

SAFETY MANUAL

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FORWARD

Duplin County is greatly concerned with the safety and welfare of our employees and the public they serve. We strive as an employer to provide the safest possible working conditions for employees and a safe environment for the public who use our services. Livelihoods are diminished, or at worst destroyed, when employees are injured or disabled.

The primary purpose of this manual is to acquaint employees with the County's general safety rules and policies. It reflects the efforts of many people to establish reasonable, practical, safe work practices to prevent accidents. Our approach to accident prevention cannot be simple or basic; it is complicated by differences in tasks performed and differences in work environments. Departmental supervisors shall explain rules and specific departmental policies regarding operations.

We can and must strive to perform the tasks of government operations and public services without accidents. It is the responsibility of all employees to contribute to that goal. The attitudes that shall guide our efforts are as follows:

- Accidents are caused and, therefore, can be prevented.
- Safety is a mark of skill and good common sense.
- We are sincerely interested in safety and are willing to put forth the effort to prevent accidents.
- Safety is a personal responsibility.
- No job is so important and no service is so urgent that we cannot take time to perform our work safely.
- We have an obligation to each other to do everything possible to prevent accidents.
- Work areas and equipment shall be kept as safe as possible. As hazards are discovered, corrective measure shall be taken immediately.
- Employees shall report all unsafe conditions encountered in their work if they do not feel competent to correct those conditions.
- No job shall be undertaken until the employee has been trained to perform the work in the safest possible manner.
- All injuries must be reported immediately to the supervisor.
- Compliance with safety rules is a condition of employment.

- We shall achieve a good, mediocre, or poor occupational safety record in direct proportion to the amount of effort that is exerted.
- Only when our actions meet our desires shall we achieve our goal of an accident free workplace.

Safe work practices benefit the employee, the family, fellow employees, the County, and the Community as a whole.

Purpose

The purpose of the Duplin County Safety Manual is to inform county employees about management policies that are the basis for our occupation safety program, and to establish uniform safety procedures for tasks that are performed in more than one department. Safety procedures for specialized tasks performed solely by one particular unit will be prepared by the Department Head concerned and issued to employees performing those tasks orally and in writing.

Introduction

All employees are charged with the responsibility for cooperating with, and supporting, the safety program's objectives. Every employee is expected, as a condition of employment, to be concerned with personal safety, safety of fellow workers, and safety of the general public. It is important that employees be constantly alert to potential hazards which are not referred to in any written policy, but which could result in injuries or property damage. Where potential hazards are thought to exist, employees shall use all know precautionary measures. When in doubt as to the procedure to follow, employees shall consult with their supervisor before proceeding with the job.

Safety is a way of life. Failures in accident prevention occur when we overlook or disregard safety to concentrate on a mechanical skill or problem; when we fail to recognize a hazard; or when we feel pressured to finish the job and decide to take unnecessary risks.

Experienced professionals in any occupation recognize that they cannot afford to ignore safety. They cost employees physical pain, possible disability, and the potential loss of future income. Accidents costs are high. Premiums for Workers ' Compensation insurance, medical treatment, repair of damaged equipment and many indirect costs that are not so easily measured are an unnecessary burden. Safe operating procedures demonstrate job skill. Safety performance is efficient performance.

RESPONDSIBILITY FOR SAFETY

County Manager

The County Manager is ultimately responsible for the occupational safety performance of the County. The County Manager must establish employee safety as a top priority. To achieve this, safety policies should be established that set goals for all departments and then the County Manager holds the departments accountable for achieving these goals.

Department Heads

The Department Head may, and usually does, delegate authority and assign responsibility. However, the Department Head is ultimately responsible for the safety performance of the department. Safety performance is based on the “quality of effort” involved with performing safety activities such as employee training, accident investigation, work site inspections, etc. The Department Heads must make employee safety a priority.

Supervisors

Supervisors are “the point of implementation” for most safety activities. Therefore, supervisors shall assume the responsibility of thoroughly instructing their personnel in safe practices to be followed in their work situations. They shall consistently enforce safety standards and requirements to the utmost of their ability and authority. Supervisors shall act positively to eliminate any potential hazards concerning activities under their jurisdiction, and they shall set an example of good safety practice.

Employees

All employees are responsible for compliance with safety procedures, standards, and rules established by management. This is essential to prevent injury to themselves, other persons, or damage to equipment and property. They shall also be responsible for promptly reporting to their supervisors any hazardous conditions or procedures that affect themselves, their fellow workers, or the general public that the employee cannot immediately correct.

Safety Committee

The Duplin County Safety Committee is composed of representatives from different County Departments and acts as both an advisory and policy making group. The committee promotes continued safety training, education, and communication.

GENERAL RULES

Safety means efficient performance. Safety must, therefore be part of the planning for every job, equal in importance to all other operational considerations. Observing safety procedures will make our operations safer. Every employee must be alert to the possibility of improvement. People are constantly finding new ways to do things. The new ways are not always safer or an improvement in any sense perhaps, but it is possible to find safer ways to do things that are improvements upon established methods. Employee suggestions for improvements of work conditions and work procedures are welcomed, in fact, invited. Changes must not be made, however, until suggestions have been evaluated and revisions of the current procedures have been approved.

Unsafe conditions and unsafe procedures must be identified before they can be corrected. Consequently, every employee must report those recognized immediately. All accidents shall be reported, whether personal injury or property damage is involved or not. Remember-the “near misses (near accidents)” are danger signals. The accident you prevent may be the one that could have injured you.

General Safety Procedures

The following general safety procedures apply:

- Report all personal injuries, no matter how minor, to the immediate supervisor as soon as possible. A “Supervisor’s Accident and Incident Investigation Report” (Appendix # 1) must be completed and forwarded to the Personnel Office within 24 hours after the accident/incident. This must be done whether the injury resulted in lost time from work or required medical attention or not. Prompt reporting of accidents is a requirement under the Workers’ Compensation Law.
- The County does not expect any employee to take any unnecessary chances or to work under hazardous conditions. Learn the right way to do a job. That will be the safe way. If there is not a thorough understanding of the job, ask a supervisor for further instructions.
- Avoid horseplay and practical jokes on the job. Any employee participating in such activities may be subject to disciplinary action.

- Substance abuse on the job or during working hours is prohibited. Any employee reporting to work under the influence of alcohol or illegal drugs during working hours shall be subject to disciplinary action.
- Work at a speed consistent with safety. “Foolish Hurry” such as running passageways or on stairs is dangerous.
- Keep in good physical condition to do a day’s work.
- Use the handrails on stairs or on elevated places to avoid falls. **See ATTACHMENT II for Duplin County’s Slips, Trips and Fall Protection Policy.**
- Jumping from an elevation such as a table, bench, or platform can result injury.
- Always inspect tools and equipment before use. Report defects to supervisors and other potential users. Do not use tools and equipment that are defective.
- Obey warning signs and tags. They are posted to point out hazards.
- Operate only the equipment and machinery you have been trained and/or authorized to use.
- Never operate equipment or machinery with guards missing or broken.
- Report to work in appropriate clothing suitable for the type of work performed.
- Maintain good housekeeping practices in all work areas.
- Wear all protective equipment as required.
- Firearms or explosives are prohibited at work.

Office Safety

- Keep desk and file drawers closed when not in use.
- Do not open file or desk drawer above or behind someone without warning them.
- Use only step stools or ladders to reach supplies. Do not use a chair, or climb on shelving to reach objects. This increases your chance of falling.
- Push chairs up to desk or under counter when not in use.
- Get help to move heavy objects.

- Report defective furniture or equipment to your supervisor.
- Know location of emergency exits and keep aisles clear to them.

Handling Gas Cylinders

- The protective cap over the valve should be kept on when the cylinder is not in use
- Never let grease or oil be on your hands or gloves. Keep hands away from the oxygen cylinder controls
- Lifting cylinders is always a job for two persons. If available, move cylinders with a cylinder dolly
- Keep cylinders on end and strap or chin them securely so that they cannot fall
- Store cylinders away from salt, acid, film, or other corrosive substances
- Cylinders should be kept away from radiators and other sources of heat
- Oxygen cylinders in storage should be separated from fuel-gas cylinders or combustible materials (especially oil or grease), a minimum distance of 20 feet, or by a noncombustible barrier at least 5 feet high having a fire resistance rating of at least one-half hour.

HOUSEKEEPING RESPONSIBILITIES

Aside from the accident prevention benefits, good housekeeping contributes to efficient performance. When tools, equipment and materials are returned to the proper place after use, they are easier to find and inspect for damage and wear. the following suggestions are offered for good housekeeping.

- Keep work areas and storage facilities clean, neat and orderly.
- All aisles, stairways, exits and access ways should be kept clear.
- Do not place supplies on top of lockers, boxes or other movable containers at a height not visible from the floor.

- When stacking materials for storage, make sure the base is level and firm.
- Lay extension cords and hoses in such a way as to minimize tripping or obstruction to traffic.
- Clean spills immediately to avoid hazards. In the event of clean up delay, the area must be appropriately guarded, posted or roped off.
- Sharp or pointed objects should be stored to prevent persons from coming in contact with them.
- All packing material should be disposed of immediately.
- Wastebaskets should be emptied into approved containers.
- Oily or greasy rags should be placed in a metal container designed for that purpose only.
- Electrical panels and fuse boxes should be kept closed at all times and the surrounding area must be kept clear.

EMERGENCY EVACUATION

If an emergency situation occurs and it is determined that the building must be evacuated, the following procedure is used.

- If the need to evacuate a building is without question, the person initiating the evacuation shall activate the alarm system or announce audibly the cause for evacuation, such as “Fire--Fire”.
- The second step is to dial 9-911 to report the incident. The call is to be made from a safe location.
- If the fire is small enough, only trained personnel may attempt to extinguish it by use of an extinguisher.
- Doors and if possible, windows should be closed as the last person leaves a room.
- The public in each area must be directed by staff to the proper exits.
- Upon evacuation from a building, all staff should proceed to a designated meeting area where head counts can be taken. In case of a missing employee,

notify the responding fire personnel that an employee is missing and may be in the building.

- **Never** re-enter a building without the permission of the fire department.

PROTECTIVE CLOTHING AND EQUIPMENT

Machine Guarding

Employees within the County perform a variety of work operations that involve industrial hazards. The tasks performed range from custodial services to the operation of heavy equipment. Over time, research is conducted to develop measures that protect employees from accidental injury during various tasks. When measures can be developed that protect the employee, we refer to it as having “engineered out” the hazard. This can be seen by the use of guards on various types of machinery.

When working with machinery in the County, there are several rules that shall be followed without exception:

- **Keep all machine guards in place while machinery is in operation.**
- **Tampering with machine guards is prohibited and any removal of a machine guard requires the prior approval of the supervisor.**
- **All guards shall be properly replaced after the repair work has been completed. At no time will equipment be operated without the guard in place.**
- **When necessary to work on electrically driven machinery, the disconnect switch for controlling the machinery is to be secured in the open or off position by the worker or workers performing the job. Proper lockout/tagout procedures shall be followed. See **Appendix III** for Duplin County’s Lockout/Tagout Policy.**
- **The securing device, such as a combination lock, shall not be removed until the work has been completed and the area has been cleared.**

Protective Equipment

When it is impractical or impossible to place a guard over the source of the hazard, then it becomes necessary to place the guard on the worker. This is done by wearing approved personal protective apparel such as hard hats, safety belts, safety goggles, face shields, gloves, aprons, toe guards, respirators, etc. Supervisors should insure that all their employees are properly protected. Local dress codes may be established

within a particular department, or work area, and each employee is expected to know and follow these codes where applicable. See **Attachment IV** for Duplin County's Personal Protective Equipment Policy.

Every possible effort will be made by management to select protective clothing and equipment that is acceptable for comfort, appearance and utility and still afford the desired protection. At times protective equipment is less comfortable to wear than ordinary dress, but do not be tempted to lay it aside when the "boss isn't around". If you do, you may become a gambler who is betting his life, eyesight, or physical well being, by thinking, "it won't happen to me". Losing that bet becomes more uncomfortable for a lifetime than wearing the equipment for the duration of the job. Safety, in this instance, is knowledge of the hazards, knowledge of the protection available, and a frame of mind that makes use of available protection a safe work habit.

Face, Eye, and Hearing Protection

Hazards involving the possibility of injuries to the face and eyes exist in both indoor and outdoor tasks. They range from dust blown into eyes on a windy day, to particles of steel, and, rust, etc., propelled into eyes with considerable force by power tools and machinery, or splashes of corrosive dust and liquid chemicals.

There are many types of safety glasses, goggles, shield, etc., made of impact resistant glass or plastic to protect the worker from these hazards. Face and eye protection shall be provided for any tasks where there is any probability that an injury may occur without such protection. Employees assigned to perform tasks that require eye and/or face protection shall wear the protection provided. Individual Departments have specific PPE for tasks they perform.

Safety glasses, goggles, and other eye/face protection equipment offer vital protection. If sufficient care is not exercised to maintain them properly, dirty or scratched lenses may provide another hazard from reduced visibility.

Some work duties require the use of machines or equipment that may produce sound levels in the frequencies which cause hearing loss. When employees are subjected to excessive sound levels, attempts will be made to use engineering controls to reduce the sound level produced by the machine or equipment. If the sound level cannot be reduced within a tolerable range, then personal protective equipment (PPE) shall be provided and shall be worn by exposed employees.

Ear protection may consist of earmuffs or earplugs (referred to as hearing protective devices-HPDs). When hearing protection is required due to the noise levels, a choice of hearing protection shall be provided at no cost to employees. Hearing protection shall be selected to ensure that it will provide a sufficient reduction to noise exposure. The employees' supervisor will demonstrate proper usage and explain care for the HPD.

Respiratory Protection

There are many tasks involving exposure to fumes, gases, mists, and dusts that are harmful to the human respiratory system. If you are performing a task that could possibly result in the inhalation of toxic materials, you will be required to wear respiratory PPE. If required for your job duties, you will be fit tested and shown how to wear and care for the equipment you are given.

Bloodborne Pathogens/Infection Control

In 1991, the federal and state governments adopted the Bloodborne Pathogens Standard. It is intended to provide protection to employees whose work duties place them at risk for exposure to bloodborne pathogens and specifies several requirements. This standard is enforced by The Occupational Safety and Health Administration (OSHA).

All job classifications should be assessed for occupational exposure to bloodborne pathogens by each department.

CATEGORY I - tasks that involve potential mucous membrane or skin contact with blood, body fluids, tissues, or potential for spills or splashes.

CATEGORY II – tasks that involve no exposure to blood, body fluids or tissues, but employment may require performing unplanned CATEGORY I tasks.

CATEGORY III – tasks that involve no exposure to blood, body fluids or tissues and/or CATEGORY I tasks are not a condition of employment.

Employees who are classified as CATEGORY I and CATEGORY II should receive initial and annual bloodborne pathogen training and receive appropriate Personal Protective Equipment (PPE). All CATEGORY I and CATEGORY II employees will be offered the Hepatitis-B vaccine at no charge to them. If the employee chooses not to receive the vaccination, then a declination statement needs to be signed by the employee. The employee may choose to receive the vaccine at a later date.

Any department with CATEGORY I and CATEGORY II job classifications should have a Bloodborne Pathogen Exposure Control policy specific to their department.

General Clothing

- For your safety and comfort, invest in work clothes that are sturdy, fit well, and are washable. If your department is issued uniforms, wear what has been issued.
- The wearing of loose clothing on or near moving machinery or equipment is prohibited. Shirt-tails need to be kept tucked in.
- Pant legs should be kept to slightly below ankle length and ensure hems are sewn up. Rolled up cuffs are discouraged as they collect dirt and are likely to come down and cause you to fall.
- Wash work clothes frequently as a safe guard against skin infections and irritations.
- Wear steel toed safety shoes on all jobs involving handling or moving heavy materials. Otherwise wear sturdy, comfortable work shoes. Excessively high heeled shoes may create a tripping hazard and soft soled shoes (such as tennis shoes) do not afford protection from puncture wounds when in the field and their use is prohibited while on the job unless approved by your Department Head. Shoes with run down heels or torn soles are hard on the feet and can cause falls. Keep your shoes in good repair.
- Jewelry should not be worn if your job involves machinery or electrical work. Rings, medal bracelets, and other jewelry increase the risk of entanglement or electric shock.
- For outdoor work in winter weather, it is best to wear loose, warm, fairly lightweight clothing. Wear layers of clothing so you can peel it off for inside work and put it back on when have to go outdoors.
- Oil soaked clothes are a serious fire hazard. Keep your clothes free from oil.

Material Handling

Many injuries have occurred in the process of handling materials. These injuries can be avoided by taking a little time to plan ahead, by using mechanical equipment whenever possible, by thinking about the proper way to do the task, and by using the proper tools.

One of the most important preventative safety measures an employee should keep in mind is the four step lifting process. The technique, putting aside considerations of costly hospital and medial bill, can help save you panic and suffering that may extend into your retirement years. Therefore, it is essential that you carefully read and implement the following lifting process:

Get Ready- Size up the load. If it is too heavy or bulky, play it smart-get help. Know where the load is going and where you are going to put it down. Be sure the path you take is clear of obstacles.

Pick it up-Get a firm stance and good balance; have your feet about shoulder width apart. If the load is below waist level, bend your knees to get into position. Keep your back as straight as possible. Grip the load firmly. Lift the object to carrying position, keeping it close to the body. Let your leg and arm muscles do the work.

Carry it carefully-Be sure you can see where you are going. When changing directions, be careful not to twist your body. Turn your body with changes of the position of your feet. Use extra caution in tight places so as not to mash your fingers or hands.

Put it down-If the receiving surface is about waist high; use the edge to take part of the load. Then push it forward. If you lower the load to the floor, bend your knees; keep your back as straight as possible and the load close to your body. See **Attachment V** for Duplin County's Back and Lifting Safety Policy.

If you are using either a hand cart or a conventional cart to move materials, do not stack materials high enough to block vision. When moving materials through public access areas, use extreme caution.

Electrical Safety

Never attempt to repair or adjust electrical equipment unless authorized. Do not use faulty or malfunctioning equipment. Report any problems with electrical equipment, including frayed or damaged cords, to your supervisor. Pull on the plug, not the cord, when unplugging a cord from the power source. All electrical equipment must have an equipment ground, be double insulated or safety approved. For small appliances (any appliance with a two prong plug), a surge protector must be used. Do not use electrical equipment if standing on wet surface or if hands are wet. Know where the main control panel for your department is located and learn how to disconnect the circuit in case of accident.

When using an extension cord, it should:

- be as short as possible
- never be used in areas where they will be stepped on and tripped over
- never be used on work benches or floors when liquids are present
- only be used as temporary wiring unless approved by the Maintenance Department

See **ATTACHMENT VI** for Duplin County’s Electrical Safety Policy.

Workplace Violence

Duplin County is concerned about the increased violence in society, which has also filtered into many workplaces throughout the United States, and has taken steps to help prevent incidents of violence from occurring at County workplaces. The County will not condone any acts or threats of violence against or by County employees or visitors on County premises at any time or while they are engaged in business with or non behalf of the County, on or off County premises.

