



RESOLUTION TITLE: TO APPROVE REVISIONS TO THE GASTON COUNTY PERSONNEL POLICY MANUAL RELATED TO HOLIDAY PAY, SICK LEAVE, EDUCATIONAL REIMBURSEMENT, INCIDENTAL EXPENSES, MISCONDUCT AND TOBACCO USE IN COUNTY VEHICLES AND TO APPROVE THE SAFETY AND RISK MANAGEMENT POLICY

WHEREAS, Gaston County believes it is important to have a Personnel Policy Manual for employees and supervisors to follow; and,

WHEREAS, it is prudent to review and revise the policy manual periodically to make sure it is understandable, consistent, and up to date with current law, regulations and philosophy; and,

WHEREAS, the current policy was approved effective July 1, 2010; and,

WHEREAS, several corrections, revisions or additions need to be made; and,

WHEREAS, a new policy addressing safety and risk management has been written; and,

WHEREAS, the Gaston County Board of Commissioners must adopt all changes to the Gaston County Personnel Policy Manual.

NOW, THEREFORE, BE IT RESOLVED that the Gaston County Board of Commissioners adopts revisions to the Gaston County Personnel Policy and the Safety and Risk Management Policy to be effective August 27, 2019.

DO NOT TYPE BELOW THIS LINE

I, Donna S. Buff, Clerk to the County Commission, do hereby certify that the above is a true and correct copy of action taken by the Board of Commissioners as follows:

NO.	DATE	M1	M2	CBrown	JBrown	AFrale	BHovis	TKelgher	TPhilbeck	RWorley	Vote
2019-231	08/27/2019	CB	AF	A	A	A	A	A	A	A	U

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A=AYE, N=NAY, AB=ABSENT, ABS=ABSTAIN, U=UNANIMOUS

Policy Changes Summary 2019

11.7.8

Employees who are in concurrent pay status during a period of FMLA shall continue to accrue paid leaves of absence (Sick Leave, Vacation Leave, Compensatory Time Off, and Holidays), provided they are in pay status for at least 40 hours during the pay period in which leave accrues.

To be consistent with policy 11.1 which states "Employees in unpaid status at any time during the week in which the holiday occurs, are not eligible for holiday pay."

11.3.1

An employee who is in pay status for any regularly scheduled work days in any pay period shall earn sick leave at the rate of 3.70 hours (3 hours, 42 minutes) per pay period. A part-time employee shall earn Sick Leave on a pro-rata basis in accordance with the formula set forth in Calculating Leave for Permanent Part-Time Employees.

Sick Leave shall accumulate without limit for the duration of each eligible employee's continuous service to the County.

Under no circumstances will accrued Sick Leave be paid out upon separation from employment. Accrued Sick Leave may not be used prior to an employee's separation from employment in an effort to be paid for the accrued leave.

To clarify current policy which does not specifically address this issue because accrued sick leave is added to an employee's length of service at retirement.

11.13

Sick leave may be donated when a serious illness/injury has occurred. ~~Shared Sick Leave will not be allowed for pregnancy and delivery without complications.~~

To allow shared sick leave when an employee is on maternity/paternity leave.

17.7 Subsistence

Meal costs will be advanced or reimbursed at the per diem rate. Per diem will not be allowed for any meals which are included as part of the registration fee or program. ~~Reimbursement for meals when there is no overnight stay is taxable income and will be reported on W2's.~~ Meals when there is no overnight stay will not be reimbursed.

To be consistent with the law and our practice.

17.7.1

The authorizing party will determine which meals and incidental expenses are allowed to be covered by per diem based on the travel itinerary departure and return times.

To add incidental expenses for clarification

18.1

~~Smoking is not permitted in County vehicles.~~ The use of tobacco products including cigarettes, vaping, e-cigs, etc. and smokeless tobacco, is prohibited in County vehicles.

To include vaping and smokeless tobacco in policy.

23.1.2

Misconduct is mismanagement, intentional wrongdoing, or any deliberate violation of laws, regulations, policies, or procedures. Examples of misconduct include but are not limited to:

- Fraud in securing employment or appointment;
- Dishonesty;
- Claiming paid sick leave for situations not authorized in the section Sick Leave in this policy.
- Using or possessing illegal narcotics or non-prescribed habit-forming drugs.
- Consuming alcohol;
- Driving a County vehicle after consuming alcohol or using illegal narcotics or non-prescription drugs that may cause impairment;
- Reporting to work while impaired;
- Being convicted of a felony or a misdemeanor involving conduct that is considered contrary to community standards of justice, honesty, or good morals (moral turpitude);
- Treating the public or other employees discourteously;
- Misusing public property including County computer hardware and software;
- Behavior or activities during or outside duty hours which could impair the effective delivery of public service including activities on social media. See Section 15 of the Personnel Policy;
- Falsifying records;
- Unauthorized access, duplication, or release of confidential records;
- Participating in an action which could, in any way, seriously disturb or disrupt the normal operation of any branch of County government, or impair the integrity or trust of County Government;
- Possessing unauthorized firearms or dangerous weapons on the job;
- Refusing to accept or failing to carry out reasonable and proper assignments from an authorized Supervisor (insubordination);
- Accepting gifts or gratuities in exchange for favors or influence;
- Disclosing confidential information from official records;
- Engaging in incompatible outside employment or other conflict of interest;
- Taking part in prohibited political activities; and,
- Sexually harassing employees, clients, or public patrons.

To clarify current policy

10.9 ~~Educational Assistance~~ Educational Reimbursement

With the approval of their Department Director, full-time employees who have 2 years creditable service with the County may receive educational assistance in the amount of \$3,000 per year per employee for a course of study related to the employee's job. ~~The assistance, at the discretion of the Department Director~~ Reimbursement may or may not include, tuition, fees, books, and paid time off (classes during work hours only).

Educational Assistance will only be provided when an employee: (1) has been employed with the County a minimum of two years, (2) has not received any disciplinary action in the previous year at the time of the request, (3) makes a written request in advance, (4) receives prior approval from the Department Director, and (5) earns a grade of "C" or better, (6) Classes are with an educational institution accredited by one of the National or Regional Accreditation Councils for the U.S Dept. of Education. Tuition reimbursement for non-state supported schools, out-of-state schools, or employees who live out-of-state and attend an in-state school, shall be limited to the cost of in-state tuition for a similar course of study in an institution supported by the State of North Carolina.

10.9.1

Upon receiving grades from completed coursework, the employee shall submit to the Department Director a request for reimbursement ~~or a reconciliation of the advance~~, including receipts for tuition, fees, and books as well as documentation that a grade of "C" or better was earned by providing an official transcript having the official college/university logo and the student's name.

To clarify current policy

Policy Number: 1910.1020

Effective Date:

Revision Date:

Approved By:



Safety & Health Policy and Procedure Manual

Access to Employee Exposure and Medical Records Policy

1.0 PURPOSE

Employees have the right to access exposure and medical records. This section will outline the procedures to assure compliance with OSHA Standard, **29 CFR 1910.1020**. The purpose of this policy and procedure is to establish the guidelines and procedures through which employees may obtain and gain access to Gaston County's maintained exposure and medical records. These exposure and medical records are those resulting from employment-related exposures, injuries, and/or illnesses.

2.0 SCOPE

Gaston County employees may be exposed to toxic substances and harmful physical agents to an extent that may impair their health. Workers must be informed about the toxic exposures they face and their potential health effects. This safety policy and procedure provides guidelines for employees to obtain their exposure and medical records. It includes provisions on training, retention requirements for employee exposure and medical records, and response time to employee requests for exposure and medical records. Additionally, guidelines are presented on physician-review of employee medical records, OSHA access to medical records, and information that must be shared with new employees.

This safety policy and procedure also details the areas of responsibility for Department Directors, Supervisors, and employees within Gaston County. This document affects all Gaston County employees who have been exposed to toxic substances and harmful physical agents due to their job duties.

3.0 Reference

This safety policy and procedure is established in accordance with Occupational Safety and Health Standards for General Industry (29 CFR 1910.1020) and Occupational Safety and Health Standards for Construction Industry (29 CFR 1926.33).

4.0 Policy

It is the policy of Gaston County to provide a place of employment free from recognized hazards and to comply with applicable standards and regulations set forth by the Occupational Safety and Health Administration.

In accordance, Gaston County shall provide all exposure and medical records, when properly requested, as outlined in this safety policy and procedure. Gaston County shall ensure that employees, who request their exposure and medical records, are provided with confidential, fair and equal treatment.

General Responsibilities

It is the responsibility of each Department Director, Supervisor and employee to ensure implementation of Gaston County's safety policy and procedure on Access to Medical Records.

It is the general responsibility of Gaston County to ensure that each employee has access to all exposure and medical records pertaining to their present or past employment with Gaston County. (See Specific Responsibilities)

5.0 Procedure

This section provides definitions, establishes general provisions, and identifies responsibilities regarding access to employee exposure and medical records.

5.1 Definitions

- **Access**
The right and opportunity to examine, copy or use any or all exposure and medical records.
- **Employee**
An individual who is employed by Gaston County and who is being assigned or transferred to work where there will be exposure to toxic substances or harmful physical agents. In a case where the employee is deceased, the employee's legal representative may directly exercise all of the employee's rights under this policy.

- **Employee Exposure Record**
A record containing information on the type of environment or hazards present in the workplace.
- **Employee Medical Record**
A record concerning the health status of an employee which is made or maintained by a physician, nurse or other health care personnel.
- **Exposure**
A condition that occurs when an employee is subjected to toxic or hazardous environments as a result of his or her job duties.
- **Health Professional**
A physician, occupational health nurse, industrial hygienist, toxicologist, or epidemiologist providing medical care or other occupational health services to exposed employees.
- **Record**
Any item, collection, or grouping of information, regardless of the form or process, by which is maintained.
- **Toxic Substance**
Any chemical substance, biological agent (bacteria, virus, etc.), or physical stress (noise, heat, cold, vibration, etc.) to which employees could have been exposed as a result of performing their job function.

6.0 General Provisions

This section details the provisions of this safety policy and procedure with each element discussed in a separate subsection. These provisions are:

Access to Records
Employee Exposure and Medical Records
Gaston County Representation by a Physician
OSHA Access to Records
Employee Information

- **Access to Records**

Whenever an employee requests access to exposure and/or medical records, Gaston County will provide these documents within 15 working days. If records cannot be provided within this time period, the employee must be informed and given a date on which the records will be provided along with a reason for the delay. These records will be provided to the employee at no cost for reproduction or for the document search itself.

- **Employee Exposure and Medical Records**

Upon request, Gaston County must provide the employee access to employee exposure records.

In addition, these exposure records must reasonably indicate the identity, amount and nature of the toxic substances or harmful physical agents to which the employee has been exposed.

Upon request, Gaston County must provide employees access to employee medical records. A request for medical records can be made by using the form (shown in Appendix A).

Gaston County is responsible for maintaining employee medical records for the duration of employment, plus 30 years. This recordkeeping does not include health insurance claims, first aid records (not including medical histories) of one-time treatment, and medical records of employees who have worked less than one year for Gaston County. Employee exposure records and data analyses are to be maintained for 30 years.

It is the responsibility of the employee to initiate any request for access to his or her medical records, as outlined in this safety policy and procedure. (See Appendix A).

- **Gaston County Representation by a Physician**

Gaston County may request that a physician be appointed to review medical records with the employee to ensure records are reviewed and properly interpreted.

- **OSHA Access to Records**

Upon receiving a written request from OSHA, Gaston County shall supply OSHA with any exposure or medical records for analyses. A copy of this request must be posted in a conspicuous place for at least 15 working days.

- **Employee Information**

New Gaston County employees shall be informed of the following information:

- The existence, location and availability of any records covered by this safety policy and procedure
- The person responsible for maintaining and providing access to these records
- Employee's rights under this safety policy and procedure

7.0 SPECIFIC RESPONSIBILITIES

- **Human Resources/Risk Manager**

The Human Resources Department, and particularly the Risk Manager, is responsible for maintaining employees' exposure and medical records and for ensuring compliance with this safety policy and procedure.

Human Resources/Risk Manager is also responsible for providing employees with copies of their exposure and medical records, when properly requested.

Human Resources/Risk Manager shall ensure the confidentiality of employees' medical records. Exposure and medical records may be kept in a physician's office, or contained within claim files such as Workers' Compensation

- **Risk Manager**

The Risk Manager shall provide prompt assistance to Department Directors, Supervisors or others on any matter concerning this safety policy and procedure. Human Resources shall provide training for the effective implementation of this safety policy and procedure at New Employee Orientation.

Additionally, the Risk Manager shall provide consultative and audit assistance to ensure effective implementation of this safety policy and procedure.

APPENDIX A

Employee Request for Access to Medical Records

I, _____, hereby request access to any and all employment-related medical records, maintained on my behalf, by Gaston County. This request, unless specifically noted below, includes all employment-related medical records, maintained by Gaston County and/or any private health care provider for which Gaston County has knowledge. I acknowledge that this request pertains only to access of employment related medical records as detailed in Gaston County's Safety Policy and Procedure #1910.1020.

Specific Records Being Requested:

**SUBMIT COMPLETED FORM TO THE HUMAN RESOURCES DEPARTMENT,
ATTENTION: RISK MANAGER**

Policy Number: 1910.1030

Effective Date:

Revision Date:

Approved By:



Safety & Health Policy and Procedure Manual

Bloodborne Pathogens Policy

1.0 PURPOSE

This Bloodborne Pathogens Exposure Control Policy has been established in order to minimize and to prevent, when possible, the exposure of Gaston County employees to disease-causing microorganisms transmitted through human blood and bodily fluids or other potentially infectious materials. This policy will comply with the OSHA Bloodborne Pathogens Standard, 29 CFR 1910.1030.

2.0 SCOPE

All Gaston County employees, who may be exposed to blood and other potentially infectious materials as a part of their job duties (refer to list 4.2), are included in this program. The County strongly recommends that these employees receive the Hepatitis B vaccination series, however, an employee may decline the vaccinations and choose to sign a Declination Form.

3.0 DEFINITIONS

- 3.1 "BLOOD" means human blood, human blood components, and products made from human blood.
- 3.2 "BLOODBORNE PATHOGENS" means pathogenic microorganisms 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).
- 3.3 "CONTAMINATED" means the presence, or the reasonably anticipated presence, of blood or other potentially infectious materials on an item or surface.

- 3.4 **"CONTAMINATED LAUNDRY"** means laundry, which has been soiled with blood or other potentially infectious materials, or may contain sharps.
- 3.5 **"CONTAMINATED SHARPS"** means any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.
- 3.6 **"DECONTAMINATION"** means the use of physical or chemical means to remove, inactivate, or destroy Bloodborne Pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling use, or disposal.
- 3.7 **"ENGINEERING CONTROLS"** means controls (e.g., sharps disposal containers, self sheathing needles) that isolate or remove the Bloodborne Pathogens hazard from the workplace.
- 3.8 **"EXPOSURE INCIDENT"** means a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that result from the performance of an employee's duties.
- 3.9 **"HANDWASHING FACILITIES"** means a facility providing an adequate supply of running potable water, soap and single use towels or hot air drying machines.
- 3.10 **"HBV"** means Hepatitis B Virus.
- 3.11 **"HIV"** means Human Immunodeficiency Virus.
- 3.12 **"OCCUPATIONAL EXPOSURE"** means reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.
- 3.13 **"OTHER POTENTIALLY INFECTIOUS MATERIALS"** means
- 3.13.1 The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids;
 - 3.13.2 Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and
 - 3.13.3 HIV-containing cell or tissue cultures, organ cultures, and HIV-or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.
- 3.14 **"PARENTERAL"** means piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, cuts, and abrasions.
- 3.15 **"PERSONAL PROTECTIVE EQUIPMENT"** is specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered to be Personal Protective Equipment.

- 3.16 **"REGULATED WASTE"** means liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state.
- 3.17 **"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.
- 3.18 **"STERILIZE"** means the use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.
- 3.19 **"UNIVERSAL PRECAUTIONS"** is an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.
- 3.20 **"WORK PRACTICE CONTROLS"** means controls that reduce the likelihood of exposure by altering the manner in which a task is performed.

4.0 EXPOSURE DETERMINATION

- 4.1 All job categories in which it is reasonable to anticipate that an employee will have skin, eye, mucous membrane, or outside the body contact with blood, or other potentially infectious materials, will be trained on this exposure control program.
- 4.2 **The Departments to receive Hep B vaccinations include:**
GEMS (all jobs with the exception of administrative positions)
Gaston County Police (all jobs with the exception of administrative positions)
Sheriff's Office (all jobs with the exception of administrative positions)
Public Works Landfill (all jobs with exception of administrative positions)

5.0 METHODS OF COMPLIANCE

- 5.1 **Universal Precautions**
All blood and bodily fluids shall be considered potentially infectious materials and shall be handled as if contaminated by Bloodborne Pathogens.
- 5.2 **Hand Washing And Other General Hygiene Measures**
- 5.2.1 Employees shall wash hands thoroughly using soap and water, as soon as possible, whenever hands become contaminated. When other skin areas come in contact with blood or bodily fluids, the skin shall be washed with soap and water as soon as possible.
- 5.2.2 Eating, drinking, smoking, applying cosmetics, and handling contact lenses are prohibited in work areas where there is a reasonable likelihood of exposure. Employees shall not engage

in any of these activities until proper hand washing, with soap and water, is performed.

- 5.2.3** Employees shall use practices to minimize splashing, spraying, spattering, and generation of droplets during procedures involving blood or other potentially infectious materials.

5.3 Sharps Management

- 5.3.1** Contaminated needles or other contaminated sharps shall NOT be bent, recapped or removed. Shearing or breaking of contaminated needles is prohibited.

- 5.3.2** Contaminated disposable sharps shall be discarded, as soon as possible after use, in a disposable sharps container. Contaminated broken glass is also to be placed in disposable sharps containers.

5.4 Personal Protective Equipment

- 5.4.1** All personal protective equipment shall be provided, repaired, cleaned, and disposed of by Gaston County at no cost to employees. Employees shall wear personal protective equipment when performing procedures in which exposure to the skin, eyes, mouth, or other mucous membranes is anticipated. The articles to be worn will depend on the expected exposure. Gloves, gowns, laboratory coats, face shields, masks, eye protection, mouthpieces, resuscitation bags and pocket masks are available. Employees who have allergies to regular gloves may obtain hypoallergenic gloves.

- 5.4.2** All personal protective equipment shall be removed before leaving the work area and placed in an assigned container for storage, washing, decontamination or disposal.

- 5.4.3** If a garment is penetrated (soaked through) by blood or other potentially infectious material, the garment shall be removed, as soon as possible, and placed in a designated container for disposal. Garments which are lightly splashed or dripped on where the blood or other potentially infectious material have not soaked through, are to be removed as soon as possible and placed in an appropriate container for cleaning. Cleaning will be performed at the expense of Gaston County.

5.5 Protection For Hands

- 5.5.1** Gloves shall be worn in the following situations:

- When it can be reasonably anticipated that hands will contact blood or other bodily fluids.
- When performing vascular access procedures; and
- When handling or touching contaminated items.

5.5.2 Disposable Gloves

- Replace as soon as possible when gloves are contaminated, torn, punctured, or when the ability to function as a barrier is compromised.

- Do not wash or decontaminate single use gloves for re-use.

5.5.3 Utility Gloves

- Discard when gloves are cracked, peeling, torn, punctured or shows other signs of deterioration (whenever the ability to act as a barrier is compromised).

5.6 Protection For Eyes/Nose/Mouth

Employees shall wear masks, in combination with eye protection devices (goggles or glasses with solid side shields) or chin-length face shields, whenever splashes, spray, spatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, mouth contamination can be reasonably anticipated.

5.7 Equipment, Environmental And Working Surfaces

5.7.1 Clean contaminated work surfaces and vehicles with appropriate disinfectant after completing procedures and immediately, or as soon as possible, when overtly contaminated or after any spill of blood or other potentially infectious material.

5.7.2 Regularly inspect/decontaminate all reusable bins, pails, cans, and similar receptacles which may become contaminated with blood or other bodily fluids.

5.7.3 Clean up broken glass that may be contaminated using mechanical means such as a brush and dustpan, tongs, or forceps. **DO NOT pick up directly with hands.**

6.0 HEPATITIS B VACCINATION

6.1 General Statement Of Policy

6.1.1 All Gaston County employees, who have been identified as having exposure to Bloodborne Pathogens, (see Section 4.0 Exposure Determination) shall be offered the Hepatitis B vaccination series and titer blood draw at no cost to them. In addition, these employees shall be offered post-exposure evaluation and follow-up at no cost should they experience an exposure incident on the job.

6.1.2 All medical evaluations and procedures, including the Hepatitis B vaccination series, whether prophylactic or post-exposure, will be made available to the employee at a reasonable time and place. This medical care will be performed by or under the supervision of a licensed Physician, Physician's assistant, or Nurse Practitioner. Medical care and vaccination series will be according to the most current recommendations to the U.S. Public Health Service. A copy of the Bloodborne Pathogens Standard will be provided to the Gaston County Preferred Healthcare Provider.

6.2 Hepatitis B Vaccination

6.2.1 The vaccination is a series of three injections. They are as follows:

- initial injection,
- second injection - thirty (30) days following the initial injection; and
- third injection - five (5) months following the second injection.
- titer blood draw will be completed one (1) to two (2) months after third injection

6.2.2 For maximum benefit from the vaccine, the second injection should be given within a seven (7) day period before or after the due date (30 days following the first injection).

6.2.3 An employee who is required to take the Hepatitis B vaccine, but chooses not to, will be required to sign a Declination Form. If an employee has declined the Hepatitis B vaccination, but later changes his/her mind and wishes to have the shots, Gaston County will proceed with the vaccination series at no cost to the employee.

7.0 REPORTING AND TREATMENT OF EXPOSURE INCIDENTS

7.1 Employees, who experience an exposure incident, must immediately report the exposure to their Supervisor.

7.2 The employee's Supervisor shall immediately contact the Risk Manager, who will send the employee to the Gaston County Preferred Healthcare Provider, according to the established protocol for accidental exposures and treatment will be rendered, as necessary.

7.3 The Employee and the Supervisor must complete the Employee and Supervisor Accident/Injury Report Forms, (HR Form 100 and HR Form 101) answering all questions accurately and thoroughly.

7.4 The report forms must be e-mailed to the Risk Manager, where they will be processed in accordance with established procedures.

8.0 PROCEDURES FOR EVALUATION AND FOLLOW-UP OF EXPOSURE INCIDENTS

8.1 When an Employee reports an exposure incident, he/she will immediately be offered a confidential medical evaluation and follow-up including 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 identification is not possible.
- Infection status of the source individual, if known.

- 8.2 The exposed employee will be offered post-exposure prophylaxis, when medically indicated, as recommended by the U.S. Public Health Service. The exposed employee will be offered counseling and medical evaluation of any reported illness from Gaston County's Preferred Provider.
- 8.3 Gaston County's Healthcare Providers will communicate to the employee the results of the Healthcare Providers' evaluation.

9.0 EMPLOYEE TRAINING

- 9.1 Employees will be trained regarding Bloodborne Pathogens at the time of initial assignment to tasks where exposure may occur and annually thereafter.
- 9.2 Additional training will be provided whenever there are changes in tasks or procedures that affect employee's occupational exposure.
- 9.3 The training will be given in a way that communicates to the educational level, literacy, and language of the employees. The training plan will include an opportunity for employees to have questions answered by the trainer. Department Directors, or Designee, are responsible for arranging and/or conducting training.
- 9.4 The following content shall be included:
- explanation of the Bloodborne Pathogens standard;
 - general explanation of the epidemiology, modes of transmission and symptoms of bloodborne diseases;
 - explanation of this exposure control plan and how it will be implemented,
 - procedures which may expose employees to blood or other potentially infectious materials,
 - control methods that will be used at the facility to prevent/reduce the risk of exposure to blood or other potentially infectious materials,
 - explanation of the basis for selection, proper use, location, handling, decontamination, and disposal of personal protective equipment,
 - information on the Hepatitis B vaccination program including the benefits and safety of vaccination,
 - information on procedures to use in an emergency involving blood or other potentially infectious materials,
 - procedures to follow if an exposure incident occurs,
 - explanation of post-exposure evaluation and follow-up procedures,
 - explanation of warning labels and/or color-coding.

Policy Number: 1910.146

Effective Date:

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Approved By:



Safety & Health Policy and Procedure Manual

Confined Space Policy

1.0 PURPOSE

The purpose of this policy is to establish mandatory practices and procedures for entry into and working in confined space areas. This policy meets the requirements of OSHA 29 CFR 1910.146.

2.0 SCOPE

This policy applies to all Departments of Gaston County required to work in and around confined spaces. This policy also applies to Gaston County Contractors.

3.0 DEFINITIONS

The words and terms, below, shall have the following meanings, unless the context clearly indicates otherwise.

3.1 "ACCEPTABLE ENTRY CONDITIONS" means those 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.

3.2 "ATTENDANT" means an individual with no other duties except assigned to remain immediately outside the entrance to the confined space and who may render assistance, as needed, to employees inside the space.

