# CITY OF ASHEBORO

# SAFETY POLICY

# MANUAL

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**Approved on this the 13th day of March 2012,**

**John N. Ogburn, III City Manager**

# TABLE OF CONTENTS

# Section I: General Policy

## 1.0 STATEMENT OF POLICY

1.1 The City Manager considers accident prevention to be one of the prime functions of each and every employee of the City of Asheboro. It is not only the job of the supervisor, but equipment operators, truck drivers, drafters, pipe layers --- every person who works for the City, no matter in what capacity. Each Department Head is responsible for safe working conditions at all his facilities and job sites. The City has designated the Safety Coordinator to assist the department heads in securing an effective program.

1.2 The primary reason for an accident prevention program is the human side. It is painful to get hurt. It is no fun being in the hospital or home under a doctor's care while an injury heals. The City needs you here on the job and your family expects you to come home safe and sound every day after work.

1.3 Therefore, in recognition of the extreme importance of accident prevention, the basic prevention as outlined in this manual shall be applied throughout the entire City. It shall be the responsibility of each supervisor, not only to inform each of his employees that accident prevention is an essential part of the job, but also to see that the policies of this manual are strictly followed.

1.4 This policy is to serve in conjunction with safety policies that are incorporated in the individual departments standard operating procedures.

## 2.0 DEFINITIONS

The following terms and definitions of terms are applicable to these safety rules.

**Approved -** Acceptable to management

**Authorized Person -** One who has the authority to perform specific duties under certain conditions.

**Excavations -** Any opening such as holes, trenches, ditches or tunnels made in the ground, street or sidewalk in connection with company work.

**Manhole -** A subsurface enclosure, which personnel may enter. It is used when installing, operating and maintaining underground equipment.

**May -** Indicates discretionary provisions

**Safety Committee -** Employee representatives from each division assembled to discuss and review safety practices and procedures.

**Shall -** Indicates necessary provisions essential for protection of life and property.

**Supervisor -** Person directly in charge of the work force.

**Unsafe Conditions -** Dangerous, hazardous, defective, or unusual conditions, which could cause accidents.

**Vault -** An enclosure above or belowground, which personnel may enter. It is used for installing, operating and maintaining equipment.

**Workmen's Compensation Form #19 -** A form required under the provisions of the Workers' Compensation Act reporting an employee injury to the North Carolina Industrial Commission.

## 3.0 RESPONSIBILITIES

3.1 Responsibilities of the Department Heads

(A) The Department Head must be sincerely interested in safety, express a willingness to cooperate in safety activities and actively support and direct the program. Success in accident prevention requires coordinated cooperative action and the Department Head must take the lead and set the pace. Mere approval is not enough. Without maximum participation by the Department Head, no accident prevention program will ever fill its potential.

(B) He/She shall inform all levels of supervision that accident prevention is an essential part of their jobs.

(C) He/She shall make prompt decisions on accident prevention problems referred to him or her by the Safety Coor. and whenever possible, give facts supporting his decision.

(D) He/She shall support the Safety Committee and support a representative serving on the Safety Committee when asked to serve, and also a committee within the department, to coordinate with the Safety Coor. their safety program.

3.2 Responsibilities of the Safety Coordinator

(A) Develops and directs a safety program for all City employees, within the requirements of Federal and State Law and City policies to reduce the probability of loss of manhours and materials due to accidents.

(B) Makes recommendations to management for removal of hazardous conditions, etc., as a result of job site and facility inspections.

(C) Responsible for handling employees' claims involving Workers' Compensation and maintaining and posting adequate accident records.

(D) Act in an advisory capacity on all matters pertaining to safety.

(E) Responsible for all OSHA Recordkeeping

## 3.3 Responsibilities of the Superintendents and Supervisors

As part of his or her operating duties, the Superintendent is responsible for control of accidents. Accidents result from wrong methods - wrong methods are inefficient methods, and methods are immediately under the control of the Superintendents and Supervisors. They have the following responsibilities:

(A) Strive for safe working conditions under your control.
(B) In accidents requiring a doctor's treatment, it shall be the responsibility of the Supervisor of the division involved to make a thorough investigation and complete an accident injury report within 24 hours.
(C) The supervisor shall evaluate the qualifications of all drivers and operators in their division. No person shall be allowed to operate a vehicle or piece of equipment until they have been instructed in the correct method of operation and has the proper license.
(D) Special attention shall be given to the newer or less experienced employees to assure that safe working habits are being developed.
(E) Ensure that upon return to work a person involved in a lost time accident is given clearance by the Human Resources Department.
(F) Coordinate and cooperate with all persons in Human Resources.
(G) Supervisors shall ensure that all employees understand the proper method of carrying out any work task instructed to perform. Tailgate sessions before each job are encouraged.

## 3.4 Responsibilities of the Employee

(A) It is the responsibility of each employee to follow all safety regulations as set forth, to ensure his or her safety and the safety of others who work with him or her.
(B) It shall be the responsibility of the employee to report any injury no matter how slight, immediately, to the immediate Supervisor. Failure to report injuries promptly may result in disciplinary action.
(C) The City shall maintain proper first aid supplies on each vehicle so that minor injuries may be treated on the job site. First aid shall only be administered to another individual by those people who have been properly trained to do so.
(D) Before an employee may return to work after an absence due to an accident, the supervisor must assure Human Resources has cleared the employee. The City has the right to request a physical examination from the City Nurse and/or a doctor designated by the City at the City's expense in order to ensure that the employee is physically fit to return to work.
(E) Human Resources will schedule all appointments to medical facilities for work related injuries (the only exception is life-threatening injuries).
(F) It is the responsibility of each employee to report any unsafe condition to his or her supervisor. If the employee is not satisfied with the response of his/her supervisor, he/she should report the condition to the Safety Coordinator.

## 3.5 Accident investigation

(A) Accident investigation shall be performed by the immediate supervisor and/or the Human Resources Department. Human Resources may also involve the city's Accident Investigation Committee. Any accident involving death, permanent disability, temporary disability, hospitalization, medical treatment, loss of work time by city employee, damage to or destruction of any property or injury to a visitor shall be investigated.

(B) The purpose of accident investigation is to prevent the reoccurrence of accidents by identifying contributing causes, determining corrective measures necessary to eliminate causes, and disseminating information on accident prevention to all employees. Accurate, complete accident reports are essential to identify and remedy causes. Copies of accident investigations shall be forwarded to the Safety Coordinator.

(C) The accident investigation shall be initiated as soon as possible after the occurrence of the accident.

## 3.6 Self Inspections

(A) The purpose of self-inspections is to identify hazardous work conditions and materials or methods that may result in an accident so that these hazards can be corrected. Each activity and facility shall be inspected not less than once every three months. The department head is responsible for preparing an inspection schedule for all activities of his/her department. The department head shall also designate inspectors for their department and have them use a department inspection checklist to record their findings. Upon completion of the inspection the checklist, violations should be transferred to the City's Inspection Report. This Inspection Report will furnish the department head with violations found, recommendations for abatement of violations and abatement dates. The inspectors shall have the department head sign the report and the inspector will maintain a copy. The department head shall take whatever corrective action deemed appropriate to abate the violations. The department head will keep a copy of the report for his/her records and forward the original copy to the Safety Coordinator.

**GUIDELINES FOR DETERMINING ABATEMENT DATES IS ON THE FOLLOWING PAGE**

## GUIDELINES FOR DETERMINING ABATEMENT DATES

1- IMMEDIATE HAZARDS - MUST BE CORRECTED WITHIN 8 HOURS.

2 MODERATE HAZARDS - MUST BE CORRECTED WITHIN 10 WORKING DAYS.

3 - IF PARTS AND/OR EQUIPMENT MUST BE ORDERED - 30 WORKING DAYS.

4 - ANY VIOLATION THAT CANNOT BE CORRECTED WITHIN 30 WORKING DAYS MUST BE APPROVED BY THE SAFETY COORDINATOR.

## 4.0 ORGANIZATION AND FUNCTION OF THE CITY EMPLOYEES SAFETY COMMITTEE

4.1 Membership: (To be rotated on a periodic basis)

(A) The Human Resources Director, Safety Coordinator, and City Nurse to be permanent members.
(B) All areas of the City shall be represented. In large departments, there may be two or more representatives.

4.2 Meetings shall be held on a regularly scheduled basis.

4.3 Minutes:

(A) Minutes of all meetings shall be taken.
(B) Permanent records of minutes shall be retained by the Safety Coordinator.

4.4 Activities:

(A) Review accidents and corrective action taken.
(B) Review inspection reports for recommendations.
(C) Review accident data.
(D) Have outside speakers, films, etc.
(E) Monthly safety inspections and recommendations.

## 5.0 HOUSEKEEPING

5.1 Good Housekeeping is a must in accident prevention and is directly related to health and sanitation.

5.2 Each employee is responsible for keeping his respective work area in a clean and orderly condition.

5.3 Exits shall be kept unobstructed so personnel may be evacuated from any structure in case of an emergency.

5.4 Tools, air hoses, and materials shall not be left on the floor and must be returned to their proper storage areas. All rags, discarded parts, and cleaning materials shall be kept in a storage receptacle.

5.5 All stairways and halls shall be kept free of storage or miscellaneous materials.

5.6 File cabinets shall be opened one drawer at the time and shall be closed when not in use.

## 6.0 GENERAL SAFETY

6.1 Do not clean or adjust machinery while in motion (see 6.10).

6.2 No running, horseplay, shouting, playing, scuffling, fighting, or other disorders shall be participated in by any employee while on duty on City property.

6.3 No machine guards are to be changed or adjusted except by proper authorization.

6.4 All job sites shall be okayed and checked for safety by an authorized person as the work progresses.

6.5 When any trouble, electrical or mechanical, develops, the operator shall not attempt to make repairs himself (unless he is qualified), but shall notify his supervisor and shut down the machine or equipment until repairs are made.

6.6 Do not "play" with compressed air. Never blow air on anyone, as air might enter the body and death result. Do not try to clean your clothes with air. All compressed air used for cleaning shall be below 30 p.s.i.

6.7 Do not permit unqualified fellow workers to remove dust or dirt from your eyes. Report to the city nurse. If not available, the Safety Coordinator will refer you.

6.8 It is the duty of each employee to immediately report to his supervisor or Safety Coordinator any dangerous or defective tools, machinery, vehicles, or appliance or any condition, which appears dangerous. Under no circumstances shall anyone start a machine, throw a switch, or open or close a valve bearing **DANGER** tags. It shall be the responsibility of the individual placing the tag to authorize its removal.

6.9 “No smoking” signs shall be observed rigidly.

6.10 All machines are to be stopped and proper lockout procedures followed during adjustments or repairs.

6.11 Do not ride on any truck-side toolbox, lift trucks or bush hogs at any time.

6.12 The use of welding equipment and gas cylinders shall be in accordance with OSHA standards.

## 7.0 MATERIAL HANDLING

7.1 Whenever possible employees shall notify their supervisors for assistance when they are required to handle heavy or bulky material. Fork lifts, conveyors, and hand trucks shall be used whenever possible.

7.2 The following is recommended for the safe operation of lift trucks:

(A) The licensed driver of any vehicle is immediately responsible for its operation and condition. If the vehicle is considered unsafe to operate, the operator shall immediately advise his supervisor. Action shall be taken to ensure the corrections or adjustments are made.
(B) When not loaded, run with forks no more than 2-4 inches above the ground and always sound horn when approaching a blind area.
(C) If any driver has an accident which might include running over the foot of another employee, hitting a walk, doorways, or support beams, the driver is required to stop the lift truck and report the accident to his supervisor. He shall also fill out an accident report.
(D) The only employee allowed on the lift is the driver. All drivers shall have proper training and be authorized operators before they may operate a lift truck.
(E) While loading or unloading trailers with a forklift, wheel chocks are to be placed under both rear wheels of the trailer.

7.3 All materials shall be stacked in such a manner that the materials shall not overturn or cause excessive strain on any one employee.

## 8.0 FIRE PREVENTION

8.1 Fire extinguishers shall be placed throughout each facility on each major piece of equipment and on all vehicles.

8.2 Ready access to the fire extinguishers shall be maintained. Only individuals who have been properly trained in the operation of fire extinguishers shall use them. Monthly Inspections shall be done on all portable fire extinguishers and documented.

8.3 All fire extinguishers and fire equipment shall be kept in good working order at all times. When a fire extinguisher is used, it shall be replaced promptly with a fully charged extinguisher.

8.4 If you have a radio or if there is one in your immediate area, notify the Fire Department of all fires that you observe.

8.5 Dial 911 to report a fire by telephone. You must dial 9 for outside line in some buildings.

## 9.0 PERSONAL PROTECTIVE EQUIPMENT

9.1 Loose clothing shall not be worn and excessive long hair shall be tied or in a net when working around moving or revolving equipment.

9.2 Ear protection shall be required when operating any machinery or equipment with excessive noise. The City furnishes this equipment.

9.3 Safety glasses or goggles are required for designated jobs. The City shall furnish these. Your supervisors shall notify you when they are needed.

9.4 Employees exposed to the likelihood of head injury shall wear hard hats. The City shall furnish these.

9.5 All city employees shall wear OSHA or ANSI approved vests or clothing while working in the streets, highways, or within 2 feet of a street or highway.

## 10.0 SAFETY EQUIPMENT

10.1 All safety equipment shall be inspected and replaced on a regular basis as needed.

10.2 All safety equipment provided by the City shall be utilized. Every employee shall have with him the safety equipment necessary for the job he is doing.

10.3 It is the responsibility of every employee to report defective or inoperative, or worn safety equipment immediately.

## 11.0 CITY VEHICLES

11.1 Operators of City vehicles shall observe and adhere to all applicable State traffic laws and City ordinances.

11.2 All operators of City vehicles shall make a daily check of the vehicle to which they are assigned to ensure that the vehicle is in safe operating condition, and shall report all defects to their supervisor.

11.3 All motorized equipment shall be taken to the City garage as required for a preventive maintenance and safety check.

11.4 Backing, whenever possible shall be done with the assistance of another person.

11.5 Personnel shall never ride in or on any vehicle except in properly assigned places.

11.6 Mounting or dismounting a moving vehicle is prohibited.

11.7 Keys shall be removed from all vehicles when left unattended.

11.8 Performing work underneath jacked vehicles without blocking of the axle or axles is prohibited.

11.9 Drink bottles or miscellaneous articles not pertaining to the job are prohibited in the cabs of vehicles.

## 12.0 Safety Program Enforcement

12.1 Disciplines

(A) It is recognized that some City employees shall violate work rule/polices and commit unsafe acts that may or may not result in an accident causing injury or damage. As result, each violation or action shall require immediate corrective action by supervisors and administrators. It shall be emphasized that safe work rule/policies and driving procedures must be enforced for the protection of the employee and the City.

(B) The cost of the accident shall not dictate the corrective action to be administered. Management shall discourage any implication that it is acceptable to have an inexpensive accident, but it is unacceptable to have an expensive accident to occur. The same action that causes little accidents also cause big accidents, therefore the **Emphasis** is placed on **Accident Prevention**.

(C) Careful consideration has been given to a wide range of City employees whose job classifications include the responsibility of operating motor vehicles and motorized equipment. It has been determined, therefore, that all employees who operate a vehicle or other equipment, are obligated to take the necessary precautions to avoid accidents and injuries. Distinctions shall not be made as to the frequency and distance that a vehicle or other equipment is operated.

(D) The fact that one job classification requires more driving or operating hours than another job classification is not adequate justification to provide different expectations for safe motor vehicle and motorized equipment operation. Although one job classification may require a more highly skilled operator that another, it is the supervisor's responsibility to enforce the applicable safety rules and review each employee's previous accident record to determine the need for additional training.

12.2 Disciplinary actions

(A) All disciplinary actions shall follow the rules and guidelines set forth in the City of Asheboro Personnel Policies And Procedures Manual, Article XI.

# TABLE OF CONTENTS

# SECTION II: SAFETY RULES AND PROCEDURES

## 1.0 OBJECTIVE AND RESPONSIBILITY

1.1 Safety rules and procedures shall be developed and monitored by each department. The department heads, supervisors and employees shall all contribute to this task for their respective area. The attached rules and procedures provide a starting point.

# GENERAL RULES AND PROCEDURES FOR MUNICIPAL EMPLOYEES

**These general rules and procedures apply to all departments.**

1. Good housekeeping shall be maintained throughout all operations.

2. All employees shall be properly trained before they are allowed to assume routine duties and shall not attempt to lift an object where proper lifting techniques are not used.

3. Employees shall be trained in proper lifting techniques and body mechanics.

4. Hard hats shall be provided for and used by all employees exposed to overhead hazards (Electrical Class B hard hats required).

5. Eye and ear protection shall be provided for and used by all employees exposed to related hazards, i.e. grinding, cutting, chipping, welding, battery charging, jack hammering, etc.

6. Caution signs shall be posted in shop areas and on major mobile equipment warning that eye protection be worn where eye hazards exist.

7. Facilities shall be available to employees who may be exposed to injurious or corrosive materials for quick drenching or flushing of the eyes or body.

8. Employees shall be required to wear only appropriate footwear as determined by the Department Head.

9. All employees shall be provided with and required to wear gloves when conditions dictate their need.

10. First aid kits shall be available to employees at all times. Employees not properly trained in first aid shall not treat other individuals.

11. Designated employees shall be properly trained in the use of first aid procedures.

12. Water coolers shall be available at job sites away from the shop area.

13. All mobile equipment shall be inspected before starting each shift.

14. Employees working near vehicular traffic shall be provided with and required to wear approved clothing i.e. reflective vest.

15. A sufficient number of fluorescent plastic cones, signs, and warning devices shall be available and used when work activities are near vehicular traffic.

16. All gasoline, which is transported in vehicles, shall be contained in NFPA approved safety containers.

17. Hand rails shall be installed on all permanent stairs leading to overhead storage areas.

18. Standard guardrails and toe boards shall be installed along the front of overhead storage areas.

19. Overhead cranes and hoist shall be equipped with a hook safety latch mechanism and labeled with maximum safe load limit.

20. Adequate overhead and roll protection shall be installed on mobile equipment.

21. Hand carts, hoist, dollies or other devices shall be used for lifting or moving heavy objects or materials.

22. Guards and safety devices shall be kept in place and in working condition on all equipment, tools, etc.

23. All flat belts, V-belts, chains, and sprockets, which offer employee exposure, shall be properly guarded.

24. All hand tools shall be inspected to ensure their safe working condition.

25. All electric fans shall be equipped with proper guarding.

26. Bench grinders shall be securely mounted, equipped with protective eye shields and a properly adjusted tool rest, and have an adequate guard over the end spindle.

27. All tools and electric equipment shall be either double insulated or equipped with three-prong plugs to ensure proper grounding.

28. Adequate portable lighting shall be available for use during emergency situations.

29. An evacuation plan shall be developed and posted in every public building.

30. All electric switch boxes and electric panels shall be closed and properly marked.

31. **NO SMOKING** signs shall be located in appropriate areas and followed by all employees and visitors, i.e. storage areas for compressed gases or combustible/flammable materials, refueling pumps and battery charging areas.

32. All compressed gas cylinders shall be properly stored in a proper condition.

33. All flammable or combustible materials shall be properly stored and grounded.

34. There shall be an adequate number of properly located fire extinguishers that are inspected monthly by the occupants of the area.

35. All exit signs shall be properly marked and free of obstructions.

36. All employees shall wear seat belts in vehicles that are so equipped.

37. Whenever two employees are available, one shall assist the other in backing all city vehicles.

## SAFETY RULES AND PROCEDURES FOR FIRE DEPARTMENT

1. All firefighters shall be required to submit to a physical examination on an annual basis.

2. All firefighters shall be properly trained in the performance of their duties prior to being allowed to perform actual fire fighting activities.

3. All firefighters shall be fully trained in the use of personal protective equipment.

4. All firefighters shall wear NFPA approved protective equipment and clothing during training sessions and fire fighting.

5. The SCBA shall be inspected and maintained in accordance with manufacturer's specifications.

6. All firefighters shall wear a self-contained breathing apparatus when entering a potentially hazardous area.

7. Wheel chocks shall be used anywhere except on apparatus floor when provided.

8. The department shall participate in a comprehensive preplanning system in determining hazardous chemicals, explosives and other dangerous materials.

9. Drivers shall be trained in safe defensive/emergency driving techniques.

10. All combat vehicles shall be inspected at the beginning of each shift.

11. All vehicles shall be inspected by a qualified mechanic on at least an annual basis.

12. All firefighters shall comply with NC traffic laws, rules and regulations while operating department vehicles.

13. All drivers shall use proper warning lights and siren when responding to an emergency call.

14. All firefighters shall wear proper personal protective equipment during an emergency response.

15. The department prohibits horseplay while on duty.

16. All firefighters shall be trained in proper lifting techniques and body mechanics and shall not attempt to lift an object where proper lifting techniques cannot be used.