Duplin County is committed to the following:

- To provide a safe and healthful work environment, in accordance with the County’s safety and health policy
- To take prompt remedial actions up to and including immediate termination, against any employee who engages in any threatening behavior, acts of violence or unsolicited touching of another or who uses any obscene, abusive, threatening language or gestures.
- To take appropriate action when dealing with citizens, former employees, or visitors to County facilities who engage in such behavior. Such action may include notifying the police or other law enforcement personnel and prosecuting violators of this policy to the maximum extent of the law.
- To prohibit employees, former employees, contractors, and visitors from bringing unauthorized firearms or other weapons on to County premises or premises occupied by the County.
- To establish viable security measures to ensure that County facilities are safe and secure to the maximum extent possible

In furtherance of this policy, employees have a “duty to warn” their supervisors or security personnel or any suspicious workplace activity, situations, or incidents that they observe or that they are aware of, involving other employees, former employees, contractors, or visitors that appear problematic. This includes, for example, threats or acts of violence, aggressive behavior, offensive acts, threatening or offensive comments or remarks, and the like. Employee reports made pursuant to this policy will be held in confidence to the maximum

extent possible. The County will not condone any form of retaliation against any employee for making a report under this policy.

Back and Lifting Policy

Ideally, objects should be lifted via the squat lift. With the back relatively straight, the knees are bent so that low back stress is minimized. While this does not seem as easy or natural as simply bending forward at the waist it significantly minimizes the lower spinal stress which can lead to numerous injuries including inter-vertebral disc hernias. Also, keep the feet wide apart when lifting the object and be sure to keep the object as close to your body as possible.

For individuals who cannot fully bend the knees in order to pick up objects some bending of the spine may be necessary. In these cases, be sure the object being lifted is not heavy and most importantly, be sure to keep the object as close to the body as possible. The farther the object is away from the body the greater the stress on the spine.

Even when proper lifting techniques are used repetitive stress injuries to the spine will occur if objects are too heavy or lifting is done continuously to the point that the spinal musculature becomes fatigued. Never lift heavy objects alone-get assistance or use a dolly. Never lift continuously to the point that spinal muscles become fatigued; this will dramatically increase the odds of sustaining spinal injury.

Always be sure to keep objects as close to the body as possible during the lifting and carrying of objects.

Proper Lifting Technique:

- Avoid lifting in the first place if possible
- Use dollies or lifts as aids if possible
- Don't be too proud to ask for help
- Keep load as close as possible to the body
- Keep back straight
- Spread feet for good balance
- Tighten stomach muscles and buttocks
- Lift with legs, not with your back!
- When lifting with another person, give verbal instructions clearly-say "lift", "walk" or "unload"

Always use both hands when lifting and lift slowly and deliberately. The ideal situation is to have someone or something to help you when lifting, but if that's not possible, follow all the above listed guidelines to minimize your risk of injury.

The following is a review list of dos and don't when bending and lifting:

Don'ts

- Don't lift things when your feet are too close together. If your feet are closer than shoulder width you'll have poor leverage, you'll be unstable, and you'll have a tendency to round your back.
- Don't lift with your knees and hips straight and your lower back rounded. This is the most common and stressful bad lifting move. Twisting the trunk during this bad move compounds the problem.
- Don't tense and arch the neck when lifting. This crams your necks joints together and causes pain especially if maintained for a long period of time.
- Don't lift and/or carry an unbalanced load.
- Don't lift and bend too much in a short period of time.
- Don't lift objects that are too heavy for you.
- Don't lift heavy objects directly following a sustained period of sitting, especially if you have been slouching.
- Don't lift things overhead with your neck and back arched, if possible.

Dos

- Do place your feet and knees at least shoulder width apart or front to back in a wide-step position. This will help you bend at the hips, keeping your back relatively straight and stress free.
- Do lean over or squat with the chest and buttocks sticking out. If you do this correctly, your back will be flat and your neck will balance in a relaxed neutral position.
- Do take weight off one or both arms if possible. When you squat down or push back up, use your hand or elbow as support on your thigh or any available structure. This takes some of the compression and strain off of the lower back.
- Do balance your load on either side if possible, or switch side so that both sides are equally stressed.

- Do level the pelvis or tuck in your buttocks and suck in your abdomen, when reaching or lifting overhead. Keep your chest up and use a step stool to keep the low back and neck in neutral alignment.
- Do walk around and use backward-bending and/or stomach-lying positions before or after bending or heavy lifting, especially if you've been sitting for a while.
- When available or required use a weight lifting belt to support your back when lifting.

Duplin County **Blood Borne Pathogen Program**

Purpose

An infection control plan must be prepared for all persons who handle, store, use, process, or dispose of infectious medical wastes. This infection control plan complies with OSHA requirement, 29 CFR 1910.1030, Blood Borne Pathogens. The plan includes requirements for personal protective equipment, housekeeping, training, and a procedure for reporting exposure.

Responsibilities

- The Duplin County Health Department will conduct the Blood Borne Pathogen Program and maintain records of training and inspections for this program.
- Management will ensure proper conduct of the program through inspections, record keeping and periodic audit.

Definitions

Biological Hazard: The term biological hazard or biohazard is taken to mean any viable infectious agent that presents a risk, or a potential risk, to the well being of humans.

Medical Wastes/Infectious Wastes: All wastes emanating from human or animal tissues, blood or blood products or fluids. This includes used first aid bandages, syringes, needles, sharps, material used in spill cleanup and contaminated PPE or clothing.

Universal Precautions: Refers to a system of infectious disease control that assumes that every that every direct contact with body fluids is infectious and requires every employee exposed to be protected as though such body fluids were infected with blood borne pathogens. All

infectious/medical material must be handled according to Universal Precautions (OSHA instruction CPL2-2-.44A)

Hazards:

Unprotected exposure to body fluids presents the possible risk of infection from a number of blood borne pathogens notably Hepatitis and HIV.

Hazard Control

Engineering Controls: Prevention of exposure to blood borne pathogens engineering controls includes proper storage facilities and containers, syringes designed to prevent accidental needle sticks, autoclaves and disinfectant equipment.

Administrative Controls: Prevention of exposure to blood borne pathogen administrative controls include universal precautions, assignment of PPE, employee training, use of spill kits specifically designed for blood and body fluids, restricted access to waste collection points and waste disposal procedures.

Reporting and Record Keeping

Safety Director will maintain any reports required by OSHA. All reports (Training Certificates, Notice of HBV Vaccinations, exposure reports) will be maintained for 30 years. Occupationally contracted HBV or HIV will be recorded on the OSHA 300 Log of Occupational Injuries and Illnesses as an illness. Exposures to bloodborne pathogens from contact with sharps will be recorded on the OSHA 300 Log of Occupational Injuries and Illnesses if a Physician prescribes treatment such as gamma globulin, hepatitis B immune globulin or hepatitis B vaccine.

Training

All personnel assigned duties as EMT, Paramedics, First Aid Station Staff, HAZMAT responders; Custodial Employees (those that clean rest rooms, etc.) will receive initial and annual training by a qualified medical practitioner on the Blood Borne Pathogen Program. Additionally, personnel trained in First Aid shall be offered this annual training.

All new and current affected employees will be trained initially and annually thereafter. The content of the training program will include:

1. County Policy
2. Types and transmission of Blood Borne Pathogens
3. General Safety Rules
4. Universal Precautions
5. Use of Personal Protective Equipment
6. Medical Waste Disposal Procedures
7. Post Exposure Treatment and Procedures
8. HBV Vaccinations

Documentation of training will be by *Control of Blood Borne Pathogens Training Certificate*

All employees not affected by this program will receive an overview of the program requirements during scheduled department Safety Meetings with documentation by Safety Meeting Minutes Form.

Hepatitis-B Virus (HBV) Vaccinations

Occupational Health Professionals and those required to provide first aid or emergency response duties or medical care on a routine basis will be offered Hepatitis-B Virus (HBV) Vaccinations at the Duplin County's expense. Employees that transfer to a job or their job is reclassified to include exposure to blood borne pathogens will be offered HBV vaccinations within 10 working days of the transfer or reclassification.

The choice for HBV vaccination is not mandatory. If an affected employee chooses not to have the vaccination at the initial offering, they will have the opportunity to be vaccinated when they are ready. Duplin County will document the offer, acceptance or declination, and vaccination dates with the *Notice of HBV Vaccinations Form*.

Post Exposure Treatment and Notification Procedures

Should an affected employee or an employee acting as a "Good Samaritan" is occupationally exposed to HIV/HAV/HBV the affected employee will report the exposure to the Duplin County Health Department. Duplin County Health Department will provide for the employee to be tested for HIV/HAV/HBC at Duplin County's expense. Following the initial blood test at the time of exposure, seronegative employees will be retested at 6 weeks, 12 weeks and 6 months to determine if transmission has occurred. During this period, the employee will follow the recommendations provided by Duplin County Health Department or the U.S. Public Health Service.

An "occupational exposure" is defined as blood or body fluid contact from an injured or ill employee to the affected employee of injured by a contaminated sharp object.

Following the report of exposure, Department Head, will contact the exposure source and request that person be tested for HIV/HAV/HBV, Duplin County's expense. The request is not mandatory and if refused will not effect that employee's future employment.

The source individual's blood is tested as soon as possible and after consent is obtained to determine HBV and HIV infectivity. (Hepatitis B surface Antigen, Hepatitis C Antibody and HIV Screen)

The exposed employee's blood shall be collected as soon as feasible and tested for HBV (Hepatitis Bs Antibody, Hepatitis Cs Antibody) and HIV serological status after consent is obtained (employee consent for HIV Antibody Testing).

During all phases of Post Exposure, the confidentiality of the affected employee and exposure source will be maintained on a "need to know basis". The *Blood Borne Pathogens Exposure and*

Treatment form is used to document the exposure and offer of medical assistance to the affected employee and use the *Medical Consent for Blood Borne Pathogens Testing* form the exposure source. The result of any HIV/HAV/HBV test conducted will be provided to the exposed and source employees within 5 business days of receipt.

General Procedures

Personnel must follow the following procedures when in medical rooms or laboratories.

All supervisors must ensure that their staff is trained in proper work practices, the concept of universal precautions, personal protective equipment, and in proper cleanup and disposal techniques.

Resuscitation equipment, pocket masks, resuscitation bags, or other ventilation equipment must be provided to eliminate the need for direct mouth-to-mouth contact in groups where resuscitation is a part of their responsibilities.

Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a potential for exposure to any health hazard. Food and drink must not be stored in refrigerators, freezers, or cabinets where blood or other potentially infectious material is stored or in other areas of possible contamination.

According to the level of risk, wearing laboratory or protective clothing may be required for persons entering infectious disease laboratories. Likewise, showers with germicidal soap may be required before exit.

Gowns, aprons, or lab coats must be worn whenever there is a possibility that body fluids could splash on skin or clothing.

Gloves must be made of appropriate disposable material, usually intact latex or vinyl, They must be used in the following circumstances:

- When the employee has cuts, abraded skin, chapped hands, dermatitis, or similar conditions.
- When examining abraded or non-intact skin of a patient with active bleeding.
- While handling blood or blood products or other body secretions during routine laboratory procedures.

Employees must wash their hands immediately, or as soon as possible, after removal of gloves or other personal protective equipment and after hand contact with blood or other potentially infectious materials.

All personal protective equipment must be removed immediately upon leaving the work area, and if this equipment is overtly contaminated; it must be placed in an appropriate area or container for storage, washing, decontamination, or disposal.

Contaminated clothing must not be worn in clean areas or outside the building.

All procedures involving blood or other potentially infectious agents must be performed in a manner that will minimize splashing, spraying, and aerosolization..

Medical Wastes

Medical/infectious waste must be segregated from other waste at the point of origin.

Medical/infections waste, except for sharps (i.e., razor blades, broken glass, needles, etc.) capable of puncturing or cutting, must be contained in double disposable red bags consciously labeled with words **“INFECTIOUS WASTE”** and **“BIOHAZARD.”**

Used needles or other sharps (razor blades, broken glass, scalpels, etc.) must not be sheared, bent, broken, recapped, or resheathed.

Infectious sharps must be contained for disposal in leak-proof, rigid puncture –resistant containers. Infectious waste contained as described above must be placed in reusable or disposable leak-proof bins or barrels that are conspicuously labeled with the words **“INFECTIOUS WASTE”** and **“BIOHASARD”**. These waste barrels are picked up regularly by an outside company licensed to handle infectious waste.

All infectious agents, or apparatus must be disinfected in an autoclave or otherwise disinfected in an autoclave or otherwise disinfected before being washed or disposed of. Each individual working with infectious bio-hazardous agents is responsible for disinfection of these agents.

Biological wastes that do not contain radioactive or hazardous substances may be disinfected by steam sterilization (autoclave) then disposed of in the regular trash.

Liquid bio-hazardous waste may be disposed of in the sewage system followed chemical decontamination.

Reusable glassware must be decontaminated in sodium hypo chlorite (household bleach) solution (1:9) prior to rinsing and acid washing. The glassware must be sterilized in an autoclave.

To minimize the hazard to firefighters or emergency response personnel, at the close of each work day and before the building is closed, all infectious or toxic material must be placed in a refrigerator, placed in an incubator, or autoclaved or otherwise disinfected.

Infectious agents must not be placed in an autoclave and left overnight in anticipation of autoclaving the next day.

Floors, laboratory benches, and other surfaces in buildings where infectious agents are handled must be disinfected with a suitable germicide, such as 1:9 sodium hypo solution (household bleach) as often as necessary as determined by the supervisor.

The surroundings must be disinfected after completion of operations involving planting, palpating, centrifuging, and similar procedures with infectious agents.

Infectious agents must not be dumped into the building drainage system with out prior disinfection.

Cuts

If any employee has a needle stick, cut or mucous membrane exposure to another person's body fluids he/she must report the incident immediately to the Department Head.

Blood Exposure

All employees exposed to human blood and blood products must report to the Department Head for information and possible inclusion in the Hepatitis B Immunization Program.

Infection Control Plan

The purpose of the Infection Control Plan is to protect the health and safety of the persons directly involved in handling the materials, Duplin County personnel and the general Public by ensuring the safe handling, storage, use, processing and disposal of infectious medical waste. This plan complies with OSHA requirement proposed for 29CFR 1910.1030, Blood Borne Pathogens.

Universal Precautions: Refers to a system of infectious disease control, which assumes that every direct contact with body fluids is infectious and requires every employee exposed to be protected as though such body fluids were infected with blood borne pathogens. All infectious/medical material must be according to Universal Precautions (OSHA Instruction CPL 2-2.44A).

The following universal precautions must be taken.

1. Gloves must be made of appropriate disposable material, usually intact latex or vinyl. They must be used:
 - a. When the employee has cuts, abraded skin, chapped hands, dermatitis, or the like.
 - b. When examining abraded or non-intact skin of a patient with active bleeding.
 - c. While handling blood or blood products or other body secretions during routine procedures.
2. Gowns, aprons, or lab coats must be worn when splashes of body fluid on skin or clothing are possible.
3. Mask and eye protection are required when contact of mucosal membranes (eyes, mouth, nose) with body fluid is likely to occur (e.g. Splashes or aerosolization).

Waste Disposal Plan

1. Medical/Infectious waste must be segregated from other waste at the point of origin.
2. Medical/Infectious waste, except for sharps (e.g. razor blades, broken glass, needles, etc.) capable of puncturing or cutting must be contained in double disposable red bags conspicuously labeled with the words, "INFECTIOUS WASTE – BOIHAZARD.)
3. Infectious sharps must be contained in leak-proof puncture resistant containers.

4. Infectious waste thus contained as described in procedures 2 and 3 above must be labeled with the words, “INFECTIOUS WASTE – BIOHAZARD.” These waste barrels are to be picked up regularly by an outside company licensed to handle infectious wastes.
5. Spills/Disinfectants: a solution of sodium hypochlorite (household bleach) diluted 1:9 with water must be used to disinfect, following initial cleanup of a spill with a chemical germicide approved as a hospital disinfectant. Spills must be cleaned up immediately.
6. After removing gloves, and/or after contact with body fluids, hands and other skin surfaces must be washed thoroughly and immediately with soap or other disinfectant in hot water.
7. Other biological wastes that do not contain radioactive or hazardous substances may be disinfected by steam sterilization (autoclave) and then disposed of in regular trash.
8. Liquid biohazard waste may be disposed of on the sewer system following chemical decontamination.
9. Reusable glassware must be decontaminated in of sodium hypochlorite (household bleach) diluted 1:9 prior to rinsing and acid washing. Then the glassware must be sterilized in an autoclave.

Protection Against HIV and HBV Transmission

Task	Gloves	Apron	Mask	Eyewear
Control of bleeding w/ spurting blood	X	X	X	X
Bleeding control with minimal bleeding	X			
Emergency Child Birth	X	X	X	X
Blood Drawing	X			
Handling & Cleaning Instruments	X			
Cleaning Bio Spills	X			
Taking Temperature				
Giving Injection	X			
Measuring Blood Pressure				

The examples provided in this table are based on application of universal precautions. Universal precautions are intended to supplement rather than replace recommendation for routine infection control, such as hand washing and using

gloves to prevent gross microbial contamination if hands (e.g., contact with urine or feces).

Blood Borne Pathogen Control Universal Precautions and General Safety Rules

For Posting

Exposure Determination: For Duplin County Departments that do not perform invasive medical treatment or provide intravenous medication. The exposure to Blood Borne, Pathogens, as defined in item #3 below, is determined to be from routine and emergency first aid treatment of common work place injuries. The following Universal Precautions and General Safety Rules have been established to prevent the spread of viral and bacterial organisms (namely HIV/HAV/HBV). In all cases, the Universal Precautions and General Safety Rules should be followed.

1. Before and immediately after providing patient care, wash exposed areas, (hands, arms, etc.) with antibacterial soap.
2. Don and use the required personal protective equipment for Worker Protection Poster
3. Treat all human body fluids and items soiled with human body fluids (blood, blood products, semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, amniotic, fluid, concentrated HIV/HAV/HBV, and saliva (in dental settings) as if contaminated with HIV/HAV/HBV. **(Note:** Feces, urine nasal secretions, sputum, sweat, tears, or vomits need to be treated as contaminated unless they contain visible blood.
4. No smoking, eating, drinking, or storage of food products are permitted in patient treatment areas. Non-medical items, such as clothing and personal effects, should not be stored in the facility.
5. Patient treatment areas will be maintained in a near sanitary condition at all times. Daily and at least once per shift, the Occupational Health Facility will be disinfected with antibacterial/viral solution (at least 10% Chlorine Bleach or equivalent). All medical and persona protective equipment contaminated with human body fluids will be disinfected before being returned for use again.
6. To avoid special handling, all clothing contaminated with human body fluids will be presoaked (sprayed on the affected areas) with antibacterial/viral solution before being sent to the laundry. **(Note:** Gloves and eye protection should be worn when handling contaminated clothing until presoaked for 10 minutes.)

7. Any spills of body fluid will be (sprayed on the affected areas) with antibacterial/viral solution for 10 minutes before being removed. (**Note:** Gloves and eye protection should be worn when handling spills of body fluids.)
8. Medical Waste (those soiled with covered human body fluids) will be treated following the Medical Waste Treatment and Disposal Procedures before being discarded as ordinary waste.
9. Any suspected exposure to HIV/HAV/HBV by human body fluid contact (via broken skin, human bites, needle sticks, etc.) should be reported to your supervisor immediately.

