termination.

If you are a victim of workplace violence, which includes domestic violence, NCDOT will make every effort to provide support and reasonable security measures for you. You should notify your supervisor or Human Resources Employee Relations.

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

I hereby acknowledge receipt of a copy of the

**NCDOT New Employee
Safety and Health Handbook
Acknowledgement**

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 NCDOT. (A copy of this certification will be filed with the employee's personnel records.)

Employee's Signature:

Date:



**Publication of NCDOT
Safety and Risk Management**