3.3 "AUTHORIZED ENTRANT" means an employee who is authorized by the employer to enter a permit space.

3.4 "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.

3.5 "CONFINED SPACE" means any space not intended for continuous employee occupancy, having a limited means of egress, and which is also large enough and so configured that an employee can enter and perform assigned work.

3.6 "ENGULFMENT" means the surrounding and effective capture of a person by finely divided (flammable) 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.

3.7 "ENTRANT" means any employee who enters a confined space.

3.8 "ENTRY" means the action by which *any part of a person* is passing through an opening into a permit required confined space.

3.9 "ENTRY PERMIT" means a written or printed document that is provided by Gaston County to allow and control entry into a permit space.

3.10 "ENTRY SUPERVISOR" means the person 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 policy.

3.11 "GROUND-FAULT CIRCUIT INTERRUPTER" means a device that functions to interrupt the electric circuit to the load when a fault current to ground exceeds a predetermined value that is less than that required to operate the overcurrent protective device of the supply current.

3.12 "HAZARDOUS ATMOSPHERE" means an atmosphere that may expose employees to the risk of death, incapacitation, impairment of 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% of its lower flammable limit (LFL);
- airborne combustible dust at a concentration that meets or exceeds its LFL;
- an oxygen deficient atmosphere containing less than 19.5% oxygen by volume or an oxygen enriched atmosphere containing more than 23.5% oxygen by volume;
- an atmosphere 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 employee exposure in excess of its dose or permissible exposure limit;
- any other atmospheric condition that is immediately dangerous to life or health.

3.13 "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.

3.14 "IMMEDIATELY DANGEROUS TO LIFE OR HEALTH (IDLH)" means any condition that poses an immediate or delayed threat to life, that would cause irreversible adverse health effects or that would interfere with an individual's ability to escape unaided from a permit space.

3.15 "IMMEDIATE SEVERE HEALTH EFFECTS" means that an acute clinical sign of serious, exposure reaction is manifested within 72 hours of exposure.

3.16 "ISOLATION" means the process by which a permit space is removed from service and completely protected against the release of energy and materials 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.

3.17 "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.

3.18 "OXYGEN DEFICIENT ATMOSPHERE" means an atmosphere containing less than 19.5 percent oxygen by volume.

3.19 "OXYGEN ENRICHED ATMOSPHERE" means an atmosphere containing more than 23.5% percent oxygen by volume.

3.20 "PERMIT-REQUIRED CONFINED SPACE" contains or has the potential to contain a hazardous atmosphere; contains a material with the potential to engulf someone who enters the space; has an internal configuration that might cause an entrant to be trapped or asphyxiated by inwardly converging walls or by a floor that slopes downward and tapers to a smaller cross section; and/or contains any other recognized serious safety or health hazards.

3.21 "PROHIBITED CONDITION" means any condition in a permit space that is not allowed by the permit during the period when entry is authorized.

3.22 "RESCUE TEAM" means those persons who the employer has designated prior to any confined space entry to perform rescues from confined spaces. A rescue team may consist of outside emergency personnel, provided the training requirements of this standard have been met. (i.e. City of Gastonia Fire and Rescue Department).

3.23 "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. The Retrieval System must be approved by the Entry Supervisor. The Entry Supervisor must train the Authorized Entrant on the proper use of the Retrieval System.

3.24 "ZERO MECHANICAL STATE" means that the mechanical potential energy of all portions of the machine or equipment is set so that the opening of the pipe(s), tube(s), hose(s), or actuation of any valve, lever or button, will not produce a movement which could cause injury.

4.0 GENERAL INFORMATION

4.1 Confined Space Defined

4.1.1 As defined by North Carolina Occupational Safety and Health Standard 1910.146, a confined space is:

- large enough and so configured that an employee can bodily enter and perform assigned work, and,
- having limited means of entry and egress, and,
- is not designed for continuous employee occupancy.

4.1.2 Confined spaces generally include but are not limited to the following: Storage tanks, Boilers, Sewers, Digesters, Wet Wells, Dry Wells, Manholes, Open Top Pits, Underground Vaults, Tunnels, Lagoons, Ventilation or Exhaust Ducts, Vats and Vessels that are more than four feet in depth and meet the above criteria.

4.1.3 Confined spaces located throughout Gaston County are identified into two categories; Permit Required Confined Spaces and Non-permit Required Confined Spaces.

4.2 Permit Required Confined Spaces:

Are confined spaces that:

4.2.1 contain or have the potential to contain a hazardous atmosphere;

4.2.2 contain a material that has the potential for the engulfment of an Entrant;

4.2.3 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

4.2.4 contain any other recognized serious safety or health hazard.

4.3 Non-Permit Required Confined Spaces:

These spaces do not contain (with respect to atmospheric hazards) or have the potential to contain any hazard capable of causing death or serious physical harm.

4.4 Rescue Teams:

The City of Gastonia Fire & Rescue Department is the designated rescue team for Gaston County.

5.0 POLICY FOR SPECIFIC LOCATIONS AND HAZARDS

5.1 All manholes, electrical and meter vaults deeper than four feet are considered confined spaces.

5.2 All Permit-Required Confined Space entries will be Attendant-Required and must have an Attendant present.

5.3 Fall restraint devices and/or lifelines & body harnesses shall be used when entering all Permit-required Confined Spaces.

5.4 All water storage tanks are considered Confined Spaces.

5.5 Continuous gas monitoring (using at a minimum of a 3-gas monitor) will be conducted, at all times, while working in all permit-required Confined Spaces. All monitors used must have an audible alarm.

5.6 For wet wells, dry wells, and vaults having ventilation fans; fans must run at least 10 minutes *after* air sampling has been performed and *prior* to entry.

6.0 ENTRY REQUIREMENTS

6.1 Entry is considered as any action resulting in *any part of the employee* breaking the plane of any opening of the confined space and includes any resulting work activities performed inside the confined space. Generally, there are two types of entry into a confined space, Attendant and Non-Attendant.

6.2 Due to the seriousness of unknown hazards, County employees will not be allowed to make entry into a confined space under the following conditions:

- Immediately Dangerous to Life and Health (IDLH) atmosphere,
- Hazardous atmosphere, or
- Potential for engulfment.
- Additionally, entry into a posted permit-required confined space will not be allowed without securing an Entry Permit signed by a Qualified Person.

6.3 Attendant Entry

Attendant entry is an entry that requires an Attendant present, at all times, when an Entrant is inside a confined space. Attendant entry will be allowed when the following conditions are met:

- The Entrant secures an Entry Permit from an Entry Supervisor;
- Continuous monitoring is performed with a device equipped with an alarm capable of evaluating oxygen, combustible gas, and toxic gas concentrations;
- General continuous ventilation is provided with a mechanical blower before entry when a toxic atmosphere is indicated, and during entry to maintain minimum acceptable atmospheric conditions; and
- The Entrant wears a harness fall restraint system secured by a tripod or other approved method (i.e., lifeline).

6.4 Non-Attendant Entry

Will be allowed for any entry into non-permit required confined spaces by Gaston County employees. Employees should seek assistance from co-workers to provide Attendant services, even when not required by this policy, when working in remote locations.

7.0 RESPONSIBILITIES AND DUTIES

Qualified individuals in Confined Space Entry will perform one of three roles:

Authorized Entrant

Attendant

Entry Supervisors

7.1 Authorized Entrant shall:

7.1.1 Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.

7.1.2 Properly use appropriate personal protective equipment (e.g., face and eye protection, and other forms of barrier protection such as gloves, aprons, and coveralls);

7.1.3 Maintain communication with the Attendant, as necessary, to enable the Attendant to alert Entrants of the need to evacuate the spaces if a dangerous condition arises.

7.1.4 The Entrant shall alert the Attendant whenever a warning sign or symptom of exposure to a dangerous situation occurs or a detection of a prohibited condition.

7.1.5 The Entrant will exit from the space whenever:

- an order to evacuate is given by the Attendant or the Entry Supervisor,
- the Entrant recognizes any warning sign or symptom of exposure to a dangerous situation,
- the Entrant detects a prohibited condition, or
- an evacuation alarm is activated.

7.2 Attendant shall:

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

7.2.2 Be stationed immediately outside every confined space during entry operations, unless relieved by another Attendant,

7.2.3 Be within sight or call of the Entrant at all times and have the means available to summon assistance (i.e. 2-way radio, telephone).

7.2.4 Maintain an accurate count of employees working within the space,

7.2.5 Not go into any posted confined space to aid the Entrant or perform any rescue. The practice of handing down tools, equipment, and/or supplies shall be avoided, when possible. Should Entrant need items, the Entrant shall exit the space and retrieve those items.

7.2.6 Monitor activities inside and outside the space to determine if it is safe for Entrants to remain in the space and orders the Authorized Entrants to evacuate the permit space, immediately, under any of the following conditions if the Attendant:

- detects a prohibited condition;
- detects the behavioral effects of hazard exposure in an Authorized Entrant;
- detects a situation outside the space that could endanger the Authorized Entrants; or
- cannot effectively and safely perform all of the duties required in this section.

7.2.7 Take the following actions when unauthorized persons approach or enter a permit space while entry is underway:

- warn the unauthorized persons that they must stay away from the permit space;

- advise the unauthorized persons that they must exit immediately if they have entered the permit space; and
- inform the Authorized Entrants and the Entry Supervisor if unauthorized person(s) have entered the permit space.

NOTICE

If visual or verbal communication is lost with the Entrant because of engulfment, asphyxiation, or an accident, the Attendant will radio, call, or seek rescue at once by calling 911 or have a fellow Employee to call. **THE ATTENDANT WILL NOT ENTER THE CONFINED SPACE AT ANY TIME FOR ANY RESCUE!**

7.3 Entry Supervisor shall:

- 7.3.1 Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
- 7.3.2 Verify, by checking that the appropriate entries have been made on the Confined Space Permit, that all tests specified by the permit have been conducted and that all procedures and equipment are in place before endorsing the permit and allowing entry to begin;
- 7.3.3 Terminate the entry and cancel the permit as required;
- 7.3.4 Verify that rescue services are available on entries found in remote locations or as required by potential or existing hazards;
- 7.3.5 Remove unauthorized individuals who enter or who attempt to enter a permit space during entry operations; and
- 7.3.6 Determine that entry operations remain consistent with terms of the entry permit and that acceptable entry conditions are maintained.
- 7.3.7 A list of qualified personnel will be kept in each Department Director's office and updated accordingly.

8.0 INSTRUMENTATION

8.1 Atmospheric testing instruments accepted for use by Gaston County under this standard will have the following features as a minimum:

- Capable of monitoring oxygen, combustible and toxic gas concentrations;
- Capable of remote sampling by either hand aspirator, mechanical pump, or electronic cable;
- Capable of self diagnosis;
- Numerical digital display;
- Alkaline or rechargeable Nicad power supply;
- User replaceable sensors;
- User calibrated; and
- Have alarm points set
- Have audible alarm

9.0 ENTRY PROCEDURES

NOTE: *These procedures apply to both Permit and Non-Permit Required Confined Spaces. However, Confined Space Permits and special equipment (i.e. tripods, lifelines) are not required for Non-Permit Required Confined Spaces.* Entry into a posted confined space shall not be made unless the Entry Supervisor has assured that the following procedures have first been completed:

9.1 Any conditions making it unsafe to remove an entrance cover shall be eliminated before the cover is removed.

9.2 When entrance covers are moved, the opening shall be guarded by a railing, temporary cover, or other barrier that will prevent an accidental fall through the opening and that will protect each employee working in the space from foreign objects entering the space.

9.3 Before an employee enters the space, the internal atmosphere shall be tested, with a calibrated direct-reading instrument, for the following conditions in the order given:

- 19.5% - 23.0% Oxygen**
- 10% LFL for Combustible**
- 10 PPM for H₂S**
- 10 PPM for CO (if appl.)**

9.4 If atmosphere inside a Confined Space fails to meet any of the four criteria above, space will be ventilated either through the act of opening doors or using continuous forced air ventilation.

NOTICE:

No Employee shall enter a permitted space until the Oxygen, Combustibles, and Toxic Gas readings are below or within required settings (see above caption).

NOTICE

Self-contained Breathing Apparatus will not be worn while working within any posted confined space at any time for any reason; to include atmosphere testing, with the exception of the City of Gastonia Fire and Rescue Department, during emergency situations.

9.5 Atmosphere within the Confined Space will be tested continuously and results noted hourly on the Confined Space Permit. If an Entrant exits the Confined Space for more than **15 minutes**, the Confined Space will be **re-tested prior to re-entry**.

9.6 Continuous gas monitoring will be performed at all times.

9.7 If a hazardous atmosphere is detected or a dangerous situation develops:

- 9.7.1** Each Entrant shall leave the space immediately;
- 9.7.2** The space shall be evaluated to determine how the hazardous atmosphere developed; and

9.7.3 Measures shall be implemented to protect employees from the hazardous atmosphere before any subsequent entry takes place.

NOTICE

If the atmosphere inside a Non-Permit required Confined Space exceeds any of the three criteria, and/or another potential physical hazard develops (i.e. engulfment), the space shall immediately become a Permit-Required confined space and the above procedures in step 7 shall apply. Additionally, Authorized Employees **MUST** obtain a Confined Space Permit and Attendant before work continues.

9.8 Certification that a Confined Space is safe for entry will be done using a Confined Space Entry Permit. These permits will be filled out by the Entry Supervisor, Shift Supervisor, or Immediate Supervisor with no less than:

Between 19.5% - 23.0% Oxygen
Less than 10% LFL for Combustible
Less than 10 PPM for H₂S
Less than 10 PPM for CO (if applicable)

- Date of the entry and monitoring,
- Location of the confined space,
- Signature of the person providing the certification, and
- Reason for entry.
- Also, the signed permit will be posted by the Confined Space while work is being performed (if attachment is possible) and maintained until the entry has been completed.
- Permits will be maintained at each of the Department Director's office. Permits shall be kept on file for one (1) year.

9.9 All safety equipment, special tools (to include harnesses, tripods, and lifelines) are to be present prior to beginning work.

9.10 For any form of cutting, welding or burning while inside the permit-required confined space, in addition to a Confined Space Entry permit, a "Hot Work" Permit must also be obtained prior to work being performed.

10.0 RESCUE TEAMS

Only the City of Gastonia Fire & Rescue Department employees are permitted entry into a confined space where the following conditions exist: (IDLH) atmosphere, hazardous atmosphere, or a potential for engulfment.

11.0 TRAINING

Gaston County Employees who are required to work in and around Confined Spaces will be trained annually on:

- Confined Space Awareness

- Entrant and Entry Supervisor Specifications

Department Directors/Supervisors are to arrange training. The Risk Manager may be contacted for information on training.

12.0 CONFINED SPACE PERMIT

Confined Space Entry Permit, attached, is to be used by all Gaston County employees to allow and control entry into a Permit-Required Space.

CONFINED SPACE ENTRY PERMIT

Date Issued _____

Expires _____

NOTE: IN THE EVENT OF AN EMERGENCY, CALL 911

NOTE: IF THE CONDITIONS OR PROCEDURES SPECIFIED ON THIS PERMIT CHANGE, STOP WORK IMMEDIATELY AND NOTIFY THE DEPARTMENT DIRECTOR OR RISK MANAGER.

PART I HAZARD ASSESSMENT (To be filled out by the Entry Supervisor)

Confined space Identification number _____ Location of confined space _____

Description of confined space _____

Description of work to be performed _____

Materials or chemical located and/or brought into the Confined Space (SDSs) must be posted _____

Equipment located in (or to be brought into) the Confined Space _____

CHECK ALL POTENTIAL HAZARDS (Check all inherent and introduced hazards)

<u>Hazardous Atmospheres</u>	<u>Physical Hazards</u>	<u>Other Anticipated Hazards</u>
<input type="checkbox"/> Flammable	<input type="checkbox"/> Temperature	<input type="checkbox"/> Spark-Producing Operations (describe below)
<input type="checkbox"/> Toxic	<input type="checkbox"/> Chemical Absorption	<input type="checkbox"/> Spilled Liquids
<input type="checkbox"/> Irritant	<input type="checkbox"/> Noise	<input type="checkbox"/> Engulfment
<input type="checkbox"/> Corrosive	<input type="checkbox"/> Entrapment	<input type="checkbox"/> Radiation
<input type="checkbox"/> Oxygen-Deficient	<input type="checkbox"/> Vibration	<input type="checkbox"/> Entry and Exit limitations
<input type="checkbox"/> Oxygen-Enriched	<input type="checkbox"/> Electrical Equipment	
<input type="checkbox"/> Other (List) _____	<input type="checkbox"/> Mechanical Equipment	

PART II-HAZARD CONTROLS (To be filled out by the Entry Supervisor)

☐ Yes ☐ No Is Lockout/Tagout Required?
List isolation points: _____

☐ Yes ☐ No Are GFCIs required on all electrical power?

☐ Yes ☐ No Is explosion-proof equipment required?

☐ Yes ☐ No Are barriers required?

☐ Yes ☐ No Is communication equipment required?

☐ Yes ☐ No Is telephone or 2-way radio for summoning rescue available?

Check required emergency equipment:

<input type="checkbox"/> Fire Extinguisher (type) _____	<input type="checkbox"/> Life Line Retrieval Line
<input type="checkbox"/> Emergency Shower/Eyewash	<input type="checkbox"/> Tripod and Winch (for 5+ ft. vertical)
<input type="checkbox"/> Safety Harness	<input type="checkbox"/> Other (specify) _____

☐ Yes ☐ No Are SDSs for all materials in the Confined Space (or to be brought into the Confined Space) attached?

☐ Yes ☐ No Have entrants and standby personnel been trained?

☐ Yes ☐ No Has the standby person been informed to remain continuously posted outside of the Confined Space?

Special entry and/or work procedures: _____

List required Personal Protective Equipment _____

PART III-PERMIT REVIEW

☐ Yes ☐ No Has appropriate air monitoring been identified?
☐ Yes ☐ No Are respirators required? List types:
☐ Yes ☐ No Are hazard controls and PPE appropriate and adequate?
☐ Yes ☐ No Has Entry Supervisor approved the Operating Procedure?
☐ Yes ☐ No Is continuous air monitoring required?

Describe any special entry requirements: _____

Permit Approved: _____ Phone _____

Entry Supervisor (print)

Date _____

Entry Supervisor (signature)

PART IV-AIR SAMPLING RESULTS

Air Monitoring Equipment Used:

<u>Model</u>	<u>Serial Number</u>	<u>Date Calibrated</u>	<u>User's Name</u>

Air Monitoring Results (to be conducted at various areas throughout)

<u>Date</u>	<u>Time</u>	<u>Location(s)</u>	<u>Oxygen %</u>	<u>Combustibles % LEL</u>	<u>H2S</u>	<u>CO</u>	<u>Toxic Chemicals</u>

Has all required air monitoring been done throughout the confined space? Test completed by: _____

PART V-LIST ALL AUTHORIZED ENTRANTS AND STANDBY PERSONNEL

<u>Entrants</u>	<u>Signature</u>	<u>Standby Personnel</u>	<u>Signature</u>

PART VI-CERTIFICATION (Entrants and Standby personnel shall review the Permit and Operating Procedure.

After this is completed, they shall sign the permit next to their names in Part V)

I certify that the requirements of this permit have been met.

ENTRY SUPERVISOR:

Name (print)

Signature

Date

Phone

Organization

Name (print)

Signature

Date

Phone

Organization

When Confined Space Entry Work is completed, send this Permit to the Department Director.

Policy Number: 1910.303

Effective Date:

Revision Date:

Approved By:



Safety & Health Policy and Procedure Manual

Electrical Equipment Use Policy

1.0 PURPOSE

The purpose of this policy is to assure that employees are protected from unsafe and/or unapproved electrical equipment. The policy is based on OSHA regulations, the National Electrical Code and the Fire Prevention Code. This policy does not include every standard related to electrical use. For additional information, refer to the various applicable standards or contact the Risk Manager.

2.0 SCOPE

This policy applies to all employees, and visiting Contractors of Gaston County. Organizations leasing space on County property must adhere to this program if their work creates a hazard for any County employee or a risk of property loss.

3.0 RESPONSIBILITIES AND DUTIES

Department Directors are responsible for assuring that all employees are familiar with and are following the guideline in this policy. The Department Director (or Designee) must assure that unsafe equipment is removed from service. The Risk Manager may also remove faulty equipment that poses a hazard.

3.1 GENERAL

- All electrical equipment/devices must be free from recognized hazards.

- All electrical equipment/devices must be used in accordance with its listing and/or labeling and any instruction included.
- Damaged or faulty equipment must be removed from service until repaired. Equipment that cannot be repaired must be disposed of.

3.2 GROUNDING

3.1.1 Metal parts of the following cord and plug connected equipment must be grounded by using a 3-wire, grounded cord.

- Refrigerators and freezers
- Water fountains
- Air conditioners
- Clothes washing, clothes drying and dish washing machines
- Sump pumps
- Aquariums
- Hand held motor operated tools. Exception: Double insulated tools
- Motor operated appliances such as hedge clippers and weed eaters
- Equipment used in wet or damp locations or by employees standing on the ground, on metal floors, or on a slab that sets on the ground
- X-ray equipment

3.1.2. Metal fans, because they are susceptible to cord damage, must be 3-prong grounded

3.1.3. Flexible Cords: Flexible cords are typically used to power and plug electrical equipment including extension cords. Flexible cords:

- Cannot be run through holes in walls, ceiling or floors
- Cannot be run through doorways, windows, or similar openings unless on a temporary basis and the cord is protected from damage
- Cannot be run under doors or floor coverings
- Cannot be subjected to damaging physical impact
- Cannot be concealed behind walls, ceilings, or floors
- Cannot be attached to building(s)
- Where run through holes in fixtures, out boxes or similar enclosure(s), they must be protected by bushings or fittings
- Cannot be spliced
- Must be connected to devices and fittings so that there is no tension on joints or terminals
- At no time may the amp capacity rating be exceeded
- If equipped with grounding type plug, the grounding conductor must not be broken and adapters must not be used which bypass the ground
- The polarity must not be reversed on polarized plugs
- Tape is not allowed to cover cuts and nicks in the insulations

- Cannot be used for lifting or lowering tools or equipment
- Cannot be laid across floors or walkways where they may create a tripping hazard
- When flexible cords are replaced, the replacement cord must be at least of equal quality and amp capacity rating. It must be the same length and approved for the same type of use.
- Cannot be used as a substitute for the fixed wiring of a structure and cannot be used for permanent wiring
- Must be UL approved and used in accordance with its listing and labeling.

3.1.4. Extension Cords: In addition to the above listed requirements for flexible cords, extension cords have the following additional requirements.

- Extension cords are to be used only on a temporary basis. They can be used on portable equipment for short-term use while the equipment is in use. Exception: Extension cords may be used for a period of 90 days for Christmas decorative lighting.
- Extension cords must be at least size 16 for normal use and size 14 for heavy-duty use. They must be 3-wire grounded and used according to its listing and labeling.
- At no time can the amp capacity be exceeded.
- They cannot be spliced.

3.1.5. Power Strips:

- Equipment cannot be plugged into a power strip that exceeds its amp capacity rating if all equipment were turned on at the same time.
- Power strips must have overcurrent protection.
- Power strips cannot be plugged into other power strips.
- Longer cords may not be put on power strips in order to provide electrical service to an area where permanent wiring is needed.

3.1.6. Ground Fault Circuit Interrupters: Ground fault circuit interrupters (GFCI) are being used in lieu of a written assured equipment grounding conductor and inspection plan.

- All employees must be protected by proper GFCI equipment when performing construction, alteration, and/or repair (maintenance) work, including painting and decorating, if the work requires the use of cord and plug connected equipment.
- All employees, regardless of the type of work, must be protected by proper GFCI equipment when using any electric powered hand tool or portable electrical equipment.
- The GFCI must be tested in accordance with the manufacturer's instructions. The test normally requires the pushing of the test button supplied and assuring that the electricity is actually disconnected. Plug something electrical in the GFCI to assure that the electricity is actually disconnect rather than relying on the "click."
- If an extension cord is used with a cord type GFCI, plug the GFCI into the outlet first. Then, plug the extension cord into the GFCI.
- Receptacles at damp or wet locations must be GFCI protected, including receptacles within 6 feet of sinks.

3.1.7. Portable Heaters: Per the Public Works Department, the use of portable heaters in Gaston County buildings is not allowed. The use of heaters interferes with the temperature sensors in the buildings.

3.1.8. Various Small Electrical Appliances and Devices

- **Coffee Makers**

- a. All coffee makers must be 3-wire, grounded type.
- b. All coffee makers must be UL approved for "commercial use" and not labeled "house-hold use only."
- c. Timers for turning on coffee makers are not allowed unless they are provided by the manufacturer and are an integral part of the unit.
- d. Coffee makers must be maintained at least three feet from easily combustible material such as paper and on a stable surface.
- e. Coffee makers must be turned off when not in use and at the end of the day.
- f. Coffee makers must be plugged into a wall outlet, not a power strip.