17. Smoke detectors shall be installed adjacent to the sleeping quarters in the fire station.

## SAFETY RULES AND PROCEDURES FOR POLICE DEPARTMENT

1. All candidates for employment as sworn law enforcement personnel shall be administered through a physical examination prior to employment.

2. This pre-employment examination may include a stress type electrocardiogram when deemed necessary by the examining physician and approved by City Officials.

3. All officers shall submit to a physical examination on an annual basis.

4. All officers shall be properly trained and supervised in the safe performance of their duties prior to being allowed to perform routine activities.

5. The department shall have written guidelines that the employee is required to be familiar with pertaining to their scope of operations, i.e. apprehension, search, handcuffing, weapons handling, high speed pursuits, etc.

6. The department prohibits horseplay involving officers while on duty.

7. Officers shall be required to use seat belts or safety harnesses while driving official vehicles routinely.

8. Supervisors shall inspect the officer's vehicles monthly.

9. All vehicles shall be inspected by a qualified mechanic on at least a quarterly basis.

10. The department shall have a policy of transporting shotguns securely in a vehicle.

11. Officers shall be required to qualify with the firearms used and with live ammunition on at least an annual basis.

12. The qualifying exercise shall include night firing.

13. The officer shall be required to use his duty weapon and ammunition while qualifying.

14. Officers shall be provided with bulletproof vests that shall be worn at all times the officer is on duty, except when specifically authorized by the Chief of Police.

15. Officers involved in directing traffic shall be provided with approved reflective vest and/or reflective wands, flares, etc.

16. All police officers shall be trained to respond to the release of hazardous substances in accordance with OSHA 1910.120

## SAFETY RULES AND PROCEDURES FOR MAINTENANCE/GARAGE SHOP

1. An adequate protective cage shall be used when changing split rim tires or filling tires.

2. An adequate exhaust ventilation system shall be installed in areas designated for vehicular repair and used when a vehicle engine is operated for more than 60 seconds.

3. A designated area shall be used for changing automotive type batteries that has a no smoking sign and is clear of all spark-producing devices.

4. Approved safety lights shall be used for drop cords while working under vehicles.

5. All welders shall be properly grounded, located in a dry area, and equipped with properly insulated terminals.

6. Safety devices shall be used to prevent the dump and bodies' falling while maintenance is being performed.

7. All items or materials shall be stacked in a safe manner.

## GENERAL SAFETY RULES AND PROCEDURES FOR SANITATION DEPARTMENT

1. Adequate handrails and foot platforms shall be provided on all sanitation vehicles.

2. All sanitation trucks shall be thoroughly cleaned inside and out at least weekly or more often as per. the Standard Operating Guidelines for the equipment that they operate.

3. Adequate backup alarms shall be installed on all mobile equipment.

4. A standard policy that prohibits employees from mounting or dismounting from a moving vehicle shall be enforced.

5. Trucks can only be stopped in the road for no more than 15 min. for pickups. If more time is needed or there is a sight distance problem flaggers shall be used. Contact your supervisor if you need any help.

6. Sanitation workers shall be provided with animal repellent.

7. Sanitation workers shall be equipped with and required to wear gloves and brightly colored clothing (i.e. reflective vest) that are approved by the department.

8. Sanitation trucks shall keep warning lights flashing during rounds.

9. All drivers and operators are required to follow Standard Operating Guidelines for the equipment that they operate, (see Rules & Procedures for Special equipment).

## STANDARD OPERATING GUIDELINES FOR AUTOMATED COLLECTION TRUCKS

1. Truck driver shall complete vehicle pre-inspection checklist prior to leaving yard.
2. Truck driver to engage hydraulics.
3. Leave yard and go to first site, truck shall not exceed posted speed limit.
4. Truck to stop at first site and turn on safety lights (strobe lights).
5. Operator to visually inspect area for overhead and ground hazards.
6. Dump can.
7. Move to next pickup site.
8. When truck is loaded operator is to go to dump site and dump truck.
9. When cleaning out behind packer blade driver shall cut off truck engine to disable hydraulics.
10. Truck is to be washed inside and out on Tuesday and Friday or the last day it will be operated of each week and before being worked on in the shop.
11. Truck is to be dumped and left full of fuel.

## STANDARD OPERATING GUIDELINES FOR FRONTLOADING COLLECTION TRUCKS

1. Truck driver shall complete vehicle pre-inspection checklist prior to leaving yard.
2. Truck driver to engage hydraulics.
3. Leave yard and go to first site, truck shall not exceed posted speed limit.
4. Truck to stop at first site and activate parking brake and safety lights (strobe lights).
5. Operator to visually inspect area for overhead and ground hazards.
6. Dump dumpster.
7. Move to next pickup site.
8. When truck is loaded operator is to go to dump site and dump truck.
9. When cleaning out behind packer blade driver shall cut off truck engine to disable hydraulics.
10. Truck is to be washed inside and out on Tuesday, Friday or the last day it will be operated of each week and before being worked on.
11. Truck is to be dumped and left full of fuel.

## STANDARD OPERATING GUIDELINES FOR REARLOADER OPERATIONS

1. Truck driver to complete vehicle pre-inspection checklist prior to leaving yard.
2. Leave yard and go to site, truck shall not exceed posted speed limit
3. Truck shall stop at site and activate parking brake and safety lights (strobe lights).
4. Operator to exit truck and go to rear of truck and visually inspect area for overhead and ground hazards. If driver gets out of truck safety cone must be put out.
5. Operator to check communications with truck driver.
6. Truck driver to engage hydraulics.
7. Operator to visually inspect area for overhead and ground hazards.
8. Load cargo and pickup safety cone if it has been put out.
9. Truck shall not to exceed posted speed limit, and never to exceed 20 mph or travel more than 2 city blocks during pickup operation with operator or operator's on back of truck.
10. Move to next pickup site.
11. When truck is loaded operator or operator's to return to truck for trip to dump site.
12. Truck to be dumped on Friday and washed inside and out and left full of fuel.

## STANDARD OPERATING GUIDELINES FOR KNUCKLEBOOM LOADER

1. Truck driver shall complete vehicle pre-inspection checklist prior to leaving yard.
2. Leave yard and go to first site, truck shall not exceed posted speed limit.
3. Truck shall stop at first site and activate parking brake and safety lights (4 way-flashers & strobe lights).
4. Loader Operator to exit truck and enter loader operator's compartment or catwalk.
5. Loader operator to apply safety belts and check communications with truck driver.
6. Truck driver to engage loader hydraulics.
7. Loader operator to visually inspect area for overhead and ground hazards.
8. Loader operator to engage loader hydraulics.
9. Loader operator to activate stabilizers too proper loading position.
10. Load cargo as per Service Bulletin No. 104 on next 2 pages.
11. Return boom to travel position after completing loading operations.
12. Deactivate stabilizers and return to travel position.
13. Loader operator to disengage loader hydraulics and/or speed control.
14. Truck not to exceed posted speed limit, and never to exceed 20 mph or travel more than 2 city blocks during pickup operation with operator in loader operator compartment or catwalk.
15. Move to next pickup site.
16. When trailer is loaded the operator is to exit operator compartment and/or catwalk and return to truck cab for trip to dump site.
17. Truck is to be dumped and left full of fuel.

**SERVICE BULLETIN No. 104**

**October 14, 2005**

**Subject: Safe Operation Procedures for Petersen Lighting Loader ® Grapple Trucks**

**Problem: Improper Stowage of Boom and Bucket for Travel**

It has come to our attention that user/operators of Petersen Grapple Trucks are improperly stowing their boom and bucket for travel. Specifically, they are overloading the dump body, and then traveling with the bucket on top of the load. This is an unsafe practice, and could result in a serious safety hazard.

Petersen's Owner's Manual instructs the user/operator to: 1) load the front of the dump body first; 2) not allow trash to hang over sides or back of dump body; 3) leave room in the dump body to stow the bucket. To remind you of these instructions, we are providing you with the following instructions and illustrations regarding the safe procedure for stowing the boom and bucket for travel.

**It is imperative that your users/operators review this important safety information. Never assume that the users/operators are already aware of these instructions and/or procedures.**

1. The boom and bucket must be stowed inside the dump body below the legal height limit of 13'6" with the boom tip, and at least ½ (one half) of the bucket, below the top of the body sides.

   Failure to follow these instructions could allow the boom to slew (swing) and the bucket to fall outside of the body. Loss of boom control with the bucket outside of the dump body could result in damage to objects in the vicinity of the grapple truck, and/or serious injury or death to people in the vicinity of the grapple truck.

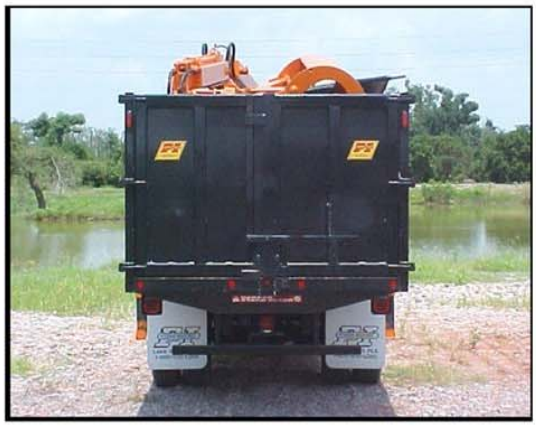
   User/operators should never permit the boom and/of bucket to hang outside of the dump body during travel. The boom and bucket must be stowed as stated above and as illustrated on the attached page, anytime they are not being used for loading or dumping purposes.

2. Do not overload the dump body. The debris loaded into the dump body must be confined within the dump body, and allow room to stow the boom and bucket. It is recommended that you load the dump body from the front (bulkhead) to the rear, thereby allowing room in the rear of the dump body to stow the bucket properly when the operator is finished loading. Peterson recommends deploying the load cover when stowing the bucket for travel. Never allow debris to hang outside of the dump body, as it could create a safety hazard.

## CORRECT METHODS OF STOWING THE BOOM & BUCKET

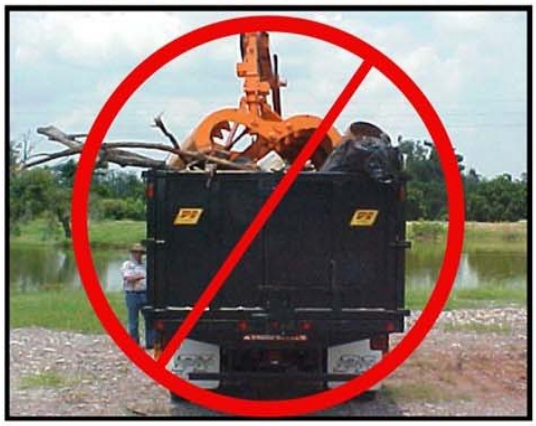
- BUCKET OPEN AND AT REST ON DUMP BODY FLOOR.

NOTE: FOR ILLUSTRATION PURPOSES REAR DUMP BODY DOORS ARE SHOWN OPEN. REAR DUMP BODY DOORS MUST BE CLOSED AND LOCKED EXCEPT WHEN DUMPING THE LOAD

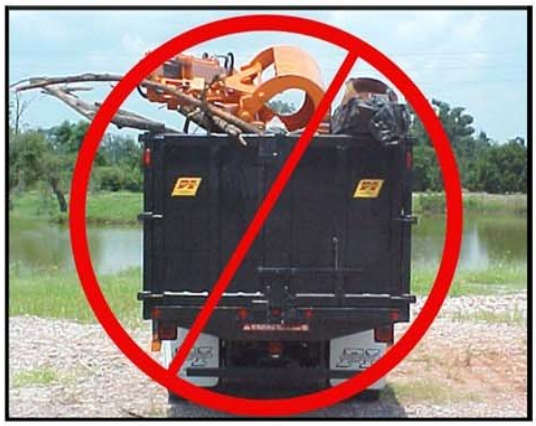


- BUCKET ROLLED OVER WITH JAWS TO RIGHT REAR OF DUMP BODY
- BOOM AT SAFE TRAVEL HEIGHT & BOOM TIP BELOW TOP OF BODY SIDES
- MORE THAN 1/2 OF BUCKET MUST BE BELOW TOP OF BODY SIDES
- LOAD COVER DEPLOYED

## INCORRECT WAYS OF STOWING THE BOOM & BUCKET



- BUCKET NOT CONFINED INSIDE OF DUMP BODY
- DEBRIS HANGING OUTSIDE OF DUMP BODY
- BOOM OVER LEGAL HEIGHT OF 13 FT. 6 IN.



- BOOM OVER LEGAL HEIGHT OF 13 FT. 6 IN.
- BUCKET NOT CONFINED INSIDE OF DUMP BODY
- DEBRIS HANGING OUTSIDE OF DUMP BODY

## SAFETY RULES AND PROCEDURES FOR STREET DEPARTMENT

1. Supervisors shall be provided with and required to use appropriate equipment to determine the amount of toxic or flammable gases in confined underground areas.

2. Management shall follow standard procedures for entering confined spaces and underground areas, as outlined in Confined Space policy.

3. Employees shall be properly trained in the use of detection and preventative maintenance equipment.

4. Supervisors shall ensure that the equipment is used properly.

5. Sides of trenches more than five (5) feet deep shall be properly shored, braced, and sloped.

6. An adequate means of exit shall be provided (ladder) in trenches of four or more feet in depth.

7. All excavated materials shall be stored at least two (2) feet from the trench.

8. Adequate backup alarms shall be installed and in use on all mobile equipment over 3/4 ton.

9. Management shall ensure that all workers are properly trained in the use of their respective equipment.

10. All vehicles shall be equipped with adequate warning lights that are used at the work site location.

11. Employees shall be equipped with and required to wear gloves and brightly colored clothing (i.e. reflective vest) approved by the department.

## SAFETY RULES AND PROCEDURES
## FOR PARKS AND RECREATION DEPARTMENT

1. Comply with rules and regulations established by the North Carolina Department of Health and Natural Resources governing Public Swimming Pools.

2. Comply with chemical hazard control laws and material safety data sheets.

3. Provide written hazard communication program to Fire Department, Rescue Squad and employees that may come in contact with hazardous chemicals.

4. All chemicals shall be properly stored and labeled in a dry location free of petroleum products. Employees shall be properly trained in use of these chemicals.

5. The Chlorine Storage room shall be equipped with an adequate exhaust fan with a switch located outside the room.

6. Personal protective equipment such as gloves, respiratory masks, etc shall be worn when using appropriate chemicals.

7. Employees involved with the use of respiratory protective equipment shall be properly trained and fit tested.

## SAFETY RULES AND PROCEDURES FOR WATER RESOURCES

1. Employees involved with the use of respiratory protective equipment shall be thoroughly trained and fit tested.

2. Respiratory protective equipment shall be inspected and maintained in accordance with the manufacturer's specifications.

3. An entry permit is required to enter all confined spaces; all manholes are confined spaces and breaking the plane is entering the confined space.

4. Equipment shall be provided and maintained to detect flammable or toxic gases and the amount of oxygen in confined areas.

5. All supervisors shall follow up to ensure that the equipment and safety procedures are used.

6. Employees shall be trained in use and maintenance of safety equipment.

7. All toxic, corrosive, caustic materials and chemicals shall be properly stored, handled, and labeled. Employees shall be properly trained in the use of these materials and chemicals.

8. All involved employees shall comply with the Laboratory Chemical Hygiene Plan.

**SAFETY RULES AND PROCEDURES**
**FOR WATER RESOURCES**

Training shall consist of the items listed below. The training includes the review of written programs, hands on demonstrations of knowledge, videos, annual retraining for specific programs, and testing. The purpose of the training is for preventing or minimizing the consequences of accidents and ensuring safe practices.

Accident Investigation
Equipment Grounding
Bloodborne Pathogens
Housekeeping
Compressed air
Laboratory Standard
Confined Space
Power Operated Hand Tools
Lockout Tagout
Electrical Safety
Machine Guarding
Emergency Action Plan
Personal Hygiene
Personal Protective Equipment
Hearing Conservation
CPR/First Aid
Eye Protection
Hot Work
Eyewash/Safety Shower
Proper Lifting
Exotox
Respiratory Protection Program
Fall Prevention
Ladder Use
Safety Policy Manual
Footwear
Scaffolding
Hand Protection
Hazard Communication
Trenching and Shoring
Fire Extinguisher

## SAFETY RULES AND PROCEDURESFOR SPECIAL EQUIPMENT

## (THE BUCKET TRUCK)

1. Truck driver to complete vehicle inspection checklist prior to leaving the yard.
2. Leave yard and go to first site.
3. Truck to stop at first site and activate parking brake and safety lights.
4. Truck driver to engage hydraulics.
5. Operator to activate stabilizers to proper loading position.
6. Operator to enter bucket operator's compartment.
7. Operator to visually inspect area for overhead and ground hazards.
8. Perform task.
9. Return boom to travel position after completing operations.
10. Deactivate stabilizers and return to travel position.
11. Truck driver to disengage hydraulics.
12. Move to next site.

**NOTE:**

* Operator may stay in bucket in a crouched position during transportation if the truck does not exceed 20 mph. while traveling from site to site on a smooth paved surface.

* If truck is to exceed 20 mph. or is off paved surfaces traveling from site to site the bucket operator is to exit the bucket and return to the truck for transportation

# TRAFFIC CONE POLICY

## PURPOSE:

The purpose of this policy is to ensure that city employees driving city-owned vehicles are aware of their surroundings at all times. The risk of injuring an individual and/or damaging property will be reduced if drivers more carefully assess the area around them for potential hazards before operating a vehicle in reverse.

## DEFINITIONS:

(1) The term "vehicle" means a city-owned motor vehicle registered with the North Carolina Division of Motor Vehicles that is equal to or larger than a single axle pickup truck, specifically including by way of illustration and not limitation sport utility vehicles and vans.

(2) The term "pick-up and delivery mode" means a vehicle is making frequent stops as part of a service route or in response to a call for immediate service/assistance from the public. Notwithstanding the preceding sentence, a vehicle will not be deemed to be in "pick-up and delivery mode" as defined by this policy if the driver of the vehicle cannot proceed to the next destination without backing the vehicle. Examples of a vehicle in a "pick-up and delivery mode" include by way of illustration and not limitation water meter readers stopping to read a meter without the possibility of backing up and brush/trash collection without the possibility of backing up.

## PROCEDURE:

When the operator of a vehicle exits the vehicle, a cone shall be placed one foot (1') to two feet (2') behind the left side of the vehicle's rear bumper. Before moving the vehicle, the cone shall be retrieved and the area and vehicle shall be inspected for hazards and/or loose equipment.

Vehicles shall carry at least one (1) thirty-six inch (36") traffic cone in the vehicle. The vehicle operator shall be responsible for ensuring that the vehicle he or she operates is equipped with the required cone, and the driver shall also be responsible for retaining and maintaining in good condition the traffic cone(s) provided for the vehicle.

## EXCEPTIONS:

(1) Unmarked police vehicles are not subject to this policy.

(2) Vehicles parked within the shop doors at Fleet Maintenance are not subject to this policy. This exception is applicable only if the vehicle parked within the shop doors at Fleet Maintenance is backed by a driver who receives the assistance of a second city employee.

# TRAFFIC CONE POLICY

(3) Drivers of vehicles that are otherwise subject to this policy do not have to place a cone in accordance with the above-stated procedure when the vehicle is operating in the following situations:

(a) Responding to a situation involving a potential threat to life or property.
(b) Functioning in the pick up or delivery mode.

**INTERPRETATION:**

If a question pertaining to the interpretation of this policy arises, the question shall be immediately referred to the Safety Coordinator for resolution.

**EFFECTIVE DATE:**

This policy shall take effect and be in force from and after February 1, 2011.

John N. Ogburn, III
City Manager

Jan 3, 2011
Date

# TABLE OF CONTENTS

## Section III Respiratory Protection

### I. GENERAL

### A. Purpose

This document provides information and guidance necessary to ensure that the respiratory protection program of the City of Asheboro is consistent with Occupational Safety and Health Administration (OSHA) standards. This document outlines the minimal acceptable requirements for a respiratory protection program, delineates responsibilities, provides selection criteria in determining respiratory protection needs, and lists currently approved respiratory protective devices used in the City of Asheboro. This document implements the provisions of Title 29, Code of Federal Regulations (CFR), Section 1910.134, Respiratory Protection.

### B. Scope and Responsibility

This document is applicable to all City of Asheboro personnel who are performing duties requiring the use of respiratory protection to prevent unnecessary exposure to airborne concentrations of toxic materials equal to or greater than the permissible limits established in existing Federal, and corporate occupational safety and health standards or criteria.

The Safety Coordinator is responsible for implementation of this respiratory protection program.

### C. Definitions

For the purpose of this bulletin, the following definitions apply:

1. **Approved:** Tested and listed as satisfactory by the National Institute for Occupational Safety and Health (NIOSH), or the Mine Safety and Health Administration (MSHA).