Control of Blood Borne Pathogens Program Medical Waste Treatment and Disposal Procedures

For Posting

1. All medical Wastes (those soiled with covered human body fluids) will be placed in a leak-proof container marked either *Biohazard* or *Medical Waste*. All other waste will be discarded following customary procedures. (**Note:** Solid feminine hygiene/sanitary napkins, soiled facial tissues, etc. are not considered biohazard or medical waste. Pretreatment is not necessary; however, employees should never wear personal protective equipment and wash hands with antibacterial soap afterwards).
 2. Don and use the required personal protective equipment when handling medical waste as outlined in the *Personal Proactive Equipment for Worker Protection Poster*.
 3. At the end of each shift, all accumulated medical waste will be treated to remove biohazards using the following procedure:
 - Prepare a solution of 10 percent chlorine bleach to water (approximately 2 cups chlorine bleach to 1 gallon of water)
 - Pour solution over medical waste and thoroughly saturate
 - Let stand for 10 minutes and then drain into sink
 - Discard as ordinary waste
- Caution:** Sharp objects (broken glass, hypodermic needles, etc.) should not be handled by hand to prevent accidental punctures and lacerations.
4. Rinse medical waste container and return for use again.
 5. Wash hands and exposed areas with antibacterial soap.

Duplin County

Permit Required Confined Space Program

References:

North Carolina Occupational Safety and Health Standards for General Industry: 29 CFR 1910.146.

Purpose:

To provide a means by which employees can be protected from the hazards associated with entry into permit required confined spaces, and to develop procedures by which employees shall enter such spaces.

Policy:

- I. All spaces owned or operated by Duplin County that meet the definition of permit required confined spaces shall be identified and appropriately marked, and access to such spaces shall be controlled.
- II. Employees are prohibited from entering any space meeting the definition of permit required confined space, unless the following conditions are met:
 - A. The employer determines that employees must enter permit required confined spaces to perform the mission of the Unit and/or the duties of the employee.
 - B. The employees are trained in the duties under this policy which they are to

perform.

- C. The space is rendered safe for entry by:
 - 1. Issuance and compliance with the conditions of a permit;
 - 2. The space is reclassified as a non-permit space; or
 - 3. Alternate Entry Procedures are performed.

III. Permits issued under the procedures in this policy shall be limited in duration to no longer than eight hours.

Definitions:

I. Confined Space Definitions

- A. Confined Space - a space that meets all three of the following conditions:
 - 1. Large enough for a person to bodily enter and perform work;
 - 2. Has only means of entry/egress that requires a person to enter by a means other than normal walking, such as crawling, squatting, climbing, bending, or use of devices; and
 - 3. Is not designed for people to continually occupy the space.
- B. Non-Permit Space - a confined space that does not contain any actual or potential hazards capable of causing death or serious physical harm.
- C. Permit Required Confined Space, Permit Space - a confined space which has one or more of the following characteristics:
 - 1. Contains or has the potential to contain a hazardous atmosphere;
 - 2. Contains a material that has the potential for engulfing an entrant;
 - 3. Has an internal configuration that could trap or asphyxiate an entrant, such as inwardly converging walls or a floor that slopes downward and tapers to a smaller cross-section; and/or
 - 4. Contains any other recognized serious safety and/or health hazard.

II. Person Definitions

- A. Attendant - the trained individual stationed outside the permit space who monitors the authorized entrants and who performs all attendant duties.
- B. Entrant - the trained individual who enters the permit space.

- C. Entry Supervisor - the trained individual with the responsibility to:
 - 1. Assure that acceptable entry conditions are present within a permit space under his/her jurisdiction;
 - 2. Issue a permit authorizing entry;
 - 3. Overseeing entry operations; and
 - 4. Terminating the entry and permit.

III. Hazard Definitions

- A. Engulfment - the surrounding and effective capture of a person by a liquid or finely divided (flowable) solid substance that can be aspirated to cause death by filling or plugging the respiratory system, or that can exert enough force on the body to cause death by strangulation, constriction, or crushing.
- B. Hazardous atmosphere - an atmosphere that may expose employees to the risk of death, incapacitation, impairment of the ability to escape unaided from a permit space, injury, or acute illness. Hazardous atmospheres may be created by conditions such as, but not limited to:
 - 1. Flammable gas, vapors, or mists in excess of ten percent of the lower flammable limit (LFL).
 - 2. Airborne combustible dusts at a concentration that:
 - a. Meets or exceeds its LFL; and/or
 - b. Obscures vision at a distance of five feet or less.
 - 3. Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent.
 - 4. Atmospheric concentrations at or above the Permissible Exposure Limit (PEL) of substances identified in Subpart Z of 29 CFR 1910.
 - 5. Any other atmospheric conditions which are immediately dangerous to life and health.
- C. Immediately Dangerous to Life and Health (IDLH) - any condition that:
 - 1. Poses an immediate or delayed threat to life;
 - 2. Would cause irreversible adverse health effects; and/or
 - 3. Would interfere with an individual's ability to escape unaided from a

permit space.

IV. Hazard Control Definitions

- A. Conditions of Entry - the conditions that must exist in a permit space to allow employees to safely enter and perform duties within the space.
- B. Blanking, Binding - absolute closure of a pipe, line, or duct by fastening a solid plate that completely covers the bore and that is capable of withstanding the maximum pressure of the pipe, line, or duct with no leakage beyond the plate.
- C. Double Block and Bleed - the closure of a line, duct, or pipe by closing and locking/tagging out two in-line valves, and opening and locking/tagging out a drain or vent in the line between the two closed valves.
- D. Inerting - the displacement of the atmosphere in a permit space by a noncombustible gas to such an extent that the resulting atmosphere is noncombustible, producing an IDLH oxygen-deficient atmosphere.
- E. Isolation - the complete removal of a permit space from service and the complete protection of that space from the release of energy or material.
- F. Line Breaking - the intentional opening of a pipe, line, or duct that is or has been carrying flammable, corrosive, or toxic material, an inert gas, or any fluid at a volume, pressure, or temperature capable of causing injury.

V. Permit Definitions

- A. Alternate Entry Procedures - the use of continuous forced air ventilation and atmosphere monitoring in lieu of a permit to enter a permit required confined space that:
 - 1. Has an actual or potential hazardous atmosphere that can be demonstrably controlled by continuous forced air ventilation alone; and
 - 2. Has no other hazards of any kind.
- B. Emergency - any occurrence (including the failure of hazard control or monitoring equipment) or event, internal or external to the permit space, which could endanger entrants.
- C. Entry - the action of breaking the plane of an opening of a permit space with any part of the body.
- D. Permit - the written or printed document authorizing entry into a permit space and designating the requirements for entry.
- E. Prohibited Condition - any condition in a permit space that is not allowed by the permit during the period when entry is authorized.

- F. Testing - the process by which the hazards that may confront entrants are identified and evaluated. This term includes the specification of tests that are to be performed in the permit space.

VI. Other Definitions

- A. Contract for Work - contracts initiated by Duplin County.

Procedures:

I. Duplin County Controlled Confined Spaces

A. Identification of Confined Spaces

1. Duplin County shall identify each space under their jurisdiction which meets the definition of confined space, if any exist, and shall maintain a list of such spaces.
2. The employer shall determine if the confined space meets the definition of permit required confined space.
 - a. Each confined space on the list shall be designated as a non-permit or permit space.
 - b. The hazards of each permit space shall be catalogued.
3. The list shall be distributed to all affected managers and employees.
4. Duplin County shall provide a Danger sign to be posted at the means of ingress to each identified confined space.
 - a. Signs shall meet the requirements of Danger signs.
 - b. The legend on the signs for permit spaces shall state: "PERMIT REQUIRED CONFINED SPACE. DO NOT ENTER WITHOUT AUTHORIZATION AND PERMIT".

- B. Duplin County's employees whose job duties require entry into identified confined spaces may create specific procedures to enter confined spaces, if all elements of 29 CFR 1910.146 are met.

- C. The supervisor with jurisdiction over employees who are required to enter an identified confined space shall:

1. Receive training as an Entry Supervisor.
2. Determine whether employees enter permit spaces, or perform work

within non-permit spaces that may cause the space to meet the definition for permit required confined space during the work activities. If so, the supervisor shall:

- a. Select an Entry Supervisor(s) to oversee entry activities, and provide for training of the employee(s);
 - b. Ensure that affected employees receive training as entrants;
 - c. Procure the necessary equipment to perform the tests required for entry;
 - d. Ensure that an adequate number of employees have received training as attendants;
 - e. Contact the local emergency rescue agency and establish assurance that they will perform rescue coverage during entry operations;
 - i. The supervisor, with the assistance of the Duplin County management as necessary, shall ensure that the rescue services are adequately trained and equipped to perform rescue operations from the space in compliance with safety regulations;
 - ii. The supervisor shall procure this assurance in writing;
 - iii. The supervisor should invite rescue personnel to the site to pre-plan rescue operations; and
 - iv. If the rescue services cannot or will not perform such services, the supervisor or employee shall develop and implement a means to perform rescue for the space.
- D. For each entry into a non-permit space, the designated Entry Supervisor shall review the work to be performed.
1. If the work will introduce a hazard into the space that will cause it to meet the definition for permit required confined space, the supervisor shall:
 - a. Temporarily reclassify the space as a permit space;
 - b. Follow the procedures for entry into a permit space;
 - c. Upon termination of the permit, reinspect the space and take whatever actions necessary to remove the created hazards; and
 - d. Reclassify the space as a non-permit space.
 2. If the work does not introduce a hazard, the Entry Supervisor may

authorize entry into the space.

- E. For each entry into a permit space, the designated Entry Supervisor shall:
 - 1. Perform the pre-entry duties of the entry supervisor on the permit space to be entered;
 - 2. Prepare an entry permit, reclassify the space as a non-permit space, or authorize alternate entry procedures, in compliance with the relevant procedures of this section;
 - 3. Perform the post-entry duties of the entry supervisor;
 - 4. Collect the permit from the attendant at the end of entry, or prepare the documentation for reclassification or alternate entry; and
 - 5. Maintain the permit or documentation for the required retention period.
- F. For the duration of each entry into a permit space, the entrants and attendants shall perform the duties outlined in these procedures, and shall return the permit or documentation to the Entry Supervisor upon termination of entry.
- G. Contractors
 - 1. Duplin County shall ensure that every contract for work within an identified permit space, or work within a non-permit space that will introduce a reclassifying hazard, shall:
 - a. Apprise the contractor that the space is a permit-required confined space and of the hazards within the space;
 - b. Require the contractor to control entry into the space by a permit system meeting the requirements of 29 CFR 1910.146; and
 - c. Require the contractor to eliminate any temporary hazards created by the work, or notify the supervisor responsible for the space of any permanent hazards created by the work.
 - 2. The Contractor or its designee shall notify the responsible supervisor prior to entry.
 - a. The supervisor shall notify any employees near or affected by entry; and
 - b. If employees shall enter the space with contracted employees, the supervisor shall ensure that entry operations are coordinated with the contractor or designee to assure that:
 - i. All entrants of both employers can be accounted for during the

entry;

- ii. The work of one employer does not endanger the employees of the second employer;
 - iii. There is a properly trained attendant in place whenever employees of either employer have entered the space; and
 - iv. Temporary hazards are eliminated, and the supervisor is apprised of new permanent hazards.
3. The Contractor or designee shall meet with the supervisor after completion of the entry to provide notification of:
 - a. Any new permanent hazards created by the work; and/or
 - b. Any unidentified hazards encountered during the entry.

H. Re-Evaluation

1. The employer shall re-evaluate identified confined spaces within their jurisdiction to determine if such spaces should be added, deleted, or reclassified.
2. Re-Evaluation shall be performed:
 - a. After notification by the responsible supervisor of a change in the hazards of a confined space;
 - b. After review by the employer during the annual inspection; and
 - c. After notification of changes in hazards in a confined space by employees, managers, or any other source.

II. Field Staff (e.g. service/repair technicians)

- A. Each manager shall determine by job title any field staff that may enter permit required confined spaces, and shall document the determination.
- B. Managers of employees authorized to enter permit spaces shall:
 1. Procure the equipment necessary for entry testing and develop procedures to provide entry supervisors with the equipment as necessary;
 2. Designate and train Entry Supervisors, Attendants, and Entrants.
 - a. Field employees entering a permit space may be both the Entry Supervisor and the Entrant, or the Entry Supervisor and the

than our procedures;

- ii. The Entry Supervisor may authorize the use of an adequately trained attendant provided by the controlling entity, upon provision or verification of training. The attendant's name, position, and employer shall be recorded on the permit;
 - iii. The Entry Supervisor may accept actions taken by the controlling entity to authorize Alternate Entry Procedures or to reclassify the space as non-permit, after verifying and documenting the effectiveness of such actions. The Entry Supervisor may accept a copy of the controlling entity's documentation to meet the documentation requirement;
 - iv. The Entry Supervisor may accept the controlling entity's rescue procedures if the entity agrees, but must verify that rescue personnel are notified prior to entry;
 - v. Upon request by the controlling entity, the Entry Supervisor shall obtain and provide the following documents as proof of program and entrant training:
 - (A) A copy of this policy;
 - (B) A copy of our training protocol for Entrants;
 - (C) A copy of the entrant's training documentation; and
 - (D) The name and telephone number of the employer contact.
- b. If the controlling entity does not have a permit required confined space program or has not identified the space as permit required:
- i. If the controlling entity agrees to take the actions necessary for reclassifying a space to non-permit, the Entry Supervisor may oversee such actions, test their effectiveness, and reclassify the space;
 - ii. If conditions for Alternate Entry Procedures can be met, the Entry Supervisor may verify the achievement of the conditions and authorize Alternate Entry Procedures;
 - iii. If the controlling entity agrees to supply and require an individual to perform the functions of an Attendant, and if the Entry Supervisor can meet the conditions outlined in this policy for Special Attendants, the Entry Supervisor may authorize the individual as the attendant for the entry and prepare the required documentation.

2. The Entry Supervisor shall prepare and issue the permit, or prepare the required documentation for Alternate Entry Procedures or reclassification.
3. The Entrant and Attendant shall follow the procedures for their classification for the duration of the entry, and return the permit or documentation to the Entry Supervisor at completion of the entry.
4. The Entry Supervisor shall perform post-entry duties in concert with the controlling entity.
 - a. If the controlling entity has a permit required confined space program, the Entry Supervisor shall allow the controlling entity to perform the post-entry activities required by that program;
 - b. If the controlling entity does not have a permit required confined space program, the Entry Supervisor shall oversee the return of the space to the condition prior to entry.
5. The Entry Supervisor shall immediately meet with the controlling entity to provide information on:
 - a. Hazards within the space of which the controlling entity was unaware, and/or
 - b. Any unexpected problems occurring during entry procedures.
6. The Entry Supervisor shall submit the canceled permit and/or any documentation prepared as a result of entry to the Program Coordinator, who shall retain the document for the required retention period. The Entry Supervisor shall also report any emergencies, evacuations, or other unexpected events related to the entry, which shall be recorded in writing by the Program Coordinator (designated by the employer).

III. Entry Procedures for Permit Spaces

A. Pre-Permit Duties of the Entry Supervisor

1. The Entry Supervisor shall record on the permit a descriptive identification of the permit space and its location.
2. The Entry Supervisor shall record on the permit the date of entry, the time of issuance, and the time of expiration. No permit shall be issued for a period longer than eight hours.
3. The Entry Supervisor shall record on the permit the reason for the entry.
4. The Entry Supervisor shall survey the permit space without entry and review the work to be performed, to identify the existing or potential hazards. Such hazards shall be recorded on the permit.

- a. Gases or vapors which could displace the oxygen or processes which could consume oxygen;
 - b. Flammable gases;
 - c. Any other chemicals, gases, fumes, or mists which could be present or released by entry activities;
 - d. A potential for low levels of oxygen from a lack of adequate ventilation;
 - e. A potential for high levels of oxygen;
 - f. Liquids or flowable solids which could engulf an entrant;
 - g. Inwardly converging walls, sloped floors that taper to a smaller cross-section, pits or holes in the floor into which an entrant could stumble into and become wedged, and/or other characteristics of the configuration of the space which could trap or asphyxiate an entrant;
 - h. Radiation;
 - i. Bare, exposed, or ungrounded conductive parts of electrical equipment, machinery, wiring, fixtures, or installations;
 - j. Unguarded points of operation or moving parts of machinery; and
 - k. Any other recognized hazard that could result in accidental injury or occupational illness requiring treatment greater than first aid.
5. The entry supervisor shall determine the actions necessary prior to entry to eliminate or control the hazards, and shall record them on the permit.
- a. Notification of the selected rescue personnel shall be required for each entry.
 - b. Atmospheric Hazards.
 - i. If a potential or actual atmospheric hazard exists, testing shall be required.
 - (A) Oxygen, flammable gas, and carbon monoxide tests shall be conducted.
 - (B) The Entry Supervisor shall obtain and list the Permissible Exposure Limits (PEL) for each identified air contaminant.

- (C) The Entry Supervisor shall test for each identified air contaminant.
 - ii. The Entry Supervisor shall determine if the atmospheric hazard can be eliminated or controlled by purging, venting, inerting, continuous forced air ventilation, or combination.
 - iii. If the only hazard in a space is a hazardous atmosphere and Alternate Entry Procedures are the desired means of entry, forced air ventilation is required.
 - c. Engulfment Hazard elimination or control by blanking, binding, double block and bleed, line braking, or other methods.
 - d. Configuration Control means. Configuration hazards usually cannot be eliminated.
 - e. Other Serious Hazards elimination or control by lock-out/tag-out or other means.
 - f. The need for traffic control devices to isolate the permit space from vehicular and pedestrian traffic.
6. The Entry Supervisor shall determine and record the required equipment for entry.
- a. Equipment for the Attendant to summon rescue and the Entry Supervisor is required for all permit entries.
 - b. Equipment designed to test oxygen, flammable gases, and carbon monoxide shall be required for all permit spaces with hazardous atmospheres.
 - c. Equipment designed to test levels of identified airborne contaminants shall be required where such have been identified.
 - d. A forced air ventilation system is required for Alternate Entry Procedures, and shall be required if determined by the Entry Supervisor.
 - e. Personal protective equipment is required where hazards cannot be effectively eliminated or controlled.
 - f. Traffic control equipment is required if the permit space is not effectively isolated from vehicle or pedestrian traffic.
 - g. Mechanical rescue equipment is required unless its use creates a greater hazard or would not effectively contribute to rescue.

- i. Body Harness with retrieval line attached at the upper back should be used whenever feasible.
 - ii. Wristlets may be used where body harnesses are not feasible.
 - iii. Mechanical retrieval devices shall be used for vertical entries into spaces deeper than five feet. Mechanical devices or fixed point connection may be used otherwise.
- h. Communication equipment is required where entrants will be out of voice range with the Attendant.
 - i. Other equipment shall be selected as need requires.
- 7. The Entry Supervisor shall identify the authorized entrants and at least one attendant, and shall record their names on the permit.
- 8. The Entry Supervisor shall determine the type of entry that is allowed.
 - a. If the pre-entry survey proves that the only hazard existing in the space is atmospheric and continuous forced air ventilation is provided, the Entry Supervisor may authorize Alternate Entry Procedures under stipulation that:
 - i. The initial atmospheric tests indicate the atmosphere meets the entry requirements;
 - ii. Forced Air Ventilation continues for the duration of the entry; and
 - iii. The Attendant performs atmospheric tests once per hour and records them on the Air Monitoring Log on the permit.
 - b. If the pre-entry survey proves that there are no atmospheric or configuration hazards in the permit space, and that all other identified hazards can be eliminated (as opposed to controlled) from outside the space prior to entry, the Entry Supervisor may reclassify the space as Non-Permit contingent upon the completion of all hazard elimination activities.
 - c. If a non-permit entry is approved, the employee designated as Attendant on the permit shall serve as Lead Entrant. The permit shall serve as the required documentation.
 - d. If no other type of entry is obtainable or selected, entry shall be by the permit process.
- 9. The Entry Supervisor shall indicate any other permits issued for simultaneous work within the space, and shall indicate the means to

contact rescue personnel.