3.1.9. Portable fans

- All fans must be UL approved.
- All fans with metal housings must be of the 3-wire, grounded type.
- All fans must be plugged into a wall outlet.

3.2.0 Toasters

- All toaster ovens must be 3-wire grounded type and be UL approved.
- Units labeled for household use only are not allowed.
- All units must be maintained at least 3 feet from easily combustible material, such as paper, and on a stable surface.
- All toasters must be plugged into a wall outlet.

3.2.1. Microwave Ovens – All microwave ovens must be 3-wire, grounded type and must be UL approved. All microwave ovens must be plugged into a wall outlet.

3.2.2. Refrigerators – All refrigerators must be 3-wire, grounded type and must be UL approved. All refrigerators must be plugged into a wall outlet.

3.2.3 Miscellaneous-

- Multiple outlet adapters are not allowed unless they have overcurrent protection and the devices plugged in do not exceed the amp capacity rating.
- Homemade power boxes are not allowed at any time.
- Adapters that bypass the ground are not allowed.

Policy Number: 1910.38

Effective Date:

Revision Date:

Approved By:



Safety & Health Policy and Procedure Manual

Emergency Action Plan Policy

1.0 PURPOSE

The purpose of this Emergency Action Plan is to outline the procedures and guidelines for employees at Gaston County to follow in case of an emergency. An emergency is defined as any situation where the health and safety of an employee is in danger, such as fire, smoke, acid, gas leak, bomb threat, etc.

2.0 SCOPE

This Plan applies to all employees of Gaston County, and visiting Contractors, working throughout Gaston County.

3.0 EMPLOYEE TRAINING

3.1 General

All employees are to be trained and become familiar with the Emergency Action Plan. It is the responsibility of each Department Director, or Designee, to ensure this training is conducted for their particular areas. All new hires will be trained on initial assignment in their departments. If, at any time, the Emergency Action Plan or any of the facility responsibilities or designated actions under this plan change, all associated are to be notified.

3.2 Types of Training

All employees shall be trained in various aspects of the Emergency Action Plan. This training shall include:

- Emergency Procedures

- Location of Hazardous Chemicals Stored on Site
- Location of Hazardous Chemical Lines
- Primary Means of Egress (from work areas within buildings)
- Location of Assembly Areas Outside After Evacuation
- Written Emergency Action Plan

4.0 EMERGENCY REPORTING/EVACUATION PROCEDURE

4.1 Reporting Procedures:

Any employee, who believes that an emergency exists, will first call 911 and report the emergency and, if applicable, activate the facility's fire/evacuation alarm. As soon as practical, the employee shall notify his/her Supervisor of the emergency. Once the emergency occurs, evacuation procedures will take place as outlined below.

4.2 Emergency Evacuation Procedures:

4.2.1 The Department Director, or Designee, shall notify all employees of an emergency through the use of the site fire alarm system, telephone (intercom), or verbal alert. All employees shall evacuate according to the posted evacuation routes in each area.

4.2.2 The Department Director, or Designee, shall assess the situation and forward assessment information to Communications through calling 911.

4.2.3 After all employees are outside and in no risk of danger, each Supervisor shall account for all employees in his/her area by performing a roll call to determine if employees are present and/or accounted for.

4.2.4 If the head count is short of who is believed to be actually present at work, the Supervisor will immediately notify the officials in charge (Fire Captain, Police, EMT, etc.). This will enable proper rescue procedures to take place. **No employee is to re-enter a building to perform ANY rescue duties.**

4.2.5 Employees shall stay in their respective groups until told to leave by a member of Management or a Supervisor. During an emergency, employees shall not leave the designated meeting locations without Supervisor permission.

4.2.6 Once the threat of an emergency is over, Management, Supervision, and/or Emergency Personnel shall give permission to reenter the building.

4.2.7 For locations with possible flammable atmospheres, employees shall withdraw to a safe distance for safety. Employees shall also alert bystanders to clear the area and retreat to a safe distance.

5.0 MEDICAL TREATMENT

Gaston County employees, trained in First Aid/CPR, are encouraged to provide assistance if within the scope and comfort of their skills and abilities, however, employees (other than those employed as part of the Emergency Medical System, i.e., First Responders, GEMS) are not required to render aid.

6.0 RESPONSIBILITIES

6.1 Employee Responsibilities

The following procedure shall be followed to evacuate the building.

At the activation of an alarm, all employees are to:

- Immediately stop activities.
- Evacuate the building and use the designated or safest EXIT route available and proceed to the designated assembly area. **Make sure that all visitors and customers have been advised to evacuate and, if possible, accompanied by County personnel.**
- Corridors, stairways, and other passageways containing heavy smoke, fire or other dangers shall be avoided.
- Elevators shall not be used during an emergency, except to escape a danger such as an active shooter.
- Evacuation of disabled individuals shall be aided by others, if possible. If not possible, they shall be instructed to stay in the stairwell, or shelter in place, and call 911 to give their exact location (i.e., floor & stairwell description). If possible, employees shall also contact 911 to advise the location and number of disabled individuals awaiting help in the stairwell or another location.

6.2 Supervisor Responsibilities

At the activation of an alarm, each Supervisor shall:

- Immediately stop activities.
- Direct employees, in their work area, to the safest evacuation routes.
- Maintain a head count of all employees at designated meeting locations.
- Train all employees, in their work area, of the primary and secondary routes of evacuation.

6.3 Department Directors

- Ensure that all Supervisors train their employees on this plan.

- Communicate with Supervisors at the assembly areas and determine if any employee is not accounted for after the evacuation.
- Each Department Director shall publish an Emergency Action Plan for his/her department, work place or and/or work site. This plan shall include alarm type(s), primary and secondary evacuation routes, and meeting locations.

7.0 EMERGENCY EVACUATION DRILLS

- 7.1 Emergency Evacuation Drills, for all Gaston County facilities, shall be performed, annually, by the use of the fire alarm, (where available), in conjunction with the intercom alarm sounding system. The County Fire Marshal, and the Public Works Facilities Administrative Manager, shall be informed of these drills.
- 7.2 Employees shall be trained in the recognition of tone alarm sounds and alarm indicators throughout the building.
- 7.3 The drills shall be evaluated by Gaston County Management and staff or representatives of Gaston County's Fire Marshal's Office to determine effectiveness.

8.0 BOMB THREAT CALLS

8.1 Bomb Threat Response

If a bomb threat is received by telephone, the recipient shall, **if possible**:

8.1.1 Obtain and record information from the caller, including:

- Location of device
- Description of device
- Predicted time of explosion
- Type of device
- Name, address, and pertinent information of the caller; voice accent, gender, age, location of call, emotional state, and any background noise

8.1.2 Contact Gaston County Emergency Communications Center by dialing 911. They will, in turn, notify the appropriate Public Safety Personnel.

8.1.3 Notify your immediate on-site Supervisor and the Risk Manager of the situation.

8.1.4 The appropriate authorities are acting upon the information you provide and are evaluating the situation. **Do not initiate any type of**

evacuation unless conditions warrant. Emergency Personnel will make the decision if evacuation is necessary.

8.1.5 If an alarm is activated, follow normal evacuation procedures outlined in this plan under Employee and Supervisor Responsibilities. This does not mean a bomb or a hazardous device has been located or that you are in immediate danger. It means that Management and Emergency Personnel have decided to evacuate in an effort to facilitate a more effective search of the premises and for your safety.

8.1.6 Public Safety personnel will notify Management and the Risk Manager once the facility is deemed safe to return to work and that notification will be shared with employees.

8.2 Locating a Suspicious Package

- Should a suspicious package be located, Emergency Communications shall be contacted, immediately, from a phone not located in the immediate area by dialing 911. Provide the following information, if possible:
 - Location of the device
 - Physical description
 - Any noise/sound coming from device
 - Do not touch or examine the device in any way
 - Evacuate the immediate area
 - Leave lights, doors, computers and everything just as they are
 - Again, *under no circumstances* shall the device be approached or handled. Explosive devices will only be handled, moved and/or transported by personnel trained as Explosive Ordnance Disposal Technicians (EOD Technicians).
- If nothing suspicious is found, and all personnel have departed, join your employees and customers in the designated assembly areas.
- Do not allow anyone to reenter the building until instructed by Public Safety personnel.

9.0 SEVERE WEATHER

In the event of a severe weather warning, the following procedure shall be followed. The objective will be to ensure the safety of all employees with a minimal amount of confusion and panic. The following steps are to be taken:

- Employees shall be directed to stay inside buildings, or seek shelter, when outside.
- If threatening weather exists, employees are to move away from windows and doors and into the stairwells and/or centermost part of buildings. Also, seek the lower levels of buildings.

- Severe weather reports shall be monitored by Management.
- In the event of personal injury or damage, appropriate police, fire, or medical emergency services will be notified by calling 911.
- All employees shall stay sheltered until notified by Management through intercom, telephone or Designated Employee.

10.0 ACTIVE SHOOTER

Active Shooter(s) are individual(s) actively engaged in killing or attempting to kill people in a confined and populated area; in most cases, active shooters use firearms and there is no pattern or method to their selection of victims.

Active shooter situations are unpredictable and evolve quickly. Typically, the immediate deployment of law enforcement is required to stop the shooting and mitigate harm to victims.

Because active shooter situations are often over within 10 to 15 minutes, before law enforcement arrives on the scene, individuals must be prepared both mentally and physically to deal with an active shooter situation.

10.1 Evacuate- If there is an accessible escape path, attempt to evacuate the premises. Be sure to:

- Have an escape route and plan in mind
- Evacuate regardless of whether others agree to follow
- Leave your belongings behind
- Help others escape, if possible
- Prevent individuals from entering an area where the active shooter may be
- Keep your hands visible
- Follow the instructions of law enforcement
- Do not attempt to move wounded people, unless failing to move them would put them in greater danger
- Call 911 when you are safe

10.2 Hide- If evacuation is not possible, find a place to hide where the active shooter is less likely to find you. Your hiding place should:

- Be out of the active shooter's view
- Provide protection if shots are fired in your direction (i.e., an office with a closed and locked door)
- Do not trap or restrict your options for movement, if possible

To prevent an active shooter from entering your hiding place:

- Lock the door

- Block the door with heavy furniture

If the active shooter is nearby:

- Lock the door
- Silence your cell phone
- Turn off any source of noise (i.e., radios, televisions)
- Hide behind large items (i.e., cabinets, desks)
- Remain quiet

If evacuation and hiding are not possible:

- Remain calm
- Dial 911, if possible, to alert law enforcement to the active shooter's location
- *If you cannot speak, leave the line open and allow the dispatcher to listen*

10.3 Take action against the active shooter-As a last resort, and only when your life is in imminent danger, attempt to disrupt and/or incapacitate the active shooter by:

- Acting as aggressively as possible against him/her
- Throwing items and improvising weapons
- Yelling
- Committing to your action

10.4 How to Respond When Law Enforcement Arrives-Law enforcement's purpose is to stop the active shooter as soon as possible. Officers will proceed directly to the area in which the last shots were heard.

- Officers usually arrive in teams of four (4)
- Officers may wear regular patrol uniforms or external bulletproof vests, Kevlar helmets and other tactical equipment
- Officers may be armed with rifles, shotguns, handguns
- Officers may use pepper spray, tear gas or an electrical controlled device to control the situation
- Officers may shout commands, and may push individuals to the ground for their safety

How to react when law enforcement arrives:

- Remain calm and follow officers' instructions
- Put down any items in your hands (i.e., bags, jackets)
- Immediately raise hands and spread fingers
- Keep hands visible at all times
- Avoid making quick movements toward officers, such as holding onto them for safety
- Avoid pointing, screaming and/or yelling

- Do not stop to ask officers for help or directions when evacuating, just proceed in the direction from which officers are entering the premises

Information to provide to law enforcement or 911 Operator:

- Location of the active shooter
- Number of shooters, if more than one
- Physical description of shooter(s)
Number and type of weapons held by the shooter(s)
- Number of potential victims at the location

The first officers to arrive to the scene will not stop to help injured persons. Expect rescue teams, comprised of additional officers and emergency medical personnel, to arrive after the initial officers. These rescue teams will treat and remove any injured persons.

Once you have reached a safe location or an assembly point, you will likely be held in that area by law enforcement until the situation is under control. Do not leave until Management, Supervisors and Public Safety authorities have instructed you to do so.

PLACE A COPY OF YOUR BUILDING'S EMERGENCY ACTION PLAN HERE

Policy Number: 1910.66
Effective Date:
Revision Date:
Approved By:



Safety & Health Policy and Procedure
Manual

Fall Protection Policy

1.0 PURPOSE

The purpose of this policy is to establish guidelines to protect all Gaston County employees engaged in indoor or outdoor work activities that expose them to potential falls from elevations.

2.0 SCOPE

This policy applies to all Gaston County Employees, and Contractors, at Gaston County facilities.

3.0 GOALS

The goal of this Fall Protection Policy is to prevent the occurrence of falls from elevations of six feet or higher. This goal will be accomplished through effective education, engineering and administrative controls, use of fall protection systems and enforcement of the policy.

4.0 DEFINITIONS

AUTHORIZED PERSON: Means a person approved or assigned by Gaston County to perform a specific type of duty or duties or to be at a specific location or job site. (i.e., building maintenance, roof repair, etc.).

COMPETENT PERSON: A person capable of identifying existing and predictable hazards in the surrounding or working conditions, which are

hazardous or dangerous to employees. A person who has the authority to take prompt corrective action to eliminate such hazards.

QUALIFIED PERSON: An individual, who by possession of a recognized degree, certificate, or professional standing or who by extensive knowledge, training and experience has successfully demonstrated his/her ability to solve or resolve problems relating to the subject matter, work or project.

ANCHOR POINT: A secure point of attachment for lifelines, lanyards or deceleration devices. An anchor point must be capable of supporting at least 5000 pounds (3600 pounds if engineered/certified by a qualified person) per person and must be independent of any anchorage being used to support or suspend platforms.

FULL BODY HARNESS: Webbing/straps which are secured about an employee's body in a manner that will distribute the fall arrest forces over the thighs, pelvis, waist, chest and shoulders. Having means for attaching it to other components of a personal fall arrest system, preferably at the shoulders and/or middle of the back.

CONNECTOR: A device which is used to couple (connect) parts of the personal fall arrest system together.

DECELERATION DEVICE: Any mechanism, such as a rope grab, rip-stitch lanyard, a specially woven lanyard, tearing or deforming lanyard, automatic self-retracting lifeline/lanyard, etc., which serves to dissipate a substantial amount of energy during a fall arrest.

DECELERATION DISTANCE: The additional vertical distance a falling employee travels, excluding lifeline elongation and free fall distance, before stopping, from the point at which the deceleration device begins to operate. It is measured as the distance between the location of an employee's body harness attachment point at the moment of activation of the deceleration device during a fall, and the location of that attachment point after the employee comes to a full stop.

FREE FALL: The act of falling before a personal fall arrest system begins to apply force to arrest the fall.

FREE FALL DISTANCE: The vertical displacement of the fall arrest attachment point on the employee's body harness between the onset of the fall and just before the system begins to apply force to arrest the fall. Free fall distance must not exceed six feet. This distance excludes deceleration distance and lifeline/lanyard elongation distance.

TOTAL FALL DISTANCE: The maximum vertical change in distance from the bottom of any individual's feet at the onset of a fall, to the position of the feet after the fall is arrested. This includes the free fall distance and the deceleration distance.

GUARDRAIL SYSTEM: A barrier erected to prevent employees from falling to lower levels. This system includes a toeboard, midrail and toprail able to withstand 200 pounds of force applied in any direction.

LANYARD: A flexible line of rope or strap that has self-locking snaphook connectors at each end for connecting to body harnesses, deceleration devices and anchor points.

LEADING EDGE: The edge of a floor, roof or other walking/working surface, which changes location as additional floor, roof, etc., is placed or constructed. A leading edge is considered an unprotected side or edge when not under active construction.

LIFELINE: A component consisting of a flexible line for connection to an anchorage at one end to hang vertically (vertical lifeline), or for connection to anchorages at both ends to stretch horizontally (horizontal lifeline). This serves as a means for connecting other components of a personal fall arrest system to the anchorage.

LOW SLOPE ROOF: A roof having a slope of less than or equal to 4 in 12 (vertical to horizontal). A roof with approximately a 19.5 degree slope or less.

PERSONAL FALL ARREST SYSTEM: A system used to arrest (catch) an employee in a fall from a working level. It consists of an anchorage location, connectors, a body harness, and may include a lanyard, deceleration device, lifeline or any combination of the before-listed items.

ROPE GRAB: A deceleration device, which travels on a lifeline and automatically, by friction, engages the lifeline and locks to arrest the fall of an employee.

ROOF WORK: The hoisting, storage, installation, repair, and removal of materials or equipment on the roof.

SAFETY MONITORING SYSTEM: A safety system in which a Competent Person is responsible for recognizing and warning employees of fall hazards. All other fall protection systems must be deemed "infeasible" (through study/review) to select/use a safety monitoring system.

SNAPHOOK: A connector comprised of a hook-shaped member with a closed keeper which may be opened to permit the hook to receive an object and, when released, automatically closes to retain the object. Snaphooks must be self-closing with a self-locking keeper which remains closed and locked until unlocked and pressed open for connection or disconnection, thus preventing the opportunity for the object to "rollout" of the snap hook.

STEEP SLOPE ROOF: A roof having a slope greater than 4 in 12 (vertical to horizontal). A roof with a slope greater than 19.5 degrees.

TOEBOARD: A low protective barrier that will prevent the fall of materials and equipment to lower levels, usually 4 inches or greater in height.

UNPROTECTED SIDES AND EDGES: Any side or edge of a walking or working surface (e.g., floor, roof, ramp, runway, etc.) where there is no guardrail at least 39 inches high.

WARNING LINE SYSTEM: A barrier erected on a roof to warn employees that they are approaching an unprotected roof side or edge, which designates an area in which work can be conducted without the use of guardrails, personal fall arrest systems, or safety nets to protect employees in the area. This will be utilized on any roof greater than 50 feet wide and in conjunction with a safety monitor only where the other forms of fall protection have been deemed infeasible to use.

TYPES OF FALL PROTECTIONS SYSTEMS:

1. An articulating man lift provided with a restraint system and full body harness to an anchor point below the waist (preferably at the floor level).
2. Guardrail with a toe board, middle rail and top rail.
3. Personal fall arrest systems.
 - Anchor points (rated at 5000 pounds per person)
 - Full body harness
 - Restraint line or lanyard
 - Retractable lanyard
 - Rope grabs
 - Connectors (self-locking snaphooks).
4. Engineered lifelines
5. Warning lines
6. Safety nets
7. Safety monitor systems

Appropriate fall protection will be determined by the job to be performed.

FALL PROTECTION LOCATIONS:

Fall protection is required wherever the potential to fall 6 feet or more exists. Gaston County has identified the following places concerning fall protection:

1. All flat and low sloped roof locations, when within 6 feet of the roof edge or during roof repair/maintenance (4:12 pitch or greater).

2. All exterior and interior equipment platforms, catwalks, antennas/towers, etc.
3. All exterior and interior fixed ladders above 20 feet.
4. All mezzanine and balcony edges.
5. All open excavations or pits.
6. All tasks requiring use of the articulating man lifts.
7. All tasks requiring employees to lean outside the vertical rails of ladders (i.e. painting, stairwell light bulb replacements, etc.).
8. Scaffolding erection – 10 feet in height or greater.
9. Tuckpointing-chimney repair.
10. Gym – mezzanine/catwalk areas-whenver an employee must step outside the catwalk, addition fall protection (i.e., 6-foot lanyard to full body harness, self-retracting lanyard or rope grab system) shall be used.

Fall protection is not needed if an employee or employees are on a low slope roof for inspection/observation only!

FALL PROTECTION GUIDELINES – OPTIONS

Engineering Controls

This should always be the first option for selection, whenever possible, (e.g., light bulb changing-telescoping arm, changing valve-relocate at ground level, etc.) or utilizing a contractor in extremely hazardous areas.

Guardrails

On all projects, only guardrails made from steel, wood and wire rope will be acceptable. All guardrail systems will comply with the current OSHA standards (i.e., contain a 42" high toprail, a midrail and a toe boards, which can withstand 200 pounds of force in any direction). These guardrails will be placed in the following areas if necessary or feasible, based on job location or requirements:

1. On all open-sided floors
2. Around all open excavations or pits

3. On leading edges of roofs or mezzanines

Personal Fall Protection Systems

All employees on any project that will be required to wear a personal fall arrest or restraint system will follow these guidelines:

1. A full body harness will be used at all times.
2. Only shock absorbing lanyards or retractable lanyards are to be used so as to keep impact forces at a minimum on the body.
3. Only nylon rope or nylon straps with locking snaphooks are to be used for restraints.
4. All lanyards will be self-locking snaphooks.
5. The employee will inspect all personal fall arrest equipment before each use. Any deteriorated, bent, damaged, impacted and/or harness showing excessive wear will be removed from service.

The maximum free fall distance is not to exceed 6 feet. Consideration must be given to the total fall distance. The following factors can affect total fall distance:

1. Length of connecting means (i.e., lanyard length, use of carabineers, snaphooks, etc.)
2. Position and height of anchorage relative to work platform/area (always keep above the ear whenever possible).
3. Position of attachment and E-ring slide on the full body harness.
4. Deployment of shock absorber (max. 42").
5. Movement in the lifeline.
6. Initial position of worker before free fall occurs (i.e., sitting, standing, etc.).

Calculating Total Fall Distance

It is the total length of shock-absorbing lanyard + height of the person + the location distance of the D-ring from the work surface or platform.

Always allow a minimum of 6 feet of clearance above the ground, equipment, etc. at the end of the fall from the fall arrest point.

Engineered Lifeline

Lifeline systems must be designed and approved by an engineer or qualified person. Lifeline systems must be engineered to have appropriate anchorages, strength of line designed to hold X number of individuals connected to it, employee(s) suspended until a rescue can occur.

Warning Line System

All work on a flat roof greater than 50 feet wide, which is performed 6 feet or further back from the edge of the roof can be completed by installing a Warning

Line and using a safety monitor. If the roof is flat and less than 50 feet wide, a competent person safety monitor may be used. Warning Lines shall meet the following criteria:

1. Be erected 6 feet from the edge of the roof.
2. Be constructed of stationary posts made of wood or metal.
3. Wire or nylon rope and "Caution" tape will be strung from post to post and must be able to withstand 16 pounds of force.
4. The warning line will guard the entire perimeter of the roof where work is being performed.

If an employee must access an area within 6 feet of the roof's edge, for reasons other than exiting the roof via a ladder or fixed industrial ladder, another employee must monitor that individual and warn him/her of any dangers. If another employee is not available to act as a safety monitor, then the employee must don a full body harness and attach a fall restraint lanyard to an anchor point to prevent reaching the edge of the roof.

Inspection of Fall Protection Systems

The following criteria will be utilized to maintain all equipment in good working condition:

Full Body Harnesses

1. Inspect before each use.
 - Closely examine all of the nylon webbing to ensure there are no burn marks, which could weaken the material.
 - Verify there are no torn, frayed or broken fibers, pulled stitches, or frayed edges anywhere on the harness.
 - Examine the D-ring for excessive wear, pits, deterioration, or cracks.
 - Verify that buckles are not deformed, cracked and operate correctly.
 - Check to see that each grommet (if present) is secure and not deformed from abuse or a fall.
 - The harness should never have additional punched holes.
 - All rivets should be tight and not deformed.
 - Check tongue/straps for excessive wear from repeated buckling.
2. A competent person (Supervisor) will complete an annual inspection of all harnesses and documentation will be maintained in Department Director's Office. (See Appendix 1).
3. Storage will consist of hanging in an enclosed cabinet, to protect from damage.
4. All harnesses that are involved in a fall shall be destroyed.

Lanyards/Shock Absorbing Lanyards

1. Inspect before each use.
 - Check lanyard material for cuts, burns, abrasions, kinks, knots, broken stitches and excessive wear.
 - Inspect the snaphooks for distortions in the hook, locks and eye.
 - Carabineers checked for excessive wear, distortion and lock operation.
 - All locking mechanisms shall prevent hook from opening.
 - Shock absorbers visually inspected for any signs of damage, paying close attention to where the shock absorber attaches to the lanyard.
 - Points where the lanyard attaches to the snap hooks verified free from defects.
2. A Competent Person (Supervisor) will complete an annual inspection of all lanyards and documentation will be maintained in Department Director's Office. **(See Appendix 2).**
3. Storage will consist of hanging in an enclosed cabinet, to protect from damage.
4. All lanyards that are involved in a fall will be destroyed.

Snaphooks

1. Inspect before each use.
 - Inspect snaphook for any hook and eye distortions.
 - Verify there are no cracks or pitted surfaces.
 - The keeper latch should not be bent, distorted or obstructed.
 - Verify that the keeper latch seats into the nose without binding.
 - Verify that the keeper spring securely closes the keeper latch.
 - Test the locking mechanism to verify that the keeper latch locks properly.
 - A Competent Person (Supervisor) will complete an annual inspection of all snaphooks and documentation will be maintained in Department Director's Office. **(See Appendix 3).**
 - All snaphooks involved in a fall will be destroyed.