2. **Contaminant:** A harmful, irritating, or nuisance material in concentrations exceeding those normally found in ambient air.

3. **Disinfection:** The destruction of pathogenic organisms, especially by means of chemical substances.

4. **Dusts:** Solid particles, mechanically produced, with a size ranging from submicroscopic to macroscopic.

5. **Emergency:** An unplanned event when a hazardous atmosphere of unknown chemical or particulate concentration suddenly occurs, requiring immediate use of a respirator for escape from or entry into the hazardous atmosphere to carry out maintenance or some other task.

***** This may or may not include cleanup, maintenance, or repair in unknown contaminant concentrations or oxygen deficiency.

6. **Evacuation or escape:** An unplanned event when a hazardous atmosphere of unknown chemical or particulate concentration suddenly occurs, requiring immediate use of a respirator for exiting the area only.

7. **Fumes:** Solid particles generated by condensation from the gaseous state, generally after volatilization from molten metals, with a size usually less than 1 micrometer in diameter.

8. **Gases:** Substances, which are gaseous at ordinary temperatures and pressures.

9. **Immediately dangerous to life or health:** A condition posing an immediate threat to life or health, or an immediate threat of severe exposure to contaminants likely to have adverse delayed effects on health. This condition includes atmospheres where oxygen content by volume is less than 16 percent.

10. **Mists:** Suspended liquid droplets generated by condensation or by breaking up of liquid with a size ranging from submicroscopic to macroscopic.

11. **Oxygen deficient atmosphere:** An atmosphere containing 19.5 percent or less oxygen by volume.

12. **Particulate matter:** A suspension of fine solid or liquid particles or fibers in air, such as dust, fog, fume, mist, smoke or sprays.

13. **Pneumoconiosis-producing dust:** Dust which, when inhaled, deposited, and retained in the lungs, may produce signs, symptoms, and findings of pulmonary disease.

14. **Radon daughters:** Particulate decay products of radon.

15. **Respirator:** An approved safety device designed to provide the wearer with respiratory protection against inhalation of airborne contaminants and for some devices, protection against oxygen-deficient atmospheres.

16. **Respiratory minute volume:** The amount of air inspired per minute.

17. **Shall:** Indicates a requirement that is essential to meet the currently accepted standards of protection or Federal rules and regulations.

18. **Should:** Indicates an advisory recommendation that is to be applied when practicable.

19. **Vapor:** The gaseous state of a substance that is solid or liquid at ordinary temperature and pressure.

## II. THE RESPIRATORY PROTECTION PROGRAM

### A. General Requirements

1. Respirators are considered an acceptable method of protecting the health of City of Asheboro personnel only under the following circumstances:
   (a) When it has been determined to the satisfaction of the Safety Coordinator that there are no feasible engineering or work practice controls that can be used to adequately control the hazard.
   (b) During intermittent, non-routine operations (i.e., not exceeding 1 hour/day for 1 day/week).
   (c) During the interim periods when engineering controls are being designed and/or installed.
   (d) During emergencies.
   (e) Voluntary Usage: It is not the policy of this city to provide respiratory protection if not needed; however, if an employee expresses an absolute need an appropriate respirator will be provided and all provisions of this policy will apply.
2. The department head shall evaluate respiratory hazards, identify locations or areas where respiratory protection is required and provide guidance in the conduct of the respiratory protection program.
3. Personnel in charge of operating activities will ensure that their personnel are provided with approved respirators (without cost to the worker) after the department head has identified the requirement.
4. Individuals provided with respirators shall use them in accordance with instructions and training received (Para B-3).
5. The department head shall conduct regular inspections and evaluations to determine the continued effectiveness of the respiratory protection program.

   The department head shall reevaluate respiratory hazards, as appropriate, to ensure that the respiratory protection provided is adequate.

### B. Minimum Acceptable Respiratory Protection Program

This respiratory protection program requires close liaison among workers, supervisors, safety and medical personnel to safeguard life and health through proper selection and use of respirators. It includes the following elements:

1. Proper selection and use of respirators (para E-3(a)).
2. Respirators shall be selected on the basis of the hazards to which the worker is exposed (para C).
3. The user shall be instructed and trained in the proper use of respirators and their limitations (paras E and F).
4. Where applicable, the respirators will be assigned to individual workers for their exclusive use (para C).
5. Respirators shall be regularly cleaned and disinfected. Those issued for the exclusive use of one worker should be cleaned after each day's use, or more often if necessary. Those used by more than one worker shall be thoroughly cleaned and disinfected after each use (para G-5).
6. Respirators shall be stored in a convenient, clean and sanitary location (para G-7).
7. Respirators used routinely shall be inspected during cleaning. Worn or deteriorated parts shall be replaced. Respirators for emergency use, such as self-contained

devices, shall be thoroughly inspected at least once a month and after each use (para G).

8. Appropriate surveillance of work area conditions and degree of employee exposure or stress shall be maintained (Para I).
9. The continued effectiveness of the program shall be determined by regular inspections and evaluations (Para G-4).
10. Persons shall not be assigned to tasks requiring use of respirators unless it has been determined that they are physically able to perform the work and use the equipment. The local physician shall determine which health and physical conditions are pertinent. The respirator user's medical status shall be reviewed periodically (Para I).
11. Only approved or accepted respirators shall be used. The respirator furnished shall provide adequate respiratory protection against the particular hazard for which it is designed in accordance with standards established by competent authorities.

**C. Selection and Use of Respiratory Protective Devices.**

The correct respirator shall be specified for each job. The department head, on the basis of environmental evaluations and/or requirements set forth in 29 CFR 1910, Subpart Z, for specific substances, shall determine the type of respiratory protective device best suited for the task. The individual issuing the respirators shall be adequately instructed to ensure that the correct respirator is used. Each respirator permanently assigned to an individual shall be durably marked to indicate to whom it was assigned. The mark shall not affect the respirator performance in any way. The date of issuance shall be recorded. Respirator selection and use shall take into account health and safety factors, such as nature of hazard, intended use and limitations of respiratory protective devices, movement and work-rate limitations, emergency escape time and distance requirements, and training requirements. The human factor must also be considered since the effectiveness of the respiratory protection program can largely be determined by the degree of worker acceptance. Worker acceptance of respirators is influenced by comfort; ability to breathe without objectionable resistance; adequate visibility under all conditions; provisions for wearing prescription lenses, if necessary; ability to communicate; ability to perform all tasks without undue interference; confidence in the face piece fit; and convincing evidence that a respirator is necessary and that appropriate action is being taken, where possible, to eliminate the need for respiratory protective equipment.

**D. Classification and Description of Respirators**

Industrial respiratory protective devices have been designed, tested, and approved for protection against specific industrial exposures. These devices are conveniently grouped into two general classifications according to mode of operation.

1. Air-purifying respirators

   (a) Gas masks and chemical cartridges (gases and vapors).

   (b) Particulates (dusts, fog, fume, mist, smoke, and sprays).

   (c) Combination (gas, vapor, and particulate).

2. Atmosphere supplying respirators

   (a) Self-contained.

   (b) Hose-mask.

   (c) Air line.

   (d) Combination self-contained and hose-mask or air line.

**E. Selection and Limitation of Respirators**

1. The degree of respiratory hazard, as it refers to the selection and classification of respirators, depends upon the atmospheric oxygen concentration; contaminant's physical state, toxicity and concentration; the presence of other contaminants or stress factors in the working environment; and worker exposure time and susceptibility. Respiratory hazards may be classified as gas and vapor contaminants (immediately or not immediately dangerous to life or health), particulate contaminants (immediately or not immediately dangerous to life or health), and oxygen deficiencies. Each classification requires a different degree of respiratory protection. Appendix A describes the respiratory protective devices currently in use in The City of Asheboro.

2. The importance of proper respiratory selection is emphasized by the fact that improperly fitted or improperly selected respiratory protective devices or cartridges may provide reduced respiratory protection. In addition, inadequate protection may be provided against eye hazards such as projectiles, ultraviolet, infrared, or intense visible light; or eye irritants (para C). Precautions must be taken also to ensure acceptable air quality (para A-3) so that air supplied to hose-mask, air line, or self-contained respirators is not contaminated with carbon monoxide, oil or other contaminants.
3. Respirator selection and use in atmospheres immediately dangerous to life or health (includes additional personnel requirements).

   (a) If it is probable that atmospheres immediately dangerous to life or health may occur, then both the normally expected inward leakage and the reliability of the respirator shall given full consideration. It is essential that in highly toxic atmospheres, inward leakage, if any, be minimal. In oxygen-deficient atmospheres with no toxic materials, inward leakage is not normally a problem unless the leakage exceeds a few percent.

   (1) In areas where the wearer, with failure of the respirator, could be overcome by a toxic or oxygen-deficient atmosphere, at least one individual person shall be present with suitable rescue equipment in the form of self-contained breathing apparatus and protective clothing. Communications (visual, voice or signal line) shall be maintained between both or all individuals present. Planning shall be such that one individual will be unaffected in any likely incident and have

the proper rescue equipment to be able to assist the other(s) in case of emergency.

(2) When self-contained breathing apparatus are used in atmospheres immediately dangerous to life and health, standby personnel shall be present with suitable rescue equipment.

(b) Air line respirators are not approved for use in immediately dangerous to life and health (IDLH) atmospheres unless an auxiliary self-contained air supply or an air storage receiver with an alarm is also provided because no respiratory protection is provided if the air supply fails. The alarm for the storage receiver should be audible or visual alarm, or combination, that is discernible from other alarms. The alarm(s) should be positioned so that the respirator wearer and/or the standby personnel can recognize the alarm when activated. The alarm should have a mechanism that is tested prior to work in an IDLH atmosphere. If conditions preclude use of the recommended types of respirators, airline respirators may be considered for use, provided an adequate flow of respirable air is maintained and the conditions listed below are met.

(1) Persons using air line respirators in atmospheres immediately dangerous to life or health shall be equipped with safety harnesses and safety lines for lifting or removing persons from hazardous atmospheres or other equivalent provisions for the rescue of persons from hazardous atmospheres shall be used.

(2) Standby personnel with suitable self-contained breathing apparatus shall be located at the nearest fresh air base for emergency rescue.

(3) The air supply hose from a compressor or cylinder air supply will be protected from damage, including cutting, kinking, crushing or burning. In some cases, an armored hose will be used. Hose couplings will be protected against disconnection. Trailing airline hoses shall be arranged to minimize tripping and to permit ready escape.

(4) The cylinder air supply shall meet the requirements specified in paragraph J-3. Oxygen must never be used with airline respirators.

(5) The compressor for supplying air shall conform with the requirements of paragraph K-4.

4. If immediately dangerous atmospheres are not present or cannot occur, the consequences of respirator failure are lessened and emphasis can be placed on other factors such as long-term protection, convenience, cost, comfort, and wearer acceptance. These factors should be weighed against one another since they are not always compatible. However, long-term protection is determined primarily by the amount of inward leakage of atmospheric contaminants during normal usage of the respirator.

5. Other considerations for respirator selection:

(a) **Exposure time:**

(1) Worker time usually determines the length of time for which respiratory protection is needed, including the time necessary to enter and leave a contaminated area. A self-contained breathing apparatus or chemical-cartridge respirator provides respiratory protection for relatively short periods. The hose mask with blower, airline respirator, and other supplied-air respirators provide protection for as long as the face piece is supplied with adequate respirable air. Particulate-filter respirators can provide protection for long periods, without need for filter replacement, only if the atmospheric particulate concentration is low. Therefore, for protracted periods of use, the hose mask with blower and air line respirators offer definite advantages. They also cause less discomfort than air purifying respirators.

(2) Some respirators have a means for indicating the remaining service life. Some type of warning is available for all self-contained breathing apparatus. This may be a pressure gauge, timer, audible or physical alarm. The user should understand the operation and limitations of each type of warning device. Most chemical-cartridge respirators have no indicator of remaining service life. Cartridges should be changed according to the manufacturer's directions or on the basis of breakthrough data, if available. If breathing resistance through the cartridge respirator becomes noticeably greater, or if the odor of the chemical for which the respirator was designed is detected, the cartridges should be changed.

(b) **Activity of wearer:** The work to be covered, work rate, and mobility required of the wearer in carrying out his work should be considered in respirator selection.

(1) Air purifying respirators present minimal interference with the wearer's movements. Supplied air respirators with trailing hoses severely restrict the area the wearer can cover and present a potential hazard where the trailing hose can come in contact with machinery. Self-contained breathing apparatus present a size and weight penalty that may restrict climbing and movement in tight places.

(2) The wearer's work rate determines the respiratory minute volume, maximum inspiratory flow rate, and inhalation and exhalation breathing resistance. The respiratory minute volume is of great significance in self-contained and airline respirators operated from cylinders since it determines their operating life. Useful life under moderate conditions may be one-third that under rest conditions.

(3) Peak airflow rate is important in the use of constant-flow air line equipment. The air-supply rate should be greater than the peak inspiratory flow rate to maintain the respiratory enclosure under positive pressure.

(4) High breathing resistance of air purifying respirators under conditions of heavy work can result in distressed breathing.

(c) **Unusual hazards:** Unique factors, which may add additional dimensions to the hazard potential and must be considered when selecting respirators include, for example, skin absorption of the contaminant, skin irritation, eye irritation, and radiation of skin or whole body.

(d) **Vision:** All facepieces will restrict, to some degree, the wearer's vision. This may increase accident potential. Other problems include wearing of prescription glasses and fogging of the respirator lens (para F-2(c) and (e)(1) below).

(e) **Communications:** Effective speech communication may be required in jobs for which the respirator is being selected. Conventional respirators distort the human voice. The respirator valve usually provides the pathway for some speech transmission over short distances in relatively quiet areas. However, talking can induce facepiece or component leakage and should be limited while wearing the respirator. Mechanical and/or electrical speech transmission devices, which eliminate these problems, are available. Stress resulting from use of respirators should, therefore, be minimized. This can be done by selecting and using respirators having minimum weight and breathing resistance. Supplied-air respirators, hoods and suits having an adequate supply of cool breathing air are recommended. Further information on the use of respirators in high temperatures may be found in "A Fire Officer's Guide to Breathing Apparatus for the Fire Service", published by the National Fire Protection Association (NFPA).

(f) **Low Temperatures:**

(1) Major problems in the use of full-face pieces at low temperatures are poor visibility and freezing of the exhalation valves. All full-face pieces are designed so that the incoming fresh air sweeps over the inside of the lens to reduce fogging. Otherwise, it would be impossible to wear a full-face piece in ordinary room temperatures without severe fogging. Antifog compounds can be used to coat the inside of the lens to prevent fogging at room temperatures and down to temperatures approaching 0 degrees Fahrenheit. However, below 0 degrees Fahrenheit, antifog compounds will not prevent severe fogging.

(2) Full face pieces are available with nose cups that direct moist exhaled air through the exhalation valve. A properly fitting nose cup should provide satisfactory or adequate visibility at temperatures down to 30 degrees Fahrenheit.

(3) At very low temperatures, the exhalation valve may collect moisture and freeze open, or freeze closed, preventing normal exhalation. The Bureau of Mines has published two pamphlets on this subject: "Performance of Open Circuit Self-Contained Breathing Apparatus at Minus 28 Degrees Fahrenheit" and "Low-Temperature Performance of Compressed-Oxygen Closed-Circuit Breathing Apparatus". Dry respirable air will be used with self-contained breathing

apparatus or airline respirators at low temperatures. The dew point of the breathing gas shall be appropriate to the ambient temperature.

(4) High pressure connections on self-contained breathing apparatus may leak because of metal contraction at low temperatures. The connections should not be over tightened since they break when the temperature returns to normal.

(5) Ideally, air supplied to respirators should be warmed to at least 40 degrees Fahrenheit.

(g) **High Temperatures:** A man/woman working in areas of high ambient or radiant temperature is under stress. Any additional stress resulting from use of respirators should, therefore, be minimized. Selecting and using respirators having minimum weight and breathing resistance can do this. Supplied air respirators hoods, and suits having an adequate supply of cool breathing air is recommended. Further information on the use of respirators in high temperatures may be found in " A Fire Officer's Guide to Breathing Apparatus for the Fire Service", published by the National Fire Protection Association (NFPA).

**F. Training, Face-Fit and Leak-Testing**

The Safety Coordinator will ensure that personnel required to use or to supervise other personnel using respiratory protective devices are provided training as outlined in paragraph (1) on following page.

1. **Training:** Unless the reasons for the use of respiratory protective devices and instructions on proper selection, use and maintenance are thoroughly understood, and ongoing training provided, the devices may not be used or may not work properly. Both supervisors and workers shall be instructed by competent persons knowledgeable in the area of respiratory protection. Training shall provide individuals an opportunity to handle the respirator, have it fitted properly, test its facepiece-to-face seal, wear it in normal air for a long familiarity period, and finally wear it in a test atmosphere. Minimum training shall include:

(a) Instruction in the nature of the hazard, whether acute, chronic, or both, and a frank appraisal of what may happen if the respirator is not used.

(b) Explanation of why more positive engineering or process-oriented controls are not immediately feasible to reduce or eliminate the need for respirators.

(c) A discussion of why this is the proper type of respirator for the purpose.

(d) A discussion of the respirator's capabilities and limitations.

(e) Periodic instruction and training in actual use of the respirator (preferably annually for emergency use respirators). Training should also include recognition of the end of the service life of cartridges/canisters or filters (e.g., smelling organic vapor through the canister/cartridge, manufacture specified termination date, or an increase in breathing resistance).

(f) Classroom and field training to recognize and cope with emergency situations.

(g) Detailed instructions on cleaning and maintenance of the respirators (para G).

(h) Any special training required for unique uses.

2. **Face-fit and leak-testing:** Every respirator wearer shall receive fitting instructions including demonstrations and practice in how the respirator should be worn, how to adjust it, and how to determine if it fits properly.

(a) Respirators are generally uncomfortable to wear. If a good facepiece-to-face seal can be obtained only by very tight strap tension, the respirator shall not be worn for prolonged periods and its use shall be avoided. Even though maximum breathing resistance is specified by NIOSH, there are differences among approved respirators and one type may be more suitable to the worker than another. Facial structure varies considerably from one individual to another, and since a given respirator is usually made in only one size, a successful fit cannot always be achieved for all persons. Different sizes of the same model or different models of approved respirators may have to be obtained to provide employees adequate respiratory protection.

(b) Before initial use, each respirator shall be properly fitted, leakage tests performed, and the facepiece-to-face seal tested in a realistic test situation. Records of fit tests shall be maintained. These records shall, as a minimum, contain date of fit test, name of employee, make, model and size of the respirator tested and the results of the test. This test is not required when replacement respirators from the same manufacturer and the same size are obtained ((g) below).

(c) Proper fitting of respiratory protective devices for individuals wearing corrective spectacles or goggles is a problem. A proper seal cannot be established if the temple bars or straps extend through the sealing edge of the facepiece. As a temporary measure, spectacles with short temple bars or without temple bars may be taped to the wearer's head. If a spectacle, goggle, face shield, or welding helmet must be worn with a facepiece, it shall be worn so as not to adversely affect the seal of the facepiece-to-face. Systems or kits for mounting corrective lenses inside full facepieces can be purchased with the facepiece. When a workman must wear corrective lenses as part of the facepiece, the facepiece and lenses shall be fitted by qualified individuals to provide good vision, comfort and a gas-tight seal.

(d) Each time the wearer puts on the respirator, positive and negative pressure tests shall be conducted to ensure a satisfactory face fit. Respirators shall not be worn nor will workers be permitted to perform tasks that require respiratory protection when conditions such as growth of beard, sideburns, a skullcap that projects under the facepiece, temple pieces on corrective spectacles or goggles, or the absence of one or both dentures prevent a good facepiece-to-face seal. When a specific model or type of respirator is first issued, proper facepiece-to-face seal shall be demonstrated by having the user wear the respirator in a realistic test atmosphere (e below).

(1) **Positive pressure test:** Close the exhalation valve and exhale gently into the facepiece. The face fit is considered satisfactory if a slight positive pressure can be built up inside the facepiece without any evidence of outward leakage of air at the seal. For most respirators, this method of leak testing requires the wearer to first remove the exhalant valve cover and then carefully replace it after the test.

(2) **Negative pressure test:** Close off the inlet opening of the canister or cartridge(s) by covering with the palm of the hand(s), inhaling gently so that the facepiece collapses slightly, and hold the breath for 10 seconds. If the facepiece remains in its slightly collapsed condition, and no inward leakage of air is detected, the tightness of the respirator is considered satisfactory.