10. The Entry Supervisor shall sign and issue the permit, effective upon the date issued and contingent upon completion of all pre-entry activities, and expiring on the date indicated on the permit.

B Pre-Entry Actions

1. The Entry Supervisor shall ensure that required equipment is procured and available, and that pre-entry actions are completed prior to entry. The Entry Supervisor may perform these duties or may delegate them to the Attendant and/or other authorized Entrants.
2. Each pre-entry requirement successfully met shall be checked off in the block provided on the permit. When all requirements are completed, the responsible employee shall verify the actions by signing the permit.
3. Required atmospheric testing shall be performed in the order indicated below after the pre-entry actions to address atmospheric hazards have been performed. Entry may proceed only if the tests indicate:
 - a. The percentage of oxygen in the permit space is between 19.5% and 23.5%.
 - b. The percentage of flammable gases is at or lower than 10 percent of the Lower Flammable Limit.
 - c. The parts per million parts (ppm) of carbon monoxide is at or lower than 17.
 - d. The amount of other identified air contaminants is/are less than one-half the PEL. Where more than one air contaminant is observed, those contaminants will be reviewed for additive effects.
4. The permit shall be posted at the point of entry into the space, and each authorized employee shall review it to become familiar with the hazards of the space and the acceptable entry conditions.

C. Entry

1. Entrants shall:
 - a. Enter the space and perform the assigned work as expediently as possible.
 - b. Wear and use all equipment required by the permit.
 - c. Notify the Attendant or Lead Entrant periodically or upon request that all is well.

- d. Immediately evacuate the space and alert the Attendant or Lead Entrant whenever any of the following occurs:
 - i. The development of a condition not in compliance with the permit;
 - ii. The development of a sign or symptom of exposure to a dangerous situation;
 - iii. Failure of any required equipment; and/or
 - iv. The Attendant or Lead Entrant orders an evacuation.

- 2. Lead Entrants shall:
 - a. Maintain awareness of the location of the entrants, either inside or outside of the permit space;
 - b. If entry is by Alternate Entry Procedures, perform hourly atmospheric monitoring of the space and record on the Gas Monitoring Log of the permit;
 - c. Order an immediate evacuation upon becoming aware of:
 - i. Any sign or symptom of exposure to a dangerous situation;
 - ii. Any development of a condition not in compliance with the permit; and/or
 - iii. Failure of any required equipment.

- 3. Attendants shall:
 - a. Station themselves outside the permit space at the opening to the space, and remain in place throughout the duration of the entry or until relieved by another authorized Attendant;
 - b. Perform no other duties beyond those stated for Attendants;
 - c. Maintain an accurate count of entrants within and without the space, by use of the Entry Log on the permit;
 - d. Perform hourly atmospheric monitoring of spaces containing hazardous atmospheres, and record on the Gas Monitoring Log on the permit;
 - e. Communicate with entrants by voice or communication equipment periodically to assure that all is well;

- f. Order an immediate evacuation of the space:
 - i. Upon becoming aware of the development of a sign or symptom of an exposure to a dangerous situation;
 - ii. Upon becoming aware of the development of a condition out of compliance with the permit;
 - iii. Upon failure of an entrant to answer an attempt at communication; and/or
 - iv. If unable to continue the performance of functions as an Attendant.
 - g. Summon rescue services if needed;
 - h. Warn unauthorized persons away from the permit space; and
 - i. Summon the Entry Supervisor if unauthorized persons refuse to leave the space.
4. The Entry Supervisor shall remove unauthorized persons from the permit space, as needed.

D. Completion of Entry

- 1. The Attendant or Lead Entrant shall assure that all entrants have exited the space.
 - 2. If the space was evacuated prior to completion of work:
 - a. The Attendant or Lead Entrant shall immediately terminate the permit by checking the appropriate box and describing the reasons for evacuation on the permit, then contacting the Entry Supervisor;
 - b. The Entry Supervisor shall:
 - i. Immediately notify the employee's supervisor of any injured or overexposed employee;
 - ii. Determine if reentry is required to complete work, eliminate a created hazard, or return the space to normal operation.
- (A) If reentry must be performed:
- (1). Resurvey the space to determine the cause of the evacuation; and

- (2). Issue another permit which includes the elimination or control of the hazard causing the evacuation. Alternate Entry Procedures and Reclassification to Non-Permit Space shall not be approved.
 - (B) If reentry is unnecessary:
 - (1) Oversee the completion of the post-entry activities indicated on the permit; and
 - (2) End the entry activities.
3. If the entry was successfully completed, the Attendant or Lead Entrant shall:
 - a. Indicate such by checking the appropriate block on the permit;
 - b. Oversee the completion of post-entry actions indicated on the permit, and verify by signing in the appropriate location;
 - c. Add any pertinent information concerning the entry on the permit; and
 - d. Return the permit to the Entry Supervisor.

IV. Training

A. All Employees

1. The supervisor shall ensure that each employee receives awareness training on:
 - a. The identifying characteristics of a confined space;
 - b. The identifying characteristics of a permit space;
 - c. The authorization or prohibition of their job classification to enter permit spaces;
 - d. Required actions when working around or near a permit space entry; and
 - e. The authority of authorized Attendants and Entry Supervisors.
2. Training shall be required:
 - a. During orientation;
 - b. Within two months of the determination of the employee's entry

authorization, but prior to entry; and

- c. Whenever the supervisor becomes aware that the employee has failed to follow the instructions provided in the training.
3. The Supervisor shall provide the Program Coordinator with notification that training has been received.

B. Program Coordinators

1. The employer shall ensure that the designated Program Coordinator receives training in:
 - a. The requirements of this policy and procedures; and
 - b. The duties the Coordinator shall perform.
2. Training shall be provided:
 - a. Within two months after designation as Program Coordinator; and
 - b. Within one month of revisions to this policy and/or procedures.

C. Entry Supervisors, Attendants, and Entrants

1. The Supervisor shall ensure that employees designated as Entry Supervisors, Attendants, and/or Entrants receive training in:
 - a. The requirements of this policy and any Procedures;
 - b. The duties, authority, and responsibilities of Entry Supervisors, Attendants, Lead Entrants, and Entrants;
 - c. The types of hazards expected to be encountered in permit spaces;
 - d. The calibration, use, care and cleaning of equipment expected to be used during entry operations; and
 - e. The performance of pre-entry actions expected to be required in permit spaces.
2. Training shall be provided:
 - a. Prior to assignment or authorization of duties within permit spaces;
 - b. Within one month after revisions of this policy or procedures. Assignment or authorization for permit space entry shall be suspended until training is completed;

- c. Whenever the supervisor becomes aware that an employee is deviating from the procedures of this policy. Assignment or authorization for permit space entry shall be suspended until training is completed; and
 - d. Annually.
3. The supervisor shall develop written certification that each affected employee has successfully completed training.
- a. Certification shall include:
 - i. Employee Name;
 - ii. Authorized Duty (Entry Supervisor, Attendant, and/or Entrant);
 - iii. Name of the Trainer; and
 - iv. Synopsis of topics covered.
 - b. A copy of the certification shall be provided to the employee and Program Coordinator.

V. Program Review

- A. The Employer and Program Coordinator/Entry Supervisor shall review the effectiveness of the Program upon the annual inspection, using the canceled permits and other documentation from the preceding twelve months, Entry Supervisor comments, and other available information.
- B. The Program Coordinator/Entry Supervisor may make recommendations to management at any time to make changes in procedures to address and correct weaknesses in the procedures.
- C. The Program Coordinator/Entry Supervisor and/or Unit Manager may notify the employer at any time of potential weaknesses in policy and/or procedures. The employer shall view and initiate whatever changes necessary to address confirmed weaknesses.

VI. Retention of Records

- A. Canceled Permits and other documentation shall be retained by the Program Coordinator not less than one year following the date of entry. Permits shall then be retained as an employee exposure record if applicable.
- B. Employee training certification shall be retained by the Program Coordinator for the length of employment.

NOTE: Provide company name and name of Program Coordinator within the above text,

as appropriate.

Duplin County Confined Space Permit

Date and Time Issued: _____ Date and Time Expires: _____

Job site/Space I.D.: _____ Job Supervisor: _____

Equipment to be worked on: _____ Work to be performed: _____

Entrants Name(s) _____

Stand-by personnel: _____

1. Atmospheric Checks: Time _____
 Oxygen _____ %
 Explosive _____ % L.F.L.
 Toxic _____ PPM

2. Tester's signature: _____

3. Source isolation (No Entry):	N/A	Yes	No	4. Ventilation Modification:	N/A	Yes
No						
Pumps or lines blinded,				Mechanical	()	()
()				Natural Ventilation only	()	()
disconnected or blocked	()	()	()			
()						

5. Atmospheric check after isolation and ventilation:
Oxygen _____ % > 19.5 % <23.5%
Explosive _____ % L.F.L. < 10 %
Toxic _____ PPM < 10 PPM H(2)S
Time _____

Tester's signature: _____

6. Communication procedures: _____

7. Rescue procedures: _____

8. Entry, standby and back up persons:	Yes	No
Successfully completed required training? -----	()	()
Is it current? -----	()	()

9. Equipment:	N/A	Yes	No
Direct reading gas monitor—tested -----	()	()	()
Safety harnesses and lifelines for entry and standby persons -----	()	()	()
Hoisting equipment -----	()	()	()
Powered communications -----	()	()	()
SABA or SCBA for entry and standby persons -----	()	()	()
Protective Clothing -----	()	()	()

All electric equipment listed Class I, Division I, Group D and non-sparking tools -- () () ()

10. Periodic atmospheric tests:

Oxygen _____	% Time _____	Oxygen _____	% Time _____
Oxygen _____	% Time _____	Oxygen _____	% Time _____
Explosive _____	% Time _____	Explosive _____	% Time _____
Explosive _____	% Time _____	Explosive _____	% Time _____
Toxic _____	% Time _____	Toxic _____	% Time _____
Toxic _____	% Time _____	Toxic _____	% Time _____

We have reviewed the work authorized by this permit and the information contained herein. Written instructions and safety procedures have been received and are understood. Entry cannot be approved if any squares are marked in the "No" column. This permit is not valid unless all appropriate items are completed.

Permit Prepared By: (Supervisor) _____

Approved By: (Unit Supervisor) _____

Reviewed By: (Operations Personnel) _____
 (printed name) (signature)

This permit is to be kept at job site. Return job site copy to Safety Office following job completion.

Duplin County Confined Space Permit

PERMIT VALID FOR 8 HOURS ONLY. ALL COPIES OF PERMIT WILL REMAIN AT JOB SITE UNTIL JOB IS COMPLETED

Date: _____ Site _____ Location _____ and _____ Description: _____
 Purpose _____ Of _____ Entry: _____
 Supervisor(s) in charge of crews _____ Type of Crew Phone # _____

 Communication _____ Procedures: _____
 Rescue _____ Procedures _____ (Phone _____ Numbers _____ At _____ Bottom) _____

BOLD DENOTES MINIMUM REQUIREMENTS TO BE COMPLETED AND REVIEWED PRIOR TO ENTRY

REQUIREMENTS COMPLETED	DATE	TIME
Lock Out/De-energizer/Try-out	_____	_____
Line(s) Broken-Capped-Blanked	_____	_____
Purge-Flush and Vent	_____	_____
Ventilation	_____	_____
Secure Area (Post and Flag)	_____	_____
Breathing Apparatus	_____	_____
Resuscitator – Inhalator	_____	_____
Standby Safety Personnel	_____	_____
Full Body Harness w/"D" ring	_____	_____
Emergency Escape Retrieval Equipment	_____	_____
Lifelines	_____	_____
Fire Extinguishers	_____	_____
Lightning (Explosive Proof)	_____	_____
Protective Clothing	_____	_____
Respirator(s) (Air Purifying)	_____	_____
Burning and Welding Permit	_____	_____

Note: Items that do not apply enter N/A in the blank.

**RECORD CONTINUOUS MONITORING RESULTS EVERY 2 HOURS

CONTINUOUS MONITORING**	Permissible					
TEST(S) TO BE TAKEN	Entry Level	___	___	___	___	___
PERCENT OF OXYGEN	19.5% to 23.5%	___	___	___	___	___
LOWER FLAMMABLE LIMIT	Under 10%	___	___	___	___	___
CARBON MONOXIDE	+35 PPM	___	___	___	___	___
Aromatic Hydrocarbon	+ 1 PPM * 5PPM	___	___	___	___	___
Hydrogen Cyanide	(Skin) * 4PPM	___	___	___	___	___
Hydrogen Sulfide	+10 PPM *15PPM	___	___	___	___	___
Sulfur Dioxide	+ 2 PPM * 5PPM	___	___	___	___	___
Ammonia	*35PPM	___	___	___	___	___

*Short-term exposure limit: Employee can work in the area up to 15 minutes.
+8 hr. Time Weighted Avg.: Employee can work in area 8 hrs (longer with appropriate respiratory protection).
REMARKS: _____

GAS TESTER NAME & CHECK #	INSTRUMENT(S) USED	MODEL &/OR TYPE	SERIAL &/R UNIT #
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

SAFETY STANDBY PERSON IS REQUIRED FOR ALL CONFINED SPACE WORK

SAFETY STANDBY PERSON(S)	CHECK #	CONFINED SPACE ENTRANT(S)	CHECK #	CONFINED SPACE ENTRANT(S)
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

SUPERVISOR AUTHORIZING – ALL CONDITIONS SATISFIED _____ DEPARTMENT/PHONE

PHONE # FOR AMBULANCE 911
PHONE # FOR FIRE DEPARTMENT 911
PHONE # FOR RESCUE 911
PHONE # FOR GAS COMPANY _____

Duplin County– Emergency Action Plan

REF: 29 CFR 1910.38

I. INTRODUCTION

Duplin County is dedicated to maintaining a safe working environment for all employees and citizens occupying any County building. This service is achieved by taking appropriate actions to mitigate, prepare for, respond to, and recover from all natural, technological, and human caused hazards that may affect Duplin County buildings, personnel, and property therein.

This Emergency Action Plan (EAP) is applicable to all Duplin County departments, employees, mutual aid emergency response agencies, government agencies, private contractors, vendors, and transient personnel within a County building at the time of the emergency. This EAP is to be utilized in conjunction with Duplin County’s Emergency Operations Plan (EOP) for Multi–Hazards and will take precedence over local procedures.

II. PURPOSE

The purpose of the Duplin County EAP is to assign responsibilities and to prescribe actions to take during emergency situations that may affect the area within or immediately surrounding County departments. This is written specifically for the protection of life and property and to provide information on operations associated with all conceivable emergency situations.

The emergency procedures and organizational framework outlined in this EAP are designed to facilitate coordination and cooperation amongst the Duplin County

departments and transient personnel that may be involved at the time of an emergency. Many support agencies, emergency service providers, and resources are located within Duplin County.

This EAP cannot cover every emergency situation; however, it does provide official guidance to address most emergencies. It includes a listing of potential hazards which could affect County departments and also provides required actions as a result of these hazards. It also provides administrative guidance to the organization management, employees, and transient personnel in order to produce a uniform response to and recovery from multi-hazard situations. It further outlines procedures to take in requesting outside emergency technical assistance when required. Lastly, it establishes a continuity of government during and subsequent to a disaster.

III. ASSUMPTIONS

Emergencies will arise from time to time that could adversely affect personnel and property located in or around County departments. There are generally three categories of hazards that could befall the County areas and possibly lead to emergency situations. These categories of hazards include natural, technological, and human-caused. It is necessary for Department heads and Supervisors to plan for and be prepared to carry out certain tasks in response to these emergencies in order to mitigate, respond to, and recover from the emergency. Local emergency service provider organizations to include E-911 Communications Center, Emergency Services, Firefighting, Law Enforcement, Duplin General Hospital, Public Health, Rescue and other local organizations will be available to assist in the response to and recovery from these emergencies, should they occur.

IV. CONCEPT OF OPERATIONS

A. Emergency Response Policy

When an emergency or a major disaster occurs in a community, the infrastructure of Duplin County Government becomes a critical issue and is especially important to the response and recovery effort. If an emergency or major disaster incident disrupts the capability of Duplin County Government to carry out their mission, the highest priority becomes continuation and restoration.

Every building within the County will have posted, in a conspicuous location, a floor plan showing evacuation routes occupants are to use in the event of an emergency.

B. Building Evacuation

- Stay calm, do not rush, and do not panic.
- Safely stop your work.
- Gather your personal belongings if it is safe to do so.
- Take car keys and prescription medications out with you if at all possible (It is always a good idea to keep a car key on you at all

times while at work, and extra prescription medicine at home, in the event you cannot get back to it during the building evacuation. It may be hours or days before you are allowed back in the building).

- If safe, close your office door and window, but do not lock them.
- Use the nearest safe stairs and proceed to the nearest exit. **Do not use the elevator or cell phones.** Cell phones may be used once you have safely reported to the designated assembly area.
- Upon reaching the designated assembly area, employees will expeditiously report to their Supervisor, or whoever is taking roll call. The roll taker must be able to account for you.
- At the completion of roll call, the person taking the roll call should immediately report the results to the Department Head. If there is anyone missing, do not go back into the building to look for them.
- Report any missing person to the first responding unit on the scene.
- Wait for any instructions from emergency responders.
- Do not re-enter the building or work area, or depart the assembly area until you have been instructed to do so by the emergency responders.

C. General Operations

- General Operations of Duplin County include those day-to-day activities associated with the mission of local government. Majority of County departments are normally open for business from 8:00 am to 5:00 pm, Monday thru Friday.
- To prepare for emergency situations that may arise as a result of the potential hazards occurring in or near County departments, these departments will form a Safety and Security Committee. The Departmental Safety Representative will chair the Committee. The Committee will consist of representatives from sections within their organizations.

D. General Security Practices

- Adhering to simple and consistent security practices as delineated below will significantly lessen the opportunity and prevent many types of human-caused incidents from occurring.
- All employees must display a clearly visible official county employee ID badge at all times.

- Keep vehicle keys out of the ignition and vehicles locked when not in use.
- Conduct a daily perimeter check of the buildings to determine if any penetration has occurred.
- Immediately, report suspicious activity or unidentified strangers on County property to the Departmental Safety Representative.

E. Specific Actions to take during an Emergency

- In all emergency situations remain calm, move to or remain in a safe area depending on the situation. If required to evacuate the building or the area, proceed to the designated Assembly Area.
- Check for injuries; administer first aid if trained to do so.
- Note the circumstances surrounding the emergency. Immediately call 911 if the incident is life threatening or if the incident requires emergency response support, or if a dangerous situation continues to exist such as downed power lines, leaking hazardous/ flammable liquids, broken water main, etc.
- The department, under the direction on the Department Head or Departmental Safety Representative, will conduct documented semi-annual evacuation drills to ensure compliance with these procedures.

F. Notification and Initial Response

- Remain calm, and if appropriate sound a warning to others.
- Inform the applicable supervisor and the Departmental Safety Representative of the situation as soon as possible, who will in turn inform the Department Head.
- If you require treatment for a work-related injury, and it is possible to do so, notify the Human Resources Coordinator prior to visiting a medical doctor.
- Wait for emergency response personnel to arrive.
- Be prepared to provide pertinent information to responding emergency personnel, e.g. Law Enforcement, fire, EMS, etc.
- If possible and safe to do so take pictures or video of the incident or damage caused by the incident.
- If safe to do so remain at the area until further instruction is received from the Incident Commander.