Self-Retracting Lanyards/Lifelines

1. Inspect before each use.
 - Visually inspect the body to ensure there is no physical damage to the body.
 - Make sure all nuts and rivets are tight.
 - Make sure the entire length of the nylon strap/wire rope is free from any cuts, burns, abrasions, kinks, knots, broken stitches/strands, excessive wear and retracts freely.

- Test the unit by pulling sharply on the lanyard/lifeline to verify that the locking mechanism is operating correctly.
- If the manufacturer requires, make certain the retractable lanyard is returned to the manufacturer for scheduled annual inspections.
- A Competent Person (Supervisor) will conduct monthly inspection of all self-retracting lanyards/lifelines and documentation will be maintained in Department Director's Office. (See Appendix 4).
- Service per Manufacturer Specifications.
- Inspect for proper function after every fall.

Tie-Off Adapters/Anchorages

1. Inspect for integrity and attachment to solid surface.
2. A Competent Person will complete an annual inspection of all tie-offs and anchorages and documentation will be maintained,
3. All tie-offs and anchorages will be destroyed after a fall.

Articulating Man Lift

1. Inspect before each use.
2. Inspect/service per manufacturer guidelines, Forklift, scissors lifts, and safety nets will be inspected at the beginning of each shift when in use. Structural integrity of the forklift basket will be checked per the same schedule.
3. A Competent Person will complete an annual inspection of the forklift basket and documentation will be maintained.

Horizontal Lifelines

1. Inspect before each use for structural integrity of line and anchors.
2. A competent person will complete an annual inspection.

Guardrails

1. Temporary systems – Daily visual inspection will be completed by a Competent Person.
2. Temporary systems – Weekly, a complete structural inspection will be completed by a Competent Person.
3. Permanent systems – Annual structural inspections will be completed by a Competent Person with future frequency of inspection defined based on conditions/controls present.

Storage and Maintenance of Fall Protection Equipment

1. Never store the personal fall arrest equipment in the bottom of a toolbox, on the ground, or outdoors exposed to the elements (i.e., sun, rain, snow, etc.).
2. Hang equipment in a cool, dry location in a manner that retains its shape.
3. Always follow manufacturer recommendations for inspections.

4. Clean with a mild, nonabrasive soap and hang to dry.
5. Never force dry or use strong detergents in cleaning.
6. Never store equipment near excessive heat, chemicals, moisture, or sunlight.
7. Never store in an area with exposures to fumes or corrosive elements.
8. Avoid dirt or other types of build-up on equipment.
9. Never use this equipment for any purpose other than personal fall arrest.
10. Once exposed to a fall, remove equipment from service immediately.

Training

Document the attendance of all trainees (see Appendix 5).

All employees engaged in fall protection will be trained in and have the knowledge to:

1. Recognize the fall hazards off/on their job sites.
2. Understand the hazards associated with working near fall hazards.
3. Work safely in hazardous areas by utilizing appropriate fall protection measures.
4. Understand and follow all components of this fall protection program.
5. Identify and understand the enforceable OSHA standards and ANSI standards that pertain to fall protections.

Rescue Procedures

Rescue Methods/Options of Fallen Personnel

In the unlikely event that a fall arrest occurs on-site, personnel with the use of an articulating man lift or ladders, where feasible, will rescue all employees. Alternate rescue would be through the local emergency services. Call 911 for rescue.

Communication Issues

In the event of a fall, the following people will be notified as soon as possible:

1. Rescue personnel
2. Supervisor/Department Director
3. Risk Manager

At the beginning of any work activity where fall protection is an issue, rescue plans shall be identified and discussed with all employees in case of a fall. The Supervisor will develop the rescue plan(s).

All employees involved in a fall arrest or fall shall be sent for a medical evaluation to determine the extent of injuries, if any.

Fall Investigation

All fall investigations shall be conducted by the Department Director and the Risk Manager.

The following documentation will be completed as part of the fall investigation:

1. Interviews with staff and witnesses.
2. Employee injury/accident report.
3. Supervisor injury/accident report.

Program Evaluation

This fall protection program will be evaluated, yearly, by Department Director and Supervisors to determine the effectiveness. The following criteria will be used to evaluate its performance:

1. Accident report
2. Number of accidents
3. Management/staff compliance with program components.
4. Periodic on-site audits.
5. Staff feedback and interviews.

Contractors

All outside contractors working in or on the premises of Gaston County shall be required to follow the guidelines set forth in this fall protection program. Contractors in the pre-job meeting will be informed of these requirements as well as the on-site construction rules that apply.

Appendix 1

FULL BODY HARNESS ANNUAL INSPECTION CHECKLIST

Harness Model/Name: _____

Serial Number: _____ Lot Number: _____

Date of Manufacture: _____ Date of Purchase: _____

Comments: _____

General Factors	Accepted/Rejected	Supportive Details/Comments
1. Hardware: includes D-rings, buckles, keepers and back pads. Inspect for damage, distortion, sharp edges, burrs, cracks and corrosion.	Accepted Rejected	
2. Webbing: Inspect for cuts, burns, tears, abrasions, frays, excessive soiling and discoloration.	Accepted Rejected	
3. Stitching: Inspect for pulled or cut stitches	Accepted Rejected	
4. Labels: Inspect, making certain all labels are securely held in place and are legible.	Accepted Rejected	
5. Other	Accepted Rejected	
6. Other	Accepted Rejected	
7. Overall Disposition:	Accepted Rejected	Inspected By: Date Inspected:

Appendix 2

Lanyards

Annual Inspection Checklist

Lanyard Model/Name: _____
 Serial Number: _____ Lot Number: _____
 Date of Manufacture: _____ Date of Purchase: _____
 Comments: _____

General Factors	Accepted/Rejected	Supportive Details/Comments
1. Hardware: (includes, snaphooks, carabiners, adjusters, keepers, thimbles and D-rings) Inspect for damage, distortion, sharp edges, burrs, cracks, corrosion and proper operation.	Accepted Rejected	
2. Webbing: Inspect for cuts, burns, tears, abrasions, frays, excessive soiling and discoloration.	Accepted Rejected	
3. Stitching: Inspect for pulled or cut stitches.	Accepted Rejected	
4. Synthetic Rope: Inspect for pulled or cut yarns, burns, abrasions, knots, excessive soiling and discoloration.	Accepted Rejected	
5. Energy Absorbing Component: Inspect for elongation, tears and excessive soiling.	Accepted Rejected	
6. Labels: Inspect, making certain all labels are securely held in place and are legible.	Accepted Rejected	
Overall Disposition:	Accepted Rejected	Inspected by: Date Inspected:

Appendix 3

Snaphooks/Carabiners

Annual Inspection Checklist

Hook/Carabineer

Model/Name: _____

Serial Number: _____

Lot Number: _____

Date of Manufacture: _____

Date of Purchase: _____

Comments: _____

General Factors	Accepted/Rejected	Supportive Details/Comments
1. Physical Damage: Inspect for cracks, sharp edges, burrs, deformities and locking operations.	Accepted Rejected	
2. Excessive Corrosion: Inspect for corrosion, which affects the operation and/or the strength.	Accepted Rejected	
3. Markings: Inspect and make certain marking(s) are legible.	Accepted Rejected	
4. Other:	Accepted Rejected	
5. Other:	Accepted Rejected	
Overall Disposition:	Accepted Rejected	Inspected by: Date Inspected:

Appendix 4

Self-Retracting Lanyard/Lifeline Annual Inspection Checklist

Self-Retracting Lanyard/Lifeline Model/ Name: _____
 Serial Number: _____ Lot Number: _____
 Date of Manufacture: _____ Date of Purchase: _____
 Department/Location: _____
 Comments: _____

General Factors	Accepted/Rejected	Supportive Details/Comments
1. Impact Indicator: Inspect indicator for activation (rupture of red stitching, elongated indicator, etc.	Accepted Rejected	
2. Screws/Fasteners: Inspect for damage and make certain all screws and fasteners are tight.	Accepted Rejected	
3. Housing: Inspect for distortion, cracks and other damage. Inspect anchoring loop for distortion or damage.	Accepted Rejected	
4. Lanyard/Lifeline: Inspect for cuts, burns, tears, abrasion, frays, excessive soiling and discoloration. (See impact indicator section).	Accepted Rejected	
5. Locking Action: Inspect for proper lock-up of brake mechanism.	Accepted Rejected	
6. Retraction/Extension: Inspect spring tension by pulling lanyard out fully and allowing to retract fully (lifeline must be taut with no slack).	Accepted Rejected	
7. Hooks/Carabineers: Inspect for physical damage, corrosion, proper orientation and markings.	Accepted Rejected	
8. Labels: Inspect, making certain all labels are securely held in place and are legible.	Accepted Rejected	
Overall Disposition:	Accepted Rejected	

Appendix 5

Fall Protection Training

Instructor: _____

Date: _____

[illegible]

Policy Number: 1910.38a

Effective Date:

Revision Date:

Approved By:



Safety & Health Policy and Procedure Manual

Fire Prevention Plan Policy

1.0 PURPOSE

The purpose of this policy is to outline procedures to prevent fires in the workplace. These procedures are based on requirements in 29 CFR 1910.38 (a).

DEPARTMENTS AND PERSONNEL AFFECTED: This policy applies to all Gaston County Departments that occupy County-owned buildings.

ELEMENTS OF THE PLAN: All affected Department Directors, or Designees, must prepare a written Fire Prevention Plan meeting all required elements. Department Directors should use the attached forms to complete their Fire Prevention Plan. (See Appendices A, B, C)

1. **Identification of Hazards:** After a review of the workplace, the following must be identified:
 - a. Major workplace fire hazards and their proper handling and storage procedures.
 - b. Potential ignition sources (such as welding, smoking and others) and their control procedures.
 - c. Type of fire protection equipment, or systems, which can control a fire involving items in a and b, above.
2. **Assignment of Duties:** All Department Directors shall assign the following duties:
 - a. Employee(s) and job title(s) of those responsible for any applicable general fire safety responsibilities
 - b. Employee(s) and job title(s) of those responsible for control of fuel source hazards.

- c. Employee(s) and job title(s) of those responsible for maintenance of equipment and systems installed to prevent or control ignitions of fires.
- 3. **Housekeeping:** The Department Director, or Designee, must control accumulation of flammable and combustible waste materials and residues so that they do not contribute to a fire emergency. The housekeeping procedures must be included in the written **Fire Prevention Plan**.
- 4. **Heat Producing Equipment:** The Department Director, or Designee, shall regularly and properly maintain, according to established procedures, any equipment and systems installed on heat producing equipment. This is to prevent accidental ignition of combustible materials. The applicable maintenance procedures must be included in the written **Fire Prevention Plan**.
- 5. **Training:**
 - a. The Department Director, or Designee, must inform employees of the fire hazards of materials and processes to which they are exposed.
 - b. The Department Director, or Designee, must review with each employee, upon initial assignment, those parts of the Fire Prevention Plan which the employee must know to be protected in the event of a fire.
 - c. Records must be kept of all training activities, documenting the type of training, instructor name, persons trained and date(s) of training. This is to be a roster, signed by each employee. **(See Appendix D)**
 - d. If employees will be using fire extinguishers, the Department Director shall ensure that they are trained on fire extinguisher usage, annually. This training must be documented, either manually or electronically, (with a sign-in roster included) and made available for review in the Department.
- 6. **Availability of Plan:** The written plan must be kept in the workplace and made available for review by employees.

APPENDIX A
FIRE PREVENTION PLAN

Building: _____

Department: _____

Address: _____

Person(s) assigned responsibility for maintenance of equipment and systems installed to prevent or control ignitions or fires:

Person	Job Title	Phone Number
---------------	------------------	---------------------

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Person(s) assigned responsibility for control of fuel source hazards including the control of flammable and combustible waste materials and residues:

Person	Job Title	Phone Number
---------------	------------------	---------------------

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Person(s) assigned responsibility to maintain equipment and systems installed on heat producing equipment to prevent accidental ignition of combustible equipment:

Person	Job Title	Phone Number
---------------	------------------	---------------------

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

APPENDIX B

MAJOR WORKPLACE FIRE HAZARDS

List all major workplace fire hazards/ignition sources, and the proper handling, storage and housekeeping. Also list the relevant fire protection equipment or systems for the fire hazard/ignition source.

Fire Hazard/Ignition Source: _____

Proper Storage: _____

Proper Handling/Housekeeping: _____

Fire Protection Equipment or System: _____

Fire Hazard/Ignition Source: _____

Proper Storage: _____

Proper Handling/Housekeeping: _____

Fire Protection Equipment or System: _____

Fire Hazard/Ignition Source: _____

Proper Storage: _____

Proper Handling/Housekeeping: _____

Fire Protection Equipment or System: _____

Fire Hazard/Ignition Source: _____

Proper Storage: _____

Proper Handling/Housekeeping: _____

Fire Protection Equipment or System: _____

APPENDIX C

HEAT-PRODUCING EQUIPMENT MAINTENANCE PROCEDURES

Describe the maintenance procedures, followed, to maintain equipment and systems installed on heat-producing equipment to prevent accidental ignition of combustible materials.

Heat-Producing Equipment: _____

Maintenance Frequency: _____

Maintenance
Procedures: _____

Maintenance
Procedures: _____

Maintenance
Procedures: _____

Maintenance
Procedures: _____

Maintenance
Procedures: _____

Fire Extinguisher Training:

Date:

Time:

Instructor:

[illegible]

PLACE A COPY OF YOUR DEPARTMENT'S FIRE PLAN HERE

Policy Number: 1910.1200

Effective Date:

Revision Date:

Approved By:



Safety & Health Policy and Procedure Manual

Hazard Communication Policy

1.0 PURPOSE

The purpose of this Policy is to protect employees working with and around hazardous chemicals at all work sites under the authority of Gaston County. This Policy will also communicate these hazards to all associates involved. This Policy meets requirements set forth by 29 CFR 1910.1200.

2.0 SCOPE

This Policy applies to all Gaston County employees, guests, and visiting Contractors.

3.0 DEFINITIONS

- 3.1 **"CHEMICAL"** means any element, chemical compound or mixture of elements and/or compounds.
- 3.2 **"EXPOSURE"** means to subject an employee to hazardous chemicals in the course of employment through any route of entry (inhalation, ingestion, skin contact, or absorption, etc.) and includes potential (e.g. accidental or possible) exposure.
- 3.3 **"GLOBAL HARMONIZATION" (GHS)** means the Globally Harmonized System of Classification and Labelling of Chemicals. GHS defines and classifies the hazards of chemical products, and communicates health and safety information on labels and safety data sheets. **(See APPENDIX 1)**
- 3.4 **"HAZARDOUS CHEMICAL"** means any chemical which is a physical hazard or health hazard.

- 3.5 **"HAZARD WARNING"** means any words, pictures, symbols or combination thereof, appearing on a label or other appropriate form of chemical(s) in the container(s).
- 3.6 **"HEALTH HAZARD"** includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic system, and agents which damage the lungs, skin, eyes or mucous membranes.
- 3.7 **"LABEL"** means any written, printed or graphic material displayed on or affixed to containers of hazardous chemicals.
- 3.8 **"PHYSICAL HAZARD"** means a chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water reactive.
- 3.9 **"PURCHASING EMPLOYEE"** means any employee from any Department ordering chemicals for Gaston County.
- 3.10 **"SAFETY DATA SHEET" (SDS)** means written or printed material concerning a hazardous chemical which is prepared according to established guidelines.

4.0 HAZARD DETERMINATION

4.1 PURCHASED MATERIALS

4.1.1 All purchased chemical materials will be considered "hazardous" for the purpose of training, labeling, and SDS availability required by the standard. Each Department will rely on hazard information provided by the supplier's SDS and label as the primary source of hazard information for purchased chemical materials.

4.1.2 No purchased chemical will be allowed on any work site operated by Gaston County without the appropriate SDS and label as required by the Hazard Communication Standard.

4.2 RECEIPT OF PURCHASED MATERIALS

4.2.1 The Purchasing Employee, who initially orders a product, must request a SDS on each product. For each Department/Section of Gaston County, a responsible employee will be tasked with the primary duty of ordering chemicals and obtaining, filing and updating Safety Data Sheets.

4.2.2 It is the Purchasing Employee's responsibility to ensure that a SDS is received with each chemical purchased. No chemical shall be used without a current SDS on file.

4.2.3 It is also the Purchasing Employee's responsibility to inform vendors of their duty to provide the Department Employee with a revised Safety Data Sheet on any products that are altered in any way.

5.0 LABELS AND OTHER FORMS OF WARNING

5.1 HAZARD WARNINGS

5.1.1 Hazard warnings are meant to convey to employees working with or near chemical substances the nature of the most significant hazard or hazards associated with the chemical in use. Hazard warnings are intended to be concise and understandable statements and are not intended to convey all hazard information on the chemical in use.

5.1.2 Each chemical entering the workplace will be labeled, tagged, or marked by the Chemical Manufacturer, Importer, or Distributor with the following information:

- IDENTITY of the hazardous chemical(s).
- APPROPRIATE HAZARD WARNINGS.
- NAME AND ADDRESS of the Chemical Manufacturer, Importer, or other responsible parties.

5.2 CONTAINERS IN THE WORKPLACE

5.2.1 Each purchased container of hazardous materials from a Supplier will carry the Supplier's identity or hazard warning label.

5.2.2 Gaston County Employees shall not modify the Supplier's identity or hazard warning statements.

5.2.3 The identity will also be indicated on the corresponding SDS. For chemicals not in supplier containers, employee will affix an appropriate label to the container.

5.2.4 All portable containers shall be labeled with the appropriate hazard warning when they contain chemicals.

5.3 LABELING EXCEPTIONS

Portable containers, in which chemicals are transferred, do not need to be labeled as long as the chemical is used during the same work shift (and in the custody of the employee who is transferring the chemical and using it).

5.4 PLACARDS

In certain work areas, placards, signs or operating procedures may be used in addition to labels as a form of employee warning. These alternative methods will all comply with 29 CFR 1910.1200 (f) (4) of the Hazard Communication Standard and Section 6.1 of this written program.

5.5 LABEL CHANGES

Old labels, which do not meet the requirements of the Hazard Communication program, will be removed when they do not adequately describe container contents and replaced with a label meeting requirements. A label meeting these requirements will not be removed or defaced for any reason.

6.0 SAFETY DATA SHEETS (SDS)

6.1 SDS FILES AND CONTENTS

6.1.1 Each Department/Section of Gaston County shall maintain a file of SDS on each hazardous chemical used by employees.

6.1.2 Each SDS will be in English and will contain the information specified in 29 CFR 1910.1200 (g).

6.1.3 Every SDS will be in binders and located in each Gaston County Department Director/Supervisors offices (or a conspicuous place) with easy access within the work area. For those sections with multiple work sites, the Department Director /Supervisor shall have SDS binders made for each work site and have binders containing SDS of those chemicals specific to that work site. This may include but not limited to, having SDS binders on each Gaston County Truck/Vehicle, placing binders in every office, or having a binder available to be carried by an employee-if practical.

6.2 ACCESS TO SAFETY DATA SHEETS

All SDS kept on file as described in Section 6.1 , will be accessible to all employees during their regular work shift when working at Gaston County. Supervisors are to inform their respective employees of the location of SDS binders. Any employee, upon verbal request to his or her supervisor, shall be granted access to the SDS files during regular business hours and on the day the request is made. A copy of the SDS will be made and given to the employee, if requested. At no time will SDS sheets be removed without Department Director/Supervisor consent.

6.3 ALPHABETIZED LIST

Each Department/Section will keep all Hazardous Chemical information filed, with the appropriate SDS, in alphabetical order by common name.

7.0 EMPLOYEE INFORMATION AND TRAINING

7.1 TRAINING PROGRAM CONTENTS

7.1.1 Each Department Director, or their Designee, will conduct or coordinate training programs, for all employees, working in areas containing Hazardous Substances at the time of initial assignment and whenever a new hazard is introduced into the work area.

7.1.2 The training shall include all items specified in 29 CFR 1910.1200 (h).

7.1.3 The training shall be presented for each Department, and will accurately and clearly present the hazards of chemicals used and all other associated information.

7.1.4 Employees shall also be encouraged to access the SDS file to obtain information on individual chemicals.

7.2 TRAINING PROGRAM FORMAT AND RECORDS

7.2.1 General (non-Department specific) employee training will be conducted by Human Resources Personnel in New Employee Orientation. Supervisors of each Department will ensure all employees, within their supervision, are trained in the Hazard Communication/GHS Standard. Each Supervisor will review, with each individual employee, any hazardous materials that are unique to his/her particular area and be responsible for

completing this part of the training. The Supervisor will document this training and a record of this training will be kept and maintained in each Department.

8.0 NON-ROUTINE TASKS AND UNLABELED PIPES

8.1 PROCEDURE FOR NON-ROUTINE TASKS

8.1.1 Most of the tasks involving chemicals are performed daily at each facility or throughout the County. All Department Directors and Supervisors shall be alert for the unusual or non-routine use or generation of chemical substances. Contact the Risk Manager for an evaluation in the event of non-routine task(s). When appropriate, Supervisors shall contact the Risk Manager, who will consult and recommend if an appropriate warning and necessary protective measure is to be included in a non-routine operating procedure.

8.2 PROCEDURE FOR UNLABELED PIPES

Although all pipes containing chemicals located in certain buildings are not required to be labeled, all Supervisors will advise their employees of the hazardous chemicals contained in unlabeled pipes located in their areas. This will also include what to do in case of accidental leakage.

9.0 CONTRACTOR EMPLOYEES

9.1 GENERAL

Employees of Contractors, working in work areas maintained by Gaston County, may come in contact with hazardous chemicals normally used at the work area or brought to the site by the Contractor. These employees will be informed of the presence of hazardous chemicals in the work area by the Gaston County Employee overseeing the Contractor and will be informed of appropriate protective measures. Also, Contractors will inform Gaston County; specifically the Department Director/Supervisor, of their intent to use a hazardous chemical substance, prior to bringing that substance on site.

9.2 MANAGEMENT'S RESPONSIBILITY TO CONTRACTORS

A Project Supervisor will be designated for any work being performed by Contractors in an area where hazardous chemicals are used. That project Supervisor (Project Engineer, Department Director/Supervisor) shall be responsible for the following:

9.2.1 Provide the Contractor with a copy of Gaston County's written Hazard Communication/GHS Policy.

9.2.2 Review the essential points from the Program with the Contractor.

9.3 CONTRACTOR'S RESPONSIBILITY TO THE COUNTY

All Contractors having employees working in areas maintained by Gaston County where hazardous chemicals are used shall:

9.3.1 Be provided a copy of Gaston County's Hazard Communication Policy

9.3.2 Educate and train their employees on Gaston County's Hazard Communication Policy.

9.3.3 Provide their employees with appropriate protective devices and techniques, educate and train employees in the use of these, and ensure that those employees properly use protective equipment to prevent *injury from hazardous chemicals*.

9.3.4 Provide the Project Supervisor and/or Department Director/Supervisor with a copy of the SDS for any hazardous chemical that the Contractor intends to bring or generate on site.

10.0 SPECIFIC TASK ASSIGNMENTS AND ACCOUNTABILITIES

The Department Director will review tasks, listed below, and assign employees for each task. These employees shall be responsible and held accountable for the Hazard Communication tasks listed. The list of responsible employees will be kept in each Department Director's office.

TASK

- Overall program coordination
- Updating list of purchased materials in written Hazard Communication Program
- Review of Hazard Communication Program with Contractors prior to work on site
- Labeling of portable containers in treatment and maintenance
- Ensuring appropriate employees are available for training
- Provision and maintenance of placards, signs, etc. in treatment and maintenance
- Specific training for all associated employees

APPENDIX 1

GLOBALLY HARMONIZED SYSTEM (GHS)

Growth in international trade of chemical products resulted in inconsistencies in chemical labeling and classification. In 2012, the Hazard Communication Standard was revised to address those inconsistencies through the adoption of a "Globally Harmonized System," or GHS, established by the United Nations. This finalized standard is referred to as Hazard Communication/Globally Harmonized System, and includes the new GHS requirements.

The GHS system makes the communication of hazards consistent through pictograms and other means that overcome language barriers, and provides information to chemical handlers through one label, as opposed to the many labels and languages, formerly used to label chemical products. The GHS provides a uniform approach to evaluating and classifying hazards, and to communicating those hazards through Safety Data Sheets (or SDSs), formerly referred to as Material Safety Data Sheets, (or MSDSs).