(e) The iso-amyl acetate (banana oil; NSN 6810-00-174-6604) vapor test is used principally for testing the facepiece seal of chemical-cartridge/canister respirators. The facepiece-to-face seal of particulate-filter respirators may be tested by adapting organic vapor cartridges/canisters to the respirator, or by attaching a bag to the facepiece so as to enclose both inhalant and exhalant valves. An iso-amyl acetate vapor concentration of approximately 100 ppm can be prepared in a vacant room, a special chamber, box, or bag, without damage to its contents or the enclosure by evaporating three drops of iso-amyl acetate from an eyedropper for each 100 cubic feet of space. The face fit is considered satisfactory if the wearer can enter and remain in the test atmosphere for a minute or two without detecting the odor of iso-amyl acetate. If detected, the wearer should retreat to uncontaminated air, check the respirator, and readjust the face fit, then re-enter the test atmosphere. Field tests may be conducted by moving a cotton swab containing one or two drops of iso-amyl acetate around the periphery of the facepiece while the worker breathes normally. If the odor of iso-amyl acetate is detected, the wearer should check the respirator, readjust the face fit, and repeat the test. In either case above, if leakage is still noted, the particular respirator will not adequately protect the wearer.

(f) Quantitative fit testing of respirators is required by OSHA for selected contaminants (refer to 29 CFR 1910). These systems generate atmospheres of some test substance and continuously monitor the internal (inside mask) and external conditions so that accurate protection factors can be determined. Quantitative fit testing is the preferred method for all negative pressure respirator device fit testing.

(g) Local records of respirator training, face-fit and leak-testing shall be kept for at least the duration of employment or as specified by specific contaminant exposure (refer to 29 CFR 1910). These records shall include the following minimal information:

(1) Name, social security number, (or other identifying worker number).

(2) Job title.

(3) Department, work location, supervisor's name.

(4) Date of training or testing.

(5) Date of medical evaluation.

(6) Type of respirator used.

(7) Success or failure of person to obtain satisfactory fit if a quantitative fitting test was performed.

(8) Respirator protection factor based upon test results if a quantitative fitting test was performed.

(9) Name of person performing the training or testing.

(10)The presence of facial hair, long hair or side burns, etc.

(11)Wearer's need for glasses or other protection.

(12)Other pertinent information.

Records should be identified to allow for cross-referencing with worker contamination exposure data.

Appendix B contains the training "Respiratory Protective Devices Training Certification" form which will be completed and signed by both the instructor and trainee after completion of the training program. Appendix C contains the qualitative and quantitative fit testing protocol and fit testing record. The fit testing record shall be completed and signed by both the person performing the fit test protocol and by the employee being tested.

**G. Maintenance and Care of Respirators**

When respirators are issued to individuals, the individual is responsible for primary maintenance and care of his/her respirator. Where respirators are used collectively or kept ready for emergencies, the supervisor is responsible for establishing a respirator maintenance and cleaning program. This program shall be adjusted for the number of types of respirators in use, working conditions and hazards involved, and shall include the basic services: inspection for defects (including a leak check),

cleaning and disinfecting, repair and storage. Equipment shall be properly maintained to retain its original effectiveness.

1. All respirators shall be inspected routinely before and after each use. A respirator that is not routinely used but kept ready for emergency use shall be inspected after each use and at least monthly to assure that it is in satisfactory working condition.

2. Self-contained breathing apparatus shall be inspected monthly. Air and oxygen cylinders shall be fully charged according to the manufacturer's instructions. It shall be determined that the regular and warning devices function properly.

3. Respirator inspection shall include a check of the tightness of connections and the condition of the facepiece, headbands, valves, connecting tube, and canisters. Rubber or elastomer parts shall be inspected for pliability and signs of deterioration. Stretching and manipulating rubber or elastomer parts with a massaging action will keep them pliable and flexible, and prevent them from hardening or stiffening during storage.

4. The user shall keep a record of inspection dates, findings, and corrective actions for respirators maintained for emergency use.

5. Respirators issued to specific individuals shall be collected, cleaned and disinfected as frequently as necessary to ensure that skin-penetrating and dermatitis-causing contaminants are removed from respirator surfaces. Respirators maintained for emergency use or used by more than one person shall be cleaned and disinfected after each use.

(a) The following procedure is recommended for cleaning and disinfecting respirators:

(1) Remove any filters, cartridges, or canisters.

(2) Wash facepiece and breathing tube in a cleaner-disinfectant solution. A brush may be used to facilitate dirt removal.

(3) Rinse completely in clean, warm water.

(4) Air dry in a clean area.

(5) Clean other respirator parts as recommended by the manufacturer.

(6) Inspect valves, head straps, and other parts; replace defective parts with new ones.

(7) Insert new filters, cartridges, or canisters periodically as specified by the manufacturer; make sure seal is tight.

(8) Place in plastic bag or other closed container for storage.

(b) Cleaner-disinfectant solution may be commercially prepared solutions; which are followed by a clean, warm-water rinse and air dried; or respirators may be washed in a liquid detergent solution. After washing, additional disinfection may, if desired, be provided by dipping the mask in one of the following disinfectant solutions, followed by rinsing and air drying:

(1) Hypochlorite solution (50 ppm chlorine) for 2 minutes.

(2) Aqueous iodine solution (50 ppm iodine) for 2 minutes.

(c) Hypochlorite and iodine solutions or iodine compounds can damage respirator parts by aging rubber and corroding metal parts if immersion times are extended. Solvents (except as prescribed in (d) below), temperatures above 185 Fahrenheit, and vigorous mechanical agitation should be avoided.

(d) Respirators contaminated with organic phosphate pesticides should be decontaminated by an alkaline soap wash and 50 percent isopropyl or ethyl alcohol rinse followed by normal cleaning procedures.

6. Replacement or repair shall be done only by experienced persons using parts designed for the respirators. No attempt shall be made to replace components or to make adjustments or repairs beyond the manufacturer's recommendations. Reduction or admission valves or regulators shall be returned to the manufacturer or to a trained technician for adjustment or repair.

7. Respirator storage shall be as follows:

(a) After inspection, cleaning, and necessary repair, respirators shall be stored to protect against dust, sunlight, heat, extreme cold, excessive moisture, or damaging chemicals and other contaminants. Respirators placed at stations and work areas for emergency use should be stored in compartments built for that purpose, clearly marked to indicate the content, and must be quickly accessible at all times. Routinely used respirators, such as dust respirators, may be placed in plastic bags. Respirators should not be stored in such places as lockers or toolboxes unless they are in containers or cartons.

(b) Respirators shall be packed or stored so the facepiece and exhalation valve will not be damaged by being subjected to crushing or cramming.

(c) Instructions for proper storage of emergency respirators, such as gas masks and self-contained breathing apparatus, are found in "use and care" instructions usually mounted inside the carrying case lid.

**H. Routine Inspections**

1. Respiratory protection is no better than the respirator in use, even though it is worn conscientiously. Frequent random inspections shall be conducted by supervisors to assure that respirators are properly selected, used, cleaned and maintained.

2. Respirators used routinely will be inspected during cleaning. Experienced personnel shall replace worn or deteriorated parts with parts designed for the respirator. No attempt shall be made to replace components or to make adjustments or repairs beyond the manufacturer's recommendations. Reducing admission valves or regulators shall be returned to the manufacturer or to a trained technician for adjustment or repair. Respirators for emergency use, such as self-contained devices, shall be thoroughly inspected at least once a month and after each use, and a written record kept of inspection dates and findings.

## I. Medical Evaluation of Worker for Respirator Use

Workers shall not be assigned to tasks requiring the use of respirators unless it has been determined by medical evaluation that they are physically and psychologically able to perform their work while wearing the prescribed respiratory protection. The elements of this medical evaluation shall be the responsibility of the city's physician and may consist of pulmonary function screening, which may including the determination of the forced expiratory volume in 1 second (FEV1) and the forced vital capacity (FVC). It may also include other procedures, such as tests of the cardiovascular and respiratory systems, which the medical examiner considers useful in evaluating the ability to use the respirators.

Appendix D contains the *Medical Questionnaire & Evaluation for Respirator Use* form which must be completed. This form must be reviewed and signed by the city physician.

## J. Air Quality

Compressed air, compressed oxygen, liquid air and liquid oxygen used for respiration shall be of high purity.

1. Cylinders shall be tested and maintained as prescribed in the Shipping Container Specifications of the Department of Transportation (49 CFR 178).

2. Oxygen shall meet the requirements of the United States Pharmacopoeia for medical or breathing oxygen: Oxygen at least 99 percent, carbon dioxide less than 300 ppm, carbon monoxide less than 10 ppm, and nitric oxide and nitrogen dioxide less than 5 ppm. Compressed oxygen shall not be used in supplied air respirators or in open circuit self-contained breathing apparatuses that have previously used compressed air. Oxygen must never be used with airline respirators.

3. Breathing air for respirators may be supplied from cylinders or air compressors. It shall meet at least the requirements of the specification for grade D breathing air as defined in American National Standards Institute (ANSI) Standard Z86.1; Compressed Gas Association (CGA) Specification G-7.1, viz.: oxygen 19.5-23.5 percent, hydrocarbons (condensed) less than 5 $mg/m^3$ , carbon monoxide less than 10 ppm, and carbon dioxide less than 1000 ppm.

4. The compressor for supplying breathing air shall be equipped with necessary safety and standby devices as stated below. Compressors shall be constructed and situated so as to avoid entry of contaminated air into the system. Suitable in-line air purifying sorbet beds and filters shall be installed and maintained to further assure breathing air quality. An air storage receiver of sufficient capacity to enable the respirator wearer to escape from a contaminated atmosphere in event of a compressor failure, and alarms to indicate compressor failure and/or overheating shall be installed into the systems. When feasible, oil-free compressors should be procured when obtaining additional or replacing existing compressors used for supplying breathing air. If an oil-lubricated compressor is used, it shall have a high-temperature or carbon monoxide alarm, or both. If only a high-temperature alarm is used, the air from the compressor should be tested for carbon monoxide at least monthly, or more frequently as indicated, to ensure that it meets air quality specifications. The appropriate supervisory personnel should maintain accurate records of these test results.

5. Air line couplings shall be incompatible with outlets for other gas systems to prevent inadvertent servicing of airline respirators with nonrespirable gases or oxygen.

6. Breathing gas containers shall be marked in accordance with American National Standard Method of Marking Portable Compressed Gas Containers to Identify the Material Contained, Z48.1-1954; Federal Specification BB-A-1034a, June 21, 1968; Air, Compressed for Breathing Purposes; or Interim Federal Specification GG-B-00675b, April 27, 1965, Breathing Apparatus, Self-Contained.

# Blood borne Pathogens

## Exposure Control Plan

## CITY OF ASHEBORO

11/29/2011

# Table of Contents

## Exposure Control Plan (ECP) for Blood borne Pathogens

### Purpose

CITY OF ASHEBORO is committed to providing a safe and healthy work environment for our entire staff. In pursuit of this endeavor, the following exposure control plan (ECP) is provided to eliminate or minimize occupational exposure to blood borne pathogens in accordance with OSHA standard 29 CFR 1910.1030, "Occupational Exposure to Blood borne Pathogens."

The ECP is a key document to assist The City of Asheboro in implementing and ensuring compliance with the standard, thereby protecting our employees. This ECP includes:

- Determination of employee exposure;
- Implementation of various methods of exposure control, including:
  - Universal precautions,
  - Engineering and work practice controls,
  - Personal protective equipment, and
  - Housekeeping
- Hepatitis B vaccination;
- Post-exposure evaluation and follow-up;
- Communication of hazards to employees and training;
- Recordkeeping; and
- Procedures for evaluating circumstances surrounding an exposure incident.

The methods of implementation of these elements of the standard are discussed in the subsequent pages of this ECP.

### Administrative Duties

The City Nurse and Safety Coordinator are responsible for the implementation of the ECP. City Nurse and Safety Coordinator will maintain, review, and update the ECP at least annually, and whenever necessary to include new or modified tasks and procedures.

Those employees who are determined to have occupational exposure to blood or other potentially infectious materials (OPIM) must comply with the procedures and work practices outlined in this ECP.

City of Asheboro will maintain and provide all necessary personal protective equipment (PPE), engineering controls (e.g., sharps containers), labels, and red bags as required by

the standard. The City of Asheboro will ensure that adequate supplies of the aforementioned equipment are available in the appropriate sizes.

The City Nurse will be responsible for ensuring that all medical actions required are performed and that appropriate employee health records are maintained. .

The Safety Coordinator will be responsible for training, documentation of training, and making the written ECP available to employees, OSHA, and NIOSH representatives.

**Employee Exposure Determination**

The following is a list of job classifications in which some employees at our establishment have occupational exposure. Included is a list of tasks and procedures, or groups of closely related tasks and procedures, in which occupational exposure may occur for these individuals:

All personnel subject to the City of Asheboro Personnel Policies and Procedures manual are covered by the standard. How the provisions of the standard will be met for these personnel is described in this ECP, if applicable.

***Human Resources***
***The City Nurse& First Aid Certified Employees***

| ***Tasks*** | ***Protection Barrier*** |
|---|---|
| ***CPR*** | ***Resuscitation Mask*** |
| ***First Aid*** | ***Gloves*** |
| ***Vaccinations*** | ***Gloves*** |
| ***Drawing Fluids*** | ***Gloves*** |

***Facilities Maintenance Department***
***All Employees***

| ***Tasks*** | ***Protective Barrier*** |
|---|---|
| ***CPR*** | ***Resuscitation Mask*** |
| ***First Aid*** | ***Gloves*** |

***Fire Department***
***All Employees***

| ***Tasks*** | ***Protection Barrier*** |
|---|---|
| ***CPR*** | ***Resuscitation Mask*** |
| ***First Aid*** | ***Gloves*** |

***Police Department***
***All Employees***

| ***Tasks*** | ***Protection Barrier*** |
|---|---|
| ***Restraining suspects*** | ***Gloves - if blood visible*** |
| ***First Aid*** | ***Gloves*** |
| ***Accident/Crime Scene Investigation*** | ***Gloves, and/or masks*** |

***Cultural & Recreation***
***All employees***

| ***Tasks*** | ***Protection Barrier*** |
|---|---|
| ***First Aid*** | ***Gloves*** |
| ***CPR*** | ***Resuscitation Mask*** |

***Public Utilities***

***Operations, Environmental Service, Fleet Maintenance, Street, Water & Sewer Maintenance***

| ***Tasks*** | ***Protection Barrier*** |
|---|---|
| ***CPR*** | ***Resuscitation Mask*** |
| ***First Aid*** | ***Gloves*** |
| ***Sewer Line Maintenance*** | ***Gloves, Masks, Protective eyewear,*** |
| ***Pump Station Maintenance*** | ***Gloves, Protective Masks*** |

***Environmental Services***

| ***Tasks*** | ***Protection Barrier*** |
|---|---|
| ***Refuse Collection*** | ***Gloves (special), Protective eyewear*** |

***Water Resources***
***All Employees***

| ***Tasks*** | ***Protection Barrier*** |
|---|---|
| ***CPR*** | ***Resuscitation Mask,*** |
| ***First Aid*** | ***Gloves*** |
| ***Sewer Line Maintenance*** | ***Gloves, Masks*** |
| ***Pump Station Maintenance*** | ***Protective eyewear*** |
| ***Lab/Chemist Procedures*** | ***Protective Gloves, Masks*** |

**Methods of Implementation and Control**

**Universal Precautions**

All employees will utilize universal precautions, treating all potential infectious material as though it is truly infectious.

**Exposure Control Plan**

Employees covered by the blood borne pathogens standard receive an explanation of this ECP during their initial training session. It will also be reviewed in their annual refresher training. All employees have an opportunity to review this plan at any time by reviewing the City of Asheboro Safety Manual located in their department and available on-line at The City of Asheboro web site under the Human Resources Department.

The City Nurse and Safety Coordinator, in conjunction with the Safety Committee are responsible for reviewing and updating the ECP annually or more frequently if necessary to reflect any new or modified tasks and procedures that affect occupational exposure and to reflect new or revised employee positions with occupational exposure.

The review and update of such plans must also:

- Reflect changes in technology that eliminate or reduce exposure to blood borne pathogens; and

- Document annually consideration and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.

**Engineering and Work Practice Controls:**

Universal precautions shall be observed by all employees to prevent contact with blood or other potential infectious materials (OPIM). Engineering and work practice controls shall be utilized to eliminate or minimize workplace exposures. Where the potential for occupational exposures remains after implementation of these controls, personal protective equipment should also be provided.

**Hand Washing Guidelines:**

Hand washing should be done frequently by employees and shall be required (i.e. after use of toilet and after contact with any body fluids, etc.) The best method of hand washing involves the use of soap and water. Where soap and water are not available, waterless antiseptic cleanser or antiseptic towelettes may be used. Hand washing is the single most important means of preventing the spread of infection. Wash Hands as follows.

- Wash any exposed skin with antibacterial soap immediately after exposure.
- While scrubbing, be gentle with any scabs or sores.
- Wash all surfaces including back of hands, wrist, between fingers, and under fingernails.
- Wash hands immediately after removing gloves or other personal protective equipment.
- Dry hands thoroughly with a paper towel and dispose in appropriate container.

**Disposable Glove Guidelines:**

Disposable gloves shall be worn if the employee has a cut or open lesion on the hands or where there may be contact with body fluids or infectious materials.

When removing protective gloves after they have been contaminated, use the following procedure for safe removal.

- With your gloved dominant hand, grasp the other gloved hand at the wrist or palm and pull away from the hand.
- Pull the glove the rest of the way off.
- Holding the removed glove balled up in the palm of your gloved hand , insert two fingers of your non-dominant hand under the cuff of the remaining glove.
- Remove the glove by stretching it up and away from the hand and turning it inside out as you pull it off.
- Dispose of glove in a biohazard container.

**Other Precautionary Guidelines**

All cuts and open wounds shall be covered following basic First Aid procedures. Protective coverings, bandages, etc. shall be worn by all employees who may have an "occupational exposure." Others should not share disposable items. Disinfectants may be utilized where hand washing is impractical. Hand soap and disposable towels, tissue or gloves shall be available to employees who may have an occupational exposure to blood or other potentially infectious materials. Soiled surfaces with blood or other potentially infectious material shall be promptly cleaned with disinfectant .All items used in cleaning (i.e. rags; sponges, etc.) are to be properly disposed of after each use. Vehicle or equipment seats shall be wiped with a disinfectant after seats are soiled by participant.

**Procedure for Cleaning up Body Fluid Spills:**

Wear disposable gloves, which should be discarded following cleanup. Clean and disinfect soiled area immediately using paper towels, soap and water. Disinfect area with a 10% bleach solution (about 1- 3/4 cup of household bleach to 1 gallon of water). Clothing soaked with another's blood or body fluids should be isolated and washed separate from other clothing. Following an exposure to blood or other potential infectious materials, visibly contaminated paper towels and disposable gloves should be placed in a red plastic bag, secured and disposed of in a designated regulated waste disposal site for removal by the City of Asheboro's designated vendor.

**Procedure for the Cleaning of Equipment and Facilities:**

Housekeeping workers should wear appropriate personal protective equipment including general-purpose utility gloves during all cleaning of blood or other potential infectious materials during decontamination procedures. Initial clean up of blood or other potential infectious materials should be followed with the use of approved disinfectant germicidal spray or 10% bleach solution. All materials used in clean up must be disposed of properly.

Sharps disposal containers are to be inspected and maintained or replaced by The Safety Coordinator every 3 months or whenever necessary to prevent overfilling.

The City of Asheboro identifies the need for changes in engineering control and work practices through consultation with staff. The need for new procedures or new products is to be reviewed and evaluated in consultation with the Safety Committee.

The Safety Coordinator will ensure effective implementation of these recommendations.

**Personal Protective Equipment (PPE)**

PPE is provided to each of our employees at no cost. Training is provided by Safety Coordinator or competent person in the use of the appropriate PPE for the tasks or procedures employees will perform.

The types of PPE available to employees are as follows:

- Gloves
- Eye Protection, Safety Glasses, Goggles or Face Shields
- Respirator Masks
- Lab Aprons, Jump Suits, Tyvek Suits.

PPE is located at each facility and may be obtained through the department head or their designee.

Each employee using PPE must observe the following precautions:

- Never use damaged PPE.
- Never take contaminated PPE home.
- Always clean or dispose of contaminated PPE following previous guidelines.

**Housekeeping**

Regulated waste is placed in containers that are closable, constructed to contain all contents and prevent leakage, appropriately labeled or color-coded (see Labels section), and closed prior to removal to prevent spillage or protrusion of contents during handling.

Contaminated sharps are discarded immediately or as soon as possible in containers that are closable, puncture-resistant, leak proof on sides and bottoms, and labeled or color-coded appropriately. Sharps disposal containers are available in all departments.

Bins and pails (e.g., wash or emesis basins) are cleaned and decontaminated as soon as feasible after visible contamination.

Broken glassware that may be contaminated is picked up using mechanical means, such as a brush and dustpan.