- Complete and turn in a written Incident Report of the circumstances surrounding the incident to the Departmental Safety Representative or Department Head.
- The department will ensure that a consolidated report of any damage to County property is forwarded to the Duplin County Finance Officer via the Risk Manager (Purchasing Officer) with copies to the Buildings and Grounds Maintenance Supervisor.
- Report damage to County vehicles to the Vehicle Maintenance Supervisor as soon as possible, but no later than ten (10) working days following the damage.

V. HAZARDS

A. Natural Hazards

1. Earthquake (if you are inside the building)(Duplin County is not subject to earthquake)
 - Do not exit the building.
 - Seek cover under a heavy desk or table or in a doorway; or sit/ stand against an inside corner wall, and protect your head.
 - Stay away from objects that can fall on you such as pictures hanging on the walls, chandeliers, windows, or glass objects.
 - Do not use elevators.
 - After the earthquake, report downed power lines, broken water mains, or other **dangerous situations** to the County 911 system as soon as possible.
 - Additionally, after the earthquake, report any other damage to the Duplin County Maintenance Department.
2. Earthquake (if you are outside the building)
 - Stay away from buildings, power lines, and trees.
 - Do not use elevators.
 - After the earthquake, report downed power lines, broken water mains, or other **dangerous situations** to the County 911 system as soon as possible.
 - Additionally, after the earthquake, report any other damage to the Duplin County Maintenance Department.
3. Flood

- Ensure that all water perishable items are off the ground on the 1st floor, including papers and computer hard drives.
 - Unplug all electrical items, and turn off the lights. Use flashlights if necessary.
 - Cover all computers with plastic.
 - Additionally, after the flood, report any other damage to the Duplin County Maintenance Department.
4. Hail
- If indoors remain in the building.
 - If outdoors seek cover.
5. Hurricane
- Sufficient warning will be received whereby all County buildings will be closed for operations at least 24 hours prior to hurricane force winds reaching the County.
6. Tornado
- If outside, seek shelter in the closest building.
 - If inside, stay in the building.
 - Close all windows.
 - Seek cover under a heavy desk or table or in a doorway; or sit/ stand against an inside corner wall, and protect your head.
 - Stay away from objects that can fall on you such as pictures hanging on the walls, chandeliers, windows, or glass objects.
 - Do not use elevators.
 - After the tornado, report downed power lines, broken water mains, or other dangerous situations to County 911 system as soon as possible.
 - Additionally, after the tornado, report any other damage to the Duplin County Buildings and Grounds Department.
7. Severe Winter Storm (e.g. Icing Roads or Snow Storm)
- If sufficient warning is provided, the County Manager will consider canceling County operations before personnel come to work.

- If the storm is approaching during working hours the County Manager will consider sending personnel home before the storm arrives.
- Ensure that the heating system is operating before departing the building to avoid pipes freezing.

B. Technological Hazards

8. Fire

- Evacuate the building of all personnel as quickly as possible.
- Move well away from the building staying away from fire and smoke.
- Go directly to the designated assembly area.
- Move away from fire and smoke. Close doors and windows if time permits.
- Touch closed doors. Do not open them if they are hot.
- Use stairs only; never use elevators.
- Call 911 and be prepared to answer any questions they may have.
- If the fire is small in nature, in the early stage, and it is safe, an attempt will be made to extinguish it using the appropriate extinguisher. If after using the extinguisher, the fire is still not out, evacuate the area using the closest and safest exit.
- If the fire is not controllable, do not attempt to extinguish.
- Once in the assembly area, the Supervisor will ensure that all their personnel are accounted for. If anyone is not accounted for, inform the first responding unit to arrive on scene.
- **Under no circumstances ever re-enter the building or work area** until you have been instructed to do so by the emergency responders.

C. Human-Caused Hazards

1. Accidental Injury

- Ensure the victim is stable and safe.
- Render appropriate assistance as necessary.
- Note the circumstances surrounding the injury.
- Notify the Supervisor and County Safety Representative.
- If a serious injury occurs, immediately call 911.

2. Arson

- If arson is known or suspected to have been committed, immediately contact the County 911 system to dispatch the appropriate County Fire Marshal and Law Enforcement agency.

3. Assault (Any type)

- Get to a safe area.
- Note the circumstances surrounding the assault.
- Immediately contact the County 911 system to dispatch the appropriate Law Enforcement agency.

4. Bomb (If there is an explosion)

- Take cover under sturdy furniture, or leave the building if directed to do so by emergency responders.
- Stay away from windows.
- Do not light matches.
- Move well away from the site of the hazard to the designated assembly area.
- Use stairs only; do not use elevators.
- Call 911 from a public phone.
- **Under no circumstances ever re-enter the building or work area** until you have been instructed to do so by the emergency responders.

5. Telephone Bomb Threat

- Stay calm and keep your voice calm.
- Pay close attention to details.
- Talk to the caller to obtain as much information as possible.
- After hanging up, immediately pick up the phone and dial *57 and a trace of the call will be initiated. Listen to see if there are any instructions. Follow the instructions if applicable, otherwise hang up and call 911, and inform them of the threat and that you dialed * 57 after the call to trace it.
- Notify the Supervisor and the Departmental Safety Representative.
- Evacuate the building to the designated assembly area.
- Close but do not lock office doors.

- **Under no circumstances ever re-enter the building or work area** until you have been instructed to do so by the emergency responders.
 - until you have been instructed to do so by the emergency responders.
 - Remain in the area until further instruction is received from the emergency responders.
6. Civil Disturbance (e.g. Public Demonstration)
- Stay away from the demonstration.
 - Alert the Law Enforcement to the situation and alert all persons in the area of the situation.
 - Lock all doors and windows.
 - Close blinds to prevent flying glass.
 - If necessary, your department may decide to cease work operations.
 - If necessary to evacuate, follow established evacuation procedures in this plan.
7. Hazardous Materials Spill
- Leave the area of the spill first and proceed to a safe location.
 - Keep others from entering the area.
 - Call 911 and Emergency Service.
8. Hostage Situation
- Ensure that you are in a safe area. If you are in a safe area, evacuate the building immediately.
 - Note the circumstances surrounding the event; if you are an eyewitness, report immediately to the Law Enforcement agency on scene.
 - Call 911 and inform the Departmental Safety Representative.
9. Kidnapping (e.g. Child Snatching)
- Call 911 and inform your Supervisor, Emergency Service and Law Enforcement.
 - The Supervisor and the Departmental Safety Representative should lock down the building and check all individuals before they try to depart.

- List all names and contact information of persons that were in the building at the time of the kidnapping to be given to Law Enforcement officials.
- An organized search should be conducted of the building and the immediate area.

10. Lost Child

- Call 911 and inform your Supervisor ,Emergency Service and Law Enforcement.
- Use the public announcement (PA) system (if available).
- The Supervisor and staff should lock down the building and check all individuals before they try to depart.
- An organized search should be conducted of the building and the immediate area.

Duplin County

Hazard Communication Program

The North Carolina Department of Labor has adopted the federal OSHA Hazard Communication Standard 29 CFR (Code of Federal Regulation) 1910.1200. The Hazard Communication Standard became effective on May 25, 1986 for North Carolina manufacturing employers and for state and local government agencies, which have one or more employees who are exposed to hazardous chemicals. The standard became effective to non-manufacturing employers on May 25, 1987. This regulation also covers North Carolina construction employers per 1926.59 which now reference the use of 1910.1200 for applicable construction work.

The goal of the Hazard Communication Standard is to reduce the occurrence of workplace illnesses and injuries caused by hazardous chemicals. The standard is designed to achieve this goal by providing information and training for employees who work with hazardous chemicals.

All employers subject to the standard must have a written hazard communication program.

The written program must:

- (1) Describe how the criteria specified in the standard will be met for labels and other forms of warning for material safety data sheets and for employee information and training;
- (2) Include a list of hazardous chemicals know to be present using the chemical or common name that appears on the appropriate material safety data sheet;

- (3) Identify the methods used to inform employees of the hazards of non-routine tasks and those hazards associated with chemicals in unlabeled pipes in their work areas; and
- (4) Describe methods used to inform any contractor with employees in the workplace of hazards that may be exposed to and appropriate protective measures.

The written hazard communication program must be made available upon request to employees; designated employee representatives; and authorized representatives of the North Carolina Commissioner of Labor.

This guide is provided to assist employers in developing a written hazard communication program that meets the requirements of paragraph (e) of the standard. Although this guide does not address the specific circumstances in each workplace, it can be adapted to meet the needs of most employers. Advice and assistance in preparing the written program is available from the Bureau of Consultative Services, Division of Occupational Safety and Health, North Carolina Department of Labor, 1101 Mail Service Center, Raleigh, NC 27699-1101, (919) 807-2899.

- I. This program will describe how Duplin County intends to protect the safety and health of our employees who are exposed to hazardous chemicals in the workplace, and to comply with the provisions of 29 CFR 1910.1200.
- II. County Safety Officer has been assigned the title of Hazard Communication Program Monitor and is responsible for monitoring all related activities to ensure compliance with both the intent and specifics of this program.

Each supervisor will be held responsible for strict adherence to these policies and will closely monitor all activities involving hazardous chemicals.

Each employee will carefully follow established work practices and promptly report observed or potential problems to supervision.

There is no job at Duplin County so vital or urgent as to justify the risk of employee overexposure to a hazardous chemical. Ask when in doubt. Proceed with a job only after being satisfied that it is safe for you to do so.

- III. A list of all hazardous chemicals for each workplace has been made and is readily available, upon request, to any employee, working on any shift. It is located at _____.
- IV. A Material Safety Data Sheet (MSDS) for each hazardous chemical on the list referenced above is on file at Duplin County Emergency Service Office. The MSDS are accessible during each work shift for any employee to review. If you have further questions about the MSDS program, contact your supervisor.
- V. County Safety Officer is responsible to ensure that the list of hazardous chemicals is kept current and that a current MSDS for each hazardous chemical used is on hand. A chemical that is not shown on the current list will not be ordered without prior coordination with County Safety Officer.
- VI. All containers of hazardous chemicals in each workplace will be conspicuously labeled with the identity of the chemical (same as on the applicable MSDS), and the appropriate hazard warnings. If the chemical is a known or suspected cancer causing agent (carcinogen), or if it is known to affect a specific organ of the body, this information will also be placed on the container label. The person having supervisory responsibility for the storage or use of each hazardous chemical will ensure that such labels are not defaced and that they remain legible at all times.

County Housekeepers will ensure that an adequate supply of labels is kept on hand and made available to the responsible supervisors.

- VII. Emergency Management Coordinator is responsible for anticipating, as much as possible, the hazards that would be present for non-routine tasks, such as chemical spill or container rupture. Clean-up procedures and proper personal protective

equipment shall be considered and adequate training for such tasks shall be addressed.

VIII. When an outside contractor will be used, it will be the responsibility of Department Head to advise the contractor of any hazardous chemicals to which their employees may be exposed and the appropriate protective measures to be taken. Conversely, it will be the same person responsibility to determine if the contractor will be using any hazardous chemicals during this work that would expose our employees. Appropriate training and protective measures must be taken in order to protect all employees. Prior to any work being performed by an outside contractor involving hazardous chemicals, Emergency Management Coordinator is to be advised.

IX. All employees exposed to any hazardous chemicals will complete an information and training program which includes at least the subjects listed below. New employees must complete similar instruction before initial exposure to any hazardous chemical in the workplace.

Adequate training of all employees exposed to hazardous chemicals will be given by County Safety Officer assisted as needed by the Hazard Communication Program Monitor.

Employee information for this program will include:

- (1) The purpose and need for such a program, including the basic concept that gives every employee the right to know about hazardous chemicals with which they work.
- (2) The location and availability of the written Hazard Communication Program, plus the list of hazardous chemicals and their corresponding MSDSs.
- (3) The identity upon request, of any chemical to which the employee is exposed. In the case of a trade secret chemical, the name shown on the MSDS will be provided.

Employee training shall include at least the following:

- (1) Methods and observations used to detect the presence or release of a hazardous chemical in the work area such as monitoring devices, appearance or odor.
- (2) The physical and health hazards associated with each chemical, as specified in the MSDS.

- (3) Action that employees can take to protect their own safety and health, including specific procedures that have been established for normal work practices, emergency procedures, and policies on the use of personal protective equipment.
 - (4) Details of the Hazard Communication Program, including an explanation of the labeling system used on in-house containers of hazardous chemicals. Also, details of how employees can obtain and use information contained in the MSDS.
- X. It is the intent of Duplin County management to protect the safety and health of each employee, our most valuable and valued asset. By following correct procedures, no employee should experience any harmful effects from working with chemicals in their workplace.

Duplin County – Hazard Communications Program

REF: 29 CFR 1910.1060

VI. INTRODUCTION

This document serves as Duplin County's Hazard Communications Program. It provides detailed safety guidelines and instructions for receipt, use and storage of chemicals at our facility by employees and contractors.

VII. RESPONSIBILITIES

A. Management

- Ensure compliance with this program.
- Conduct immediate corrective action for deficiencies found in the program.
- Maintain an effective Hazard Communications training program.
- Make this plan available to all employees.

B. Shipping and Receiving Manager

- Ensure all received containers are properly labeled and that labels are not removed or defaced.
- Ensure all shipped containers are properly labeled.
- Ensure shipping department employees are properly trained in spill response.
- Ensure received Material Safety Data Sheets (MSDS) are properly distributed.
- Obtain, from the manufacturer, MSDS for chemicals purchased from retail sources.

C. Departmental Safety Representative

- Maintain a list of hazardous chemicals using the identity that is referenced on the MSDS.
- Monitor the effectiveness of the program.

- Conduct annual audit of the program.
- Monitor employee training to ensure effectiveness.
- Keep management informed of necessary changes.
- Ensure availability of MSDS as required.
- Monitor facility for proper use, storage and labeling of chemicals.
- Ensure MSDS are available for emergency medical personnel when treating exposed employees.
- Provide information, as requested, concerning health effects and exposure symptoms listed on MSDS.

D. Supervisors

- Comply with all specific requirements of the program.
- Provide specific chemical safety training for assigned employees.
- Ensure chemicals are properly used stored & labeled.
- Ensure only the minimum amount necessary is kept at work stations.
- Ensure up to date MSDS are readily accessible to all employees on all shifts.

E. Employees

- Comply with chemical safety requirements of this program.
- Report any problems with storage or use of chemicals.
- Immediately report spills or suspected spills of chemicals.
- Use only those chemicals for which they have been trained.
- Use chemicals only for specific assigned tasks in the proper manner.

VIII. GENERAL PROGRAM INFORMATION

This written Hazard Communication Plan (HAZCOM) has been developed based on OSHA Hazard Communication Standard and consists of the following elements:

- Identification of Hazardous Materials
- Product Warning Labels
- Material Safety Data Sheets (MSDS)
- Written Hazard Communication Program
- Effective Employee Training

Some chemicals are explosive, corrosive, flammable, or toxic. Other chemicals are relatively safe to use and store but may become dangerous when they interact with other substances. To avoid injury and/or property damage, persons who handle chemicals in any area of the County must understand the hazardous properties of the chemicals. Before using a specific chemical, safe handling methods and health hazards must always be reviewed. Departmental Safety Representatives and Supervisors are responsible for ensuring that the equipment needed to work safely with chemicals is accessible and maintained for all employees on all shifts.

IX. EMPLOYEE TRAINING

A. Initial Orientation Training

All new employees shall receive safety orientation training covering the elements of the HAZCOM and Right to Know Program. This training will consist of general training covering:

- Location and availability of the written Hazard Communication Program
- Location and availability of the List of Chemicals used in the workplace
- Methods and observation used to detect the presence or release of a hazardous chemical in the workplace
- The specific physical and health hazard of all chemicals in the workplace
- Specific control measures for protection from physical or health hazards
- Explanation of the chemical labeling system

- Location and use of MSDS

X. JOB SPECIFIC TRAINING

Employees will receive on the job training from their supervisor. This training will cover the proper use, inspection and storage of necessary personal protective equipment and chemical safety training for the specific chemicals they will be using or will be working around.

XI. ANNUAL REFRESHER TRAINING

Annual Hazard Communication refresher training will be conducted as part of the County's continuing safety training program.

XII. IMMEDIATE ON-THE-SPOT TRAINING

This training will be conducted by supervisors for any employee that requests additional information or exhibits a lack of understanding of the safety requirements.

XIII. NON-ROUTINE TASKS

Non-routine tasks are defined as working on, near, or with unlabeled piping, unlabeled containers of an unknown substance, confined space entry where a hazardous substance may be present and/or a one-time task using a hazardous substance differently than intended (example: **using a solvent to remove stains from tile floors**).

A. Steps for Non-Routine Tasks:

Step 1: Hazard Determination

Step 2: Determine Precautions

Step 3: Specific Training & Documentation

Step 4: Perform Task

All non-routine tasks will be evaluated by the Departmental Safety Representative and/or Supervisor before the task commences, to determine all hazards present. This determination will be conducted with quantitative/ qualitative analysis (air sampling, substance identification/ analysis, etc., as applicable).

Once the hazard determination is made, the Departmental Safety Representative or Supervisor will determine the necessary precautions needed to either remove the hazard, change to a non-hazard, or protect from the hazard (use of personal protective equipment) to safeguard the employees present.

XIV. OFF-SITE USE OR TRANSPORTATION OF CHEMICALS

An MSDS will be provided to employees for each chemical and each occurrence of use or transport away from the company facilities. All State and Federal DOT Regulations will be followed including use of certified containers, labeling and marking, securing of containers and employee training.

XV. GENERAL CHEMICAL SAFETY

Assume all chemicals are hazardous. The number of hazardous chemicals and the number of reactions between them is so large that prior knowledge of all potential hazards cannot be assumed. Use chemicals in as small quantities as possible to minimize exposure and reduce possible harmful effects.

The following general safety rules shall be observed when working with chemicals:

- Read and understand the Material Safety Data Sheets.
- Keep the work area clean and orderly.
- Use the necessary safety equipment.
- Carefully label every container with the identity of its contents and appropriate hazard warnings.
- Store incompatible chemicals in separate areas.
- Substitute less toxic materials whenever possible.
- Limit the volume of volatile or flammable material to the minimum needed for short operation periods.

XVI. TASK EVALUATION

Each task that requires the use of chemicals should be evaluated to determine the potential hazards associated with the work. This hazard evaluation must include the chemical or combination of chemicals that will be used in the work, as well as any other materials that will be used near the work. If a malfunction during the operation has the potential to cause serious injury or property damage, Operational Procedures should be prepared and followed. Operations must be planned to minimize the generation of hazardous wastes.

XVII. CHEMICAL STORAGE

The separation of chemicals (solids or liquids) during storage is necessary to reduce the possibility of unwanted chemical reactions caused by accidental

mixing. Use either distance or barriers (e.g., trays) to isolate chemicals into the following groups:

- Flammable Liquids: store in approved flammable storage lockers.
- Acids: treat as flammable liquids.
- Bases: do not store bases with acids or any other material.
- Other liquids: ensure other liquids are not incompatible with any other chemical in the same storage location.
- Lips, strips, or bars are to be installed across the width of storage shelves to restrain the chemicals in case of earthquake.

Chemicals will not be stored in the same refrigerator used for food storage. Refrigerators used for storing chemicals must be appropriately identified by a label on the door.

XVIII. CONTAINER LABELS

It is extremely important that all containers of chemicals are properly labeled. **This includes every type of container from a 5000 gallon storage tank to a spray bottle of degreaser.** The following requirements apply:

- All containers will have the appropriate label, tag or marking prominently displayed that indicates the identity, safety and health hazards.
- All warning labels, tags, etc., must be maintained in a legible condition and not be defaced.
- Incoming chemicals are to be checked for proper labeling.