1.0 Labeling and Other Forms of Warning

Under the Hazard Communication Standard, chemical manufacturers are required to provide labeling on every container of hazardous chemicals they manufacture. GHS labels may vary in appearance but they are required to include the six specific elements:

1. **Product Identifier:** The product name should match the identifier on the product's Safety Data Sheet (SDS)
2. **Signal Word:** A signal word is a single word, on the label, used to indicate the relative level of severity of a hazard and alert the reader to a potential hazard. The signal words used are "Danger" for more severe hazards, and "Warning" for less severe hazards.
3. **Hazard Statements:** Statements assigned to a hazard class that describes the nature of the product's hazard.
4. **Precautionary Statements:** Statements which describe recommended measures to minimize or prevent adverse effects resulting from exposure.
5. **Supplier Identification:** The name, address and telephone number of the manufacturer or supplier, in case it is necessary to contact them.
6. **Pictograms:** Graphic symbol intended to convey specific hazard information visually. See APPENDIX 2

APPENDIX 2

GHS PICTOGRAMS



FLAMMABLE



CORROSIVE



EXPLOSIVE



COMPRESSED
GAS



OXIDIZING



TOXIC



HEALTH
HAZARD



HARMFUL/
IRRITANT



DANGER FOR
THE ENVIRONMENT

Policy Number: 1910.25

Effective Date:

Revision Date:

Approved By:



Safety & Health Policy and Procedure Manual

Ladder Policy

1. PURPOSE

The purpose of this Policy is to establish guidelines for the safe use of ladders throughout Gaston County.

2. SCOPE and APPLICABILITY

Ladders are used when employees need to move up or down between two different levels. Slips, trips and falls are significant contributors to injuries. Slips, trips and falls can occur when wrong ladder selection is made and when improper climbing techniques and/or defective ladders are used.

This Safety Policy provides guidelines for the safe use of ladders. It provides information on the types of ladders, the use of ladders and inspection and maintenance requirements. This document also details the areas of responsibility for Department Directors and Supervisors concerning ladders. This Safety Procedure applies to all Gaston County employees who use ladders.

3. REFERENCE

This Safety Policy and Procedure is established in accordance with Occupational Safety and Health Standards for General Industry (29 CFR 1910.25-27) and Occupational Safety and Health Standards for the Construction Industry (29 CFR 1926.1053).

4. POLICY

It is the Policy of Gaston County to provide a place of employment that is free from recognized hazards that cause or are likely to cause death or serious physical harm to employees or the public. Therefore, at Gaston County, the appropriate ladder will be used for the corresponding job and defective ladders will not be used. When hazards exist that cannot be eliminated, then engineering practices, administrative practices, safe work practices, Personal Protective Equipment (PPE), and proper training regarding ladders will be implemented. These measures will be implemented to minimize those hazards to ensure the safety of employees and the public.

5. GENERAL RESPONSIBILITIES

It is the responsibility of each Department Director, Supervisor and employee to ensure implementation of Gaston County's Safety Policy and Procedure on Ladders. It is also the responsibility of each Gaston County employee to report, immediately, any unsafe act or condition to his/her Supervisor.

6. PROCEDURE

This section provides applicable definitions, establishes general provisions and identifies responsibilities required by Gaston County's Safety Policy and Procedure on Ladders.

6.1 Definitions

Cage-A guard that may be referred to as a cage or basket guard which is an enclosure that is fastened to the side rails of affixed ladder or to the structure to encircle the climbing space of the ladder for the safety of the person who must climb the ladder.

Extension Ladder-Non self-supporting portable ladder adjustable in length. It consists of two or more sections traveling in guides or brackets so arranged as to permit length adjustment. Its size is designated by the sum of the lengths of the sections measured along the side rails.

Fixed Ladder-Ladder permanently attached to a structure, building or equipment.

Individual Rung Ladder-Fixed ladder, each rung of which is individually attached to a structure, building or equipment.

Ladder-An appliance usually consisting of two side rails joined at regular intervals by cross-pieces called steps, rungs or cleats, on which a person may step while ascending or descending.

Ladder Safety Device-Device, other than a cage or well, designed to eliminate or reduce the possibility of accidental falls and which may incorporate such features as life belts, friction brakes and sliding attachments.

Pitch-The included angle between the horizontal and the ladder, measured on the opposite side of the ladder from the climbing side.

Platform Ladder-A self-supporting ladder of fixed size with a platform provided at the working level. The size is determined by the distance along the front rail from the platform to the base of the ladder.

Rail Ladder-Fixed ladder consisting of side rails joined at regular intervals by rungs or cleats and fastened in full length or in sections to a building, structure or equipment.

Railings-A railing is any one or a combination of those railings constructed in accordance with 1910.23. A standard railing is a vertical barrier erected along exposed edges of floor openings, wall openings, ramps, platforms and runways to prevent falls of persons.

Rungs-Ladder cross-pieces of circular or oval cross-section on which a person may step while ascending or descending.

Section Ladder-Non-self-supporting portable ladder, nonadjustable in length, consisting of two or more sections of ladder so constructed that the sections may be combined to function as a single ladder. Its size is designated by the overall length of the assembled sections.

Side-Step Ladder-A ladder in which an individual getting off at the top must step sideways in order to reach the landing.

Single Ladder-Non-self-supporting portable ladder, nonadjustable in length, consisting of but one section. Its size is designated by the overall length of the side rail.

Special-Purpose Ladder-Portable ladder which represents either a modification or a combination of design or construction features in one of the general-purpose types of ladders previously defined, in order to adapt the ladder to special or specific uses.

Stepladder-Self-supporting portable ladder, nonadjustable in length, having flat steps and a hinged back. Its size is designated by the overall length of the ladder measured along the front edge of the side rails.

Steps-Flat cross-pieces of a ladder on which a person may step while ascending or descending.

Through Ladder-A ladder in which an individual getting off at the top must step through in order to reach the landing.

Well-A permanent complete enclosure around a fixed ladder, which is attached to the walls of the well. Proper clearances for a well will

give the person who must climb the ladder the same protection as a cage.

6.2 General Provisions

This section details the provisions of this Safety Policy and Procedure with each provision discussed in a separate subsection. These provisions are:

- Training
- Ladder Types
- Ladder Hazards
- Ladder Use
- Ladder Safety Devices
- Inspection
- Maintenance

6.2.1 Training

Employees using the ladders shall be trained in:

- The proper use of the ladders
- What kind of ladder to use
- How to set up ladders
- Ladder inspection
- Proper maintenance

This training shall be provided, upon initial job assignment, by the employee's Supervisor. Refresher training shall be provided to employees at the discretion of their Supervisor.

6.2.2 Ladder Types

There are many types of ladders used at Gaston County. They are classified by material of construction (wood, metal), load capacity, function, and design. Ladder designs can include portable or fixed in-place ladders. Common types of portable ladders are step, platform, straight, and extension ladders. Fixed ladders are permanently attached to a structure or building and can also be constructed of different materials. **Appendix A** presents design requirements for fixed ladders.

6.2.3 Ladder Hazards

There are inherent hazards associated with ladder use. Typical ladder hazards include:

- Insufficient surface resistance on ladder rungs and steps
- Ladder structural failure
- Ladders tipping sideways, backwards, or slipping out at the bottom

- Ladder spreaders not fully opened and locked, causing the ladder to "walk", twist or close up when a load is applied to the ladder
- Using metal ladders around electricity
- Using deteriorated ladders
- Using fixed ladders without cages or fall protection

6.2.4 Ladder Use

Employees should follow certain rules when placing, ascending, and descending ladders which include:

- Hold on with both hands while going up or down. If material must be handled, raise or lower it with a rope, either before going down or after climbing to the desired level.
- Always face the ladder while ascending or descending.
- Never slide down a ladder.
- Be sure shoes are not greasy, muddy, or slippery before climbing.
- Do not climb higher than the third rung from the top on straight or extension ladder, or the second tread from the top on stepladders.
- Carry tools on a tool belt not in the hand.
- Never lean too far to the sides. Keep your belt buckle within the side rails.

Other recommended general practices include:

- Use a 4 to 1 ratio when leaning a single or extension ladder. (e.g. place a 12 foot ladder so that the bottom is 3 feet away from the object the ladder is leaning against.)
- Inspect ladder for defects before using.
- Never use a defective ladder. Tag or mark it so that it will be repaired or destroyed.
- Never splice or lash a short ladder together.
- Never use makeshift ladders, such as cleats fastened across a single rail.
- Be sure that a stepladder is fully open and the metal spreader locked before starting to climb.
- Keep ladders clean and free from dirt and grease.
- Never use ladders during a strong wind except in an emergency and then only when they are securely fastened.
- Never leave placed ladders unattended.
- Never use ladders as guys, braces, or skids, or for any other purpose other than their intended purposes.
- Never attempt to adjust a ladder while a user is standing on the ladder.
- Never jump from a ladder. Always dismount from the bottom

6.2.5 Ladder Safety Devices

Safety devices are available for both portable and fixed ladders to prevent a climber from falling. Safety devices for portable ladders include slip-resistant bases, safety tops, and any other device to increase the ladder stability. A portable ladder positioned at a location where it may be tipped over by work activities shall be securely fastened at the bottom and top. Safety devices for fixed ladders include cages (which enclose the stairwell) or a restraint belt attached to a sliding fixture anchored to the ladder configuration for fixed ladders.

6.2.6 Inspection

Ladders shall be inspected for defects prior to each day's use, and after any occurrence, such as a fall, which could damage the ladder. **Appendix B** provides a general inspection form. Ladders that are unsteady, improperly repaired, damaged, have missing rungs, or appear unsafe shall be removed from the job or site for repair or disposal. Before discarding a wooden ladder, cut it up so no one can use it again.

Additionally, portable ladders must be maintained in good condition at all times and inspected frequently. Tag any ladders that have developed defects with **DANGEROUS--DO NOT USE**, and remove from service for repair or disposal. For portable wood ladders, all wood parts shall be free from sharp edges and splinters; sound and free from accepted visual inspection from shake, wane, compression failures, decay, or other irregularities. For portable metal ladders, the design shall be without structural defects or accident hazards such as sharp edges, burrs, etc. The selected metal shall be of sufficient strength to meet the test requirements and shall be protected against corrosion. For fixed ladders, all wood parts shall meet the criteria of wood ladders. All metal parts shall meet the criteria of metal ladders.

6.2.7 Maintenance

Portable wood ladders may be coated with a water-repellent preservative to provide a suitable protective material. Metal ladders and metal parts on wood ladders should be corrosion-resistant and kept free from nicks. If nicks occur, they should be promptly treated to prevent possible metal fatigue due to rust.

6.3 Specific Responsibilities

6.3.1 Department Directors

Department Directors shall coordinate and provide the required training for their affected employees. Department Directors shall also ensure compliance with this safety policy and procedure through their auditing process.

6.3.2 Supervisors

Supervisors are responsible for ensuring that all ladders (fixed and portable) are regularly inspected and properly maintained. They will also be responsible for tagging ladders in need of repair and removing defected ladders from service for repair or destruction.

6.3.3 Employees

Employees shall comply with all applicable guidelines contained in this Safety Policy and Procedure. Employees are also responsible for reporting, immediately, suspected unsafe conditions of ladders to their Supervisor. Employees are to inspect ladders before using and are to keep ladders clean and in good condition.

6.3.4 Risk Manager

The Risk Manager shall provide advice to Department Directors/Supervisors regarding this Safety Policy and Procedure, if needed.

APPENDIX A: Miscellaneous Requirements for Ladders

Load Requirements

- The minimum design live load shall be a single concentrated load of 200 pounds.
- The number and position of additional concentrated live-load units of 200 pounds each as determined from anticipated usage of the ladder shall be considered in the design.
- The live loads imposed by persons occupying the ladder shall be considered to be concentrated at such points as will cause the maximum stress in the structural member being considered.
- The weight of the ladder and attached appurtenances, together with the live load, shall be considered in the design of rails and fastenings

Design Stresses

- Design stresses for wood components of portable wood ladders shall not exceed those specified in this policy. All wood parts of fixed ladders shall meet the requirements of 1910.25(b).
- For fixed ladders consisting of wood side rails and wood rungs or cleats, used at a pitch in the range 75 degrees to 90 degrees, and intended for use by no more than one person per section, single ladders as described in 1910.25(c)(3)(ii) are acceptable.

General Use Requirements

Portable stepladders longer than 20 feet shall not be used.

- Type I - Industrial ladders shall be the type used in Gaston County operations except Type II may be used in office environments for painting or light duty operations.
- Type III (household ladders) shall not be used in Gaston County operations.

APPENDIX B: Ladder Inspection Checklist

General Item to Be Checked	Needs Repair	Ladder OK
Loose steps or rungs (considered loose if they can be moved with the hand).....	—	—
Loose nails, screws, bolts, or other metal parts.....	—	—
Cracked, split, or broken uprights, braces, steps, or rungs.....	—	—
Slivers on uprights, rungs, or steps.....	—	—
Damaged or worn nonslip bases.....	—	—
Rusted or corroded spots.....	—	—
Stepladders		
Wobbly (from side strain).....	—	—
Loose or bent hinge spreaders.....	—	—
Stop on hinge spreaders broken.....	—	—
Broken, split, or worn steps.....	—	—
Loose hinges.....	—	—
Extension Ladders		
Loose, broken, or missing extension locks.....	—	—
Defective locks that do not seat properly when the ladder is extended.....	—	—
Deterioration of rope, from exposure to weather, acid or other destructive agents.....	—	—
Fixed Ladders		
Loose, worn, or damaged rungs or side rails.....	—	—
Damaged or corroded parts of cage.....	—	—
Corroded bolts and rivet heads on inside of metal stacks.....	—	—
Damaged or corroded handrails or brackets on platforms.....	—	—
Weakened or damaged rungs on brick or concrete slabs.....	—	—
Base of ladder obstructed.....	—	—

Policy Number: 1910.147

Effective Date:

Revision Date:

Approved By:



Safety & Health Policy and Procedure Manual

Lockout/Tagout Policy

1.0 PURPOSE

The purpose of this policy is to establish rules and procedures for the protection of employees against the unexpected energizing, start-up, or release of stored energy from any machine or equipment located in all work places throughout Gaston County. This will be accomplished by affixing appropriate lockout and tagout devices to energy isolating devices. This policy meets all requirements set forth by OSHA 29 CFR 1910.147.

2.0 SCOPE

This policy applies to all Gaston County Employees and Contractors at Gaston County facilities.

3.0 APPLICATION

This policy applies to the control of energy in the following cases:

- Service and/or maintenance of machines and equipment when:
- An employee is required to remove or bypass a guard or other safety device.
- An employee is required to place any part of his/her body into an area of a machine or piece of equipment where work is actually performed.

NOTE:

Minor tool changes and adjustments are not covered if they are routine, repetitive, and integral to the use of the equipment for production purposes, provided that approval has been granted by the Department Director.

This policy *does not apply* in the following cases:

- Installations under the exclusive control of Electric Utilities for the purpose of power generation, transmission, and distribution, including related equipment for communication or metering.
- Exposure to electrical hazards from work on, near or with conductors or equipment in electric utilization installations.
- Work on cord and plug connected electric equipment for which exposure to the hazards of unexpected energizing or start-up of the equipment is controlled by the unplugging of the equipment from the energy source and by the plug being under the exclusive control of the employee performing the servicing or maintenance.
- Hot tap operations involving transmission and distribution systems for substances such as: gas, steam, water, or petroleum products when they are performed on pressurized pipelines provided that it can be proven that:

Continuity of service is essential.

Shut down of the system is impractical, and

Documented procedures are followed and special equipment is used which shall provide proven effective protection for Employees and Contractors.

4.0 DEFINITIONS

- **"AUTHORIZED EMPLOYEE"** means a person who locks or implements a tagout system procedure on machines or equipment to perform the servicing or maintenance on that machine or equipment.
- **"ENERGIZED"** means connected to an energy source or containing residual or stored energy.
- **"ENERGY ISOLATING DEVICE"** means a mechanical device that physically prevents the transmission or release of energy, including but not limited to the following:

A manually operated electrical circuit breaker

A disconnect switch

A manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors and, in addition, no pole can be operated independently

A slide grate

A slip blind

A line valve

A block

Any similar device used to block or isolate energy. The term does not include a push button, selector switch, and other control circuit type devices.

- **"ENERGY SOURCE"** means any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.
- **"HOT TAP"** means a procedure used in the repair, maintenance, and service activities which involves welding on a piece of equipment (pipelines, vessels, or tanks) under pressure, in order to install connections or appurtenances.
- **"LOCKOUT (LOTO)"** means the placement of a lockout device on an energy isolating device in accordance with an established procedure. This will ensure that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.
- **"LOCKOUT DEVICE"** means a device that utilizes a positive means such as a lock to hold an energy isolating device in the safe position and prevent the energizing of a machine or equipment.
- **"SERVICING AND/OR MAINTENANCE"** means workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining and/or servicing machines or equipment. These activities include lubrication, cleaning, or unjamming of machines or equipment, and making adjustments or tool changes, where the employee may be exposed to the unexpected energizing or start-up of the equipment or release of hazardous energy.
- **"TAGOUT DEVICE"** means a prominent warning device, such as a tag and means of attachment, which can be securely fastened to an energy isolating device in accordance with an established procedure. This is to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

5.0 ASSIGNMENT OF LOCKS AND TAGS

The Lock Out/Tagout Program for Gaston County may utilize two specific methods of lock and tag control. Department Directors have the responsibility for the determination of which program they wish to apply to their work place.

- Method One will have a bin of locks designated specifically for LOTO and will be maintained at a central site within that Department. Employees may check out these locks for jobs requiring LOTO and return them once the maintenance LOTO activity is completed. A lock control log will be utilized, having as a minimum, the name of the employee, lock number, equipment being locked out, and date the lock will be returned to the checkout bin. Tags will be handed out to employees as needed.
- Method Two requires each County employee responsible for maintenance tasks to be assigned a specific lock, assigned exclusively for that

employee, to be kept in their possession until either the lock is in use, damaged, or cut off and destroyed. Again, tags will be handed out to employees as needed.

Each method, above, must abide by the following rules:

- Only trained employees will receive locks and keys. Each standardized lock will be identified to the person using it (if applicable). No duplicate keys will be retained or made.
- Master keys will only be authorized with Method One listed above and must be checked out just as if it were a lock; stating in the checkout log where and why the master key was checked out and by which employee. Locks utilizing master key availability will not be used in Method Two. Supervision must order locks having only one key opening the lock and the spare destroyed.
- All locks and tags will be of durable construction to withstand the environment in which they are to be used. Locks will be substantial enough to prevent removal without the use of excessive force or unusual techniques. Tag attachment for tagout procedures only will consist of the use of a plastic self-locking cable tie, capable of withstanding 50 pounds of pull.
- Locks assigned to employees for the Energy Control Program will only be used for lockout/tagout. No personal locks will be brought into work for that use or likewise, LOTO locks will not be used for personal items (i.e. personal lockers, securing bikes).
- A list of employees authorized to use the lockout/tagout devices and/or their corresponding lock numbers will be kept on file in the Department Director's office.

6.0 LIMITATIONS AND USES OF TAGS

For those situations where the use of a tag device only is appropriate, the authorized employee will understand the following limitations:

- Tags are warning devices **only**. They do not provide physical restraint.
- Only the Authorized Employee who installed the tag will make the removal of tag devices.
- Tags must be legible and easily understood by all employees. Damaged tags will be immediately taken out of service and replaced with new ones.
- Tags, and the means of attachment, must be made of materials that will withstand the environmental conditions encountered in the work place.
- Tags may evoke a false sense of security and their meaning needs to be understood as part of the overall energy control program.
- Tags must be securely attached to energy isolating devices so that they cannot be inadvertently or accidentally detached during use.

7.0 REMOVAL OF LOCKOUT/TAGOUT DEVICES

Each lockout/tagout device will be removed from each energy isolating device by the employee who applied the device.

There will be only one case in which someone else other than the authorized employee, who put on the lockout/tagout device, will be allowed to remove someone else's lockout/tagout device. **This is only if the employee left the facility and forgot to remove the lock.**

THE FOLLOWING PROCEDURE MUST BE FOLLOWED BEFORE REMOVAL OF THE LOCK:

- Call the employee and have him/her come in and remove his/her lock.
- If employee cannot be reached, verify again that the employee is not at the facility (i.e. grounds, facility).
- The supervisor will then authorize the removal of the lock.
- Ensure that the Authorized Employee has this knowledge before he/she resumes work at the facility.
- Documentation by the supervisor should be kept on file and in writing describing the persons called and what was done to prevent accidental start up prior to removing the lock.

8.0 LOCKOUT/TAGOUT PROCEDURE

The following procedures will be followed in all cases of lockout/tagout:

- The machine to be locked out is designated and a survey is conducted to locate all isolating devices to be certain which switches valves, or other energy isolating devices apply.
- Notify all Affected Employees that a lockout/tagout system is going to be utilized and the reasons for it.
- If the equipment is operating, shut it down by normal stopping procedure (depress stop button etc.)
- Turn off the main disconnect switch, valve, and other energy isolating devices. Stored energy such as that in springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, must be dissipated or restrained by methods such as repositioning, blocking, bleeding down of lines, etc.
- Lock the padlock on the disconnect switch, or on the chain for closing the valves. Retain the key and attach a "Danger- Do Not Operate" tag.

NOTE:

Each employee working on the equipment must place his/her own lock and tag on the disconnect switch, etc. (using a hasp). Test the disconnect switch to make sure it cannot be moved to the "ON" position.

- After ensuring that no employees are exposed, and as a check on having disconnected the energy sources, operate the push button or other normal operating controls to make certain that the equipment will not operate.

CAUTION:

Return the operating controls to the "OFF" position before beginning the servicing and/or maintenance.

- After all tools have been removed from the machine or equipment, guards have been reinstalled and employees are in the clear, remove the lockout/tagout device. If more than one employee has a lock and tag on the hasp, wait until all locks and tags are removed before continuing.
- After all locks and tags are removed, check the area around the machines or equipment to ensure that no one is exposed. Turn the disconnect switch, etc., to the "ON" position to restore energy

WARNING:

Do not attempt to operate any switch, valve, or other energy isolating device when it is locked or tagged out.

9.0 LOCKOUT DOCUMENTATION

The Specific Lockout/Tagout Procedural steps for each machine (or piece of equipment) will be developed and written by Department Directors (or their designee) and posted near the machine or equipment to be locked or tagged out. A copy of these procedures shall be kept in the Department Director's office.

Documentation of procedures for machines and/or equipment is not required provided all of the following elements exist:

- the machine or equipment has no potential for stored or residual energy after shut down which could endanger employees,
- the machine or equipment has a single energy source that can be readily identified and isolated,
- the isolation and locking out of that energy source will completely de-energize and deactivate the machine or equipment,
- the machine or equipment is isolated from that energy source and locked out during servicing or maintenance,
- a single lockout device will achieve a locked out condition,
- the lockout device is under the exclusive control of the Authorized Employee performing the servicing or maintenance,
- the servicing or maintenance does not create hazards for other employees, and,

- Gaston County, in utilizing this exception, has had no accidents involving the unexpected activation or re-energizing of the machine or equipment during servicing or maintenance.

10.0 TRAINING

The Department Director (or designee) will train, or ensure training is performed for, all Authorized Employees in the purpose and function of the lockout/tagout procedures so that the knowledge and skills required for the safe application, usage, and removal of energy controls are understood. Training is to be at initial hiring and then annually thereafter. Training is to be documented, with a sign-in roster and copy of the training. This is to be kept in the Department Director's office.

The training will include but will not be limited to:

- Recognition of applicable hazardous energy sources, the type and *magnitude of the energy available in the workplace*, and the methods and means necessary for energy isolation and control.
- Purpose and use of the lockout/tagout procedures.
- Instruction regarding the procedure and disciplinary action relating to attempts to restart or re-energize machines or equipment which are locked and tagged out by other employees.
- Limitations and uses of tags in the lockout/tagout procedures.

Retraining will be conducted with all Authorized Employees in the following cases:

- Whenever changes are made in job assignments, machines, equipment, or processes that present a new hazard.
- Changes in the lockout/tagout procedure.
- Whenever a periodic inspection is conducted and deficiencies found or whenever a County representative believes that there are deviations from, or inadequacies in, the employee's knowledge or use of the lockout/tagout procedures.
- Documentation of training will be kept in the office of the Department Director.

NOTE:

Department Directors (or Supervisors) shall have a lockout tagout procedure on each piece of machinery (or equipment) within their Department. They shall ensure that Affected Employees have documented lockout tagout training for each machine (or piece of equipment) operated.

11.0 CONTRACTOR REVIEW

All contractors will be familiar with Gaston County's Lockout /Tagout Policy. It will be the responsibility of the Department Director, Project Engineer or Supervisor to review this with the Contractor under his/her supervision.

12.0 PERIODIC PROGRAM INSPECTION

A periodic inspection will be conducted, at least annually, to ensure that the lockout/tagout policy is in compliance with all federal and state standards. If any deficiencies are found, they will be corrected immediately. The Department Director (or their designee) will conduct the inspection.

A review will be conducted with each Authorized and Affected Employee on his or her responsibilities under the lockout/tagout procedure.