**Laundry Procedure**

Laundry contaminated with blood or OPIM will be handled as little as possible. Such laundry will be placed in appropriately marked bags (biohazard labeled or color-coded red)

Laundering will be performed by their departments contracted services.

The following laundering requirements must be met: If an offsite facility is used to clean contaminated laundry and Universal Precautions are not used by the facility, contaminated laundry must be placed in bags or containers that are labeled or color coded.

**Labels**

The Department designee will ensure warning labels are affixed or red bags are used as required if regulated waste or contaminated equipment is brought into the facility. Employees are to notify the Safety Coordinator if they discover regulated waste containers containing blood or OPIM, contaminated equipment, etc., without proper labels.

**Hepatitis B Vaccination**

The City Nurse will provide training to employees on hepatitis B vaccinations, addressing the safety, benefits, efficacy, methods of administration, and availability.

The hepatitis B vaccination series is available at no cost after training and within 10 days of initial assignment to employees identified in the exposure determination section of this plan. Vaccination is encouraged unless:

1. Documentation exists that the employee has previously received the series,

2. Antibody testing reveals that the employee is immune, or

3. Medical evaluation shows that vaccination is contraindicated.

However, if an employee chooses to decline vaccination, the employee must sign a declination form. Employees who decline may request and obtain the vaccination at a later date at no cost. Documentation of refusal of the vaccination is kept at Medical Office.

Vaccination will be provided by The City Nurse at The Health Clinic.

## City of Asheboro

**Hepatitis B Vaccine Declination (Mandatory)**

I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no charge to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

**Signed:** _____ *(employee signature)*

**Date:** _____

**Emergency Exposure Procedure**

Should an exposure incident occur, the employee shall contact their immediate supervisor and be sent to the "Randolph Hospital Emergency Room" without necessary delay. Supervisor needs to contact City Nurse or Safety Coordinator.

1. Administer first aid (Wash wound , or exposed skin or mucous membranes)
2. Notify immediate supervisor.
3. Document and if possible secure source information or material.
4. Proceed to Randolph Hospital Emergency Room for evaluation and baseline testing following their exposure guidelines. Decide after evaluation there with the doctor if taking medication to prevent HIV is indicated or if getting Hepatitis B immune globulin is indicated.
5. Workers Comp drug testing will be performed at Randolph Hospital.
6. Visit for review of hospital labs and follow up labs at White Oak Urgent Care in Asheboro. Decide with that provider about the schedule of test to be done, and review if Hepatitis B vaccination is indicated.(Usually retesting at 2 months, 6 months and perhaps 12 months is recommended.)
7. Schedule follow up review of incident and additional training with City Safety Coordinator.

**Post-Exposure Evaluation and Follow-up**

Following a report of an exposure incident, the City Nurse shall ensure that the exposed employee has a confidential medical evaluation and follow-up, including at least the following elements:

- Documentation of the route(s) of exposure, and the circumstances under which the exposure incident occurred;
- Identification and documentation of the source individual, unless the employer can establish that identification is infeasible or prohibited by state or local law;

  The source individual's blood shall be tested as soon as feasible and after consent is obtained in order to determine HBV and HIV infectivity. If consent is not obtained, the employer shall establish that legally required consent cannot be obtained. When the source individual's consent is not required by law, the source individual's blood shall be tested and the results documented.

  When the source individual is already known to be infected with HBV or HIV, testing for the source individual's known HBV or HIV status need not to be repeated.

  Results of the source individual's testing shall be made available to the exposed employee, and the employee shall be informed of applicable laws and regulations

concerning disclosures of the identity and infectious status of the source individual.

- Collection and testing of blood for HBV and HIV serological status;

  The exposed employee's blood shall be collected as soon as feasible and tested after consent is obtained.

  If the employee consents to baseline blood collection, but does not give consent at that time for HIV serologic testing, the sample shall be preserved for at least 90 days. If, within 90 days of the exposure incident, the employee elects to have the baseline sample tested, such testing shall be done as soon as feasible.

- Post-exposure prophylaxis, when medically indicated, as recommended by the US Public Health Service;
- Counseling; and
- Evaluation of reported illnesses.

**Information Provided to the Healthcare Professional.**

The City Nurse shall ensure that the healthcare professional responsible for the employee's Hepatitis B vaccination is provided a copy of this regulation, and shall ensure that the healthcare professional evaluating an employee after an exposure incident is provided the following information:

- A copy of this regulation;
- A description of the exposed employee's duties as they relate to the exposure incident.
- Documentation of the route(s) of the exposure and the circumstances under which the exposure occurred:
- Results of the source individual's blood testing, if available; and
- All medical records relevant to the appropriate treatment of the employee including vaccination status which are the employer's responsibility to maintain.

**Healthcare Professional's Written Opinion**

The employer shall obtain and provide the employee with a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation.

The healthcare professional's written opinion for Hepatitis B vaccination shall be limited to:

- Whether Hepatitis B vaccination is indicated for an employee,
- If the employee has received such vaccination.

The healthcare professional's written opinion for post-exposure evaluation and follow-up shall be limited to the following information:

- That the employee has been informed of the results of the evaluation; and
- That the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.

All other findings or diagnoses shall remain confidential and shall not be included in the written report.

**Procedures for Evaluating the Circumstances Surrounding an Exposure Incident**

The City Nurse and Safety Coordinator with guidance from the Safety Committee will review the circumstances of all exposure incidents to determine if any new methods of protection or technology improvements are needed.

If it is determined that revisions need to be made, The City Nurse / Safety Coordinator will ensure that appropriate changes are made to this ECP. Changes include: Evaluation of safer devices, adding employees to the exposure list.

**Employee Training**

Each employee who has an occupational exposure to blood borne pathogens shall receive training conducted by the Safety Coordinator, or Instructor(s) that meets these guidelines:

- Certification by the National Safety Council or equivalent.
- Includes training on the epidemiology, systems, and transmission of blood borne diseases.
- Covers the City of Asheboro's Exposure Control Plan

Training materials are available at the Human Resources Department or Employee Health Clinic.

**Recordkeeping**

*Training Records*

Training records are completed for each employee upon completion of training. These documents will be kept at Human Resources Department.

The training records include:

Dates of Training Sessions
Summary of training Instructor Qualification
Signatures of Attendees

**Medical Records**

Medical records are maintained for each employee with occupational exposure in accordance with 29 CFR 1910.1030, "Access to Employee Exposure and Medical Records."

The City Nurse is responsible for maintenance of the required medical records. These confidential records are kept at the Medical Department for at least the duration of employment plus 30 years.

**OSHA Recordkeeping**

An exposure incident is evaluated to determine if the case meets OSHA's Recordkeeping Requirements (29 CFR 1904). This determination and the recording activities are done by The City Nurse and Safety Coordinator.

**Sharps Injury Log**

The City Nurse establishes and maintains a sharps injury log to record percutaneous injuries from contaminated sharps. The information in the sharps injury log is recorded and maintained. This protects the confidentiality of the injured employee. Our sharps injury log contains:

Type of device involved in incident:
Department where exposure occurred:
Description of Incident:

Logs are maintained by the City of Asheboro.

- **Definitions:**

**Blood borne Pathogens-** means pathogenic microorganism that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

**Contaminated** – means the presence of the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

**Exposure Incident (or significant exposure)** – means a specific eye, mouth, or other mucous membrane, non-intact skin, or Parenteral contact with blood or other potentially infectious materials that result from performance of an employee's duty.

**HBC** – Hepatitis C virus

**HBV** - Hepatitis B virus

**Hepatitis B Titer** – a blood test used to determine a person's immunity to Hepatitis B virus infection.

**HIV** – human immunodeficiency virus

**Occupational Exposure** – means reasonably anticipated skin, eye, mucous membrane, or Parenteral contact with blood or other potentially infectious materials that may results from performance of an employee's duties.

**Other Potentially Infectious Materials** – means

- Blood
- Semen
- Vaginal secretions
- Saliva that may contain blood
- Cerebrospinal fluid
- Synovial fluid
- Pleural fluid
- Any body fluid where blood is visible
- Any body fluid that cannot be identified

**Parenteral** – a piercing of mucous membranes or skin barrier by means of a needle stick, human bite, cut and /or abrasion.

**Regulated Waste** – means a liquid or semi-liquid or other potential infectious materials, contaminated items that would release blood or other potential infectious materials in a liquid or semi-liquid state if compressed, items that are caked with dried blood or other

infectious material that are capable of releasing these material during handling; contaminated sharps, pathological and microbial wastes containing blood and other potential infectious materials.

**Source Individual** - means any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee.

**Universal Precautions** - is an approach to infection control which requires that all human blood and certain other body fluids are treated as if known to be infectious for HIV, HBV, HCV and other blood borne pathogens.

**Effective Date:**

This policy shall take effect and be in force from and after November 29, 2011

John N. Ogburn III
City Manager

November 29, 2011
Date

# Table of Contents

Appendices

This Permit-Required Confined Space (PRCS) Program is provided to protect authorized employees who must enter confined spaces and may be exposed to hazardous atmospheres; engulfment in materials; conditions which may trap or asphyxiate due to converging or sloping walls; or contains any other safety or health hazard.

Many workplaces contain confined spaces, not designed for human occupancy, which due to their configuration hinder employee activities including entry, work, and exit. Asphyxiation is the leading cause of death in confined spaces. Also, there have been cases when employees entering confined spaces were harmed, ground-up by augers, crushed, or battered by moving parts inside vessels, mixers, etc. The nature of confined spaces can cause toxic vapors to become highly toxic and harmful and in some cases immediately dangerous to life and health (IDLH) unless adequate precautions are taken.

The Occupational Safety and Health Administration (OSHA) has estimated that at least 62 fatalities at 12,643 injuries and illnesses occur annually due to confined space hazards. These deaths, and injuries, and illnesses can be prevented by implementing and maintaining an effective confined space entry program.
This PRCS Program describes the measures necessary (1) to prevent unauthorized entry into permit-required confined spaces, (2) identify and evaluate permit space hazards, and (3) implement the means, procedures, and practices necessary for safe entry operations.

## I. Scope and Application

This Permit-Required Confined Space (PRCS) Program covers all employees who enter permit confined spaces and contains the practices and procedures for their safe entry.

## II. Coordination

The PRCS coordinator is Safety Coordinator who is responsible for maintaining a current copy of the program and making it available to all employees. Specific questions about the program and interpretations should be directed to the PRCS Program coordinator.

## III. Definitions

**Acceptable entry conditions** means the conditions that must exist in a permit space to allow entry and to ensure that employees involved with a permit-required confined space entry can safely enter into and work within the space.

**Attendant** means an individual stationed outside one or more permit spaces who monitors the authorized entrants and who performs all attendant's duties assigned in the employer's permit space program.

**Authorized entrant** means an employee who is authorized by the employer to enter a permit space.

**Blanking or blinding** means the absolute closure of a pipe, line, or duct by the fastening of a solid plate (such as a spectacle blind or a skillet blind) 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.

**Confined space** means a space that:

A. Is large enough and so configured that an employee can bodily enter and perform assigned work; and

B. Has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry.); and

C. Is not designed for continuous employee occupancy.

**Double block and bleed** means the closure of a line, duct or pipe by closing and locking or tagging two in-line valves and by opening and locking or tagging a drain or vent valve in the line between the two closed valves.

**Emergency** means any occurrence (including any failure of hazard control or monitoring equipment) or event internal or external to the permit space that could endanger entrants.

**Engulfment** means 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.

**Entry** means the action by which a person passes through an opening into a permit-required confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.

**Entry permit** (permit) means the written or printed document that is provided by the employer to allow and control entry into a permit space and that contains the information specified in paragraph (f) of this section.

**Entry supervisor** means the person (such as the employer, foreman, or crew chief) responsible for determining if acceptable entry conditions are present at a permit space where entry is planned, for authorizing entry and overseeing entry operations, and for terminating entry as required by this section.

**Note:** An entry supervisor also may serve as an attendant or as an authorized entrant, as long as that person is trained and equipped as required by this section for each role he or she fills. Also the duties of entry supervisor may be passed from one individual to another during the course of an entry operation.

**Hazardous atmosphere** means an atmosphere that may expose employees to the risk of death, incapacitation, impairment or ability to self-rescue (that is, escape unaided from a permit space) injury, or acute illness from one or more of the following causes:

A. Flammable gas, vapor, or mist in excess of 10 percent of its lower flammable limit (LFL);

B. Airborne combustible dust at a concentration that meets or exceeds it LFL;

**Note:** This concentration may be approximated as a condition in which the dust obscures vision at a distance of 5 feet (1.52 m) or less.

C. Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent;

D. Atmospheric concentration of any substance for which a dose or a permissible exposure limit is published in Subpart G, *Occupational Health and Environmental Control,* or in Subpart Z, *Toxic and Hazardous Substances,* of this part and which could result in employees exposure in excess of its dose or permissible exposure limit;

**Note:** An atmospheric concentration of any substance that is not capable of causing death, incapacitation, impairment or ability to self-rescue, injury or acute illness due to its health effects is not covered by this provision.

E. Any other atmospheric condition that is immediately dangerous to life or health;

**Note:** For air contaminants for which OSHA has not determined a dose or permissible exposure limit, other sources of information, such as Material Safety Data Sheets that comply with the Hazard Communications Standard, 1910.1200 of this part, published information, and internal documents can provide guidance in establishing acceptable atmospheric conditions.

**Hot work permit** means the employer's written authorization to perform operations (for example, riveting, welding, cutting, burning and heating) capable of providing a source of ignition.

**Immediately dangerous to life or health** (IDLH) means any condition that poses an immediate or delayed threat to life or that would cause irreversible adverse health effects or that would interfere with an individual's ability to escape unaided from a permit space.

**Note:** Some materials - hydrogen fluoride gas and cadmium vapor, for example - may produce immediate transient effects that, even if severe, may pass without medical attention, but are followed by sudden, possibly fatal collapse 12-72 hours after exposure. The victim "feels normal" from recovery from transient effects until collapse. Such materials in hazardous quantities are considered to be "immediately" dangerous to life or health.

**Inerting** means the displacement of the atmosphere in a permit space by a noncombustible gas (such as nitrogen) to such an extent that the resulting atmosphere is noncombustible.

**Note:** This procedure produces an IDLH oxygen-deficient atmosphere.

**Isolation** means the process by which a permit space is removed from service and completely protected against the release of energy and material into the space by such means as: blanking or blinding; misaligning or removing sections of lines, pipes, or ducts; a double block and bleed system; lockout or tagout of all sources of energy; or blocking or disconnecting all mechanical linkages.

**Line breaking** means the intentional opening of a pipe, line or duct that is or has been carrying flammable, corrosive, or toxic, an inert gas, or any fluid at a volume, pressure, or temperature capable of causing injury.

**Non-permit confined space** means a confined space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm.

**Oxygen-deficient atmosphere** means an atmosphere containing less than 19.5 percent oxygen by volume.

**Oxygen enriched atmosphere** means an atmosphere containing more than 23.5 percent oxygen by volume.

**Permit-required confined space** (permit space) means a confined space that has one or more of the following characteristics:

A. Contains or has a potential to contain a hazardous atmosphere;

B. Contains a material that has the potential for engulfing an entrant;

C. Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section; or

D. Contains any other recognized serious safety or health hazard.

**Permit-required confined space program** (permit space program) means the employer's overall program for controlling, and, where appropriate, for protecting employees from, permit space hazards and for regulating employee entry into permit spaces.

**Permit system** means the employer's written procedure for preparing and issuing permits for entry and for returning the permit space to service following termination of entry.

**Prohibited condition** means any condition in a permit space that is not allowed by the permit during the period when entry is authorized.

**Rescue service** means the personnel designated to rescue employees from permit spaces.

**Retrieval system** means the equipment (including a retrieval line, chest or full-body harness, wristlets, if appropriate, and a lifting device or anchor) used for non-entry rescue of persons from permit spaces.

**Testing** means the process by which the hazards that may confront entrants or a permit space are identified and evaluated. Testing includes specifying the tests that are to be performed in the permit space.

**Note:** Testing enables employers both to devise and implement adequate control measures for the protection of authorized entrants and to determine if acceptable entry conditions are present immediately prior to and during entry.

## IV. General Requirements

This PRCS program covers the safety requirements, including a permit system, for employees to enter confined spaces, designated as permit-required confined spaces (permit spaces) which:

* Pose special dangers for entrants;
* Have configurations hampering efforts;
* Which require protection for entrants from serious hazards including atmospheres, which are or may be:
- Toxic,
- Explosive, or
- Asphyxiating; and

* Which have other hazards.

### A. Permit-Required Confined Spaces (PRCS)

The workplace has been evaluated to identify the permit-required confined spaces. See Appendix A for a complete list of all the PRCS's.

### B. Alternate Procedures for Entering Permit Confined Spaces

Alternate procedures are used for entry into permit spaces under the following conditions:

1. The only hazard posed is an actual or potential hazardous atmosphere;

2. It has been demonstrated that continuous forced air ventilation alone is sufficient to maintain safety for entry;

3. Monitoring and inspection data has been developed that supports only an atmospheric hazard and continuous forced air ventilation alone maintains safety;

4. If an initial entry is necessary, an entry permit is used.

5. Entry into the permit space complies with the following.

   (a) Any conditions making it unsafe to remove an entrance cover is eliminated before the cover is removed.

   (b) When entrance covers are removed, the openings are promptly guarded by a railing, temporary cover, or other temporary barrier that will prevent an accidental fall through the opening and that protects each employee working in the space from foreign objects entering the space.

(c) Before an employee enters the space, the internal atmosphere is tested, with a calibrated direct-reading instrument, for the following conditions in the order listed:

(1) Oxygen content,

(2) Flammable gases and vapors, and

(3) Potential toxic air contaminants.

(d) There is no hazardous atmosphere within the space whenever any employee is inside the space.

(e) Continuous forced air ventilation is used as follows:

(1) No employee enters the space until the forced air ventilation has eliminated any hazardous atmosphere;

(2) The forced air ventilation is directed so as to ventilate the immediate areas where an employee is or will be present within the space and continues until all employees leave the space;

(3) A clean source of forced air supply is used for ventilation which does not increase the hazards in the space.

(f) The atmosphere within the space is continuously monitored to ensure that the continuous forced air ventilation is preventing the accumulation of a hazardous atmosphere.

(g) If a hazardous atmosphere is detected during entry:

(1) Each employee leaves the space immediately;

(2) The space is evaluated to determine how the hazardous atmosphere developed; and

(3) Measures are implemented to protect employees from the hazardous atmospheres before any subsequent entry.

(h) The space is verified for safe entry and that the necessary protective measures described above have been taken through a written certification. See Appendix B.

**C. Changes in Space Use or Configuration**

When there are changes in the use and configuration of a non-permit confined space that might increase the hazards to entrants, the space is reevaluated and, if necessary, reclassified as a permit-required confined space.

**D. Confined Space Reclassification**

A permit-required confined space may be reclassified as a non-permit confined space under the following procedures:

1. If the space poses no actual or potential atmospheric hazards and the hazards are eliminated without entry, and as long as the non-atmospheric hazards remain eliminated.

2. Entry into the space to eliminate the hazards is under an authorized permit and testing and inspection during the entry demonstrate the hazards were eliminated without requiring continuous forced air ventilation.

3. A certification is documented showing the hazards were eliminated.

4. If hazards arise within a permit space that has been declassified to a non-permit space, each employee must exit the space and the space is reevaluated to determine if it must be reclassified as a permit space.

**E. Contractors**

In some cases contractors and other non-employees may enter permit spaces to perform work. When contractors and others enter permit spaces the following procedures are followed:

1. They (contractors) are informed that the workplace contains permit spaces and that they must follow a permit space entry program per OSHA standard 29 CFR 1910.146 and use an authorized permit for entry.

2. Apprise the contractor of the elements, including the hazards identified and the experience with the space making it a permit space;

3. Apprise the contractor of the precautions or procedures implemented for protection of employees in or near permit spaces; and

4. Debrief the contractor at the conclusion of the entry regarding the permit space program followed and regarding any hazards confronted or created in the space(s) during entry operations.

5. All contractors performing permit space entry are required to:

(a) Obtain and use the available information provided;

(b) Coordinate entry operations with other working in or near permit spaces; and

(c) Inform the host employer during debriefing or entry of the permit space program that will be followed, and any hazards confronted or created in the space(s).

## V. PERMIT-REQUIRED CONFINED SPACE PROGRAM

### A. General

This permit-required confined space program is designed to prevent unauthorized entry into permit-confined spaces, identify and evaluate hazards and establish procedures and practices for safe entry including testing and monitoring conditions. The program requires for an attendant stationed outside permit spaces during entry; procedures to summon rescuers and prevent unauthorized personnel from attempting rescue; and a system for preparing, issuing, using and canceling entry permits. It also includes procedures for entry operations and canceling entry permits and review of the permit program at least annually and additionally as necessary.