A. Uniform Labeling System

Labeling of containers is very critical to the safety and health of all personnel. These labels are easy to read and can be located through most Safety Supply companies.

XIX. EMERGENCIES AND SPILLS

In case of an emergency, implement the proper Emergency Action Plan.

- Evacuate people from the area.
- Isolate the area.
- If the material is flammable, turn off ignition and heat sources.

- Only personnel specifically trained in emergency response are permitted to participate in chemical emergency procedures beyond those required to evacuate the area.
- Call 911 for Emergency Response assistance

XX. HOUSEKEEPING

- Maintain the smallest possible inventory of chemicals to meet immediate needs.
- Ensure that storage areas, or equipment containing large quantities of chemicals, are secure from accidental spills.
- Rinse emptied bottles that contain acids or inflammable solvents before disposal.
- **DO NOT** place hazardous chemicals in salvage or garbage receptacles.
- **DO NOT** pour chemicals onto the ground.
- **DO NOT** dispose of chemicals through the storm drain system.
- **DO NOT** dispose of highly toxic, malodorous chemicals down sinks or sewer drains.

XXI. DEFINITIONS

Chemical: any element, chemical compound or mixture of elements and/or compounds.

Combustible liquid: means any liquid having a flash point at or above 100 deg. F (37.8 deg. C), but below 200 deg. F (93.3 deg. C), except any mixture having components with flash points of 200 deg. F (93.3 deg. C), or higher, the total volume of which make up 99 percent or more of the total volume of the mixture.

Compressed gas: any compound that exhibits:

- A gas or mixture of gases having, in a container, an absolute pressure exceeding 40 psi at 70 deg. F.
- A gas or mixture of gases having, in a container, an absolute pressure exceeding 104 psi at 130 deg. F. regardless of the pressure at 70 deg. F.
- A liquid having a vapor pressure exceeding 40 psi at 100 deg. F.

Container: any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical. For purposes of this

section, pipes or piping systems, and engines, fuel tanks, or other operating systems in a vehicle, are not considered to be containers.

Employee: a worker who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies. Workers such as office workers or bank tellers who encounter hazardous chemicals only in non-routine, isolated instances are not covered.

Employer: a person engaged in a business where chemicals are either used, distributed, or are produced for use or distribution, including a contractor or subcontractor.

Explosive: a chemical that causes a sudden, almost instantaneous release of pressure, gas, and heat when subjected to sudden shock, pressure, or high temperature.

Exposure or exposed: an employee is subjected in the course of employment to a chemical that is a physical or health hazard, and includes potential (e.g. accidental or possible) exposure. Subjected in terms of health hazards includes any route of entry (e.g. inhalation, ingestion, skin contact or absorption).

Flammable: a chemical that falls into one of the following categories:

- "Aerosol, flammable" means an aerosol that yields a flame projection exceeding 18 inches at full valve opening, or a flashback (a flame extending back to the valve) at any degree of valve opening;
- "Gas, flammable" means: (A) A gas that, at ambient temperature and pressure, forms a flammable mixture with air at a concentration of thirteen (13) percent by volume or less; or (B) A gas that, at ambient temperature and pressure, forms a range of flammable mixtures with air wider than twelve (12) percent by volume, regardless of the lower limit;
- "Liquid, flammable" means any liquid having a flash point below 100 deg. F., except any mixture having components with flash points of 100 deg. F. or higher, the total of which make up 99 percent or more of the total volume of the mixture.
- "Solid, flammable" means a solid, other than a blasting agent or explosive as defined in 1910.109(a), that is liable to cause fire through friction, absorption of moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which can be ignited readily and when ignited burns so vigorously and persistently as to create a serious hazard. A chemical shall be considered to be a flammable solid if it ignites and burns with a self-sustained flame at a rate greater than one-tenth of an inch per second along its major axis.

Flash point: the minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite.

Hazardous chemical: any chemical which presents a physical hazard or a health hazard.

Hazard warning: any words, pictures, symbols, or combination appearing on a label or other appropriate form of warning which convey the specific physical and health hazard(s), including target organ effects, of the chemical(s) in the container(s). (See the definitions for "physical hazard" and "health hazard" to determine the hazards which must be covered).

Health hazard: a chemical for which there is evidence that acute or chronic health effects may occur in exposed employees. The term "health hazard" includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, and neurotoxins, agents which act on the hematopoietic system and agents which damage the lungs, skin, eyes, or mucous membranes.

Identity: any chemical or common name which is indicated on the material safety data sheet (MSDS) for the chemical. The identity used shall permit cross-references to be made among the required list of hazardous chemicals, the label and the MSDS.

Immediate use: the hazardous chemical will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred.

Label: any written, printed, or graphic material displayed on or affixed to containers of hazardous chemicals.

Material safety data sheet (MSDS): written or printed material concerning a hazardous chemical which is prepared in accordance with OSHA Standard 1910.1060 requirements.

Mixture: any combination of two or more chemicals if the combination is not, in whole or in part, the result of a chemical reaction.

Oxidizer: means a chemical other than a blasting agent or explosive as defined in 29 CFR 1910.109 (a) that initiates or promotes combustion in other materials, thereby causing fire either of itself or through the release of oxygen or other gases.

Physical hazard: a chemical that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water-reactive.

Pyrophoric: a chemical that will ignite spontaneously in air at a temperature of 130 deg. F. or below.

Specific chemical identity: the chemical name, Chemical Abstracts Service (CAS) Registry Number, or any other information that reveals the precise chemical designation of the substance.

Unstable (reactive): a chemical which in the pure state, or as produced or transported, will vigorously polymerize, decompose, condense, or will become self-reactive under conditions of shocks, pressure or temperature.

Use: to package, handle, react, emit, extract, generate as a byproduct, or transfer.

Water-reactive: a chemical that reacts with water to release a gas that is either flammable or presents a health hazard.

Work area: a room or defined space in a workplace where hazardous chemicals are produced or used, and where employees are present.

Workplace: an establishment, job site, or project, at one geographical location containing one or more work areas.

XXII. MATERIAL SAFETY DATA SHEETS (MSDS) INFORMATION

Material Safety Data Sheets are provided by the chemical manufacturer to provide additional information concerning safe use of the product. Each MSDS provides:

- Common Name and Chemical Name of the material
- Name, address and phone number of the manufacturer
- Emergency phone numbers for immediate hazard information
- Date the MSDS was last updated
- Listing of hazardous ingredients
- Chemical hazards of the material
- Information for identification of chemical and physical properties

A. Information Chemical Users Must Know

11. Fire and/or Explosion Information

- Material Flash Point, auto-ignition temperature and upper/ lower flammability limits

- Proper fire extinguishing agents to be used
- Fire fighting techniques
- Any unusual fire or explosive hazards
- Chemical Reaction Information
- Stability of Chemical
- Conditions and other materials which can cause reactions with the chemical
- Dangerous substances that can be produced when the chemical reacts

12. Control Measures

- Engineering Controls required for safe product use
- Personal protective equipment required for use of product

13. Health Hazards

- Permissible Exposure Limit (PEL) and Threshold Limit Value (TLV)
- Acute or Chronic symptoms of exposure
- Main routes of entry into the body
- Medical conditions that can be made worse by exposure
- Cancer causing properties if any
- Emergency and First Aid treatments

14. Spill and Leak Procedures

- Clean up techniques
- Personal Protective Equipment to be used during cleanup
- Disposal of waste & cleanup material

15. Employee Use of MSDS

For MSDS use to be effective, employees must:

- Know the location of the MSDS.

- Understand the major points for each chemical.
- Check MSDS when more information is needed or questions arise.
- Be able to quickly locate the emergency information on the MSDS.
- Follow the safety practices provided on the MSDS.

Duplin County

Ladder and Scaffolding

Ladders

The following safety procedures shall aid in the prevention of accidents and possible injuries:

- Choose the right ladder for the job. The ladder should be the correct type and length for the job.
- Metal ladders should not be used in the vicinity of electrical circuits. If a ladder could contact energized electrical lines, a ladder with nonconductive side rail should be used.
- Periodically inspect wooden ladders. Wooden ladders shrink over time causing steps or back members to become loose. Hold the rods beneath the steps with pliers and tighten the nut at the end with a wrench to maintain strength and steadiness. If rungs or other parts are broken or missing, the ladder should not be used. Remove it from service and mark it so other do not use it.
- Wooden Ladders or scaffold planks should not be painted as defects may be covered up by paint. Use a good grade of spar varnish, or a mixture of linseed oil and turpentine to preserve the wood.
- Nonskid feet should be used on all straight and extension ladders.
- Straight ladders form a triangle when placed against the walls or objects for climbing. When properly placed, the bottom side of the triangle should be about one-fourth(1/4) as long as the vertical (i.e. if the ladder is leaning eight (8) feet high against a wall, the feet should be set two (2) feet from the wall). Ladders should never be placed against window sashes.
- When ladders are used to access a roof or other landing, the side rails must extend at least three feet above the landing. If this is not possible, then the ladder must be secured, and a grab rail or other device should be used to help workers get on and off the ladder safely.
- If the bottom of the ladder is placed on an unsecured surface, secure the ladder in position by using hooks, ropes, spikes, cleats, or other anti-slip

devices, or by stationing an employee at the base of the ladder to hold it in position.

- Employees should never stand on the top step of a stepladder.
- Only one person should be on the ladder at a time.
- Do not carry tools or materials by hand while climbing ladders. Use a hand line to raise and lower tools and materials, or carry them in a tool belt. Hands must be kept free to grasp the ladder while climbing.
- Always face a ladder when ascending or descending.
- Clean muddy or slippery shoe before climbing.
- Keep rungs clean and free from grease and oil.
- If it necessary to place a ladder near a door or where there is potential traffic, set up warning signs and use any other precautionary measures needed to ensure that the ladder will not be struck by anyone or any thing.

Scaffolding

Scaffolding is often used to access work areas, and if assembled properly, can be a safe working platform. However, for any scaffold to be safe, certain safety precautions and policies should be followed.

- Supervision is required while employees are erecting scaffolding.
- Scaffolds should meet all safety requirements before any worker climbs it. If the scaffold is damaged or deteriorated, it may be unsafe, and should not be used.
- Scaffolds should be plumb, square, and rigid. This will ensure the most secure and stable work platform. When erecting scaffolding, do not force braces to fit. Adjust and level the scaffolding until the braces fit easily.
- All braces should be fastened securely. Use the proper pins- bent wire or welding rods are not adequate. If additional pins are needed, contact your supervisor.
- Planks and other materials used to build scaffolding must be sound and free from knots. Walk boards should be scaffold grade lumber or manufactured

walk boards. Planks should be kept in good condition with a spar varnish. Do not paint the planks.

- Planks should be adequately cleated. Scaffolding should have toe boards, mid-rails, and handrails at any level where employees are working. Allow enough overlap in walk boards to ensure they will not slip off. Unsupported ends of walk boards should not extend more than 18 inches beyond the end of the scaffolding.
- Tools on top of the scaffolding are apt to fall and injure someone. Tools should be kept in a bucket or a box that has been strapped to the scaffolding. In addition, anyone working below or surrounding the scaffold should wear a hard hat while in the job are.

Powered Lift Trucks/Forklift Policy

Only trained and authorized employees are to operate a powered lift truck – or forklift.

If you have been trained to operate the forklift, be sure that all nameplates and markings are in legible condition. If nameplates or markings are illegible or missing, notify your supervisor immediately.

Never attempt to use the lift truck to move loads that exceed the rated capacity. This endangers you as well as your co-workers.

Pedestrians always have the right of way. Watch for pedestrians at all times.

When operating a forklift, look in the direction of travel and keep a clear view of the path of travel. If the load blocks your vision, travel with the load trailing.

Only lift stable or safely arranged loads. When moving a load, the forks should be lowered and tilted back.

Powered lift trucks should not travel with loads above six inches from the floor. Loads should never be lifted or lowered while traveling.

Never carry passengers on the forklift.

Never allow a co-worker to pass under the elevated portion of the lift truck, whether loaded or unloaded.

When a truck is unattended, the forks must be fully lowered, the brakes set, the power shut off, and the controls in neutral position. A truck is considered unattended when either the operator is 25 or more feet away, or when the operator is not in view of the truck.

When operating a lift truck at cross aisles and other locations where your vision is obstructed, slow down and sound the horn.

A forklift should not be used to lift people except in special cases. If employees are going to be lifted, then a special safety platform securely fastened to the lifting carriage or forks must be used. The safety platform must be approved for use with your lift truck. Home or shop-made lifts are not permissible unless certified by a Registered Professional Engineer and permitted by the manufacturer.

If you must move co-workers on a safety platform, the brakes must be set and the operator must remain in the truck. Do not move the truck horizontally with employees on the platform or while the platform is elevated.

Avoid driving in bays or shop areas where the floors may be oily or wet. If these areas cannot be avoided, then slow down. Report these hazardous floor conditions to your supervisor.

If you use the public entity's forklift to unload deliveries from a tractor-trailer, be aware of safe loading and unloading procedures. The brakes of a highway truck or trailer should be set and the rear wheels chocked before the forklift enters the trailer. It is your responsibility as the forklift operator to ensure that the wheels have been chocked, or that a dock lock is secured.

If the trailer is not coupled to a tractor, then fixed jacks will be used to support the semi-trailer. Wheel chocks or dock locks are still required when fixed jacks are used.

Before you enter, check the floor of the trailer to ensure that it is not damaged, then secure dockboards and bridgeplates before you drive the forklift into the trailer.

Refueling can only be performed with the engine off. Also, do not refuel in a location that has flame sources. Do not smoke when refueling a forklift.

All battery changing or charging areas must be equipped with fire extinguishers and emergency eyewash stations. No smoking is allowed in battery changing or charging areas.

Examine the lift truck to ensure that it is in proper working condition at the beginning of each shift. If at any time a truck is found to be in need of repair, or unsafe in any way, contact your supervisor immediately and take the lift truck out of service until it can be repaired by an authorized repair person.

Last, but not least, never stunt drive or be involved with horseplay when operating a forklift.

Duplin County **Respiratory Protection**

General

In the Respiratory Protection program, hazard assessment and selection of proper respiratory protective equipment (PPE) is conducted in the same manner as for other types of personal protective equipment (PPE). In control of these occupational diseases caused by breathing air contaminated with harmful dust, fogs, fumes, mists, gases, smokes, sprays, or vapors, the primary objective shall be to prevent atmospheric contamination. This shall be accomplished as far as feasible by accepted engineering control measures (for example, enclosure or confinement of the operation, general and local ventilation, and substitution of less toxic materials). When effecting engineering controls are not feasible, or while they are being instituted, appropriate respirators shall be used. OSHA Standards *Respiratory Protection* (29CFR 1910.134)

Responsibilities

All employees shall follow the requirements of the Respiratory Protection Program.

Management

- implement the requirements of this program
- provide a selection of respirators as required
- enforce all provision of this program
- appoint a specific designated individual to conduct the respiratory protection program

Program Administrator

- review sanitation /storage procedures
- ensure respirators are properly, stored, inspected and maintained
- monitor compliance for this program
- provide training for affected Employees
- review compliance and ensure monthly inspection of all respirators
- provide respirator fit testing

Designated Occupational Health care Provider

- conduct medical aspects of program

Program Administrator

Each Facility will designate a program administrator who is qualified by appropriate training or experience that is commensurate with the complexity of the program to administer or oversee the respiratory protection program and conduct the required evaluations of the program.

Voluntary Use of Respirators is Prohibited

OSHA required that voluntary use of respirators, when not required by Duplin County must be controlled as strictly as under required circumstances. To prevent violations of the Respiratory Protection Standard Employees are not allowed voluntary use of their own or Duplin County supplied respirators of any type. Exception: Employees whose only use of respirators involves the voluntary use of filtering (non-sealing) face pieces (dust masks).

Program Evaluation

Evaluations of the workplace are necessary to ensure that the written respiratory protection program is properly implemented; this includes consulting with employees to ensure that they are using the respirators properly. Evaluations shall be conducted as necessary to ensure that the provisions of the current written program are being effectively implemented and that it continues to be effective program evaluation will include discussions with employees required to use respirators to assess the employees' views on program effectiveness and to identify any problems. Any problems that are identified during this assessment shall be corrected. Factors to be assessed include, but are not limited to:

- Respirator fit (including the ability to use the respirator without interfering with effective work place performance);
- Appropriate respirator selection for the hazards to which the employee is exposed;
- Proper respirator use under the workplace conditions the employee encounters; and
- Proper respirator maintenance.

Record Keeping

Duplin County will retain written information requiring medical evaluations, fit testing, and the respirator program. This information will facilitate employee involvement in the

respirator program, assist Duplin County in auditing the adequacy of the program, and provide a record for compliance determinations by OSHA.

Training and Information

Effective training for employees who are required to use respirators is essential. The training must be comprehensive, understandable, and recur annually, and more often if necessary. Training will be provided prior to requiring the employee to use a respirator in the workplace. The training shall ensure that each employee can demonstrate knowledge of at least the following.

- Why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator.
- Limitations and capabilities of the respirator.
- How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions.
- How to inspect put on and remove, use, and check for seals of the respirator.
- What the procedures are for maintenance and storage of the respirator.
- How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators.
- The general requirements of the program.

Retraining shall be conducted annually and when:

- changes in the workplace or the type of respirator render previous training obsolete
- inadequacies in the employee's knowledge or use of the respirator indicate that the employee has not retained the requisite understanding or skill
- Other situation arises in which retaining appears necessary to ensure safe respirator use

Training will be conducted by instructors certified by _____.
Training is divided into the following sections:

Classroom Instruction

1. Overview of Duplin County's Respirator Protection Program & OSHA Standard
2. Respiratory Protection Safety Procedures
3. Respirator Selection
4. Respirator Operation and Use
5. Why the respirator is necessary
6. How improper fit, usage, or maintenance can compromise the protective effect.
7. Limitations and capabilities of the respirator.

8. How to use the respirator effectively in emergency situation, including respirator malfunctions.
9. How to inspect, put on and remove, use and check the seals of the respirator.
10. What the procedures are for maintenance and storage of the respirator.
11. How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators.
12. Change out schedule and procedure for air purifying respirators.

Fit Testing

Hands-on respirator Testing

1. Respirator Inspection
2. Respirator cleaning and sanitizing
3. Record Keeping
4. Respirator Storage
5. Respirator Fit Check
6. Emergencies

Basic Respiratory Protection Safety Procedures

1. Only authorized and trained Employees may use Respirators. Those Employee may use only Respirators that they have been trained on and properly fitted to use.
2. Only physically qualified employees may be trained and authorized to use respirators. A pre-authorization and annual certification by a qualified physician will be required and maintained. Any changes in employees' health or physical characteristics will be reported to the Occupational Health Department and will be evaluated by a qualified physician.
3. Only the proper prescribed respirator or self-contained breathing apparatus (SCBA) may be used for the job or work environment. Air cleansing respirators may be worn in work environment when oxygen levels are between 19.5 percent and 23.5 percent and when the appropriate air-cleansing canister, as determined by the manufacture and approved by the National Institute for Occupational Health (NIOSH) or the Mine Safety & Health Administration (MSHA), for the known hazardous substance is used. SCBAs will be worn in oxygen deficient and oxygen rich environments (below 19.5 percent or above 23.5 percent oxygen).
4. Employees working in environments where a sudden release of a hazardous substance is likely will wear an appropriate respirator for that hazardous substance (example: Employees working in an ammonia compressor room will have an ammonia APR respirator on their person.).
5. Only SCBAs will be used in oxygen deficient environments. Environments with an unknown hazardous substance or unknown quantity of a known

hazardous or any environment that is determined “Immediately Dangerous to Life or Health”(IDLH).