See APPENDIX 1

APPENDIX 1
ANNUAL INSPECTION CHECKLIST OF LOCKOUT/TAGOUT PROCEDURES

DATE: _____ LOCATION: _____

EQUIPMENT: _____

NAME OF INSPECTOR: _____ TITLE: _____

NAME OF INSPECTOR: _____ TITLE: _____

MACHINE(S) OR EQUIPMENT: _____

		Yes	No
1	Has there been a change in job assignments, machines, equipment or processes that present a new hazard? If so, have employees been retrained in the new LOTO procedure?		
2	Are the locks used for LOTO uniquely identified and only used for the purpose of LOTO?		
3	Does the tag used with the lock identify the worker servicing the machine or equipment?		
4	Has equipment/machine specific LOTO training procedures been documented for Authorized Employees?		
5	Does the employee know where the written LOTO procedures are located?		
6	Does the employee notify Affected Employees and all other employees in the area of the LOTO procedure?		
7	Does the employee identify all hazardous energy sources for the equipment to be locked out?		
8	Does the employee demonstrate the proper steps for the placement, removal and transfer of LOTO devices?		
9	Does the employee use the proper methods to verify the energy control procedures were effective?		
10	Before releasing the machine or equipment from LOTO, does the employee inspect the machine or equipment to ensure its components are operationally intact?		
11	Before releasing the machine or equipment from LOTO, does the employee ensure that all employees are safely positioned?		
12	Before releasing the machine or equipment from LOTO, does the employee notify Affected Employees and all other employees in the area that the LOTO devices have been removed?		
13	Has the employee been retrained, where needed, if applicable?		
14	Have all employees been properly trained and provided with PPE?		

AUTHORIZED EMPLOYEES OBSERVED
(Print name)

1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	

CERTIFICATION

I hereby certify that a periodic inspection was performed on the Lockout/Tagout Program indicated on the listed machine and/or equipment to ensure the procedures and requirements of OSHA 29 CFR 1910.147 are being followed. The findings of this inspection will be reviewed by the Department Director for any corrective actions necessary.

Supervisor: _____ Date: _____

Department Director: _____ Date: _____

Policy Number: 1910.132
Effective Date:
Revision Date:
Approved By:



Safety & Health Policy and Procedure Manual

Personal Protective Equipment (PPE) Policy

1.0 PURPOSE

The purpose of this policy is to establish standards for the use, care and maintenance of Personal Protective Equipment (PPE) by Gaston County employees. Department Directors (or their designees) shall be required to perform hazard assessments on all employees, under their supervision, and provide training on proper use of personal protective equipment. This policy shall meet the requirements set forth by 29 CFR 1910.132 through 1910.137.

2.0 SCOPE

This policy applies to all Gaston County employees, and visiting Contractors, while working at any work site maintained by Gaston County.

3.0 GENERAL INFORMATION

- 3.1 The designation and use of personal protective equipment for all jobs which have an inherent injury potential shall be specified by the Supervisor involved.
- 3.2 Detailed specifications for the design, purchase and use of all personal protective equipment shall be coordinated among Department Directors, Supervisors, and Users.
- 3.3 Employees shall be fully accountable for the use of personal protective equipment provided by Gaston County.
- 3.4 Safety shoes and safety glasses shall be worn by the employee, when required.

- 3.5 When the use of personal protective equipment has been specified and required by the Department for hazardous work, *its use shall be mandatory*. Employees and Supervisors shall be held accountable for employees allowed to work out of compliance. Supervisors shall educate employees on the reasons for using or wearing personal protective equipment and the possible injuries that can result when the need is ignored.
- 3.6 All Personal Protective Equipment shall be maintained in a sanitary and reliable state wherever its use is necessary by reason of chemicals or hazards.
- 3.7 All Personal Protective Equipment shall be of safe design and construction. Defective and damaged equipment shall not be worn and shall be taken out of service, immediately.
- 3.8 Equipment listed shall be worn when hazards, as described, exist:
- 3.8.1 **Hard Hats:** Protect the head against falling objects, overhead hazards, head bumping situations or electrical conductors, and to improve the visibility of the employee.
 - 3.8.2 **Goggles, Face Shields, Safety Glasses:** Guard against flying debris, welding sparks, and splashing.
 - 3.8.3 **Ear Plugs & Ear Muffs:** Guard against prolonged exposure to noise, exceeding sound tolerance levels, as defined by law, or excessive noise exposure.
 - 3.8.4 **Respirators, Gas masks, and Self-Contained Breathing Apparatus (SCBA):** Protect employees against toxic or abnormal atmosphere conditions and dust.
 - 3.8.5 **Safety Shoes:** Protect feet against possible injury from articles that can be dropped or rolled.
 - 3.8.6 **Reflective Vests, Bright Articles:** Increase worker visibility while working in or around traffic lanes and parking lots.
 - 3.8.7 **Protective Clothing such as Gloves, Sleeves, Aprons, Leggings, and Full Suits:** Protect against lacerations, abrasions, bumps, heat, or melted metals, etc.
- 3.9 All employees, required to wear personal protective equipment, listed, shall be trained by their Supervisor in the use of the equipment as it relates to the specific potential hazard encountered at the worksite. The limitations of the equipment, and all training, must be documented and kept in the Supervisor's office.

4.0 SPECIFIC REQUIREMENTS

- 4.1 **EYE AND FACE PROTECTION** (Goggles, Face Shields, Safety Glasses)
- 4.1.1 Employees shall wear eye and/or face protection when there is a reasonable chance that flying debris or chemicals may be blown or splashed into the eye.

4.1.1.1. Goggles shall be worn where there is a chance debris may fly up and either strike directly at the eye or blow under at an angle.

4.1.1.2 Face shields shall be worn for hazards that can inflict a direct hit toward the face and eyes.

4.1.1.3 Face shields shall be worn for hazards that require the entire face to be protected from being struck (i.e., chemical splash).

4.1.1.4 A combination of both goggles and face shields shall be worn for any chemical hazard where the Safety Data Sheet (SDS) requires such protection.

4.1.2 Eye & face protection shall be kept clean and in good repair.

4.1.3 Employees requiring prescription glasses for vision may either use goggles, fitted over the prescription glasses, or wear their personal prescription safety glasses (with side shields installed) which meet **ANSI Standard Z87.1-1989**.

4.1.4 Prescription contact lenses shall not be worn when using any welding equipment. Damage to the eyes could occur should fumes get into the eyes.

4.1.5 It is suggested that prescription contact lens not be worn while spraying and applying chemicals. Damage to the eyes could occur should spray particulate get into the eyes and under the lens.

4.1.6 Protection is required when using any grinders, saws, lathes, drill presses, compressed air to blow away debris. Use welding goggles/hood for welding.

4.1.7 Safety glasses shall be worn when using any electrical drill, saw, tool and die cutter, grinder, sander, lathe, etc. or any tool or hand operation that may emit debris into the eyes. Personnel in the immediate area of the work being performed must also wear safety glasses.

4.1.8 Employees using hand and power tools and exposed to the hazard of falling, flying, abrasive, and splashing objects, or exposed to harmful dusts, fumes, mists, vapors or gases, shall be provided with the particular personal protective equipment necessary to protect them from the hazard.

4.2 RESPIRATORY PROTECTION (Respirators, Dust Masks, Self-Contained Breathing Apparatus)

4.2.1 Canister or cartridge type respirators are not acceptable while working in toxic or oxygen deficient atmospheres (less than 19.5% oxygen present).

4.2.2 Canister and/or Cartridge type respirators are only acceptable for use to protect against dust, mists or fumes in oxygen present atmospheres (19.5% - 23.0%).

4.2.3 Employees shall use a SCBA while working in or near areas where there is a hazardous atmosphere present and that also may be oxygen deficient in nature.

4.3 HEAD PROTECTION

4.3.1 Hard Hats are required to be worn at all times by all employees and Contractors performing work where overhead hazards or objects falling from above could injure employees.

4.3.2 Hard Hats shall be maintained in a serviceable state by the employee. Should a hard hat become damaged, replace it prior to starting work.

4.3.3 Hard Hats shall meet the requirements and specifications established by American National Standard Safety Requirements for Industrial Head Protection, **ANSI Standard Z89.1-1986**.

4.4 FOOT PROTECTION

4.4.1 All employees and Contractors are required to wear steel-toed shoes while working in areas where objects may be dropped or rolled onto employees' feet. Footwear must meet **ANSI Standard Z47.1-1991**.

4.5 EAR PROTECTION

4.5.1 Ear plugs and/or ear muffs are required to be worn while performing work where noise levels cannot be effectively reduced to 85 decibels over an 8 hour time weighted average.

4.5.2 Ear muffs are to be inspected prior to use for proper fit and seal around the ears. If an ear muff is found with seal around the ear broken or damaged in any way, employees are not to use the muff and must notify Supervisor for replacement.

4.5.3 Ear protection is mandatory around the following equipment: lawn mowers, weed eaters, chain saws, planers, joiners, band saws, table saws, blowers, portable rotary saws, leaf blowers, edgers, turf cutters, back hoes, tractors, brush chippers, stump machine, firearms, leaf vacuums, sewer jet trucks and rollers jack-hammers

NOTE: This list is not all inclusive. Employees should be aware that any piece of machinery or tool that produces enough noise so as to require the raising of the voice to speak to another employee may require hearing protection. When in doubt, use hearing protection, as warranted.

4.6 FALL PROTECTION / LIFELINES, SLINGS, AND LANYARDS (taken from OSHA 29 CFR 1926.500 Construction Standard)

4.6.1 Employees who are exposed to falls at a height of six feet or more from one level to the next, must use personal fall protection employing full body harness, lanyards and life lines.

4.6.2 The following guidelines apply to fall protective equipment:

4.6.2.1 Lifelines, safety harnesses, and lanyards specifically stated for employee safeguarding, shall be used only for that purpose.

The practice of lifting or lowering mechanical equipment, toting tools, or towing of vehicles with designated lifelines or lanyards, is strictly prohibited.

4.6.2.2 Any lifeline, safety harnesses, or lanyard subjected to in-service loading (actually has been used in the prevention of a fall), as distinguished from static loading, shall be immediately removed from service and destroyed.

4.6.2.3 Lifelines shall be secured above the point of operation to an anchorage or structural member capable of supporting a minimum dead weight of 5400 pounds.

4.6.2.4 Lifelines used where they may be subjected to cutting or abrasion, will be a minimum of 7/8 inch wire core manila rope. For all other lifeline applications, a minimum of 3/4 inch manila or equivalent will be used.

4.6.2.5 Safety harness lanyards will be a minimum of 1/2 inch nylon, or equivalent, with a maximum length to provide for a fall of no greater than six feet. The rope will have a nominal breaking strength of 5400 pounds.

4.6.2.6 All safety harnesses and lanyard hardware will be drop-forged, or pressed steel, cadmium plated in accordance with federal specifications. The surface will be smooth and free of sharp edges. They will be capable of withstanding a tensile loading of 4000 pounds without cracking.

5.0 TRAINING

5.1 Every Gaston County employee shall be provided training on Personal Protective Equipment (PPE). Overall responsibility for the PPE program within each Department will be the responsibility of the Department Director. Responsibility for employee training will be conducted by the employee's immediate Supervisor, upon new hiring of employee.

5.1.1 Each employee shall be trained to know the following:

5.1.1.1 When PPE is necessary

5.1.1.2 What PPE is necessary

5.1.1.3 How to properly don, doff, and wear PPE

5.1.1.4 The limitations of PPE

5.1.1.5 The proper care, maintenance, useful life and disposal of the PPE

5.2 Each affected employee shall demonstrate and understand the training (as listed above) and the ability to use PPE properly, before being allowed to perform work requiring the use of PPE.

5.3 Recurring or remedial training shall occur when the Supervisor has reason to believe that any affected employee, who has already been trained, does not have the understanding and the skill required by this section. If this happens, the immediate Supervisor shall retrain the employee(s).

5.4 Circumstances where retraining is required include, but are not limited to, situations where:

5.4.1 Changes in the workplace that render previous training obsolete;

5.4.2 Changes in the types of PPE to be used that render previous training obsolete;

5.4.3 Inadequacies in the affected employee's knowledge or use of assigned PPE indicate that the employee has not retained the understanding or skill needed.

5.4.4 Completed training will require a written certification (verification) to be kept in the Department Director or Supervisor's office.

6.0 HAZARD ASSESSMENT AND EQUIPMENT SELECTION

6.1 Department Directors (or their designees) are responsible to evaluate all job tasks of Gaston County employees, under their control, and perform a Personal Protective Equipment Hazard Assessment (PPEHA) on all jobs performed by employees under their supervision. The PPEHA will cover the evaluation of all job tasks and work areas; specifically noting all hazards found, and the Personal Protective Equipment necessary to protect the employee when working in or on a particular area and/or work task.

6.2 Once the PPEHA has been completed for each job, Department Directors (or their designees) shall ensure employees are given appropriate Personal Protective Equipment, trained in its use, and the PPEHA worksheet will be maintained in the Department Director's (or designee's office).

6.3 Personal Protective Equipment Hazard Assessments shall be reviewed, at least annually, by Department Directors (or their designees) and checked for any necessary changes in tasks or job requirements.

6.4 To assist the Department Director, a Guideline for Personal Protective Equipment Hazard Assessment and a PPEHA worksheet has been added at the end of this policy.

PERSONNEL PROTECTIVE EQUIPMENT HAZARD ASSESSMENT (PPEHA)

A Personnel Protective Equipment Hazard Assessment is the process of taking a close, critical look at each step of a process operation with a goal toward identifying and correcting the hazards or potential accidents in each step. It is a simple technique which creates a "buy-in" on the part of employees doing the job and ensures that they will do the job the same way, and safely, each time. A PPEHA can also be conducted as part of the planning for a new job or process. Prospective Employees can sit in a planning session with engineers, designers, technical staff (e.g., safety, environmental, occupational health), and supervisors to talk through how a new operation should work. This can eliminate the hazards before the cost of development makes it much more expensive and it gives clear work steps for use training.

The benefits of a PPEHA of existing jobs are many:

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

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

STEP ONE: Select the job. Do not make it too broad (e.g., making a desk) nor too narrow (e.g., pushing a button). Those suitable jobs would be those a Supervisor would normally assign.

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

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

STEP FOUR: Eliminate the hazards. Find creative and effective ways to eliminate the hazards and prevent potential accidents and injuries. Find a better

way to do the job. Start with the goal of the job and work along several routes to the goal finding the one which is not only the safest, but the most economical and practical. Change the physical conditions which create the problem....move something...change a work height...replace a guard. Change the job procedure. Have the job done less frequently if exposure is a problem (especially in maintenance operations). As with the previous steps, check solutions with the employee. Watch him/her in operation and carefully evaluate whether the steps and actions match the completed PPEHA.

Once the PPEHA is complete, use it, do not just file it. If possible, post it on the job, such as near the Operator controls or in a vehicle or piece of equipment. Review and update it each year. Consult with others whenever an incident occurs on a PPEHA-covered job and either revise it or ensure that the correct procedure is being followed.

See APPENDIX A

APPENDIX A

GASTON COUNTY JOB HAZARD ANALYSIS AND PERSONAL PROTECTIVE EQUIPMENT HAZARD ASSESSMENT (PPEHA)

Date: _____

Job or Task Title: _____

Department/Location: _____

Employee(s) Observed: _____

Special Training/Skills Needed: _____

PPEHA Completed by (Supervisor) _____

Job/Task Description (brief): _____

Eye and Face Is there danger from:

	No	Yes	Eliminated, Guarded, PPE E, G, PPE
Flying Particles			
Molten Metal			
Liquid Chemicals			
Acids			
Caustic Liquids			
Chemical Gases or Vapors			
Light Radiation			
Other:			

Head Is there danger from:

	No	Yes	Eliminated, Guarded, PPE E, G, PPE
Falling or Flying Objects			
Work Being Performed Overhead			
Elevated Conveyors			
Striking Against a Fixed Object			
Forklift Hazards			
Exposed Electrical Conductors			
Other:			

Foot
Is there danger from:

Eliminated, Guarded, PPE
E, G, PPE

	No	Yes	
Falling and Rolling Objects			
Objects Piercing the Sole			
Electrical Hazards			
Wet or Slippery Surfaces			
Chemical Exposure			
Environmental			
Other:			

Hand
Is there danger from:

Eliminated, Guarded, PPE
E, G, PPE

	No	Yes	
Skin Absorption			
Cuts or Lacerations			
Abrasions			
Punctures			
Chemical Burns			
Thermal Burns			
Harmful Temperature Extremes			
Other:			

Respiratory
Is there danger from:

Eliminated, Guarded, PPE
E, G, PPE

	No	Yes	
Harmful Dusts			
Fogs			
Fumes			
Mists			
Smokes			
Sprays			
Vapors			
Other:			

Torso
Are employees' bodies protected from:

Eliminated, Guarded, PPE
E, G, PPE

	Yes	No	
Hot metals and liquids			
Cuts			
Acids			
Radiation			

Comments: _____

Policy Number: 1910.178

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Safety & Health Policy and Procedure Manual

Powered Industrial Truck Policy

1.0 PURPOSE

The purpose of this policy is to establish mandatory practices for selecting and training Powered Industrial Truck (Forklift) Operators for Gaston County. This policy will ensure that all Operators are trained in the proper use and in the safe operations of Powered Industrial Trucks. This policy meets all the requirements set forth by OSHA Standard 29 CFR 1910.178.

2.0 SCOPE

This policy applies to all employees who are required to operate Powered Industrial Trucks throughout job and work sites maintained by Gaston County in the course of their job duties.

3.0 POLICY

Safety is very important in the operation of Powered Industrial Trucks. It is the responsibility of each employee to use equipment as safely as possible. Each employee shall use Powered Industrial Trucks safely to prevent accidents. Employees shall also communicate to each other in a safe manner, at all times, when this equipment is in use.

Responsibilities are as follows:

Safety Inspections

- Inspections shall be completed and documented for each powered industrial truck before use, even if someone else has already used it.

- Any and all problems shall be reported to the employee's Supervisor, immediately. The Supervisor shall schedule to have the Powered Industrial Truck repaired by qualified individuals.
- All Forklifts shall be checked and documented, daily, (when in use) for any hazards. (See Appendix A) These documents shall be kept for a period of three years.

Accident Reporting

All accidents involving employees and/or equipment, no matter how small, shall be reported to the employee's Supervisor and to the Risk Manager.

Fork Lift Usage

- Only Qualified Employees shall be allowed to operate forklifts.
- All Operators shall be familiar with the local facility regulations and safety features of the equipment.

Inspection Policy

- The procedures, below, shall be completed before using any Powered Industrial Truck at the beginning of any work operation.
- At the beginning of a shift, or at the time a Powered Industrial Truck is to be used, employees shall check all conditions, using the form in Appendix A. Supervisors shall be informed of any defects.
- If any condition exists with the Powered Industrial Truck that is unsafe, it shall be taken out of service and reported to the Supervisor.

Certification

- Every Gaston County Employee, who has completed the Operator's Course for Powered Industrial Trucks, shall receive an Operator's Permit.
- Operator's Permits must be kept in the possession of the Qualified Employee during operation of the Powered Industrial Truck.
- The Department Director shall schedule training, as required. New Employees shall be trained, as needed, for their job requirements.
- The Department Director shall ensure that each Operator has been trained, certified and evaluated as required by Section 4.0, below. The certification shall include the name of the Operator, the date of the training, the date of the evaluation, and the identity of the person(s) performing the training or evaluation.

4.0 TRAINING

Powered Industrial Truck Operators shall follow all general safety rules and any specific safety rules set forth within the respective work area. Training shall be provided by a Qualified Individual or Organization for Powered Industrial Trucks.

Safe Operation

- Prior to permitting an Employee to operate a Powered Industrial truck, (except for training purposes), Supervisors shall ensure that each Operator has successfully completed the training required by this section.

- All Operators shall check and document the evaluation of the Powered Industrial Truck use, regardless of whether someone else has been using it.

Training program implementation

Trainees may operate a powered industrial truck only:

- Under the direct supervision of persons who have the knowledge, training, and experience to train operators and evaluate their competence; and
- Where such operation does not endanger the trainee or other employees.
- Training shall consist of a combination of formal classroom instruction (e.g., Lecture, Discussion, DVDs, Written Material), practical training (demonstrations, performed by the Trainer), and practical exercises, (performed by the Trainee), and evaluation of the Operator's performance in the workplace.
- All Operator training and evaluation shall be conducted by persons who have the knowledge, training, and experience to train Powered Industrial Truck Operators and evaluate their competence.

Training program content

Powered industrial truck operators shall receive initial training in the following topics:

Truck-related topics:

- Operating instructions, warnings, and precautions for the types of truck the operator will be authorized to operate
- Differences between the truck and an automobile
- Truck controls and instrumentation: where they are located, what they do, and how they work
- Engine or motor operation
- Steering and maneuvering
- Visibility (including restrictions due to loading)
- Fork and attachment adaptation, operation, and use limitations
- Vehicle capacity
- Vehicle stability
- Any vehicle inspection and maintenance that the Operator shall be required to perform
- Refueling and/or charging and recharging of batteries
- Operating limitations
- Any other operating instructions, warnings, or precautions listed in the Operator's Manual for the types of Powered Industrial Truck that the Employee is being trained to operate.

Workplace-related topics:

- Surface conditions where the vehicle will be operated
- Composition of loads to be carried and load stability
- Load manipulation, stacking, and unstacking
- Pedestrian traffic in areas where the vehicle will be operated

- Narrow aisles and other restricted places where the vehicle will be operated
- Hazardous (classified) locations where the vehicle will be operated
- Ramps and other sloped surfaces that could affect the vehicle's stability
- Closed environments and other areas where insufficient ventilation or poor vehicle maintenance could cause a buildup of carbon monoxide or diesel exhaust
- Other unique or potentially hazardous environmental conditions in the workplace that could affect safe operation

Refresher training and evaluation

Refresher training, including an evaluation of the effectiveness of that training, shall be conducted as required by the following section to ensure that the Operator has the knowledge and skills needed to operate the Powered Industrial Truck safely.

Refresher training in relevant topics shall be provided to the operator when:

- The Operator has been observed to operate the Powered Industrial Truck in an unsafe manner
- The Operator has been involved in an accident or near-miss incident
- The Operator has received an evaluation that reveals that he/she is not operating the truck safely
- The Operator is assigned to drive a different type of truck; or
- A condition in the workplace changes in a manner that could affect the safe operation of the truck.
- An evaluation of each Powered Industrial Truck Operator's performance shall be conducted at least once every **three years**.
- Department Directors may contact the Risk Manager for information on Powered Industrial Truck Trainers.

5.0 RULES FOR POWERED INDUSTRIAL TRUCK USAGE

Truck Operations

- Trucks shall not be driven up to anyone standing in front of a bench or other fixed object.
- No person shall be allowed to stand or pass under the elevated portion of any truck, whether loaded or empty.
- Unauthorized personnel shall not be permitted to ride on powered industrial trucks.
- The Employer shall prohibit arms or legs from being placed between the uprights of the mast or outside the running lines of the truck.
- Employees shall abide by the following when leaving the industrial lift truck unattended and/or parked:

- When a Powered Industrial Truck is left unattended, load engaging means shall be fully lowered, controls shall be neutralized, power shall be shut off, and brakes set. Wheels shall be blocked if the truck is parked on an incline.
- A Powered Industrial Truck is unattended when the Operator is 25 feet or more away from the vehicle which remains in his/her view, or whenever the Operator leaves the vehicle and it is not in his/her view.
- When the Operator of a Powered Industrial truck is dismounted and within 25 feet of the truck still in his/her view, the load engaging means shall be fully lowered, controls neutralized, and the brakes set to prevent movement.
- A safe distance shall be maintained from the edge of ramps or platforms while on any elevated dock, or platform or freight car. Trucks shall not be used for opening or closing freight doors.
- Brakes shall be set and wheel blocks shall be in place to prevent movement of trucks and trailers while loading or unloading. Fixed jacks may be necessary to support a semitrailer during loading or unloading, when the trailer is not coupled to a tractor. The flooring of trucks, trailers, and railroad cars shall be checked for breaks and weakness before they are driven onto.
- There shall be sufficient headroom under overhead installations, lights, pipes, sprinkler system, etc.
- An overhead guard shall be used as protection against falling objects. It should be noted that an overhead guard is intended to offer protection from the impact of small packages, boxes, bagged material, etc., representative of the job application, but not to withstand the impact of a falling capacity load.
- A load backrest extension shall be used whenever necessary to minimize the possibility of the load or part of it from falling rearward.
- Only approved Powered Industrial trucks shall be used in hazardous locations.
- Fire aisles, access to stairways, and fire equipment shall be kept clear.

5.2 Traveling

- All traffic regulations shall be observed, including authorized building speed limits. A safe distance shall be maintained, approximately three truck lengths from the truck ahead, and the truck shall be kept under control at all times.
- The right of way shall be yielded to ambulances, fire trucks, or other vehicles in emergency situations.
- Other trucks traveling in the same direction at intersections, blind spots, or other dangerous locations shall not be passed.
- The Operator shall be required to slow down and sound the horn at cross aisles and other locations where vision is obstructed. If the load being

carried obstructs forward view, the driver shall be required to travel with the load trailing.