The following measures have been implemented as necessary to prevent unauthorized employee entry into permit spaces.

1. All affected employees have been informed through initial safety training about the characteristics and presence of permit spaces.

2. Some permit spaces are also posted with danger signs to supplement the safety training. However, the posting of danger signs is not all inclusive and each employee must know what a permit space is, the usual hazards involved, and what precautions are required to ensure safe entry so they can help ensure their own protection.

The following means, procedures, and practices necessary for safe permit space entry operations have been implemented:

**(1) Acceptable Entry Conditions**

All permit space entrants protected from atmospheric hazards including oxygen deficiency (less than 19.5%) or increased oxygen concentration (greater than 23.5%), toxic materials (above the exposure limit), flammable gases and vapors, asphyxiating, and engulfment, configuration or any other recognized hazards.

**(2) Isolating the Permit Space**

All hazardous energy sources associated with permit spaces which may expose entrants to potential injury are isolated, locked out and/or tagged out prior to entry:

**(3) Purging, Inerting, Flushing, or Ventilating Permit Spaces**

All permit entry spaces are thoroughly purged, inerted, flushed, and/or ventilated as necessary to ensure the elimination and/or control of all hazards, which may cause entrants injury and/or illness.

**(4) External Hazards**

Pedestrian, vehicle, or other barriers are provided as necessary to protect entrants from external hazards.

**(5) Verifying Acceptable Conditions**
Conditions in permit spaces are tested and monitored throughout entry as necessary to ensure that they are acceptable for the duration of the authorized entry.

**B. Equipment**
The following equipment is provided at no cost to employees, maintained properly, and used properly to ensure the safety of employees entering permit spaces.

**(1) Testing and monitoring equipment**
Neotronics, Exotox, Model 50, four gas monitor

**(2) Ventilating equipment**
General, GP8H, Gasoline powered blower

**(3) Communications equipment**
Ropes , Two-way Radios (radios to be used only in non flammable atmospheres, unless certified as intrinsically safe.)

**(4) Personal protective equipment**
Safety Shoes, Rubber Boots, Hard Hats, Hearing Protection, Gloves, Protective Clothing, SCBA.

**(5) Lighting equipment**
# 2124-ASTM 3 cell lights for type I & II locations or equivalent.

**(6) Barriers and shields**
Cones, Barricade Tape, etc.

**(7) Ingress and egress equipment**
Ladders

**(8) Rescue and emergency equipment**
Unihoist, MSE Retractable Lifeline, MSE Tripod, Full Body Harness.

**(9) Other equipment**
Saddle Vents (manhole), 25ft. sections of 8in. ducting

**C. Evaluating Permit Space Conditions**
Permit space conditions are evaluated (tested/monitored) when entry operations are conducted as follows:

**(1) Testing and Monitoring**
The entry conditions in the permit space are tested to determine if acceptable entry conditions exist before entry is authorized to begin, except that, if isolation of the space is infeasible because the space is large or is part of a continuous system (such as a sewer), in such case, pre-entry testing is performed to the extent feasible before entry and entry conditions are continuously monitored in work areas.
The tests and monitoring are conducted in permit spaces continuously and logged on the permit at least every two hours to determine if acceptable entry conditions are being maintained during the course of entry operations.

When conducting tests for atmospheric hazards, oxygen tests are conducted first, then combustible gases and vapors, and then for toxic gases and vapors. The tests are conducted in order to ensure that test instruments function properly since an oxygen deficient atmosphere may adversely affect the test results.

**D. Attendants**

**(1) General**

At least one attendant is required outside the permit space into which entry is authorized for the duration of the entry operation.

**(2) Duties**

All attendants are required:

(a) To know the hazards that may be faced during entry, including information on the mode, sings or symptoms. and consequences of the exposure;

(b) To be aware of possible behavioral effects of hazard exposure in entrants;

(c) To continuously maintain an accurate count of entrants in the permit space and ensures a means to accurately identify authorized entrants;

(d) To remain outside the permit space during entry operations until relieved by another attendant (once properly relieved, they may participate in other permit space activities including rescue if they are properly trained and equipped).

(e) To communicate with entrants as necessary to monitor entrant status and alert entrants of the need to evacuate;

(f) To monitor activities inside and outside the space to determine if it is safe for entrants to remain in the space and orders the entrants to immediately evacuate if: the attendant detects a prohibited condition, detects entrant behavioral effects of hazard exposure, detects a situation outside the space that could endanger the entrants; or if the attendant cannot effectively and safely perform all the attendant duties;

(g) To summon rescue and other emergency services as soon as the attendant determines that entrants need assistance to escape the permit space hazards;

(h) To take the following action when unauthorized persons approach or enter a permit space while entry is underway:

(1) Warn the unauthorized persons that they must stay away from the permit space,

(2) Advise the unauthorized persons that they must exit immediately if they have entered the space, and

(3) Inform the authorized entrants and the entry supervisor if unauthorized persons have entered the permit space;

(i) To perform non-entry rescues as specified by that rescue procedure and entry supervisor; and

(j) Not to perform duties that might interfere with the attendant's primary duty to monitor and protect the entrants.

**E. Entrants**

**(1) General**

All entrants must be authorized by the entry supervisor to enter permit spaces, have received the required training, use the proper equipment, and observes the entry procedures and permit. The following entrant duties are required:

(a) Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;

(b) Properly use the equipment required for safe entry;

(c) Communicate with the attendant as necessary to enable the attendant to monitor the status of the entrants and to enable the attendant to alert the entrants of the need to evacuate the space if necessary;

(d) Alert the attendant whenever: the entrant recognizes any warning sign or symptom of exposure to a dangerous situation, or any prohibited condition is detected; and

(e) Exit the permit space as quickly as possible whenever: the attendant or entry supervisor gives an order to evacuate the permit space, the entrant recognizes any warning sign or symptom of exposure to a dangerous situation, the entrant detects a prohibited condition, or an evacuation alarm activated.

**F. Entry Supervisors**

**(1) General**

Entry supervisors are responsible for the overall permit space entry and must coordinate all entry procedures, tests, permits, equipment and other relevant activities. The following entry supervisor duties are required:

(a) Know the hazards that may be faced during entry, including information on the mode, signs, or symptoms, and consequences of the exposure;

(b) Verifies, by checking that the appropriate entries have been made on the permit, all tests specified by the permit have been conducted and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin;

(c) Terminate the entry and cancel the permit when the entry is complete or there is a need for terminating the permit;

(d) Verify that rescue services are available and that the means for summoning them are operable;

(e) Remove unauthorized persons who enter or attempt to enter the space during entry operations; and

(f) Determine, whenever responsibility for a permit space entry operation is transferred and at intervals dictated by the hazards and operations performed within the space, that entry operations remain consistent with the permit terms and that acceptable entry conditions are maintained.

**G. Testers and Monitors**

**(1) General**

The accuracy of testing and monitoring equipment may be significantly affected under certain conditions of humidity, pressure, or temperature or by the presence of interfering chemicals. However, if the equipment is properly selected, calibrated, and maintained and operated by well-trained employees, the confined space testing and monitoring needs can be effectively met. All persons performing tests and monitoring for permit space entry have been properly trained in the use of and limitations of the following testing and monitoring equipment.

(Neotronics, Exotox model 50, four gas monitor. Refer to operations manual and/or training video for proper use)

**(2) Procedures for Atmospheric Testing**

Atmospheric testing is required for two distinct purposes: evaluation of the hazards of the permit space and verification that acceptable entry conditions for entry into that space exist.

(a) **Evaluation Testing:** The atmosphere of a confined space should be analyzed using equipment of sufficient sensitivity and specificity to identify and evaluate any hazardous atmospheres that may exist or arise, so that a appropriate permit entry procedures can be developed and acceptable entry conditions stipulated for that space. Evaluation and interpretation of these data, and development of the entry procedure, is performed by, or reviewed by, a technically qualified professional (e.g., OSHA consultation service, or certified industrial hygienist, registered safety engineer, certified safety professional, etc.) based on evaluation of all serious hazards.

(b) **Verification Testing:** The atmosphere of a permit space which may contain a hazardous atmosphere is tested for residues of all contaminants identified by evaluation testing using permit specified equipment to determine that residual concentrations at the time of testing and entry are within the range of acceptable entry conditions. Results of testing (i.e., actual concentration, etc.) are recorded on the permit in the space provided adjacent to the stipulated acceptable entry condition.

(c) **Duration of Testing:** Measurement of values for each atmospheric parameter are made for at least the minimum response time of the test instrument specified by the manufacturer.

(d) **Testing Stratified Atmospheres:** When monitoring for entries involving a descent into atmospheres that may be stratified, the atmospheric envelope is be tested a distance of approximately 4 feet (1.22m) in the direction of travel and to each side. If a sampling probe is used, the entrant's rate of progress is slowed to accommodate the sampling speed and detector response.

## H. Permit System

### (1) General

The entry permit is a vital part of the permit space entry program which documents that the required measures have been taken to ensure entrant safety. All pertinent safety requirements must be recorded on the permit including the isolation, ventilation, tests and monitoring, personal protective equipment and other equipment necessary for entrant safety.

### (2) Requirements

The following requirement must be recorded (documented) on the entry permit. See Appendix D for permit.

(a) Permit space to be entered, purpose of the entry, and the date and authorized duration of the entry permit;

(b) Names of authorized entrants;

(c) Current attendants' names;

(d) Entry supervisors' name (signature), including original authorizing supervisor,

(e) Hazards of the space;

(f) Measures used to isolate the space and to eliminate or control the space hazards, before entry;

(g) Acceptable entry conditions;

(h) Results of initial and periodic tests accompanied by the names, or initials, of the testers and time of the tests;

(i) Available rescue and emergency services and how to summon them;

(j) Communication procedures used by entrants and attendants to maintain contact during entry;

(k) Equipment, such as personal protective equipment, alarm systems and rescue equipment, to be provided;

(l) Any other pertinent information necessary to ensure entrant safety; and

(m) Additional permits, such as hot work, that have been issued to authorize work in the space.

**Note:** All copies of the permit will stay on site and be displayed in a manner to make it available to all employees involved in the operation until the work in completed and/or the permit is canceled. All canceled permits must be retained for one year and a copy of all canceled permits shall be sent to the Safety Coordinator as soon as feasible after it has been canceled.

**(3) Contractors**
All contractor entry into permit spaces must comply with all sections of this procedure.

## I. Training

**(1) General**
All entry supervisors, attendants, and entrants are properly trained initially and refresher training provided when duties and space hazards change or whenever an evaluation determines inadequacies in the employees' knowledge. The training provides employees with the necessary understanding; skills and knowledge to safely enter, work in and exit permit spaces. All training is documented with the employees' names, signature or initials of the trainer and training date.

**(2) Requirements**
Specific training requirements include, but are not limited to:

(a) Each affected employee is trained;

(b) Training is provided:

(1) Before employee is first assigned permit space entry duties;

(2) Whenever there is a change in permit space operations that present a new hazard unknown by the employee;

(3) Whenever there is reason to believe either there are deviations from the entry procedures or inadequacies in the employees' knowledge or use of the procedures;

(c) The training establishes employee proficiency in the required duties and introduces new or revised procedures, as necessary;

(d) The training is certified and contains each employee's name, signatures or initials of the trainers, and training dates.

(e) The training certification is available for inspection by employees and their authorized representatives by contacting the Safety Coordinator at 225 E. Academy Street.

## J. Rescue and Emergency Services

### (1) General

Rescue and emergency services are provided by On Site crews using the **Non Entry Method** and Off-Site by the Ash-Rand Rescue Squad.

### (2) Off-Site Rescue Services (if used by employer)

The following off-site rescue and emergency services have been contacted and approved to provide rescue and emergency services for permit confined spaces.

In the event of an emergency, if the on site supervisor does not have access to a telephone they should radio their base station and instruct them to call **911.** If the crew is working after hours or at any other time when there is no one manning their base station and the crew does not have direct access to a telephone, the Entry Supervisor will establish an effective line of communications with the off-site rescue services **prior to entry into a Permit Required Confined Space.**

### (3) Non-Entry Rescue

Retrieval systems and methods have been developed for entrants to use when entering permit spaces, when the equipment dose not increase the overall risk of entry and would not contribute to the rescue of the entrant. The systems are:

A Tripod and/or a Unihoist system equipped with a Retractable Lifeline type wench and all entrants hooked to this lifeline by means of a full-body harness.

(a) Each authorized entrant uses a chest or full body harness, with a retrieval line attached at the center of the entrant's back near shoulder level, or above the entrant's head.

(b) Retrieval lines are attached to a mechanical device or a fixed point outside the space so rescue can begin immediately after the rescuer becomes award that rescue is necessary.

(c) Mechanical devices are available to retrieve entrants from vertical type permit spaces more than 5 feet deep.

(d) Material Safety Data Sheets (MSDS) or similar written information is kept at the worksite when entrants are exposed to substances requiring such information so it can be made available to the medical facility treating exposed entrants.

**Note: The Off-Site Rescue Service shall be called as soon as possible when a Non-Entry Rescue is initiated.**

**K. Permits and Forms**

1. Appendix A - Permit-Required Confined Spaces Inventory

2. Appendix B - Certification for Permit-Required Confined Space Entry

3. Appendix C - Certification for Reclassifying Confined Spaces

4. Appendix D - Confined Space Entry Permit

## VI. REFERENCES AND SOURCES OF INFORMATION


- U.S. Department of Health, Education, and Welfare. Public Health Service. Center for Disease Control. National Institute for Occupational Safety and Health. "Criteria for a Recommended Standard. Working in Confined Spaces", DHEW (NIOSH) Publication No. 80-106. Cincinnati: NIOSH, December 1979 (Ex. 13-9).
- U.S. Department of Labor. Occupational Safety and Health Administration. Directorate of Policy. "Selected Occupational Fatalities Related to Toxic and Asphyxiating Atmospheres in Confined Work Spaces as Found in Reports of OSHA Fatality/Catastrophe Investigation", Washington, D.C., July 1985 (Ex. 13-15).
- U.S. Department of Labor, Occupational Safety and Health Administration. Directorate of Technical Support. "Selected Occupational Fatalities Related to Fire and/or Explosion in Confined Work Spaces as Found in Reports of OSHA Fatality/Catastrophe Investigation", Washington, D.C., April 1982 (Ex. 13-10).
- National Safety Council, Accident Prevention Manual, 10th Edition, Part 1, Pages 7 and 8, Part 4, Page 91, and Part 14, Page 431

- U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) Standards for the construction Industry, 29 CFR 1926.20 (b)(6)(i) and (ii).

# TABLE OF CONTENTS

# The City of Asheboro's Hazard Communication Program

## Commitment

The City of Asheboro is firmly committed to providing each of its employees a safe work place and a healthy work environment. It is a matter of City policy as well as an important public program under the O.S.H.A. Act. We have implemented this Hazard Communication Program as outlined herein.

The Safety Coordinator shall have the overall responsibility for coordinating the program for the city. The Safety Coordinator is located at 225 East Academy St.

## ACCESS TO THE WRITTEN PROGRAM

All, or any part of this written Hazardous Communication Program is available to employees, their designated representatives, the Assistant Secretary of Labor for Occupational Safety and Health (OSHA), and the Director of the National Institute for Occupational Safety and Health (NIOSH). This is available from the person named above for review and copying.

## LABELING

(A) No hazardous chemical shall be accepted for use in any department in the city, or shipped to any outside location, unless labeled with at least the following information:

(1) Identity of the hazardous chemical(s)
(2) Appropriate hazard warnings
(3) Name and address of the chemical manufacturer, importer, or other responsible party.

The department head is responsible for assuring compliance with this labeling requirement in accordance with 29CFR 1910.1200.

(B) All in plant containers of hazardous chemicals shall be labeled with at least the following information:

(1) Identity of the hazardous chemical(s).
(2) Appropriate hazard warnings.

(C) The department head or designee is responsible for reviewing and assuring label information is kept current.
(D) No label is to be defaced or removed when a material is received or in use.

# CHEMICAL INVENTORY LIST AND MATERIAL SAFETY DATA SHEETS (MSDS)

(A) An Inventory list containing all chemicals in the work place shall be provided. This Inventory List should be in Alphabetical order by **Product Name** and contain a number that corresponds to the correct MSDS.

(B) A material Safety Data Sheet (MSDS) containing the information required by the Hazard Communication Standards shall be kept for each substance listed on our **"Hazardous Chemical Inventory."** The MSDS shall be the most current one supplied by the chemical manufacturer, importer, or distributor. All employees have the right to view these. MSDS shall be in English and shall contain at least the following information:

(1) The Product identity used on the label.
(2) Physical and Chemical Characteristics.
(3) Physical Hazards.
(4) Health Hazards.
(5) Routes of entry into the body.
(6) The OSHA permissible exposure limit.
(7) Whether the chemical is listed as a Carcinogen or possible Carcinogen.
(8) Any precautions for safe handling and use.
(9) Control measures
(10) First aid procedures
(11) Date of MSDS
(12) Name, Address, and Phone number of Manufacturer

**Any attempts to secure this information should be documented.**

(C) The MSDS are filed in each work place and are readily accessible to employees in the work area during each shift.

(D) The Safety Coordinator shall maintain a master Inventory List and MSDS for each chemical. This master list shall be broke down by department. The department head is responsible for obtaining and maintaining his/her department's Inventory List and MSDS file for the work place as well as supplying the Safety Coordinator a copy for the Master File.

## EMPLOYEE INFORMATION AND TRAINING

(A) All employees including temporary employees, working with or potentially exposed to hazardous chemicals, shall be appropriately informed and trained per 1910.1200(h) concerning the potential hazards of the chemicals to which they may be exposed.

(B) All employees shall be informed of the details of the Hazard Communication Program including an explanation of the labeling system and the material safety data sheets, protective and emergency measures and how employees can use appropriate hazard information. The Safety Coordinator is responsible for the overall coordination of the training program.

(C) The City of Asheboro shall provide employees with training upon initial employment, when new hazardous chemicals are introduced and added to the "Chemical inventory List" , or before non-routine tasks are to be performed that could involve exposure to hazardous chemicals.

(D) Reinforcement training shall be conducted through topics at safety meetings, as appropriate.

(E) The extent of information transmitted to employees during training sessions shall be dictated by the degree of hazard presented by the chemicals.

(F) The applicable MSDS's, the text of the OSHA Hazard Communication Standard (1910.1200), the inventory list of hazardous chemicals and this written policy shall be used as sources of information during training sessions.

## CONTRACTOR POLICY

Outside contractors must be provided with all necessary information concerning potential hazards of the substances to which they may be exposed and appropriate protective measures required to minimize their exposure.

The contractor or agency management shall be provided with a list of hazardous chemicals and the safety data sheets for the materials their employees will be using in the course of their work in our area.

Each contractor bringing chemicals on-site must provide us with the appropriate hazard information on these substances, including the labels used and the precautionary measures to be taken in working with these chemicals.

# TABLE OF CONTENTS

# THE CITY OF ASHEBORO'S POLICY FOR LOCKOUT TAGOUT 1910.147

## I Purpose

This procedure establishes the minimum requirements for the lockout of energy isolating devices whenever maintenance or servicing is done on machines or equipment. It shall be used to ensure that the machine or equipment is stopped, isolated from all potentially hazardous energy sources and locked out before employees perform any servicing or maintenance where the unexpected energization or start-up of the machine or equipment or release of stored energy could cause injury.

## II. Scope

This Standard is intended to apply to all city employees, contractors, sub-contractors, visitors or any other person who while on city property is required to be on, in, or near any piece of equipment system or part whose movement, whether intentional or not, could cause under even remote circumstances, an injury or loss to personnel or property. This standard applies to hydraulic, pneumatic, mechanical, electrical systems, or other energy.

## III. Compliance

All employees are required to comply with the restrictions and limitations imposed upon them during the use of lockout. The authorized employees are required to perform lockout in accordance with this procedure. All employees, upon observing a machine or piece of equipment which is locked out to perform servicing or maintenance shall not attempt to start, energize or use that machine or equipment.

**Willful violation of these procedures may result in immediate discharge.**

## IV. Procedure

This standard provides city employees with the means to protect themselves by locking out machines or equipment where the unexpected movement or charging of an electrical conductor can result in injury to themselves or co-workers. No job is too small to neutralize, disconnect, lock out and tag out all power sources.

## Lockout/Tagout should be carried out:

(A) While making adjustments.
(B) While performing maintenance.
(C) While Troubleshooting, etc.
(D) If in doubt "Lockout".

**A proper lockout should block, de-energize and neutralize all possible sources of motion or energy.**

## IN order to ensure proper lockout and tagout, the following steps shall be followed.

(1) **Notify** all affected employees that servicing or maintenance is required on a machine or equipment and that the machine or equipment must be shut down and locked out to perform the service or maintenance.

(2) **Identify all energy sources:** electrical, hydraulic, pneumatic, gravity, mechanical, etc.