6. Employees with respirators loaned on “permanent check out” will be responsible for the sanitation, proper storage and security. Respirators damaged by normal wear will be repaired or replaced by Duplin County when returned
7. The last Employee using a respirator and/or SCBA that are available for general use will be responsible for proper storage and sanitation. Monthly and after each use, all respirators will be inspected with documentation to assure its availability for use.
8. All respirators will be located in a clean, convenient and sanitary location.
9. In the event that Employees must enter a confined space, work in environments with hazardous substances that would be dangerous to life or health should an RPE fail (a **SCBA** is required in this environment), and/or conduct a hazardous material (**HAZMAT**) entry, a “buddy system” detail will be used with a Safety Watchman with constant voice, visual or signal line communication. employees will follow the established Emergency Response Program and/or Confined Space Entry Program when applicable.
10. Management will establish and maintain surveillance of jobs and work place conditions and degree of employee exposure or stress to maintain the proper procedures and to provide the necessary RPE.
11. Management will establish and maintain safe operation procedures for the safe use of RPE with strict enforcement and disciplinary action for failure to follow all general and specific safety rules. Standard Operating Procedures for General RPE use will be maintained as an attachment to the Respiratory Protection Program and Standard Operation Procedures for RPE use under emergency response situations will be maintained as an attachment to the Emergency Response Program.

Respirator User Policies

Adherence to the following guidelines will help ensure proper and safe use of respiratory equipment:

- Wear only the respirator you have been instructed to use. For example, do not wear a self-contained breathing apparatus if you have been assigned and fitted for a half-mask respirator.
- Wear the correct respirator for the particular hazard. For example, some situations, such as chemical spills or other emergencies, may require a higher level of protection than your respirator can handle. Also, the proper cartridge must be matched to the hazard (a cartridge designed for dust and mists will not provide protection for chemical vapors)
- Check the respirator for a good fit before each use. Positive and negative fit checks should be conducted.

- Check the respirator for deterioration before and after use. Do not use a defective respirator.
- Recognize indications that cartridges and canisters are at their end of service. If in doubt, change the cartridges or canisters before using the respirator.
- Practice moving and working while wearing the respirator so that you can get use to it.
- Clean the respirator after each use, thoroughly dry it and place the cleaned respirator in a seal able plastic bag.
- Store respirators carefully in a protected location away from excessive heat, light, and chemicals.

Selection of Respirators

Duplin County has evaluated the respiratory hazard(s) in each workplace, identified relevant workplace and user factors and has based respirator selection on these factors. Also included are estimates of employee exposures to respiratory hazard(s) and an identification of the contaminant's chemical state and physical form. This selection has included appropriate protective respirators for use in IDLH atmospheres, and has limited the selection and use of air-purifying respirators. All selected respirators are NIOSH-certified.

Filter Classifications- These classifications are marked on the filter or filter package

N-Series: Not Oil Resistant

- Approved for non-oil particulate contaminants
- Examples: dust, fumes, mists not containing oil

R-Series: Oil Resistant

- Approved for all particulate contaminants, including those containing oil
- Examples: dust mists, fumes
- Time restriction of 8 hours when oils are present

P-Series: Oil Proof

- Approved for all particulate contaminants including those containing oil
- Examples: dust, fumes, mists
- See Manufacturer's time use restrictions on packaging

Respirators for IDLH atmospheres

- The following respirators will be used in IDLH atmospheres:
- A full face piece pressure demand SCBA certified by NIOSH for a minimum service life of thirty minutes, or
- A combination full-face piece pressure demand supplied-air respirator (SAR) with auxiliary self-contained air supply.
- Respirators provided only for escape from IDLH atmospheres shall be NIOSH-certified for escape from the atmosphere in which they will be used.

Respirators for atmospheres that are not IDLH.

The respirators selected shall be adequate to protect the health of the employee and ensure compliance with all other OSHA statutory and regulatory requirements, under routine and reasonably foreseeable emergency situations. The respirator selected shall be appropriate for the chemical state and physical form of the contaminant.

Identification of Filters & Cartridges

All filters and cartridges shall be labeled and color-coded with the NIOSH approval label and that the label is not removed and remains legible. A change out schedule for filters and canisters has been developed to ensure these elements of the respirators remain effective.

Respirator Filter & Canister Replacement

An important part of the Respiratory Protection Program includes identifying the useful life of canisters and filters used on air-purifying respirators. Each filter canister shall be equipped with an end-of-service-life indicator (ESLI) certified by NIOSH for the contaminant; or

If there is no ESLI appropriate for conditions a change schedule for canisters and cartridges that is based on objective information or data that will ensure that canisters and cartridges are changed before the end of their service life.

Filter & Cartridge Change Schedule

Stock of spare filters and cartridges shall be maintained to allow immediate change when required or desired by the employee.

Cartridges shall be changed based on the most limiting factor below:

- Prior to expiration date

- Manufacturer's recommendations for use and environment
- After each use
- When requested by employee
- When contaminate odor is detected
- When restriction to air flow has occurred as evidenced by increased effort by user to breath normally
- Cartridges shall remain in their original sealed packages until needed for immediate use.

Filters shall be changed based in the most limiting factor below:

- Prior to expiration date
- Manufacturer's recommendations for use and environment
- When requested by employee
- When contaminate odor is detected
- When restriction to air flow has occurred as evidenced by increased effort by user to breath normally
- When discoloring in the filter media is evident
- Filters shall remain in their original sealed packages until needed for immediate use.

Respiratory Protection Schedule by Job and Working Condition

Duplin County maintains a Respiratory Protection Schedule by job and working condition. This schedule is provided to each authorizes and trained employee. The schedule provides the following information:

1. Job/Working Conditions
2. Work Location
3. Hazards Present
4. Type of Respirator or SCBA Required
5. Type of Filter/Canister Required
6. Location of Respirator or SCBA
7. Filter/Cartridge change out schedule

The schedule will be reviewed and updated at least annually and whenever any changes are made in the work environments, machinery, equipment, or processes or if respirator different respirator models are introduced or existing modules are removed.

Permanent respirator schedule assignments are:

Each person who engages in welding will have his or her own county provided dust-mist-fume filter APR. This respirator will be worn during all welding operations.

Physical and Medical Qualifications

Records of medical evaluations must be retained and made available in accordance with 29 CFR 1910.1020.

Medical evaluation required

Using a respirator may place a physiological burden on employees that varies with the type of respirator worn, the job and workplace conditions in which the respirator is used, and the medical status of the employee. Duplin County provides a medical evaluation to determine the employee's ability to use a respirator, before the employee is fit tested or require to use the respirator in the workplace.

Medical evaluation procedures

The designated Occupational Health Care Provider will provide the employee a medical questionnaire

Follow- up medical examination

Duplin County shall ensure that a follow-up medical examination is provided for an employee who gives a positive response to any question among questions in Part B of the questionnaire or whose initial medical examination demonstrates the need for a follow-up medical examination. The follow-up medical examination shall include any medical test, consultations, or diagnostic procedures that the physician deems necessary to make a final determination.

Administration of the medical questionnaire and examinations

The medical questionnaire and examinations shall be administered confidentially during the employee's normal working hours or at a time and place convenient to the employee. The medical questionnaire shall be administered in a manner that ensures that the employee understands its content. Duplin County shall provide the employee with an opportunity to discuss the questionnaire and examination results with the physician.

Supplemental information for the Physician

The following information must be provided to the physician before the physician makes a determination concerning an employee's ability to use a respirator.

- The type and weight of the respirator to be used by the employee

- The duration and frequency of respirator use (including use for rescue and escape)
- The expected physical work effort
- Temperature and humidity extremes that may be encountered
- Any supplemental information provided previously to the physician regarding an employee need not be provided for a subsequent medical evaluation if the information and the physician remain the same.

Duplin County has provided the physician with a copy of the written Respiratory Protection Program and a copy of the OSHA Standard 1910.134.

Medical determination

In determining the employee's ability to use a respirator, Duplin County shall:

- Obtain a written recommendation regarding the employee's ability to use the respirator from the physician. The recommendation shall provide the following information:
- Any limitations on respirator use related to the medical condition of the employee, or relating to the workplace conditions in which the respirator will be used, including whether or not the employee is medically able to use the respirator.
- The need, if any, for follow-up medical evaluations.
- A statement that the Physician has provided the employee with a copy of the physicians written recommendation.
- If the respirator is a negative pressure respirator and the physician finds a medical condition that may place the employee's health at increased risk if the respirator is used, Duplin County shall provide a APR if the physician's medical evaluation finds that the employee can use such a respirator; if a subsequent medical evaluation finds that the employee is medically able to use a negative pressure respirator, then Duplin County is no longer required to provide a APR.

Additional Medical Evaluations

At a minimum, Duplin County shall provide additional medical evaluations that may comply with the requirements of this section if:

- An employee reports medical signs or symptoms that are related to the ability to use a respirator.
- A Physician, supervisor or the respirator program administrator informs Duplin County that an employee needs to be reevaluated.

- Information from the respiratory protection program, including observations made during the fit testing and program evaluation, indicates a need for employee reevaluation
- A change occurs in workplace conditions (e.g. physical work effort, protective clothing, temperature) that may result in a substantial increase in the physiological burden placed on an employee.

Respirator Fit Testing

Before an employee is required to use any respirator with a negative or positive pressure tight-fitting face piece, the employee must be fit tested with the same make, model, style, and size of respirator that will be used. Duplin County shall ensure that an employee using a tight-fitting face piece respirator is fit tested prior to initial use of the respirator, whenever a different respirator face piece (size, style, model or make) is used, and at least annually thereafter.

Duplin County has established a record of the qualitative and quantitative fit test administered to employees including:

- The name or identification of the employee tested
- The type of fit test performed
- Specific make, model, style, and size of respirator tested
- Date of test
- The pass/fail results for Qualitative Fit Test (QLFT) or the fit factor and strip chart recording or other recording of the test results for Qualitative Fit Test (QLFT)

Additional fit test will be conducted whenever the employee reports, or Duplin County, Physician, supervisor, or program administrator makes visual observations of, changes in the employee's physical condition that could affect respirator fit. Such conditions include but are not limited to, facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight.

If after passing a QLFT or QNFT, the employee notifies Duplin County, program administrator, supervisor, or Physician that the fit of the respirator is unacceptable; the employee shall be given a reasonable opportunity to select a different respirator face piece and to be retested.

Types of Fit Test

The fit test shall be administered using an OSHA-accepted QLFT or ONFT protocol. The OSHA-accepted OLFT and QNFT protocols and procedures are contained in Appendix A of OSHA Standard 1910.134

- QLFT may only be used to fit test negative pressure air-purifying respirators that must achieve a fit factor of 100 or less.
- If the fit factor, as determined through an OSHA-accepted QNFT protocol, is equal to or greater than 100 for tight-fitting half face pieces, or is equal to or greater than 500 for tight-fitting full face pieces, the QNFT has been passed with the respirator.
- Fit testing of tight-fitting atmospheric-supplying respirators and tight-fitting powered air-purifying respirators shall be accomplished by performing quantitative or qualitative fit testing in the negative pressure mode, regardless of the mode of operation (negative or positive pressure) that is used for respiratory protection.
- Qualitative fit testing of these respirators shall be accomplished by temporarily converting the respirator user's actual face piece into a negative pressure respirator with appropriate filters, or by using an identical negative pressure air-purifying respirator face piece with the same sealing surfaces as a surrogate for the atmosphere-supplying or powered air-purifying respirator face piece.
- Quantitative fit testing of these respirators shall be accomplished by modifying the face piece to allow sampling inside the face piece in the breathing zone of the user, midway between the nose and mouth. This requirement shall be accomplished by installing a permanent sampling probe onto a surrogate face piece, or by using a sampling adapter designed to temporarily provide a means of sampling air from inside the face piece.
- Any modifications to the respirator face piece for fit testing shall be completely removed, and the face piece resorted to NIOSH approved configuration, before that face piece can be used in the workplace.

Fit test records shall be retained for respirator users until the next fit test is administered. Written materials that are required to be retained shall be made available upon request to affected employees.

Respirator Operation and Use

Respirators will only be used following the respiratory protection safety procedures established in this program. The Operations and Use Manuals for each type of respirator will be maintained by the Program Administrator and be available to all qualified users.

Surveillance by the direct supervisor shall be maintained of work area conditions and degree of employee exposure or stress. When there is a change in work area conditions or degree of employee exposure or stress that may affect respirator effectiveness, Duplin County shall reevaluate the continued effectiveness of the respirator.

For continued protection of respirator users, the following general use rules apply:

- User shall not remove respirator while in a hazardous environment.

- Respirators are to be stored in sealed containers out of harmful atmospheres
- Store respirators away from heat and moisture
- Store respirators such that the sealing area does not become distorted or warped
- Store respirators such that the face piece is protected

Face piece seal protection

Duplin County does not permit respirators with tight-fitting face pieces to be worn by employees who have:

- Facial hair that comes between the sealing surface of the face piece and the face or that interferes with the valve function; or
- Any condition that interferes with the face-to-face piece seal or valve function.

If an employee wears corrective glasses or goggles or other personal protective equipment, Duplin County shall ensure that such equipment is worn in such a manner that does not interfere with the seal of the facemask of the user.

Continuing Effectiveness of Respirators

Duplin County shall ensure the following that employees leave the respirator use area:

- To wash their faces and respirator face pieces as necessary to prevent eye or skin irritation associated with respirator use
- If they detect vapor or gas breakthrough, changes in breathing resistance, or leakage of the face piece
- To replace the respirator or the filter, cartridge, or canister elements.

If the employee detects vapor or gas breakthrough, changes in breathing resistance, or leakage of the face piece, Duplin County will replace or repair the respirator before allowing the employee to return to the work area.

Procedures for IDLH atmospheres

For all IDLH atmospheres, Duplin County shall ensure that:

- One employee or, when needed, more than one employee is located outside the IDHL atmosphere

- Visual, voice, or signal line communication is maintained between the employee(s) in the IDLH atmosphere and the employee(s) located outside the IDLH atmosphere
- The employee(s) located outside the IDLH atmosphere are trained and equipped to provide effective emergency rescue
- Duplin County shall designee is notified before the employee(s) located outside the IDLH atmosphere enter the IDLH atmosphere to provide emergency rescue
- Duplin County or designee authorized to do so by Duplin County, once notified, provides necessary assistance appropriate to the situation

Employee(s) located out side the IDLH atmosphere will be equipped with:

- Pressure demand or other positive pressure SCBAs, or a pressure demand or other positive pressure supplied-air respirator with auxiliary SCBA; and either
- Appropriate retrieval equipment for removing the employee(s) who enter(s) these hazardous atmospheres where retrieval equipment would contribute to the rescue of the employee(s) and would not increase the overall risk resulting from entry; or
- Equivalent means for rescue where retrieval equipment is not required.

Cleaning and Disinfecting

Duplin County shall provide each respirator user with a respirator that is clean, sanitary, and in good working order. Duplin County shall ensure that respirators are cleaned and disinfected using the Standard Operating Procedure SOP: Cleansing and Disinfecting.

The respirators shall be cleaned and disinfected when:

- Respirators issued for the exclusive use of an employee shall be cleaned and disinfected as often as necessary to be maintained in a sanitary condition.
- Respirators issued to more than one employee shall be disinfected before being worn by different individuals.
- Respirators maintained for emergency use shall be cleaned and disinfected after each use
- Respirators used in fit testing and training shall be cleaned and disinfected after each use.

Cleaning and storage of respirators assigned to specific employees is the responsibility of that employee.

All respirators/SCBAs both available for “General Use” and these on “Permanent Check-out” will be inspected after each use and at least monthly. Should any defects be noted,

the respirators/SCBAs will be taken to the program Administrator. Damaged Respirators will either repaired or replaced. The inspection of the respirators loaned Permanent Check-out” is the responsibility of that trained employee.

Respirators shall be inspected as follows:

- All respirators used in routine situations shall be inspected before each use and during cleaning
- All respirators maintained for use in emergency situations shall be inspected at least monthly and in accordance with the manufacturer’s recommendations and shall be checked for proper function before and after each use
- Emergency escape-only respirators shall be inspected before being carried into the workplace for use.

Respirators inspected include the following:

- A check of respirator function, tightness of connections, and the condition of the various parts including, but not limited to, face pieces, head straps, valves, connecting tube, and cartridges, canisters, or filters.
- Check of electrometric parts for pliability and signs of detonation.
- Self-contained breathing apparatus shall be inspected monthly. Air and oxygen cylinders shall be maintained in a fully charged state and shall be recharged when the pressure falls to 90% of the manufacturer’s recommended pressure level. Duplin County shall determine that the regulator and warning devices function properly.

For Emergency Use Respirators the additional requirements apply:

- Certify the respirator by documenting the date the inspection was performed, the name (or signature) of the person who made the inspection, the findings, required remedial action, and a serial number or other means of identifying the inspected respirator.
- Provide this information on a tag label that is attached to the storage compartment for the respirator, is kept with the respirator, or is included in inspection reports stored as paper or electronic files. This information shall be maintained until replaces following a subsequent certification.

Respirator Storage

Respirators are to be stored as follows:

- All respirators shall be stored to protect them form damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging

chemicals, and they shall be packed or stored to prevent deformation of the face piece and exhalation valve.

- Emergency Respirators shall be:
- Kept accessible to the work area;
- Stored in compartments or in covers that are clearly marked as containing emergency respirators; and
- Stored in accordance with any applicable manufacturer instructions.

Repair of Respirators

Respirators that fail an inspection or are otherwise found to be defective will be removed from service to be discarded repaired or adjusted in accordance with the following procedures:

- Repairs or adjustments to respirators are to be made only by persons appropriately trained to perform such operations and shall use only the respirator manufacturer's NIOSH-approved parts designed for the respirator:
- Repairs shall be made according to the manufacturer's recommendations and specifications for the type and extent of repairs to be performed; and
- Reducing and admission valves, regulators, and alarms shall be adjusted or repaired only by the manufacture or a technician trained by the manufacturer.

Breathing Air Quality and Use

Duplin County shall ensure that compresses air, compressed oxygen, liquid oxygen used for respiration accords with the following specifications:

- Compressed and liquid oxygen shall meet the United States Pharmacopoeia requirements for medical or breathing oxygen; and
- Compressed breathing air shall meet at least the requirements for Grade D breathing air described in ANSI/Compressed Gas Association Commodity Specification for Air, G-7.1-1989, to include:
 1. Oxygen content (v/v) of 19.5-23.5%;
 2. Hydrocarbon (condensed) content of 5 milligrams per cubic meter of air or less;
 3. Carbon monoxide (CO) content of 10ppm or less;
 4. Carbon dioxide content of 1,000 ppm or less; and
 5. Lack of noticeable odor.
- Compresses oxygen will not be used in atmospheric-supplying respirators that have previously used compressed air

- Oxygen concentrations greater than 23.5% are used only in equipment designed for oxygen service or distribution.
- Cylinders used to supply breathing air to respirators meet the following requirements
- Cylinders are tested and maintained as prescribed in the Shipping Container Specification Regulations of the Department of Transportation (49CFR part 173 and part 178)
- Cylinders of purchased breathing air have a certificate of analysis from the supplier that the breathing does not exceed a dew point of -50 deg,F (-45.6 degC) at 1 atmospheric pressure.
- Breathing air couplings are incompatible with outlets for nonreplicable worksite air or other gas systems. No asphyxiating substance shall be introduced with the NIOSH respirator certification standard, 42CFR part 84.