- Railroad tracks shall be crossed diagonally, whenever possible. Parking closer than 8 feet from the center of railroad tracks is prohibited.
- The driver shall be required to look in the direction of, and keep a clear view of the path of travel.
- Grades shall be ascended or descended slowly.
- When ascending or descending grades in excess of 10 percent, loaded trucks shall be driven with the load up grade.
- On all grades, the load, and load engaging means, shall be tilted back if applicable, and raised only as far as necessary to clear the road surface.
- Under all travel conditions the Powered Industrial Truck shall be operated at a speed that shall permit it to be brought to a stop in a safe manner.
- Stunt driving and horseplay is not permitted.
- The Operator shall be required to slow down for wet and slippery floors.
- Dock boards or bridge plates shall be properly secured before they are driven over. Dock boards or bridge plates shall be driven over carefully and slowly and the rated capacity is never to be exceeded.
- Running over loose objects on the roadway surface shall be avoided.
- While negotiating turns, speed shall be reduced to a safe level by means of turning the hand steering wheel in a smooth, sweeping motion. Except when maneuvering at a very low speed, the hand steering wheel shall be turned at a moderate, even rate.

5.3 Loading

- Only stable or safely arranged loads shall be handled. Caution shall be exercised when handling off-center loads which cannot be centered.
- Only loads within the rated capacity of the truck shall be handled.
- The long or high (including multiple-tiered) loads which may affect capacity shall be adjusted.
- Trucks equipped with attachments shall be operated as partially loaded trucks when not handling a load.
- A load engaging means shall be placed under the load as far as possible; the mast shall be carefully tilted backward to stabilize the load.
- Extreme care shall be used when tilting the load forward or backward, particularly when high tiering. Tilting forward with load engaging means elevated shall be prohibited except to pick up a load. An elevated load shall not be tilted forward except when the load is in a deposit position over a rack or stack. When stacking or tiering, only enough backward tilt to stabilize the load shall be used.

5.4 Operation of the truck

- If, at any time, a Powered Industrial Truck is found to be in need of repair, defective, or in any way unsafe, the truck shall be taken out of service until it has been restored to safe operating condition.
- Fuel tanks shall not be filled while the engine is running. Spillage shall be avoided.
- Spillage of oil or fuel shall be carefully washed away or completely evaporated and the fuel tank cap replaced before restarting engine.
- No truck shall be operated with a leak in the fuel system until the leak has been repaired.
- Open flames shall not be used for checking electrolyte level in storage batteries or gasoline level in fuel tanks.

5.5 Tip Over Procedures

In case of tip over, the operator should observe the following:

- Operator to remain in seat and not jump.
- Grip steering wheel and brace feet.
- Tip with truck.

6.0 MAINTENANCE OF INDUSTRIAL TRUCKS

- Any Powered Industrial truck, not in safe operating condition, shall be removed from service. All repairs shall be made by authorized personnel.
- No repairs shall be made in Class I, II, and III locations.
- Repairs to the fuel and ignition systems of Powered Industrial Trucks, that involve fire hazards, shall be conducted only in locations designated for such repairs.
- Trucks in need of repairs to the electrical system shall have the battery disconnected prior to such repairs.
- All parts of any such Powered Industrial Truck requiring replacement shall be replaced only by parts approved by the Manufacturer.
- Industrial trucks shall not be altered so that the relative positions of the various parts are different from what they were when originally received from the manufacturer, nor shall they be altered either by the addition of extra parts not provided by the manufacturer or by the elimination of any parts. Additional counterweighting of Powered Industrial Trucks shall not be done unless approved by the Manufacturer.
- Powered Industrial Trucks shall be examined before being placed in service, and shall not be placed in service if the examination shows any condition adversely affecting the safety of the vehicle. Such examination shall be made, at least daily, and documented. Where Powered Industrial Trucks are used on a round-the-clock basis, they shall be examined after

each shift. Defects, when found, shall be immediately reported and corrected.

- Water mufflers shall be filled daily or as frequently as is necessary to prevent depletion of the supply of water below 75 percent of the filled capacity. Vehicles with mufflers having screens or other parts that may become clogged shall not be operated while such screens or parts are clogged. Any vehicle that emits hazardous sparks or flames from the exhaust system shall immediately be removed from service and not returned to service until the cause for the emission of such sparks and flames has been eliminated.
- When the temperature of any part of any truck is found to be in excess of its normal operating temperature, thus creating a hazardous condition, the vehicle shall be removed from service and not returned to service until cause for such overheating has been eliminated.
- Industrial trucks shall be kept in a clean condition, free of lint, excess oil and grease. Noncombustible agents, per Manufacturer's instructions, shall be used for cleaning trucks.

APPENDIX A

FORKLIFT OPERATOR'S DAILY CHECKLIST

TRUCK ID _____

MONTH/YEAR _____

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
VISUAL CHECKS																																
Tire Condition																																
Gauges/Instruments																																
Damage/Leaks																																
Controls																																
Undamaged																																
Safety Decals																																
Specification Plate																																
Fuel Leaks																																
Seat Belt																																
Fire Extinguisher																																
OPERATIONAL CHECKS																																
Horn																																
Backup Alarm																																
Lights																																
Brakes																																
Parking Brake																																
Steering																																
All Controls																																
Initials																																

Comments: _____

Policy Number: 1910.134

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Approved By:



Safety & Health Policy and Procedure Manual

Respiratory Protection Policy

1.0 PURPOSE

To establish requirements for Gaston County and visiting Contractors in the selection, use, and maintenance of respiratory protective equipment as determined necessary to reduce employee exposure to toxic chemical agents, occupational diseases, atmospheric contamination and allow employees to work safely in hazardous work environments. This policy meets all requirements set forth by 29 CFR 1910.134 and its supporting appendices.

2.0 SCOPE

This policy will apply to all County Departments and employees who, while performing their duties for the County, may be required to wear respiratory protection. It shall be the responsibility of each Department Director to ensure that the provisions of this policy are carried out within their respective Departments.

3.0 DEFINITIONS

3.1 "AIR-PURIFYING RESPIRATOR" means a respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.

3.2 "ATMOSPHERE-SUPPLYING RESPIRATOR" means a respirator that supplies the respirator user with breathing air from a source independent of the ambient atmosphere, and includes supplied-air respirators (SARs) and self-contained breathing apparatus (SCBA) units.

3.3 "DEMAND RESPIRATOR" means an atmosphere-supplying respirator that admits breathing air to the facepiece only when a negative pressure is created inside the facepiece by inhalation.

3.4 "DUST MASK" means a flexible pad held over the nose and mouth by elastic or rubber straps to protect against dusts encountered during construction or cleaning activities, such as dusts from drywall, concrete, wood, fiberglass, silica (from ceramic or glass production), or sweeping.

3.5 "EMERGENCY SITUATION" means any occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment that may or does result in an uncontrolled significant release of an airborne contaminant.

3.6 "END-OF-SERVICE-LIFE INDICATOR (ESLI)" means a system that warns the respirator user of the approach of the end of adequate respiratory protection, for example, that the sorbent is approaching saturation or is no longer effective.

3.7 "FILTERING FACEPIECE" means a negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium.

3.8 "FIT FACTOR" means a quantitative estimate of the fit of a particular respirator to a specific individual, and typically estimates the ratio of the concentration of a substance in ambient air to its concentration inside the respirator when worn.

3.9 "FIT TEST" means the use of a protocol to quantitatively evaluate the fit of a respirator on an individual. (Quantitative Fit Test QNFT, Qualitative Fit Test QLFT).

3.10 "HAZARDOUS AREA" means any Department, Laboratory, Work Area where toxic materials are used, and through a spill, mechanical malfunction, process upset, or explosion could release concentrations of vapors, dust, or fumes that could be harmful to health.

3.11 "HIGH EFFICIENCY PARTICULATE AIR (HEPA) FILTER" means a filter that is at least 99.97% efficient in removing monodisperse particles of 0.3 micrometers in diameter. The equivalent NIOSH 42 CFR 84 particulate filters are the N100, R100, and P100 filters.

3.12 "IMMEDIATELY DANGEROUS TO LIFE AND HEALTH (IDLH)" means an atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere.

3.13 "LOOSE-FITTING FACEPIECE (RESPIRATOR)" means a respiratory inlet covering that is designed to form a partial seal with the face (i.e., dust mask).

3.14 "NEGATIVE PRESSURE RESPIRATORS" means a respirator in which the air pressure inside the facemask becomes lower than the ambient air pressure when the wearer inhales.

3.15 "OXYGEN DEFICIENT ATMOSPHERE" means an atmosphere with an oxygen content below 19.5% by volume.

3.16 "PHYSICIAN OR OTHER LICENSED HEALTH CARE PROFESSIONAL (PLHCP)" means an individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows him or her to independently provide, or be delegated the responsibility to provide, some or all of the health care services required by paragraph (e) of this section.

3.17 "PULMONARY FUNCTION TESTS" are a group of tests that measure how well lungs work. This includes how well a person is able to breathe and how effective their lungs are able to bring oxygen to the rest of their body.

3.18 "QUALITATIVE FIT TEST (QLFT)" is a pass/fail test method that uses your sense of taste or smell, or your reaction to an irritant in order to detect leakage into the respirator face piece. **(SEE APPENDIX A)**

3.19 "QUANTITATIVE FIT TEST (QNFT)" means an assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator. **(SEE APPENDIX A)**

3.20 "RESPIRATOR PHYSICAL" means medical evaluation using the mandatory Respirator Physical Form. **(SEE APPENDIX C)**

3.21 "SELF-CONTAINED BREATHING APPARATUS (SCBA)" means an atmosphere-supplying respirator for which the breathing air source is designed to be carried by the user.

3.22 "SUPPLIED-AIR RESPIRATOR (AIRLINE RESPIRATOR, SAR)" means an atmosphere-supplying respirator for which the source of breathing air is not designed to be carried by the user.

3.23 "TIGHT-FITTING FACEPIECE (RESPIRATOR)" means a respiratory inlet covering that forms a complete seal with the face.

3.24 "USER SEAL CHECK" means an action conducted by the respirator user to determine if the respirator is properly seated to the face.

4.0 RESPONSIBILITIES

4.1 Each **Department Director** is responsible for identifying the hazardous areas of their operations and ensuring that the provisions of this policy are carried out.

4.2 Employees will use the respiratory protective equipment provided in accordance with instructions provided in training and under the conditions outlined in this policy.

4.3 A list of Qualified Employees in the use of respirators and/or SCBA's will be maintained in each Department Director's office.

5.0 POLICY

5.1 Employees expected to use respiratory protective equipment, on either a routine or emergency basis, will be trained in its use at initial hire, with refresher training provided on an annual basis. The Department Director (or his/her Designee) shall schedule this training. The Risk Manager may be contacted for assistance in providing name(s) of a certified trainer. Likewise, prior to being assigned tasks requiring the use of respiratory equipment, Department Directors, or Designees, shall schedule employees for a Respirator Physical and Pulmonary Function Test.

5.2 Respiratory Protective Equipment shall not be stored within a hazardous area. It shall be placed at stations for emergency use where it is quickly accessible at all times. It shall be stored in water-proof/dust-proof compartments and clearly marked.

5.3 Respiratory Protective Equipment and associated equipment must provide adequate respiratory protection against the particular hazard.

5.4 Employees will not be assigned tasks requiring the use of respiratory equipment unless it has been determined that they are physically able to perform the work while using the equipment.

5.5 Persons using respiratory equipment cannot wear corrective lenses with frames unless an approved fitting has been provided for the respiratory equipment.

5.6 Persons using respiratory equipment must not have facial hair which can affect the seal making the respiratory equipment ineffective.

NOTE:

Beards and/or sideburns that interfere with the seal of the respirator shall not be worn by any employee required to wear respirators or SCBA's.

5.7 Gaston County shall provide respirators, training, and respirator physicals and pulmonary function tests for respirator usage at no cost to the employee.

NOTE:

Departments within Gaston County may have Respiratory Protection Policies relevant to their Departments. This Policy takes precedence over each of those Policies.

6.0 PROCEDURES FOR SELECTING RESPIRATORS

6.1 Department Directors shall review the work areas under their direction using the Personal Protective Equipment Hazard Assessment for all respiratory hazards their employees may encounter. Department Directors are to keep a copy of the completed Personal Protective Equipment Hazard Assessment (found in the Personal Protective Equipment Safety Policy) in their offices.

6.2 Upon completion of the Workplace Hazard Assessment, the Department Director (or Designee) will match the type of respirator to the actual or potential hazard present. For those hazardous areas where Immediately Dangerous to Life and Health (IDLH) atmospheres are not present, the Department Director may wish to choose the negative pressure respirators. The employee is only authorized the use of atmosphere-supplying respirators (SCBA & SAR) in those areas with an IDLH atmosphere.

NOTE:

Where the respiratory hazard cannot be identified or the employee's exposure cannot be reasonably estimated, the atmosphere shall be considered to be IDLH.

6.3 The Department Director is responsible for seeing that the brand, type, and size of respirator is available to the employee. For cost reasons, the purchase of one brand and type of respirator is acceptable provided that brand and type can correctly fit all employees within a workplace. Those employees who cannot properly pass the fit test and check seal of the chosen brand masks, are entitled to have other respirator brands made available at no cost to the employee.

NOTE:

All respirators used by Gaston County must be NIOSH approved. If the Department Director, Supervisor or Employee has any doubt as to the certification, contact the supplier before use.

6.4 Once the respirator size, style, make and model has been properly fitted to the employee, that employee may not wear any other respirator without again being properly evaluated and fitted to that new additional respirator.

6.5 The Department Director will maintain files on employees and the respirator mask(s) they are qualified to wear.

7.0 TYPES OF RESPIRATORS

7.1 Filtering facepiece (also includes dust masks) shall be used to protect against nuisance dusts and mists that are free of oil. Filtering facepieces rated as high efficiency particulate air filters (HEPA) must be used to protect against TB exposures.

7.2 Negative pressure respirator (half facepiece/full facepiece masks w/filter canisters) shall be used to protect against specific fumes, vapors, and chemicals.

NOTE:

Items "1" and "2" above may only be used in non-IDLH atmospheres containing *at least 19.5% and no more than 23% oxygen*. Filtering and negative pressure masks are not to be used in IDLH atmospheres.

NOTE:

Negative pressure respirators may only be used against specific hazards. Employees must read the labels marked and/or match the color on the respirator filter canister to determine applicability to protect against a hazard.

7.3 Self-Contained Breathing Apparatus (SCBA) is to be used when work is to be performed in an IDLH atmosphere. The SCBA must have a 30 minute or greater air bottle supply to comply with this program.

7.4 Supplied-Air Respirators (SAR) is to be used in an IDLH atmosphere, when the Employee must have freedom of movement and dexterity or when the wearing of an SCBA may cause an ignition hazard.

8.0 TYPES OF FILTERS

8.1 Extreme care should be exercised in the selection of the proper canisters for respirators. In addition to the color coding, labels should be affixed to the canister by the Manufacturer that specifies the type of protection.

9.0 PROCEDURES FOR PROPER USE

9.1 Respiratory equipment shall be cleaned and disinfected after each use. Employees shall be instructed in cleaning procedures during the training program.

9.2 Before using a respirator, it should be inspected for the tightness of fittings and connections, conduction of face piece, headband, valves, connecting tube, and canister.

9.3 Whenever a County employee using an SCBA or SAR respirator is in atmospheres immediately dangerous to life or health (IDLH), one or more standby persons with an

SCBA will be positioned at the nearest location where fresh air is available for emergency rescue. Employees must use the "buddy system" and have visual, voice, or walkie-talkies. **No one will enter a hazardous environment alone.**

9.4 Breathing air for SCBA's and SAR's will be of high purity. Compressed and liquid oxygen shall meet the US Pharmacopoeia requirements medical or breathing air and compressed breathing air shall meet at least the requirements of Grade D breathing air described in ANSI/Compressed Gas Association Commodity Specifications for Air, G-7.1-1989 to include:

- Oxygen content (v/v) of 19.5-23.5%;
- Hydrocarbon (condensed) content of 5 milligrams per cubic meter of air or less;
- Carbon monoxide (CO) content of 10 ppm or less;
- Carbon dioxide content of 1,000 ppm or less; and
- Lack of noticeable odor.

NOTE:

Only a qualified distributor/supplier will be allowed to refill SCBA or SAR bottles/air supplies.

9.6 Cylinders used to supply breathing air to respirators must meet the following requirements:

9.6.1 Cylinders are tested and maintained as prescribed in the Shipping Container Specification Regulations of the DOT 49 CFR part 173 and part 178; **9.6.2** Cylinders purchased of breathing air must have a certificate of analysis from the supplier that the breathing air meets the requirements for Grade D breathing air.

9.6.3 The moisture content in the cylinder does not exceed a dew point of -50 deg.F (-45.6 deg.C) at 1 atmosphere.

10.0 MEDICAL CRITERIA FOR USE OF RESPIRATORS

10.1 County employees will be medically evaluated prior to wearing any respirator. Additional medical evaluations will occur during the following:

10.1.1 An employee reports medical signs or symptoms that are related to ability to use a respirator;

10.1.2 A Department Director or Supervisor may determine when an employee needs to be reevaluated;

10.1.3 Information from the Respiratory Protection Program, including observations made during fit testing and program evaluation, may indicate a need for employee reevaluation; or

10.1.4 If a change occurs in workplace conditions (e.g., physical work effort, protective clothing, temperature) that may result in a substantial increase in the physiological burden placed on the employee.

10.2 Each employee shall have a Respirator Physical and Pulmonary Function Test by a Healthcare Provider, prior to using a respirator. Employees shall be given a copy of the County OSHA Respirator Medical Evaluation Questionnaire to fill out prior to the first medical examination and also before any subsequent evaluations which may be

needed. A copy of the Medical Evaluation Questionnaire has been attached at the end of these procedures. **(Appendix B)**

10.3 In addition to the medical evaluation, the following information must be provided to the County's Healthcare Provider (PHP).

- the type and weight of the respirator to be used;
- the duration and frequency of respirator use;
- the expected physical work effort;
- additional protective clothing and equipment to be worn; and,
- temperature and humidity extremes that may be encountered.

11.0 FIT TESTING

11.1 Fit testing will be performed for all employees prior to wearing any respirator. Employees must be fit tested to the same make, model, style, and size of respirator that will be used.

11.2 The fit test method, Countywide, shall be the quantitative test method for all full face respirators. The qualitative test method shall be used for ½ face respirators, if these respirators cannot be tested used the quantitative method. Fit tests shall be completed for all employees by an individual qualified, trained and certified in testing quantitatively. An outside contractor, certified to perform qualitative fit testing, shall complete qualitative testing.

11.3 Fit tests shall be performed *annually* and when changes occur in the employee's physical condition that could affect respirator fit. Such conditions include, but are not limited to, facial scarring, dental changes, cosmetic surgery, or an obvious change in body.

NOTE:

Employees must be fit tested to *each* size, style, model and make of respirator that they may wear within the work place.

12.0 MAINTENANCE, STORAGE, INSPECTION AND DISPOSAL OF RESPIRATORS

12.1 Only a qualified person will repair respirators and SCBA's. A qualified person is an employee who has been trained by the Manufacturer, the Distributor (vendor) trained by the Manufacturer, or the Manufacturer. Respiratory equipment is not to be tampered with or modified in any form from the original manufacturer's specifications and design.

12.2 Respirators shall be stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals, and they shall be packed or stored to prevent deformation of the facepiece and exhalation valve.

12.3 Damaged respirators shall be immediately taken out of service and repaired, if possible. If not possible, the respirator will be labeled and destroyed. Filtering Face Pieces shall be placed in a trash receptacle or biohazard bag, if applicable.

12.4 Filtering elements failing a visual inspection or expired past the service life shall be immediately taken out of service and replaced.

12.5 Respirators and SCBA's maintained for emergency use shall be inspected on a monthly basis by the Supervisor and employee. An inspection checklist will be kept inside the respirator storage area or SCBA carrying case. These checklists may be obtained from the Distributor.

12.6 Respirators frequently used on a day to day basis will be inspected prior to use as well as on a monthly basis.

12.7 Respirators are to be cleaned after each use. (APPENDIX C)

13.0 TRAINING FOR RESPIRATOR USE

13.1 Initial and Annual Training will include instruction on:

- Why the respirator is necessary;
- How improper fit, usage, or maintenance can compromise the protective effect of the respirator;
- Limitations and capabilities of the respirator;
- Proper use in emergency situations and during malfunctions;
- Inspection, installation, removal, and proper seal checks;
- Proper maintenance and storage;
- Recognition of medical signs and symptoms that may limit or prevent the effective use of respirators; and
- General requirements of this program.

13.2 Retraining will be administered *annually and when the following situations occur*:

- Changes in the workplace or type of respirator rendering previous training obsolete;
- Inadequacies in the employee's knowledge or use of the respirator indicate that the employee has not retained the required understanding or skill;
- Any other situation arising in which retraining appears necessary to ensure safe respirator usage.
- All training will be coordinated through an individual/vendor qualified, trained and certified in Respiratory Training.

14.0 VOLUNTARY USE OF DUST MASKS (not required by this policy)

14.1 Employees whose only use of respirators involve the voluntary use of dust masks, within an atmosphere having exposure limits set below OSHA standards, are not required to be included in this written respiratory program (to include; medical evaluation, fit test).

14.2 Employees must ensure that the respirator is cleaned, stored, and maintained so that its use does not present a health hazard to the user.

APPENDIX A

A. QUANTITATIVE (QNFT)/QUALITATIVE (QLFT) FIT TESTING PROTOCOLS

Gaston County fit tests full-face respirators using the quantitative fit testing procedures. The following procedures have been demonstrated to be acceptable:

- Quantitative fit testing using a non-hazardous test aerosol (such as corn oil, polyethylene glycol 400 [PEG 400], di-2-ethyl hexyl sebacate [DEHS], or sodium chloride) generated in a test chamber, and employing instrumentation to quantify the fit of the respirator;
- Quantitative fit testing using ambient aerosol as the test agent and appropriate instrumentation (condensation nuclei counter) to quantify the respirator fit;
- Quantitative fit testing using controlled negative pressure and appropriate instrumentation to measure the volumetric leak rate of a facepiece to quantify the respirator fit.

1. General

- (a) The County shall ensure that persons administering QNFT are able to calibrate equipment and perform tests properly, recognize invalid tests, calculate fit factors properly and ensure that test equipment is in proper working order.
- (b) The County shall ensure that QNFT equipment is kept clean, and is maintained and calibrated according to the manufacturer's instructions so as to operate at the parameters for which it was designed.

2. Generated Aerosol Quantitative Fit Testing Protocol

(a) Apparatus.

- (1) Instrumentation. Aerosol generation, dilution, and measurement systems using particulates (corn oil, polyethylene glycol 400 [PEG 400], di-2-ethyl hexyl sebacate [DEHS] or sodium chloride) as test aerosols shall be used for quantitative fit testing.
- (2) The test chamber shall be large enough to permit all test subjects to perform freely all required exercises without disturbing the test agent concentration or the measurement apparatus. The test chamber shall be equipped and constructed so that the test agent is effectively isolated from the ambient air, yet uniform in concentration throughout the chamber.
- (3) When testing air-purifying respirators, the normal filter or cartridge element shall be replaced with a high efficiency particulate air (HEPA) or P100 series filter supplied by the same manufacturer.
- (4) The sampling instrument shall be selected so that a computer record or strip chart record may be made of the test showing the rise and fall of the test agent concentration with each inspiration and expiration at fit factors of at least 2,000. Integrators or computers that integrate the amount of test agent penetration leakage into the respirator for each exercise may be used provided a record of the readings is made.
- (5) The combination of substitute air-purifying elements, test agent and test agent concentration shall be such that the test subject is not exposed in excess of an established exposure limit for the test agent at any time during the testing process, based upon the length of the exposure and the exposure limit duration.
- (6) The sampling port on the test specimen respirator shall be placed and constructed so that no leakage occurs around the port (e.g., where the respirator is probed), a free

air flow is allowed into the sampling line at all times, and there is no interference with the fit or performance of the respirator. The in-mask sampling device (probe) shall be designed and used so that the air sample is drawn from the breathing zone of the test subject, midway between the nose and mouth and with the probe extending into the facepiece cavity at least 1/4 inch.

(7) The test setup shall permit the person administering the test to observe the test subject inside the chamber during the test.

(8) The equipment generating the test atmosphere shall maintain the concentration of test agent constant to within a 10 percent variation for the duration of the test.

(9) The time lag (interval between an event and the recording of the event on the strip chart or computer or integrator) shall be kept to a minimum. There shall be a clear association between the occurrence of an event and its being recorded.

(10) The sampling line tubing for the test chamber atmosphere and for the respirator sampling port shall be of equal diameter and of the same material. The length of the two lines shall be equal.

(11) The exhaust flow from the test chamber shall pass through an appropriate filter (i.e., high efficiency particulate filter) before release.

(12) When sodium chloride aerosol is used, the relative humidity inside the test chamber shall not exceed 50 percent.

(13) The limitations of instrument detection shall be taken into account when determining the fit factor.

(14) Test respirators shall be maintained in proper working order and be inspected regularly for deficiencies such as cracks or missing valves and gaskets.

(b) Procedural Requirements.

(1) When performing the initial user seal check using a positive or negative pressure check, the sampling line shall be crimped closed in order to avoid air pressure leakage during either of these pressure checks.