(3) If the machine or equipment is operating, **shut it down** by the normal stopping procedure (depress the stop button, open switch, close valve, etc.).

(4) **De-activate** the energy isolating device(s) so that the machine or equipment is isolated from the energy source.

(5) **Lockout** the energy isolating device(s) with assigned individual lock(s). Attach your padlock and/or multiple lockout device in the proper position to the valve, wheel, disconnect switch, etc. to prevent anyone from accidentally turning the power on. Sign, date and attach a lockout tag to the lock or multiple lockout device.

(6) **Stored or residual energy** (such as that in capacitors, springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc.) must be dissipated or restrained by methods such as grounding, repositioning, blocking, bleeding down, etc.

(7) **Test equipment.** Depress the start button at the point of operation to verify neutralized power. Test the electrical current. Operate valves. Check for personnel in the danger zone. When work must be done on any electrical circuit, you must test with a voltage tester to assure current is disconnected from the switch, motor, appliance, or fixture. Check the test instrument on a known source to assure reliability. **Do Not** use screwdrivers or other metal tools to test for current flow.

(8) The machine or equipment is **now locked out.**

## Restoring Equipment To Service.

When the servicing or maintenance is completed and the machine or equipment is ready to return to normal operating condition, the following steps shall be taken.

(1) Check the machine or equipment and the immediate area around the machine or equipment to ensure that nonessential items have been removed and that the machine or equipment components are operationally intact.( Are guards in place? Have braces, pins, blocks been removed? Have pipes, tubing, hoses been reconnected?)
(2) Check the work area to ensure that all employees have been safely positioned or removed from the area.

(3) Verify that the controls are in neutral.

(4) Remove the lockout devices and reenergize the machine or equipment.

**NOTE:**
The removal of some forms of blocking may require reenergization of the machine before safe removal.

(5) Notify affected employees that the servicing or maintenance is completed and the machine or equipment is ready for use.

## Additional Information

Each employee who is authorized to work on equipment, should have one padlock for lockout of the energy source to the equipment. Padlocks shall never be traded or loaned to another employee. Keys shall never be loaned or given to another employee for the removal of another's padlock. All individuals, who are to work on a piece of equipment, shall attach his or her personal padlock and Tag to the energy disconnect involved. Each **tag must indicate Employee's Name and the Date.**

In the event that another person is going to perform the work on the equipment that would require locking out, that person shall attach their own lock and lockout tag to the multiple lockout devices already in use. This will ensure prevention of starting equipment until all persons are clear.

When the disconnect switch is visually obscured from the job area and testing of the machine by "jogging" or other means is required, workers must work together under the protection of fellow workers and relay operating signals during the test period. Many employers use 2-way radios to provide a safe method of communication.

If jobs should carry over to another shift, the new employees' padlocks are snapped onto the disconnect switch **BEFORE** the old locks are removed. If any unusual situations arise during the lockout procedure, the supervisor should be notified.

The person in charge shall be notified when work is completed and the lockout procedure can be concluded. All workers involved in the job on the deactivated equipment and involved in the lockout procedure should remove their own lock prior to the startup of the equipment. The tag should be removed by the person who attached it to the disconnect.

**NOTE: Never trust local (point of operation) stop-start switches as the point for the lockout. There may be more than one stop-start location, such as a control room, and someone may still be able to jog the equipment. <u>The personal padlock must lock out the main disconnect switch.</u>**

Additional tags shall be located in an accessible place as designated by the department head.

## V Training

Training shall be provided to ensure that the purpose and function of the energy control program are understood by all authorized employees and that the knowledge and skills required for safe application, usage, and removal of the energy controls are acquired by all authorized employees.

(1) When tag out systems are used, employees shall also be trained in the limitations of tags.
(2) Retraining shall be provided for all authorized and affected employees when:
    (A) There is a change in job assignments.
    (B) There are change/changes in machines, equipment, or process that presents a new hazard.
    (C) There are change/changes in the energy control procedures.
    (D) When a periodic inspection reveals the need.
    (E) When the supervisor has reason to believe that inadequacies or deviations in the employee's/employees' knowledge.

## VI Periodic Inspection

The supervisor or appointed official shall conduct a periodic inspection of the energy control procedure at least annually to ensure that the procedure and the requirements of this standard are being followed.

(1) The inspection shall be conducted by an authorized employee other than the one/ones utilizing the energy control procedure being investigated.
(2) The periodic inspection shall be conducted to correct any deviations or inadequacies identified.
(3) Where lockout is used for energy control, the periodic inspection shall include a review, between the inspector and each authorized employee, of that employee's responsibilities under the energy control procedure being inspected.
(4) Where tagout is used for energy control, the periodic inspection shall include a review, between the inspector and each authorized and affected employee, of that employee's responsibilities under the energy control procedure being inspected, and the elements set forth in the procedure.

The authorized inspector shall certify that the periodic inspections have been performed. The certification shall identify the machine or equipment in which the energy control procedure was being utilized, the date of the inspection, the employees included in the inspection, and the person performing the inspection.

# TABLE OF CONTENTS

# The City of Asheboro's Guidelines for Prescription Safety Glasses

O.S.H.A Eye and Face Protection, 1910.133, (3), states that persons whose vision requires the use of corrective lenses in spectacles, and who are required by this standard to wear eye protection, shall wear goggles or spectacles of one of the following types:

(i) Spectacles whose protective lenses provide optical correction.

(ii) Goggles that can be worn over corrective spectacles without disturbing the adjustment of the spectacles.

(iii) Goggles that incorporate corrective lenses mounted behind the protective lenses.

**The City of Asheboro is thereby adopting the following guidelines in reference to this standard:**

(1) If an employee falls into this category and is required to wear safety glasses 50% or more of a normal work shift the city shall provide them with prescription safety glasses.

(a) The employee shall get an Authorization Form from the Human Resources Department, have it signed by his/her Department Head. This form will authorize the employee to bill his/her department up to $205.00 on the purchase of prescription safety glasses.

(b) The employee shall take this Authorization Form to Randolph Opticians, (we have negotiated with several other Optical Centers and have received the best prices from there).

(c) The City of Asheboro will allocate funding for one pair of prescription safety glasses every two years to employees meeting this criteria.

(d) The employee shall be responsible for the care of his/her glasses and any needed repairs shall be at the employee's expense. However, if the need for the repair is a direct result of a work-related incident the Department Head may authorize payment. NOTE: simple adjustments will be made at Randolph Opticians free of charge

**NOTE:**

The city is not required to furnish Eye Exams. The employee shall furnish Randolph Opticians with his or her prescription and their safety glasses shall be made accordingly.

Safety Glasses with removable **shields** will be allowed, however it is the employee's responsibility to have shields in place any time they are on the job. Department heads have the responsibility of strictly enforcing this. Prescription Sunglasses shall not be allowed, unless prior approval is obtained from the Human Resources Director.

(2) If the employee falls into this category and is required to wear safety glasses less than 50% of a normal shift, he or she shall be provided with approved goggles that can be worn over corrective spectacles.

(3) Goggles that incorporate corrective lenses mounted behind the protective lenses would be used in specialized situations. Some examples of these special situations would be inside self-contained breathing apparatus masks, welding masks, etc.

**Safety Glasses are not effective on all jobs**, (i.e. grinding, operating chain saws, welding, etc.) more adequate protection should be worn for these jobs.

**REMEMBER, YOU ONLY GET ONE PAIR OF EYES; LETS TAKE CARE OF THEM.**

If you have any questions or concerns about these guidelines Contact the Safety Coordinator.

# TABLE OF CONTENTS

# Procedures for Work Related Accidents or Incidents

These procedures are to be used to insure that the accident/incident can be reported and/or investigated promptly, the employee can be treated promptly, that Workers' Compensation and/or Liability Insurance claims can be correctly filed and compensated and that drug testing procedures can be complied with. It is the Department Head's responsibility to ensure these procedures are followed.

1. The employee must notify his/her supervisor immediately, after all workplace accidents, incidents or injuries (**if immediate supervisor can not be notified in a reasonable time go up the chain of command until you have notified someone**). This notification is the employee's responsibility and failure to do so could result in denial of claims and/or disciplinary action to be taken.

2. If the Injury is life threatening the supervisor should take emergency measures, (i.e. call 911 or take the employee to the emergency room). Notify the Safety Coordinator Monday – Friday 8:00 am to 5:00 pm or after hours by cell phone. The supervisor should complete Accident/Incident report and submit it to Human Resources department no later than the next workday. The city nurse and/ or designee will do follow-up treatment. **NOTE: If there is a fatality or if three or more employees are seriously injured at the same work site notify the Safety Coordinator immediately!**

3. If the Accident/Incident is serious, but not life threatening (one that requires treatment other than first aid or may result in lost workdays) the supervisor or designee shall bring the employee to the Human Resources department, Monday – Friday. If after hours on weekends or holidays take the employee to First Care. If First Care is closed take the employee to the Emergency Room. The supervisor should complete Accident/Incident report and submit it to Human Resources department no later than the next workday.

4. If the injury is minor (can be treated with first aid or requires no treatment) the supervisor should see that the employee is treated and complete the Accident/Incident report and forward it to Human Resources department no later than the next work day after the accident/incident. Remember that only a properly trained person should do first aid. If no one is there to do first aid, the employee may be sent to the Human Resources Office, 225 East Academy Street, during normal working hours.

5. Supervisors should use their own discretion if the accident/incident occurs after normal working hours and after attempts to reach Human Resources failed. Remember to follow up by sending the Accident/Incident report to Human Resources no later than the next workday.

6. If a minor injury should progress to the point of needing treatment other than first aid, the employee should call Human Resources and set up an appointment to see the city nurse for treatment and/or referral. The employee will be sent for a post accident drug test at this time if one has not been previously done for this incident.

7. Holders of Commercial Driver's License (CDL's) must comply with the City's Substance Abuse Policy. **If the Driver receives a Moving Traffic Violation or if there is a Fatality as a result of the accident notify the Safety Coordinator immediately!**

If Property damage results from any accident/incident the supervisor should submit an Accident/Incident report no later than the next workday. Have any claimants call the Safety Coordinator. If the accident involves a motor vehicle immediately call the police so that a police report can also be obtained. Property damage does not require a Drug Test unless: 1 – The employee is the holder of a Commercial Driver's license and they receive a moving violation or if there is a fatality. 2 – The supervisor feels the employee is acting in an irrational way or manner.

**NOTE: DO NOT hold AN ACCIDENT/INCIDENT REPORT longer than the next workday, awaiting signatures. REMEMBER NOTIFICATION in accordance with the policy is our goal.**

**On Worker's Compensation**
**The Industrial Commission's Form 19 will be completed at the Human Resources office.**
**DO NOT give the name of our Group Insurance carrier or Group Insurance cards for Workers' Compensation claims. Instruct the medical provider to send bills to The City of Asheboro, 225 East Academy Street, attention Human Resources Director.**
**Do Not put any prescriptions for a workers' compensation claim on your Group Insurance drug card.**

## On Property Damage

**Check to see if everyone is OK.**
**If auto accident contact the police and remain on the scene until they arrive.**
**Do not talk about who is at fault.**
**Our Insurance Company is Interlocal Risk Financing Fund of North Carolina.**
**Submit an Accident/Incident report to the Human Resources Department no later than the next workday.**
**Have the Claimant contact the Safety Coordinator.**

# TABLE OF CONTENTS

# HEARING CONSERVATION PROGRAM

Hearing conservation is an important aspect of the overall safety and health program. Workplace noise can cause hearing loss, create physical and psychological stress, and contribute to accidents by making it difficult to communicate. An estimated 14 million employees throughout the United States are exposed to hazardous noise.

Fortunately, noise exposure can be controlled. Every effort is made to use quieter processes, machinery, and equipment. When feasible engineering controls do not reduce the noise level to or below the OSHA permissible exposure limit (PEL) of 90 dB, proper hearing protectors are used. Also, all employees exposed to noise levels above 85 dB are included in a hearing conservation program. There are many reasons for providing an effective hearing conservation program, including:

— protecting the organization's most important resource - employees,

— providing a safe and healthful workplace, and

— complying with governmental regulations.

Management, supervisory, and employee commitment to hearing conservation and positive attitude are important aspects of the overall hearing conservation program. The key elements of the organization's hearing conservation program are:

1. Noise exposure measurements,

2. Engineering and administrative noise exposure control,

3. Personal hearing protection,

4. Audiometric testing and follow-up, and

5. Education.

## 2. Noise Exposure Measurement

The success of the city's hearing conservation program depends on an accurate knowledge of the existing noise environment. Accurate surveys define areas within acceptable guidelines for noise exposure and those areas where potentially harmful noise exposure exists. Effective noise exposure measurement prevents possible loss of hearing by detecting work areas where employees must wear hearing protectors and must be tested. Therefore, the city conducts detailed noise surveys using sound level meters that meet the appropriate ANSI standard and are calibrated acoustically before and after each survey. The initial area survey was performed using measurement techniques prescribed in the OSHA regulations. Measurements are made at employees' normal working positions. This procedure allows an accurate estimation of the employees' daily exposure except in instances where an employee is required to move from one working location to

another in his/her daily routine, or when an employee's instantaneous noise exposure levels vary markedly during the shift because of machine cycling. In these cases, noise dosimetry is performed. Follow-up measurements are made whenever changes in work practices or methods may change workplace noise exposures. The results of all measurements are recorded, and employees are notified of their exposure level.

Noise exposure measurements have been completed and are available for review.

**3. Employee Education**

The City of Asheboro recognizes the need for a strong educational program. Therefore, The City of Asheboro properly educates its noise-exposed employees. At least annually, all new employees and those with a time-weighted average exposure level of 85 dBA and above are reminded of the need for an effective hearing conservation program. The educational program consists of an initial presentation by city personnel concerning the need for an effective hearing conservation program. During this program an explanation of city policy relative to the requirements of wearing hearing protective devices is given. All employees are encouraged to ask questions concerning the program. Topics covered include the effects of noise on hearing, the purpose of hearing protectors, the advantages, disadvantages, and attenuation of various types, and instructions on the selection, fitting, use, and care of protectors. The purpose and procedures of audiometric testing are also discussed.

The City of Asheboro recognizes the need for continuing education in the implementation of any safety program and, therefore, will regularly remind employees of the necessity for preserving their hearing. This is achieved by posting educational materials at appropriate locations. All areas where hearing protection is required are posted with appropriate signs in order to alert employees to the need for wearing protective devices.

Employees not exposed to noise levels exceeding the accepted guidelines are encouraged to participate whenever possible in the educational programs provided.

The City of Asheboro recognizes the fact that a loss of one's ability to hear can occur from many causes other than industrial noise exposure, and that for this reason all employees benefit from the educational programs described above. Since the hearing conservation program described in this plan protects employees' hearing from potentially-harmful environments and could possibly alert them to potentially-harmful physical disorders, the program is considered an additional benefit program for employees.

The Educational Phase begins when employees are hired and continues annually thereafter.

**4. Personal Hearing Protection**

Until such time as engineering and/or administrative controls reduce the amount of noise exposure to or below the allowed limits, appropriate personal hearing protective devices are made available and issued to noise-exposed employees. It is recognized that the use of these devices is considered a temporary solution to the problem of overexposure until feasible controls are provided.

As with all safety equipment, the wearing of hearing protection in required areas is mandatory. All supervisors properly enforce hearing protection requirements. Continuing failure of an employee to properly wear the protection provided could result in the termination of employment with the city.

The individual responsible for issuing and fitting hearing protection has been trained by and is under the supervision of an audiologist or physician.

Fitting and issuing of hearing protective devices begins when employees are hired.

**5. Audiometric Testing Program**

The objective of the hearing conservation program developed by The City of Asheboro is the preservation of the hearing of its employees. In order to achieve this goal, an effective audiometric testing program has been implemented. This program includes audiograms at time of hire, an initial survey of the existing work force whose exposures equal or exceed a TWA of 85 dBA in order to establish baselines, and termination audiograms when possible. All employees exposed to levels equal to or exceeding a TWA of 85 dBA receive an annual audiometric test.

The success of the hearing conservation program with regard to each individual employee is evaluated by comparing annual audiograms to the baseline audiogram. Audiogram review is performed by an audiologist or physician, and recommendations regarding the audiometric results are followed. This procedure, among others, helps to determine the effectiveness of the hearing protection program, and, as a result, ensures the protection of employees' hearing.

Initial testing of current employees has been completed, and testing of new employees is conducted when they are hired. Annual testing is conducted for all employees whose 8-hour TWA exposure level is 85 dBA or higher.

**6. Engineering and Administrative Noise Controls**

The City of Asheboro recognizes the desirability of controlling the existing noise levels by engineering and/or administrative controls. Therefore the feasibility of such controls is carefully considered. Due to the complexity of some machinery used by the city and in view of economic limitations, some noise levels cannot currently be reduced to below acceptable limits. In those cases, suppliers of machinery purchased which produces noise levels exceeding the accepted guidelines have been notified of the high noise levels directly by the city or indirectly through the appropriate association(s) of which this city is a member. The supplier has been requested to redesign machinery where possible to

meet the defined regulations. As an interim solution, the city has considered possible redesign of existing machinery, the building of partial or total enclosures, and other engineering noise control procedures for reducing the existing noise levels, where such procedures are deemed technologically and economically feasible.

Within the limitation of work schedules and employee skills and training background, administrative controls have been considered. Where feasible, over-exposed employees are moved to other areas having noise levels below the required levels. In addition, operational procedures are modified as necessary so that during any one twenty-four hour period the allowed exposure times will not be exceeded.

Engineering and administrative controls are being considered and implemented where feasible on a continuing basis.

**7. Management Commitment**

As indicated by the program described above, it is the full intent of The City of Asheboro to protect and preserve the hearing of its employees. This city routinely reviews the program developed and outlined in this compliance plan and attempts within the city's financial and technical capability to improve the program where feasible.

If and when the work area noise levels are reduced below the accepted guidelines, the city reserves the right to terminate any or all of the phases of the program described herein.

# Table Of Contents

# Welding & Cutting Procedures

These written Welding & Cutting Procedures establish guidelines to be followed whenever any of our employees work with welding and cutting equipment at this company. The procedures here establish uniform requirements designed to ensure that welding and cutting safety training, operation, and maintenance practices are communicated to and understood by the affected employees. These requirements also are designed to ensure that procedures are in place to safeguard the health and safety of all employees.

It is our intent to comply with the requirements of 29 CFR 1926.350 through.354. These regulations have requirements for welding and cutting operations. We also comply with applicable requirements of:

| **Standard or Regulation:** | **Name:** |
|---|---|
| ANSI Z49.1-1967 | Safety in Welding and Cutting |
| CGA Pamphlet P-1-1965 | Safe Handling of Compressed Gases |
| 29 CFR 1926, Subpart D | Occupational Health and Environmental Controls |
| 29 CFR 1926, Subpart E | Personal Protective And Life Saving Equipment |
| 29 CFR 1926.406(c) | Electrical Specific Purpose Equipment and Installations |
| 49 CFR 192 | Minimum Federal Safety Standards for Gas Pipelines |
| 49 CFR 171-180 | Hazardous Materials Regulations |

**Administrative Duties**

The City of Asheboro Safety Coordinator is responsible for developing and maintaining the written Welding & Cutting Procedures. These procedures are kept at the following location: In each Safety Manual.

**Welding and Cutting Equipment**

Our company uses the following welding and cutting equipment:
See Attached List in Appendix.

**Training**

It is the policy of the CITY of ASHEBORO to permit only trained and authorized personnel to operate welding and cutting equipment. The Safety Coordinator will identify all new employees in the employee orientation program and make arrangements with department management to schedule training.

The following person(s) will conduct initial training and evaluation: Each Department head shall designate a welding competent person to do all training. This instructor(s) has the necessary knowledge, training, and experience to train new welding and cutting equipment operators.

**Initial Training**

Our most widely used method of training is on the job. All welders and cutters are trained and tested on the equipment they will be operating before they begin their job.

During training, CITY OF ASHEBORO covers the operational hazards of our welding and cutting operations, including:

- Hazards associated with the particular make and model of the welding and cutting equipment;
- Hazards of the workplace; and
- General hazards that apply to the operation of all or most welding and cutting equipment.

Each potential welder or cutter who has received training in any of the elements of our training program for the types of equipment which that employee will be authorized to operate and for the type of workplace in which the welding and cutting equipment will be operated need not be retrained in those elements before initial assignment in our workplace if CITY OF ASHEBORO has written documentation of the training and if the employee is evaluated to be competent. Training is done in-house.

**Performance Evaluation**

Each certified welder or cutter is evaluated on an ongoing basis to verify that the welder or cutter has retained and uses the knowledge and skills needed to operate safely. Department’s designated trainer does this evaluation. If the evaluation shows that the welder or cutter is lacking the appropriate skills and knowledge, the welder or cutter is retrained by our instructor(s). When a welder or cutter has an accident or near miss or some unsafe operating procedure is identified, we do retraining.