Slips, Trips and Fall Protection Policy

Purpose

Slips, trips and falls result in unnecessary injury due to slipping on uneven, wet or slippery surfaces or from unexpected contact with obstacles. This policy is designed to avoid injuries to employees and the public due to slips, trips and falls.

Scope

This policy applies to all county owned facilities, buildings and employees.

Good housekeeping

Employees are required to maintain workplaces in a neat and orderly fashion. Trip hazards such as tool, extension cords, hoses etc... shall be kept out of walkways to the extent possible while in use, and when not in use shall be stored in the proper place.

Storage

To the extent possible, materials, equipment, supplies and the like shall be properly stored in accessible areas to avoid overhead lifting and the use of stools or ladders.

Spills

Employees are to immediately take responsibility for cleaning up spills that could lead to personal injury.

Trip Hazards

Department heads are to take responsibility for securing loose floor mats, carpeting and floor coverings in their department.

Stairs

Employees shall use handrails when going up and down the stairs.

Footwear

Employees shall wear footwear appropriate for the task. Flip-flops or similar shoes shall be avoided.

Carrying

Employees shall exercise caution when carrying items to avoid obstructing their view.

Personal Behavior

Employees shall not take short cuts through areas that are not designated walkways; shall avoid horseplay and running in the workplace and shall pay attention to what they are doing at all times.

Duties of Department Heads

Maintain an awareness of slip, trip and fall hazards:

Note any slip, trip and fall hazards on monthly departmental safety inspection forms:

Investigate and report all slip, trip and fall or near miss incidents:

Provide necessary training to departmental employees on the hazards of slips, trips and falls.

Duties of Employees

Maintain an awareness of slip, trip and fall hazards:

Report any slip, trip and fall hazards to their supervisor:

Report all slip, trip and fall or near miss incidents to their supervisor:

Avoid work practices and personal behavior that may cause slips, trips and falls:

Attend training when provided on how to avoid slips, trips and falls.

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Trenching and Excavation Policy

Purpose

Trenching and excavation work exposes workers to serious risks. The greatest risk to employees is that of trench sidewall collapse or cave in. Cave in accidents are much more likely to result in worker fatalities than other excavation related accidents. This policy is intended to serve only as a guide and a reference to OSHA standard 1926.650 Excavations.

Scope

This policy applies to all county employees and contractors and subcontractors working at the direction of the county.

Definition

Excavations are any man-made cut, cavity, trench or depression in the earth surface formed by earth removal. (OSHA makes no distinction on the depth of excavation.)

Trenches are narrow excavations made below the surface of the ground. In general, the depth is greater than the width. However, the width of a trench is not greater than 15 feet. An excavation is also considered to be a trench

Responsibility

Departmental supervisors must ensure their employees follow these procedures:

1. Prior to Excavation or Trenching

a. Identification of Buried Utilities

All underground utilities (public and county owned) must be clearly marked to identify potentially hazardous situations prior to starting work requiring excavation. The person responsible for oversight must call The North Carolina One Call Center "Call before you dig" number 1-800-632-4949 to locate all public utilities.

b. Competent Person

At any excavation site there must be a designated "competent" person whenever employees are digging or in the excavation. A "competent" person means someone capable of identifying existing and predictable hazards in the surroundings, or working conditions that unsanitary, hazardous, or dangerous to employees. The competent person has authorization to take prompt corrective measures to eliminate any unsafe condition. A "competent" person must have attended an OSHA approved excavation/trenching course and possess documentation that they have successfully passed the course examination.

2. Excavation

a. Materials and Equipment

Trench shoring and trench jacks shall be on the site before any excavation begins when the expected depth will exceed four feet or where unstable soil is expected. In addition, a radio equipped truck or portable radio shall be on the site at all times when work is in progress.

b. Protection of Employees

No one shall enter excavations of four feet or more in depth without having shoring in place or the banks cut back to a safe angle. (Refer to OSHA Standard 1926.652) No one shall enter an excavation of less than four feet without shoring or proper angle of repose unless authorized by a competent person.

Excavations less than four feet in depth may not require this degree of protection if examination of the ground by a competent person provides no indication of a potential cave in. Store excavated material at least two feet from the excavation edge. Workers must wear hard hats at the site when work is in progress. Provide a stairway, ladder, ramp or other safe means of egress in trench excavations that are 4 feet or more in depth. The travel distance to the ladder must be no more than 25 feet of lateral travel for employees. The ladder must extend three feet above the edge of the trench.

c. Inspections

A competent person must make daily inspections of excavations, the adjacent areas, and protective systems for evidence of possible cave-ins, indications of protective systems failure, hazardous atmospheres, or other hazardous conditions. The competent person must conduct an inspection

- Prior to the start of work and as needed throughout the shift
- After every rainstorm or other hazard increasing occurrence
- As dictated by the activity taking place in the trench
- When fissures, tension cracks, sloughing, under cutting, water seepage, bulging at the bottom or other similar circumstances occur
- When there is any change in the size, location or placement of the soil pile
- When there is any indication of change or movement in adjacent structures

Where the competent person finds evidence of a situation that could result in a possible cave-in, indications of failure of protective systems, hazardous atmosphere, or other hazardous conditions, remove exposed employees from the hazardous area until safety measures are in place.

d. Barricades and Warnings

Supervisors must take special measures to adequately barricade the excavation site to protect the public.

Note: This policy adapted from North Carolina State University policy published at <http://www.ncsu.edu/ehs/www99/right/handsMan/workplace/excav.html>

Additional information may be obtained in OSHA's Technical Manual at: <http://www.osha.slc.gov/>

Duplin County Safety Self-Inspection Form

Month _____ Year _____

Department Name:

	YES	NO	N/A
1. Are work areas clean and free of clutter?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Are housekeeping staff emptying trash, cleaning floors and restrooms in your work areas and common areas as needed? Be specific in the comments section if expectations are not met	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Are storage areas, hallways, and closets organized and free of trash, litter, and unnecessary or surplus items? If not, contact Buildings & Grounds to remove your unnecessary items.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Are all items of electric equipment grounded properly, have properly maintained cords and plugs, and plugged into appropriate electrical outlets? If not, unplug the item and contact Buildings & Grounds for repair, replacement, or disposal. DO NOT ALLOW USAGE OF UNSAFE ELECTRICAL EQUIPMENT. CONTACT BUILDINGS AND GROUNDS IMMEDIATELY.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Are your assigned work areas free of unauthorized portable space heaters, humidifiers, or other unauthorized appliances meant to alter air quality or temperature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Are work areas free of tripping hazards such as extended electrical cords, damaged or worn carpeting, or defects in the floor surfaces of offices, common areas, restrooms, or stairwells?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. If photocopier machines are used in your department, are photocopier chemicals stored in secure areas away from the general public or staff not authorized to service the machine?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	YES	NO	N/A
8. Are material safety data sheets for chemicals used or stored in your department available for employees to review and for inspectors to view upon request?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Are fire extinguishers in your area charged and within the appropriate inspection time frame?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Are evacuation plan displays in prominent placements and current for assigned space?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Are doors not intended for public access secured and yet available for all to exit to the outside in an emergency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	YES	NO	N/A
12. Are all exits in your assigned area marked with operational illuminating signage and emergency lights are working?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Are First-Aide kits available and properly stocked?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Have all your employees been instructed on your Department's Emergency Evacuation Plans?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. If required, can you hear your fire alarm throughout the building?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Have all your employees in your department been issued the right tools to do their job safely? (Safety Glasses, Ear Plugs, Steel Toe Shoes, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Emergency telephone numbers posted by all employees' telephones? (Fire, EMS, POLICE)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Are NO SMOKING signs posted in no smoking areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Are all areas in your department handicap accessible?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	YES	NO	N/A
20. Have all employees been instructed on what to do in an emergency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Has a fire drill been conducted in your area within the past 12 months?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments: _____			

Inspected by:		Date:	
Department Head:		Date:	

NOTE: This form (Type & Tab) can be e-mailed directly to Reid Southerland - reids@duplincountync.com or Peggy Davis - peggyd@duplincountync.com. Or fax 296-2164

INTRODUCTION TO JOB HAZARD ANALYSIS (JHA)

Job Hazard Analysis (JHA) is the process of taking a close, critical look at each step of a process or operation with an eye toward identifying and correcting the hazards or potential accidents in each step. It's a simple technique which creates a "buy-in" on the part of people doing the job and ensures that they will do the job the same way....and safely....each time.

A JHA can also be conducted as part of the planning for a new job or process. Prospective operators can sit in a planning session with engineers, designer, technical staff (e.g., safety, environmental, occupational health), and supervisors to talk through how a new operation should work. This can eliminate the hazards before the cost of development makes it much more expensive and it gives clear work steps for use in debugging and training.

The benefits of a JHA of existing jobs are many:

- ✓ Many accident-causing hazards are eliminated.
- ✓ It provides a standard, written, carefully considered, *safe* directions for how to do the job for use in job orientation/training.
- ✓ It allows for refresher instructions on infrequent/periodic jobs.
- ✓ Workers, teams, and supervisors know better how the *total* job is done.
- ✓ Job methods improve, efficiency increases, quality is enhanced...and costs drop.
- ✓ The operator is kept closely involved in safety.

Before the JHA is started, decide who's going to be involved. Ideally, all those involved with the job should work together on the project so that there is comprehensive input and complete buy-in. If that is not possible, be sure that those doing the job at least have the opportunity to provide input and review.

STEP ONE: Select the job. Don't make it too broad (e.g., make a desk) nor too narrow (e.g., pushing a button). Those suitable would be those a line supervisor would normally assign. Priority should be given to those with the worst accident record, those which tend to produce disabling injuries, ones with a high severity potential, and new jobs.

STEP TWO: Break the job into successive steps. Describe concisely what is being done. Pick an operator who is experienced and cooperative to help and tell him/her that the objective is to study the job, not the individual, to make it safer for them. Work through the process, asking the operator what he/she does next and why. Record the observation in the left-hand column of the attached form using action words (lift, pull, close) and tell what object is receiving the action (lever, cover, arm). Finally, check with the operator to be sure that the steps are correct and in the right order.

STEP THREE: Identify the hazards in each step of the process. Can anyone be caught in, on, or by the objects? Can they slip or trip? Is straining possible? Are there environmental hazards? Is layout or placement a problem? Are tools and equipment adequate and in good repair? Will a change in one step create a hazard in another? Once the hazards are identified, check again with the operator and anyone else familiar with the job.

STEP FOUR: Eliminate the hazards. Find creative and effective ways to eliminate the hazards and prevent the potential accidents. Find a better way to do the job. Start with the goal of the job and work along several routes to the goal finding the one which is not only the safest, but the most economical and practical. Change the physical conditions which create the problem....move something...change a work height...replace a guard. Change the job procedure. Have the job done less frequently if exposure is a problem (especially in maintenance operations). As with the previous steps, check solutions with the operator. Watch him/her in operation and carefully evaluate whether the steps and actions match the completed JHA. At this stage, it might also be helpful to record the steps on video for use in future training.

Once the JHA is complete, use it, don't just file it away. If possible, post it on the job, such as near the operator controls. Make it an integral part of the job write-up. Review and update it periodically, perhaps each year. Consult with others whenever an accident occurs on a JSA-covered job and either revise it or insure that the correct procedure is being followed.

For more detailed information on JHAs, refer to Federal OSHA Publication #3071, which can be viewed/downloaded at www.osha.gov.

Duplin County

JOB HAZARD ANALYSIS (JHA) WORKSHEET

Job or Task Title: _____ Date: _____

Department/Location: _____

Employee(s)

Observed: _____

Special Training/Skills

Needed: _____

JHA Completed By: _____

Job/Task Description

(brief): _____

<i>Basic Job Steps</i>	<i>Potential Injuries/Hazards</i>	<i>Required Safe Job Procedures and/or PPE</i>

SAFETY AND SECURITY ORIENTATION **(NEW EMPLOYEE BRIEF)**

INTRODUCTION:

Duplin County takes safety and security very seriously and it's the caliber of both the new and veteran employee that makes any safety security program work. Today's work force plays a major role in maintaining a safe and secure working environment. As a condition of your employment, safety is paramount. With the support and cooperation of all Elected County Officials, Department Heads, Supervisors, and of course the employees, Duplin County Government has proven itself to have one of the safest workplaces in North Carolina. Duplin County Government has 34 major Departments, with over 600 employees.

RESPONSIBILITY:

It is the responsibility of all employees to report all faulty equipment or unsafe acts to their Supervisor or Departmental Safety Officer as soon as possible. When reporting safety discrepancies you can contact the County's Emergency Management Coordinator /Safety Officer directly by calling 296-2160, or by E-mail reids@duplincountync.com. If you do call, ensure that you notify your Supervisor is also notified.

USE OF COUNTY OWNED VEHICLES:

Once you are hired and If your job requires you to drive a County-owned vehicle, the County's Risk Manager will complete a background check of your driving. If approved, this means that you have not exceeded the number of driving points set forth by the county's liability carrier. Once you have been given the authority to drive and county-owned vehicle:

- Unless you are an Active Duty member or the spouse of an Active Duty member, you must obtain a valid North Carolina Driver's license.
- Your driving record will also be re-checked on an annual basis. If it is found that within the previous year, you have exceeded

the number of minimum driving points, your driving privileges will be revoked.

EMERGENCY ACTION PLAN AND FIRE PROTECTION:

It is extremely important that you know your role in case of an emergency in your workplace. Pay particular attention to where the following are located:

- The Departmental Procedures to follow in the event of any and all emergency situations. These should include:
 - Emergency exits and the directions to all exits.
 - Assembly points outside the building in case you have to evacuate the building.
 - Accountability for all employees and clients.
 - Procedures for reporting fires and any other emergencies that may occur within your department by the activation of the 911 system.
 - If the emergency requires evacuation from the building, ensure that you start the evacuation process before you activate the 911 system.
 - Location of the nearest fire extinguisher.

FIRE EXTINGUISHER TRAINING:

Fire Extinguishers

A portable fire extinguisher is a "first aid" device and is very effective when used while the fire is small. The use of fire extinguisher that matches the class of fire, it can save both lives and property. Portable fire extinguishers must be installed in workplaces regardless of other firefighting measures. The successful performance of a fire extinguisher in a fire situation largely depends on its proper selection, inspection, maintenance, and distribution.

Classification of Fires and Selection of Extinguishers

Fires are classified into four general categories depending on the type of material or fuel involved. The type of fire determines the type of extinguisher that should be used to extinguish it.

- 1) **Class A:** fires that involve materials such as wood, paper, and cloth which produce glowing embers or char.
- 2) **Class B:** fires that involve flammable gases, liquids, and greases, including gasoline and most hydrocarbon liquids which must be vaporized for combustion to occur.
- 3) **Class C:** fires that involve fires in live electrical equipment or in materials near electrically powered equipment.
- 4) **Class D:** fires that involve combustible metals, such as magnesium, zirconium, potassium, and sodium.

Extinguishers are selected according to the potential fire hazards, the type of construction used and occupancy of facilities, the hazard to be protected, and other factors pertinent to the situation. The preferred fire extinguisher found in most workplaces is the **ABC** type. This extinguisher can be used on all Class A, B, and C type materials.

How to use a Fire Extinguisher:

It is important to note that prior to attempting to extinguish any fire, you must start your evacuation process and notify the Fire Department utilizing the 911 system.

After you have removed the extinguisher from the wall, utilize the **PASS** system:

- (1) **P**ull the safety pin to engage the handle.
- (2) **A**im the nozzle or outlet at the base of the fire.
- (3) **S**queeze the handle.
- (4) **S**weep the bases of the fire until it is out.

Note: If the fire is not out after you have emptied the extinguisher, do not attempt this operation again, immediately evacuate the area and the building.

HAZARD COMMUNICATION PROGRAM:

In the course of your duties, you may come in contact with certain chemicals. Most of these will be normal household chemicals found in most of our homes. Some of these chemicals you may not be familiar with. In all cases, it's this department's responsibility to ensure that you are made aware of all the chemicals you may be exposed to and the location of the Material Safety Data Sheets (MSDS) for these chemicals. If you are required to use any of these chemicals, you are to read and follow any and all the directions found on the chemicals Material Safety Data Sheet (MSDS).

PERSONAL PROTECTIVE EQUIPMENT: (PPE)

Historically, many of the on-the-job injuries occur when employees do not wear the PPE that is required for the specific work process which they are involved. **NO ONE** is exempt from this OSHA standard.

- This department, at no cost to you, will provide any and all of the PPE required for the work process that you have been assigned to.
- All PPE must meet or exceed the standards set forth by the North Carolina Department of labor OSHA Compliance Division.
- PPE includes, but not limited to the following:

Steel toe shoes/boots

Safety glasses/shields

Helmets or hard hats

Hearing protection

Rubber or leather gloves

Turnout gear

Protective clothing

Respirators

HOME LAND SECURITY

As a nation at risk, we will remain vulnerable for the foreseeable future. We must remain vigilant, prepared, ready, and prepared to deter terrorist attacks. Duplin County has in place, protective measures for each Threat Condition. Be sure that you know what these are and what is expected of you at each level:

LOW CONDITION (GREEN)

This condition is declared when there is a low risk of terrorist attacks. County Government and their agencies will consider the following Protective Measures:

- Refining and exercising as appropriate preplanned protective Measures;
- Ensuring personnel receive proper training on Homeland Security Advisory System and specific prearranged department or agency Protective measures; and
- Institute a process to assure that all facilities and regulated sectors are regularly assessed for vulnerabilities to terrorist attacks, and all reasonable measures are taken to mitigate these vulnerabilities.

GUARDED CONDITION (BLUE)

This condition is declared when there is a general risk of terrorist attacks. In addition to measures taken in the

previous threat condition, County government and their agencies will consider the following protective measures:

- Check communications with designated emergency response or command locations;
- Review and update emergency response procedures; and
- Provide the public with any information that would strengthen its ability to act appropriately.

ELEVATED CONDITION (YELLOW)

An Elevated Condition is declared when there is a significant risk of terrorist attacks. In addition to the measures in the previous threat conditions, County Government and their agencies will consider the following protective measures:

- Increase surveillance of critical locations;
- Coordinate emergency plans with nearby jurisdictions as appropriate;
- Assess whether the precise characteristics of the threat require the further refinement of prearranged protective measures; and
- Implement, as appropriate, contingency and emergency response plans.

HIGH CONDITION (ORANGE)

A High Condition is declared when there is a high risk of terrorist attacks. In addition to measures taken in previous threat conditions, County Government and their agencies will consider the following protective measures:

- Coordinate necessary security efforts with Federal, State, and local law enforcement agencies, National Guard or other security and armed forces;
- Take additional precautions at public events, possibly considering alternative venues or even cancellation;
- Prepare to execute contingency procedures, such as moving to an alternate site or dispersing the workforce: and

- Restrict access to threatened facility to essential personnel only.

SEVERE CONDITION (RED)

A Severe Condition reflects a severe risk of terrorist attacks. Under most circumstances, the protective measures for Severe Condition are not intended to be sustained for substantial periods of time. In addition to protective measures in the previous threat conditions, County Government and their agencies will consider the following protective measures:

- Increase or redirect personnel to address critical emergency needs;
- Assign emergency response personnel to pre-position and mobilize specially trained teams or resources;
- Monitor, redirect, or constrain transportation systems; and
- Close public and government facilities not critical for continuity of essential operations, especially public safety.