**Current Welders and Cutters**

Under no circumstances may an employee operate welding or cutting equipment until he/she has successfully completed this company's welding and cutting training program. This includes all new welders and cutters regardless of claimed previous experience. All employees have a general obligation to work safely with and around welding and cutting operations.

**Operating Procedures**

Welding and cutting can create certain hazards that only safe work practices can prevent. That is why we have created a set of operating procedures. Our operating procedures follow:

**Compressed Gas Cylinders**

- Handling, storage, and use of compressed gases around the workplace represent a number of hazards. Questions are resolved through supervisors or designated trainers. Approved practices include:
- Keep valve protection cap in place at all times when a cylinder is not in use. Use care in handling and storage of cylinders, safety valves, relief valves, etc., to prevent damage.
- When cylinders are hoisted, secure them on a cradle, sling board, or pallet.
- Move cylinders by tilting and rolling them on their bottom edges. Care in handling is required.
- Secure cylinders in an upright position at all times, especially when moving them by machine.
- Use carriers or carts provided for the purpose when cylinders are in use. When in use, isolate cylinders from welding or cutting or suitably shield them.
- Care will be taken to prevent them from becoming part of an electrical circuit.
- Maintain a distance of at least 20 feet or provide a non-combustible barrier at least five feet high in separating fuel gas cylinders from oxygen cylinders.
- This applies to indoor and outdoor storage.
- The supervisor will designate: - Well-ventilated storage areas for cylinders inside buildings. Care will be taken to keep storage areas out of traffic areas or other situations where they could be knocked over, damaged, or tampered with. - Locations for fuel gas and oxygen manifolds in well-ventilated areas.
- Before a regulator is removed, check that the valve is closed and the gas released from the regulator.
- Keep cylinders, cylinder valves, couplings, regulators, hoses, and apparatus free of oily or greasy substances.
- Keep empty compressed gas cylinders appropriately marked and their valves closed.
- Store full and empty cylinders apart.
- Group cylinders by types of gas. Use old stock before newer stock.

Prohibited practices include:

- Use of valve protection caps for lifting cylinders.
- Use of damaged or defective cylinders. The Department Head will provide appropriate tags and designate a suitable storage area for these cylinders.
- Use of wrench or hammer to open cylinder valves.

- Attempting to repair a cylinder valve. The supplier should be contacted.
- Use of a magnet or choker sling when hoisting cylinders.
- Taking oxygen, acetylene, or other fuel gas or manifolds with these gases into confined spaces.
- Using cylinders as rollers or supports.

**Gas Welding and Cutting**

A. Safe practices in using fuel gas include:
    1. Before a regulator to a cylinder valve is connected, "crack" the valve to clear it of dust or dirt. Stand to one side of the outlet, not in front of it. Do not do this where the gas would reach welding work, sparks, flame, or other possible sources of ignition.
    2. Open cylinder valves slowly to prevent damage to the regulator. For quick closing, do not open valves on fuel gas cylinders more than 1 1/2 turns. When a special wrench is required, leave it in position on the valve stem while the cylinder is in use. In the case of manifold or coupled cylinders, make sure at least one such wrench is always available for immediate use.
    3. Do not place anything on top of a fuel gas cylinder, when in use, which may damage the safety device or interfere with quick closing.
    4. Do not use fuel gas directly from cylinders through torches or other devices equipped with shutoff valves without reducing the pressure through a suitable regulator.
    5. Before a regulator is removed from a cylinder valve, always close the cylinder valve and release the gas from the regulator.
    6. If gas leaks around the valve stem, close the valve and tighten the gland nut. If this doesn't work, do not use the cylinder. Properly tag it and remove it from the work area.
    7. If fuel gas leaks from the cylinder valve and the gas cannot be shut off, properly tag and remove the cylinder from the work area. If a regulator will effectively stop a leak through the valve seat, the cylinder can be used.
    8. Do not use oxygen for personal cooling, cleaning off of surfaces, ventilation, or blowing dust from clothing.
    9. Do not weld or cut an acetylene or oxygen pipeline, including the attachment of hangers or supports, until the line has been purged.
    10. Only use pressure-reducing regulators for gas and pressures for which they are intended.
    11. Do not attempt to repair a regulator or parts of a regulator. Have a skilled mechanic do so.

B. Safe practices in using manifolds include:
    1. Do not place fuel gas and oxygen manifolds in enclosed spaces.
    2. Do not place oxygen manifolds in an acetylene generator room.
    3. Use manifolds and their parts only for the gas (es) for which they are approved.
    4. Do not alter or substitute manifold hose connections to allow interchange between fuel gas and oxygen manifolds and supply header connections. Keep hose connections free of grease and oil.
    5. Cap manifold and header hose connections when not in use.
    6. Do not place anything on top of a manifold, when in use, which will damage the manifold and interfere with quick closing of valves.
    7. Install approved flash arresters between each cylinder and the coupler block when acetylene cylinders are coupled.
    8. Manifold acetylene and liquefied fuel-gas cylinders only in a vertical position.
C. Safe practices in using hoses include:
    1. Make sure fuel gas hose and oxygen hose are easily distinguishable from each other, by different colors or by surface characteristics readily distinguishable by the sense of touch. Do not allow use of a single hose with more than one gas passage.
    2. Do not interchange hoses, including use of adapters, between fuel gas and oxygen sources.
    3. When parallel sections of oxygen and fuel gas hose are taped together, do not cover more than four inches out of 12 inches with tape.
    4. Inspect all hose at the beginning of each working shift. Do not use defective hose.
    5. Hose subjected to flashback, or with evidence of severe wear or damage, must be tested to twice the normal pressure to which it is subject, but in no case less than 300 p.s.i. Do not use defective hose, or hose in doubtful condition.
    6. Use only hose couplings that cannot be unlocked or disconnected by means of a straight pull without rotary motion.
    7. Do not store gas hose in unventilated boxes.
    8. Keep hoses, cables, and other equipment clear of passageways, ladders, and stairs.
    9. Clamp or securely fasten hose connections in a manner that will withstand, without leakage, twice the pressure to which they are normally subjected in service, but in no case less than a pressure of 300 p.s.i. Oil-free air or an oil-free inert gas shall be used for the test.

D. Safe practices in using torches include:
    1. Clean clogged tip openings only with suitable cleaning wires, drills, or other devices designed for such purposes.
    2. Inspect at the beginning and end of each shift for leaking shutoff valves, hose couplings, and tip connections. Do not use defective torches.
    3. Light only with friction lighters or other approved devices. Do not use matches or hot work.
E. Safe practices in using regulators and gauges include:
    1. Make sure oxygen and fuel gas pressure regulators, including their related gauges are in proper working order.
F. Keep oxygen cylinders and fittings away from oil or grease. Oxygen shall not be directed at oily surfaces, greasy clothes, or within a fuel oil or other storage tank or vessel.

FOR CONSTRUCTION:

A. Safe practices in using compressed gases and torches include:
    1. Cracking cylinders and attaching regulators according to industry practice.
    2. Putting caps on header hose connections and manifolds when not in use.
    3. Keeping all hoses, regulators, cylinders, valve protection caps, couplings, apparatus, and torch connections free of grease and oil, especially those involving oxygen.
    4. Using fuel gas hose and oxygen hose of different colors.
    5. Inspections: * All hoses before every shift; * All torches. Only devices designed for the purpose will be used to clean torch tips.
    6. Use only friction lighters to ignite torches.
    7. Removal of torches and hoses and positive shut-off of gas sources from confined spaces when leaving a confined space project for any substantial period of time.
B. Prohibited practices include:
    1. Interchange of hoses, including use of adapters, between fuel gas and oxygen sources.
    2. Placement of anything on or near a manifold or cylinder top that may interfere with the prompt shut-off in case of an emergency.
    3. Taping more than four inches out of every 12 inches in joining fuel gas and oxygen hoses.
    4. Using defective hose or torches.
    5. Use of oxygen for personal cooling, cleaning off of surfaces, ventilation or blowing dust from clothing.

**Arc Welding and Cutting**

A. When arc welding is performed in wet conditions, or under conditions of high humidity, special protection against electric shock shall be supplied.
B. Do not dip a hot electrode into water.
C. Use holders, cable, and other apparatus specifically designed for the purpose, matched to the job and other components and in good repair.

D. When leaving electrode holders unattended, electrodes must be removed and holders placed so that accidental electrical contact is not made.
E. Use non-combustible or flameproof screens to protect employees and passersby from arc rays wherever practicable.
F. Keep chlorinated solvents at least 200 feet from an inert-gas metal-arc welder or provide adequate shielding. Surfaces prepared with chlorinated solvents will be thoroughly dry before welding.
G. Workmen assigned to operate or maintain gas-shielded arc welding equipment shall be acquainted with the requirements of American Welding Society, A6.1-1966, Recommended Safe Practices for Gas-Shielded Arc Welding.
H. Before starting operations all connections to the machine shall be checked to make certain they are properly made. The work lead shall be firmly attached to the work; magnetic work clamps shall be freed from adherent metal particles of spatter on contact surfaces. Coiled welding cable shall be spread out before use to avoid serious overheating and damage to insulation.
I. Grounding of the welding machine frame shall be checked. Special attention shall be given to safety ground connections of portable machines.
J. There shall be no leaks of cooling water, shielding gas, or engine fuel.
K. It shall be determined that proper switching equipment for shutting down the machine is provided.
L. Printed rules and instructions covering operation of equipment supplied by the manufacturers shall be strictly followed.
M. Electrode holders when not in use shall be so placed that they cannot make electrical contact with persons, conducting objects, fuel,

**Fire Prevention**

A. The supervisor will use this guide to assess fire hazards at the workplace:
    1. If the object to be welded or cut cannot readily be moved, all movable fire hazards in the vicinity shall be taken to a safe place.
    2. If the object to be welded or cut cannot be moved and if all the fire hazards cannot be removed, then guards shall be used to confine the heat, sparks, and slag, and to protect the immovable fire hazards.
    3. If the requirements stated in the two boxes above cannot be followed then welding and cutting shall not be performed.
B. Wherever there are floor openings or cracks in the flooring that cannot be closed, precautions shall be taken so that no readily combustible materials on the floor below will be exposed to sparks that might drop through the floor. The same precautions shall be observed with regard to cracks or holes in walls, open doorways, and open or broken windows.
C. Suitable fire extinguishing equipment shall be provided and maintained in a state of readiness for instant use. Such equipment may consist of pails of water, buckets of sand, hose or portable extinguishers depending upon the nature and quantity of the combustible material exposed.

D. Before cutting or welding is permitted, the individual responsible for authorizing cutting and welding operations shall inspect the area. He shall designate precautions to be followed in granting authorization to proceed preferably in the form of a written permit.
E. Special precautions shall be taken for floors covered with combustible materials; combustibles within 35 feet of the work area; ducts that might carry sparks; combustible walls; combustibles on the other side of a noncombustible wall; combustible coverings; pipes in contact with combustible walls; storage of readily ignitable materials; drums, barrels, tanks, other containers that may contain flammable materials; pipes leading to a drum or vessel; and all hollow spaces, cavities or containers.
F. Cutting or welding shall not be permitted in the following situations:
    1. In areas not authorized by management.
    2. In sprinkled buildings while such protection is impaired.
    3. In the presence of explosive atmospheres, or explosive atmospheres that may develop inside unclean or improperly cleaned tanks or equipment that have previously contained such atmospheres, or that may develop in an area.

**Ventilation**

A. The supervisor will determine the number, location, and capacity of ventilation devices.
B. Ventilation will be sufficient to protect passersby as well as the welder.
C. Oxygen shall never be used for ventilation.
D. Don't rely on general ventilation as the only means of protection when air contaminants are toxic.
E. Where ventilation is not sufficient to provide clean, respirable air, respirators will be specified according to specifications applicable to your facility and policies.

**Personal Protective Equipment**

A. Proper eye protection i.e., helmets, hand shields, goggles, and spectacles, must be provided.
B. Proper protective clothing must be provided.
C. First–aid equipment shall be available at all times.
D. Airline respirators will be provided for confined space jobs when sufficient ventilation cannot be provided without blocking the exit.
E. When known or unknown toxic materials are present in a job, respirators will be provided that match the hazard for all employees. The hazards include zinc or zinc–bearing base or filler metals, lead base metals, cadmium–bearing filler metals, chromium–bearing or chromium–coated metals, mercury, nitrogen dioxide, and beryllium. Due to beryllium’s extreme danger, both ventilation and airline respirators will be used.

F. Where screens are not sufficient to protect welders and passersby from arc radiation, the company will provide eye protection with appropriate helmets, filter lens goggles, or hand shields. The helmets and shields will be maintained in good repair.
G. When a toxic preservative is detected on a surface in a confined space, airline respirators will be provided (or the toxic coating will be stripped from at least four inches around the heated area).

**Confined Spaces**

A. Evaluate the space, the hazardous atmosphere, the floor surface, and the interior surface for flammability, combustibility, or toxic fumes that could result from the welding process.
B. Perform atmospheric testing for oxygen deficiency, and for toxic and flammable or combustible gases before and during entry. If the tests show that flammable or combustible gases are present, the space must be ventilated until safe to enter. If the atmosphere is toxic and cannot be cleared through ventilation, appropriate respiratory equipment must be used. All energy sources that could cause employee injury must be disconnected and locked in the "off" position before entry.
C. Ventilation must be provided. Confined spaces such as manholes, tunnels, trenches, and vaults, are particularly hazardous working areas made more dangerous by welding.
D. Gas cylinders and welding machines shall be left on the outside of the confined space. Before operations are started, heavy portable equipment mounted on wheels shall be securely blocked to prevent accidental movement.
E. Where a welder must enter a confined space through a manhole or other small opening, means shall be provided for quickly removing him in case of emergency. When safety belts and lifelines are used for this purpose they shall be so attached to the welder's body that his body cannot be jammed in a small exit opening. An attendant with a preplanned rescue procedure shall be stationed outside to maintain communication with the welder at all times and be capable of putting rescue operations into effect.
F. When arc welding is to be suspended for any substantial period of time, such as during lunch or overnight, all electrodes shall be removed from the holders and the holders carefully located so that accidental contact cannot occur and the machine disconnected from the power source.
G. In order to eliminate the possibility of gas escaping through leaks of improperly closed valves, when gas welding or cutting, the torch valves shall be closed and the fuel-gas and oxygen supply to the torch positively shut off at some point outside the confined area whenever the torch is not to be used for a substantial period of time, such as during lunch hour or overnight. Where practicable the torch and hose shall also be removed from the confined space.
H. After welding operations are completed, the welder shall mark the hot metal or provide some other means of warning other workers.

**Flammable, Toxic, or Hazardous Materials**

A. The Department Head will designate a competent person to test the flammability of unknown coatings.
B. When a coating is found to be highly flammable, it will be stripped from the area to prevent fire.

**Electrical Equipment**

A. Approved safe practices include:
    1. Do not arc weld while standing on damp surfaces or in damp clothing.
    2. Properly ground, install, and operate equipment.
    3. Do not use defective equipment.
    4. Use well-insulated electrode holders and cables.
    5. Insulate yourself from both the work and the metal electrode and holder.
    6. Don't wrap a welding cable around your body.
    7. Wear dry gloves and rubber-soled shoes.
    8. Do not use damaged or bare cables and connectors.
    9. In case of electric shock, don't touch a victim. Turn off the current at the control box and then call for help. After the power is off, you may perform cardiopulmonary resuscitation (CPR) if necessary.

**Fall Protection**

A. A welder or helper working on platforms, scaffolds, or runways shall be protected against falling. This may be accomplished by the use of railings, safety belts, lifelines, or some other equally effective safeguards.
B. Welders shall place welding cable and other equipment so that it is clear of passageways, ladders, and stairways.
C. Maintain a clear welding or cutting area to prevent slips, trips, and falls.

**Inspections**

A number of inspections are required under the welding and cutting regulations. To make inspections efficient, we have compiled a list of inspection items to be checked before welding or cutting: See Appendix

**Maintenance**

Any deficiencies found in our welding and cutting equipment are repaired, or defective parts replaced, before continued use. However, no modifications or additions that affect the capacity or safe operation of the equipment may be made without the manufacturer's

written approval. If such modifications or changes are made, the capacity, operation, and maintenance instruction plates, tags, or decals, must be changed accordingly. In no case may the original safety factor of the equipment be reduced.

While defective parts may be found, we prefer to invest time and effort into the proper upkeep of our equipment, which results in day-to-day reliability. Keeping up with the manufacturer's recommended maintenance schedules, and completing the proper records, will also increase our welding and cutting equipment's longevity.

Employees doing welding or cutting operations follow(s) the manufacturer's operator instruction manual for daily or weekly maintenance.

Periodic maintenance (those completed monthly or less frequently) is done by a factory-trained-expert, or a dealer.

**Signs and Labels**

Our company posts signs as follows: Caution or Warning or Danger Keep Away

We use the following labels: Caution or Warning

**Recordkeeping**

Each Department Head is responsible for maintaining the following records: Inspections, maintenance, and training. These records are maintained in place designated by department head for 3 years.

**Appendix A**

List of Hot Work Equipment from each Department

**Appendix B**

Hot Work Inspection Forms

# Distracted Driving Prevention Policy

**PURPOSE:** The City of Asheboro has enacted a Distracted Driving Prevention Policy that is designed to lessen the risk to life and property by preventing employees operating the city's fleet of motor vehicles and municipal equipment from engaging in distracted driving. The city's mission to provide municipal services in a safe, effective, and cost-efficient manner is advanced by keeping the hands of drivers on the wheel and their eyes on the road.

**RULE:** Subject to the definitions and exceptions stated herein, city employees are prohibited from **using hand-held electronic communications devices** of any kind while driving a motor vehicle or a piece of municipal equipment that is owned or leased by the City of Asheboro. Additionally, city employees, while driving a motor vehicle or a piece of municipal equipment that is owned or leased by the City of Asheboro, are prohibited from using **either a hand-held or hands-free electronic communications device** to read an electronic mail or text message transmitted to the device or stored within the device; provided that this specific prohibition does not apply to any name or number stored in the device nor to any caller identification information.

**DEFINITIONS:**

(A) The term "using hand-held electronic communications devices" means (1) using at least one hand to hold a communications device, including two-way radios, to conduct voice communication or to listen to a voice mail message; (2) entering numbers, text, or any other kind of data by pressing more than a single button; or (3) reaching for a communications device in a manner that requires a driver or operator to maneuver so that he or she is no longer in a seated driving position and properly restrained by a seat belt that is adjusted in accordance with the vehicle manufacturer's instructions.

(B) The term "driving" means operating a motor vehicle or any piece of municipal equipment on a public vehicular area or on a public or private highway/street, including while temporarily stationary on one of the listed areas due to traffic, a traffic control device, or other momentary delays. The term "driving" does not include operating a motor vehicle or piece of equipment when the driver has moved the vehicle to the side of, or off, a highway, street, or a public vehicular area and has halted in a location where the vehicle or piece of equipment can safely remain stationary and be deemed to be lawfully parked or stopped.

# Distracted Driving Prevention Policy

**EXCEPTIONS:**

(A) Communications or data entry conducted by firefighters or sworn law enforcement officers when such activity is deemed by their respective department heads to be essential to the performance of the assigned duties of the public safety officials.

(B) Emergency voice communications, not emailing or texting, between any driver and law enforcement officials or other emergency services personnel. This exception shall be interpreted very narrowly and only applies to genuine emergencies that involve an imminent threat to life and/or property.

**SUPPLEMENTARY GUIDANCE:**

(A) Hands-free use of mobile telephones is allowed. For example, so long as a driver can initiate, answer, or terminate a call by touching a single button on the device, earpiece, steering wheel, or instrument panel, a mobile telephone can be used by the driver. Dialing a number and any other form of data/text entry that requires more than a single push of a button in order to perform a function is prohibited.

(B) A driver can use a mobile telephone and push-to-talk mobile communications equipment, such as a two-way radio, so long as the driver does not reach for, dial, adjust, or hold the device, or a part thereof, in his or her hand while driving and the driver is able to touch the button to operate the mobile telephone or push-to-talk feature of the device from the normal seated position with the safety belt fastened.

(C) A driver can use a 311 data recorder to enter data with a single push of a button so long as the driver can push the required button from the normal seated position with the safety belt fastened. Drivers are prohibited from switching between screens unless they have pulled to the side of the street or road and come to a complete stop in a location where the vehicle can safely remain stationary.

**INTERPRETATION:**

If a question pertaining to the interpretation of this policy arises, the question shall be immediately referred to the Safety Coordinator for resolution.

# Distracted Driving Prevention Policy

**EFFECTIVE DATE:**

This policy shall take effect and be in force from and after April 2, 2012.

John N. Ogburn, III
City Manager

3/13/2012
Date