(2) The use of the CNC QNFT instrument in the count mode is another optional method to obtain a quick estimate of fit and eliminate poor fitting respirators before going on to perform a full QNFT.

(3) A reasonably stable test agent concentration shall be measured in the test chamber prior to testing. For canopy or shower curtain types of test units, the determination of the test agent's stability may be established after the test subject has entered the test environment.

(4) Immediately after the subject enters the test chamber, the test agent concentration inside the respirator shall be measured to ensure that the peak penetration does not exceed 5 percent for a half mask or 1 percent for a full facepiece respirator.

(5) A stable test agent concentration shall be obtained prior to the actual start of testing.

(6) Respirator restraining straps shall not be over-tightened for testing. The straps shall be adjusted by the wearer without assistance from other persons to give a reasonably comfortable fit typical of normal use. The respirator shall not be adjusted once the fit test exercises begin.

(7) The test shall be terminated whenever any single peak penetration exceeds 5 percent for half masks and 1 percent for full facepiece respirators. The test subject shall be refitted and retested.

(8) Calculation of fit factors.

(i) The fit factor shall be determined for the quantitative fit test by taking the ratio of the average chamber concentration to the concentration measured inside the respirator for each test exercise except the grimace exercise.

(ii) The average test chamber concentration shall be calculated as the arithmetic average of the concentration measured before and after each test (i.e., 7 exercises) or the arithmetic average of the concentration measured before and after each exercise or the true average measured continuously during the respirator sample.

(iii) The concentration of the challenge agent inside the respirator shall be determined by one of the following methods:

(A) Average peak penetration method means the method of determining test agent penetration into the respirator utilizing a strip chart recorder, integrator, or computer. The agent penetration is determined by an average of the peak heights on the graph or by computer integration, for each exercise except the grimace exercise. Integrators or computers that calculate the actual test agent penetration into the respirator for each exercise will also be considered to meet the requirements of the average peak penetration method.

(B) Maximum peak penetration method means the method of determining test agent penetration in the respirator as determined by strip chart recordings of the test. The highest peak penetration for a given exercise is taken to be representative of average penetration into the respirator for that exercise.

(C) Integration by calculation of the area under the individual peak for each exercise except the grimace exercise. This includes computerized integration.

(D) The calculation of the overall fit factor using individual exercise fit factors involves first converting the exercise fit factors to penetration values, determining the average, and then converting that result back to a fit factor. This procedure is described in the following equation:

$$\text{Overall Fit Factor} = \frac{\text{Number of exercises}}{1/ff1 + 1/ff2 + 1/ff3 + 1/ff4 + 1/ff5 + 1/ff6 + 1/ff7 + 1/ff8}$$

Where ff1, ff2, ff3, etc. are the fit factors for exercises 1, 2, 3, etc.

(9) The test subject shall not be permitted to wear a half mask or quarter facepiece respirator unless a minimum fit factor of 100 is obtained, or a full facepiece respirator unless a minimum fit factor of 500 is obtained.

(10) Filters used for quantitative fit testing shall be replaced whenever increased breathing resistance is encountered, or when the test agent has altered the integrity of the filter media.

3. Ambient aerosol condensation nuclei counter (CNC) quantitative fit testing protocol.

The ambient aerosol condensation nuclei counter (CNC) quantitative fit testing (Portacount TM) protocol quantitatively fit tests respirators with the use of a probe. The probed respirator is only used for quantitative fit tests.

A probed respirator has a special sampling device, installed on the respirator that allows the probe to sample the air from inside the mask. A probed respirator is required for each make, style, model, and size that the employer uses and can be obtained from the respirator manufacturer or distributor. The CNC instrument manufacturer, TSI Inc., also provides probe attachments (TSI sampling adapters) that permit fit testing in an employee's own respirator.

A minimum fit factor pass level of at least 100 is necessary for a half-mask respirator and a minimum fit factor pass level of at least 500 is required for a full facepiece negative pressure respirator. The entire screening and testing procedure shall be explained to the test subject prior to the conduct of the screening test.

(a) Portacount Fit Test Requirements.

(1) Check the respirator to make sure the sampling probe and line are properly attached to the facepiece and that the respirator is fitted with a particulate filter capable of preventing significant penetration by the ambient particles used for the fit test (e.g., NIOSH 42 CFR 84 series 100, series 99, or series 95 particulate filter) per manufacturer's instruction.

(2) Instruct the person to be tested to don the respirator for five minutes before the fit test starts. This purges the ambient particles trapped inside the respirator and permits the wearer to make certain the respirator is comfortable. This individual shall already have been trained on how to wear the respirator properly.

(3) Check the following conditions for the adequacy of the respirator fit: Chin properly placed; Adequate strap tension, not overly tightened; Fit across nose bridge; Respirator of proper size to span distance from nose to chin; Tendency of the respirator to slip; *Self-observation in a mirror to evaluate fit and respirator position.*

(4) Have the person wearing the respirator do a user seal check. If leakage is detected, determine the cause. If leakage is from a poorly fitting facepiece, try another size of the same model respirator, or another model of respirator.

(5) Follow the manufacturer's instructions for operating the Portacount and proceed with the test.

(6) The test subject shall be instructed to perform the exercises in section I. A. 14. of this appendix.

(7) After the test exercises, the test subject shall be questioned by the test conductor regarding the comfort of the respirator upon completion of the protocol. If it has become unacceptable, another model of respirator shall be tried.

(b) Portacount Test Instrument.

(1) The Portacount will automatically stop and calculate the overall fit factor for the entire set of exercises. The overall fit factor is what counts. The Pass or Fail message will indicate whether or not the test was successful. If the test was a Pass, the fit test is over.

(2) Since the pass or fail criterion of the Portacount is user programmable, the test operator shall ensure that the pass or fail criterion meet the requirements for minimum respirator performance in this Appendix.

(3) A record of the test needs to be kept on file, assuming the fit test was successful. The record must contain the test subject's name; overall fit factor; make, model, style, and size of respirator used; and date tested.

4. Controlled negative pressure (CNP) quantitative fit testing protocol.

The CNP protocol provides an alternative to aerosol fit test methods. The CNP fit test method technology is based on exhausting air from a temporarily sealed respirator facepiece to generate and then maintain a constant negative pressure inside the facepiece. The rate of air exhaust is controlled so that a constant negative pressure is maintained in the respirator during the fit test. The level of pressure is selected to replicate the mean inspiratory pressure that causes leakage into the respirator under

normal use conditions. With pressure held constant, air flow out of the respirator is equal to air flow into the respirator. Therefore, measurement of the exhaust stream that is required to hold the pressure in the temporarily sealed respirator constant yields a direct measure of leakage air flow into the respirator.

The CNP fit test method measures leak rates through the facepiece as a method for determining the facepiece fit for negative pressure respirators. The CNP instrument manufacturer Dynatech Nevadas also provides attachments (sampling manifolds) that replace the filter cartridges to permit fit testing in an employee's own respirator.

To perform the test, the test subject closes his or her mouth and holds his/her breath, after which an air pump removes air from the respirator facepiece at a pre-selected constant pressure. The facepiece fit is expressed as the leak rate through the facepiece, expressed as milliliters per minute. The quality and validity of the CNP fit tests are determined by the degree to which the in-mask pressure tracks the test pressure during the system measurement time of approximately five seconds. Instantaneous feedback in the form of a real-time pressure trace of the in-mask pressure is provided and used to determine test validity and quality. A minimum fit factor pass level of 100 is necessary for a half-mask respirator and a minimum fit factor of at least 500 is required for a full facepiece respirator. The entire screening and testing procedure shall be explained to the test subject prior to the conduct of the screening test.

(a) Controlled Negative Pressure Fit Test Requirements.

(1) The instrument shall have a non-adjustable test pressure of 15.0 mm water pressure.

(2) The CNP system defaults selected for test pressure shall be set at - 15 mm of water (-0.58 inches of water) and the modeled inspiratory flow rate shall be 53.8 liters per minute for performing fit tests.

(Note: CNP systems have built-in capability to conduct fit testing that is specific to unique work rate, mask, and gender situations that might apply in a specific workplace. Use of system default values, which were selected to represent respirator wear with medium cartridge resistance at a low-moderate work rate, will allow inter- test comparison of the respirator fit.)

(3) The individual who conducts the CNP fit testing shall be thoroughly trained to perform the test.

(4) The respirator filter or cartridge needs to be replaced with the CNP test manifold. The inhalation valve downstream from the manifold either needs to be temporarily removed or propped open.

(5) The test subject shall be trained to hold his or her breath for at least 20 seconds.

(6) The test subject shall don the test respirator without any assistance from the individual who conducts the CNP fit test.

(7) The QNFT protocol shall be followed according to section I. C. 1. Of this appendix with an exception for the CNP test exercises.

(b) CNP Test Exercises.

(1) Normal breathing. In a normal standing position, without talking, the subject shall breathe normally for 1 minute. After the normal breathing exercise, the subject needs to hold head straight ahead and hold his or her breath for 10 seconds during the test measurement.

(2) Deep breathing. In a normal standing position, the subject shall breathe slowly and deeply for 1 minute, being careful not to hyperventilate. After the deep breathing exercise, the subject shall hold his or her head straight ahead and hold his or her breath for 10 seconds during test measurement.

(3) Turning head side to side. Standing in place, the subject shall slowly turn his or her head from side to side between the extreme positions on each side for 1 minute. The head shall be held at each extreme momentarily so the subject can inhale at each side. After the turning head side to side exercise, the subject needs to hold head full left and hold his or her breath for 10 seconds during test measurement. Next, the subject needs to hold head full right and hold his or her breath for 10 seconds during test measurement.

(4) Moving head up and down. Standing in place, the subject shall slowly move his or her head up and down for 1 minute. The subject shall be instructed to inhale in the up position (i.e., when looking toward the ceiling). After the moving head up and down exercise, the subject shall hold his or her head full up and hold his or her breath for 10 seconds during test measurement. Next, the subject shall hold his or her head full down and hold his or her breath for 10 seconds during test measurement.

(5) Talking. The subject shall talk out loud slowly and loud enough so as to be heard clearly by the test conductor. The subject can read from a prepared text such as the Rainbow Passage, count backward from 100, or recite a memorized poem or song for 1 minute. After the talking exercise, the subject shall hold his or her head straight ahead and hold his or her breath for 10 seconds during the test measurement.

(6) Grimace. The test subject shall grimace by smiling or frowning for 15 seconds.

(7) Bending Over. The test subject shall bend at the waist as if he or she were to touch his or her toes for 1 minute. Jogging in place shall be substituted for this exercise in those test environments such as shroud-type QNFT units that prohibit bending at the waist. After the bending over exercise, the subject shall hold his or her head straight ahead and hold his or her breath for 10 seconds during the test measurement.

(8) Normal Breathing. The test subject shall remove and re-don the respirator within a one-minute period. Then, in a normal standing position, without talking, the subject shall breathe normally for 1 minute. After the normal breathing exercise, the subject shall hold his or her head straight ahead and hold his or her breath for 10 seconds during the test measurement. After the test exercises, the test subject shall be questioned by the test conductor regarding the comfort of the respirator upon completion of the protocol. If it has become unacceptable, another model of a respirator shall be tried.

(c) CNP Test Instrument.

(1) The test instrument shall have an effective audio warning device when the test subject fails to hold his or her breath during the test. The test shall be terminated whenever the test subject failed to hold his or her breath. The test subject may be refitted and retested.

(2) A record of the test shall be kept on file, assuming the fit test was successful. The record must contain the test subject's name; overall fit factor; make, model, style and size of respirator used; and date tested.

QUALITATIVE FIT TESTING is a pass/fail test method that uses your sense of taste or smell, or your reaction to an irritant in order to detect leakage into the respirator face piece. Qualitative fit testing does not measure the actual amount of leakage. Whether the respirator passes or fails the test is based simply on you detecting leakage of the test substance into your face piece. There are four qualitative fit test methods accepted by OSHA:

- Isoamyl acetate, which smells like bananas;
- Saccharin, which leaves a sweet taste in your mouth;
- Bitrex, which leaves a bitter taste in your mouth; and
- Irritant smoke, which can cause coughing.

Qualitative fit testing is normally used for half-mask respirators - those that just cover your mouth and nose. Half-mask respirators can be filtering face piece respirators - often called "N95s" - as well as elastomeric respirators.

APPENDIX B

Gaston County Respiratory Protection Physical Form



To the employer: Answers to questions in Section 1, and to question 9 in Section 2 of Part A, do not require a medical examination.

To the Employee:

Can you read (circle one): Yes/No

Your Employer must allow you to answer this questionnaire during normal working hours or at a time and place that are convenient to you. To maintain your confidentiality, your employer or supervisor must not look at or review your answers, and your employer must tell you how to deliver or send this questionnaire to the health care professional who will review it.

Part A. Section 1. (Mandatory) The following information must be provided by every employee who has been selected to use any type of respirator (please print).

1. Today's date: _____
2. Your name: _____
3. Your age (to nearest year): _____
4. Sex (circle one): Male/Female
5. Your height: _____ ft. _____ in.
6. Your weight: _____ lbs.
7. Your job title: _____
8. A phone number where you can be reached by the health care professional who reviews this questionnaire (include the Area Code): _____
9. The best time to phone you at this number: _____
10. Has your employer told you how to contact the health care professional who will review this questionnaire (circle one): Yes/No
11. Check the type of respirator you will use (you can check more than one category):
 - a. _____ N, R, or P disposable respirator (filter-mask, non-cartridge type only).
 - b. _____ Other type (for example, half- or full-facepiece type, powered-air purifying, supplied-air, self-contained breathing apparatus).

12. Have you worn a respirator (circle one): Yes/No

If "yes," what type(s): _____

Part A. Section 2. (Mandatory) Questions 1 through 9 below must be answered by every employee who has been selected to use any type of respirator (please circle "yes" or "no").

1. Do you **currently** smoke tobacco, or have you smoked tobacco in the last month: Yes/No

2. Have you **ever had** any of the following conditions?

- a. Seizures (fits): Yes/No
- b. Diabetes (sugar disease): Yes/No
- c. Allergic reactions that interfere with your breathing: Yes/No
- d. Claustrophobia (fear of closed-in places): Yes/No
- e. Trouble smelling odors: Yes/No

3. Have you **ever had** any of the following pulmonary or lung problems?

- a. Asbestosis: Yes/No
- b. Asthma: Yes/No
- c. Chronic bronchitis: Yes/No
- d. Emphysema: Yes/No
- e. Pneumonia: Yes/No
- f. Tuberculosis: Yes/No
- g. silicosis: Yes/No
- h. Pneumothorax (collapsed lung): Yes/No
- i. Lung cancer: Yes/No
- j. Broken ribs: Yes/No
- k. Any chest injuries or surgeries: Yes/No
- l. Any other lung problem that you've been told about: Yes/No

4. Do you **currently** have any of the following symptoms of pulmonary or lung illness?

- a. Shortness of breath: Yes/No
- b. Shortness of breath when walking fast on level ground or walking up a slight hill or incline: Yes/No
- c. Shortness of breath when walking with other people at an ordinary pace on level ground: Yes/No
- d. Have to stop for breath when walking at your own pace on level ground: Yes/No
- e. Shortness of breath when washing or dressing yourself: Yes/No
- f. Shortness of breath that interferes with your job: Yes/No
- g. Coughing that produces phlegm (thick sputum): Yes/No
- h. Coughing that wakes you early in the morning: Yes/No
- i. Coughing that occurs mostly when you are lying down: Yes/No
- j. Coughing up blood in the last month: Yes/No
- k. Wheezing: Yes/No
- l. Wheezing that interferes with your job: Yes/No
- m. Chest pain when you breathe deeply: Yes/No
- n. Any other symptoms that you think may be related to lung problems: Yes/No

5. Have you **ever had** any of the following cardiovascular or heart problems?

- a. Heart attack: Yes/No

- b. Stroke: Yes/No
- c. Angina: Yes/No
- d. Heart failure: Yes/No
- e. Swelling in your legs or feet (not caused by walking): Yes/No
- f. Heart arrhythmia (heart beating irregularly): Yes/No
- g. High blood pressure: Yes/No
- h. Any other heart problem that you've been told about: Yes/No

6. Have you **ever had** any of the following cardiovascular or heart symptoms?

- a. Frequent pain or tightness in your chest: Yes/No
- b. Pain or tightness in your chest during physical activity: Yes/No
- c. Pain or tightness in your chest that interferes with your job: Yes/No
- d. In the past two years, have you noticed your heart skipping or missing a beat: Yes/No
- e. Heartburn or indigestion that is not related to eating: Yes/No
- f. Any other symptoms that you think may be related to heart or circulation problems: Yes/No

7. Do you **currently** take medication for any of the following problems?

- a. Breathing or lung problems: Yes/No
- b. Heart trouble: Yes/No
- c. Blood pressure: Yes/No
- d. Seizures (fits): Yes/No

8. If you've used a respirator, have you **ever had** any of the following problems? (If you've never used a respirator, check the following space and go to question 9:)

- a. Eye irritation: Yes/No
- b. Skin allergies or rashes: Yes/No
- c. Anxiety: Yes/No
- d. General weakness or fatigue: Yes/No
- e. Any other problem that interferes with your use of a respirator: Yes/No

9. Would you like to talk to the health care professional who will review this questionnaire about your answers to this questionnaire: Yes/No

Questions 10 to 15 below must be answered by every employee who has been selected to use either a full-facepiece respirator or a self-contained breathing apparatus (SCBA). For employees who have been selected to use other types of respirators, answering these questions is voluntary.

10. Have you **ever lost** vision in either eye (temporarily or permanently): Yes/No

11. Do you **currently** have any of the following vision problems?

- a. Wear contact lenses: Yes/No
- b. Wear glasses: Yes/No
- c. Color blind: Yes/No
- d. Any other eye or vision problem: Yes/No

12. Have you **ever had** an injury to your ears, including a broken ear drum: Yes/No

13. Do you **currently** have any of the following hearing problems?

- a. Difficulty hearing: Yes/No

- b. Wear a hearing aid: Yes/No
- c. Any other hearing or ear problem: Yes/No

14. Have you ***ever had*** a back injury: Yes/No

15. Do you ***currently*** have any of the following musculoskeletal problems?

- a. Weakness in any of your arms, hands, legs, or feet: Yes/No
- b. Back pain: Yes/No
- c. Difficulty fully moving your arms and legs: Yes/No
- d. Pain or stiffness when you lean forward or backward at the waist: Yes/No
- e. Difficulty fully moving your head up or down: Yes/No
- f. Difficulty fully moving your head side to side: Yes/No
- g. Difficulty bending at your knees: Yes/No
- h. Difficulty squatting to the ground: Yes/No
- i. Climbing a flight of stairs or a ladder carrying more than 25 lbs: Yes/No
- j. Any other muscle or skeletal problem that interferes with using a respirator: Yes/No

Part B Any of the following questions, and other questions not listed, may be added to the questionnaire at the discretion of the health care professional who will review the questionnaire.

1. In your present job, are you working at high altitudes (over 5,000 feet) or in a place that has lower than normal amounts of oxygen: Yes/No

If "yes," do you have feelings of dizziness, shortness of breath, pounding in your chest, or other symptoms when you're working under these conditions: Yes/No

2. At work or at home, have you ever been exposed to hazardous solvents, hazardous airborne chemicals (e.g., gases, fumes, or dust), or have you come into skin contact with hazardous chemicals: Yes/No

If "yes," name the chemicals if you know them: _____

3. Have you ever worked with any of the materials, or under any of the conditions, listed below:

- a. Asbestos: Yes/No
- b. Silica (***e.g.***, in sandblasting): Yes/No
- c. Tungsten/cobalt (e.g., grinding or welding this material): Yes/No
- d. Beryllium: Yes/No
- e. Aluminum: Yes/No
- f. Coal (for example, mining): Yes/No
- g. Iron: Yes/No
- h. Tin: Yes/No
- i. Dusty environments: Yes/No
- j. Any other hazardous exposures: Yes/No

If "yes," describe these exposures: _____

4. List any second jobs or side businesses you have: _____

5. List your previous occupations: _____

6. List your current and previous hobbies: _____

7. Have you been in the military services? Yes/No

If "yes," were you exposed to biological or chemical agents (either in training or combat): Yes/No

8. Have you ever worked on a HAZMAT team? Yes/No

9. Other than medications for breathing and lung problems, heart trouble, blood pressure, and seizures mentioned earlier in this questionnaire, are you taking any other medications for any reason (including over-the-counter medications): Yes/No

If "yes," name the medications if you know them: _____

10. Will you be using any of the following items with your respirator(s)?

- a. HEPA Filters: Yes/No
- b. Canisters (for example, gas masks): Yes/No
- c. Cartridges: Yes/No

11. How often are you expected to use the respirator(s) (circle "yes" or "no" for all answers that apply to you)?:

- a. Escape only (no rescue): Yes/No
- b. Emergency rescue only: Yes/No
- c. Less than 5 hours **per week**: Yes/No
- d. Less than 2 hours **per day**: Yes/No
- e. 2 to 4 hours per day: Yes/No
- f. Over 4 hours per day: Yes/No

12. During the period you are using the respirator(s), is your work effort:

- a. **Light** (less than 200 kcal per hour): Yes/No

If "yes," how long does this period last during the average shift: _____ hrs. _____ mins.

Examples of a light work effort are **sitting** while writing, typing, drafting, or performing light assembly work; or **standing** while operating a drill press (1-3 lbs.) or controlling machines.

- b. **Moderate** (200 to 350 kcal per hour): Yes/No

If "yes," how long does this period last during the average shift: _____ hrs. _____ mins.

Examples of moderate work effort are **sitting** while nailing or filing; **driving** a truck or bus in urban traffic; **standing** while drilling, nailing, performing assembly work, or transferring a moderate load (about 35 lbs.) at trunk level; **walking** on a level surface about 2 mph or down a 5-degree grade about 3 mph; or **pushing** a wheelbarrow with a heavy load (about 100 lbs.) on a level surface.

- 3. **Heavy** (above 350 kcal per hour): Yes/No

If "yes," how long does this period last during the average shift: _____ hrs. _____ mins.

Examples of heavy work are *lifting* a heavy load (about 50 lbs.) from the floor to your waist or shoulder; working on a loading dock; *shoveling*; *standing* while bricklaying or chipping castings; *walking* up an 8-degree grade about 2 mph; climbing stairs with a heavy load (about 50 lbs.).

13. Will you be wearing protective clothing and/or equipment (other than the respirator) when you're using your respirator: Yes/No

If "yes," describe this protective clothing and/or equipment: _____

14. Will you be working under hot conditions (temperature exceeding 77 deg. F): Yes/No

15. Will you be working under humid conditions: Yes/No

16. Describe the work you'll be doing while you're using your respirator(s):

17. Describe any special or hazardous conditions you might encounter when you're using your respirator(s) (for example, confined spaces, life-threatening gases):

18. Provide the following information, if you know it, for each toxic substance that you'll be exposed to when you're using your respirator(s):

Name of the first toxic substance: _____

Estimated maximum exposure level per shift: _____

Duration of exposure per shift: _____

Name of the second toxic substance: _____

Estimated maximum exposure level per shift: _____

Duration of exposure per shift: _____

Name of the third toxic substance: _____

Estimated maximum exposure level per shift: _____

Duration of exposure per shift: _____

The name of any other toxic substances that you'll be exposed to while using your respirator:

19. Describe any special responsibilities you'll have while using your respirator(s) that may affect the safety and well-being of others (for example, rescue, security):

APPENDIX C

Procedures for Cleaning Respirators

1. Remove filters, cartridges, or canisters. Disassemble face pieces by removing speaking diaphragms, demand and pressure-demand valve assemblies, hoses, or any components recommended by the manufacturer. Discard or repair any defective parts.
2. Wash components in warm (43 deg. C [110 deg. F] maximum) water with a mild detergent or with a cleaner recommended by the manufacturer. A stiff bristle (not wire) brush may be used to facilitate the removal of dirt.
3. Rinse components thoroughly in clean, warm (43 deg. C [110 deg. F] maximum), preferably running water. Drain.
4. When the cleaner used does not contain a disinfecting agent, respirator components should be immersed for two minutes in one of the following:
 - a. Hypochlorite solution (50 ppm of chlorine) made by adding approximately one milliliter of laundry bleach to one liter of water at 43 deg. C (110 deg. F); or,
 - b. Aqueous solution of iodine (50 ppm iodine) made by adding approximately 0.8 milliliters of tincture of iodine (6-8 grams ammonium and/or potassium iodide/100 cc of 45% alcohol) to one liter of water at 43 deg. C (110 deg. F); or,
 - c. Other commercially available cleansers of equivalent disinfectant quality when used as directed, if their use is recommended or approved by the respirator manufacturer.
5. Rinse components thoroughly in clean, warm (43 deg. C [110 deg. F] maximum), preferably running water. Drain. The importance of thorough rinsing cannot be overemphasized. Detergents or disinfectants that dry on face pieces may result in dermatitis. In addition, some disinfectants may cause deterioration of rubber or corrosion of metal parts if not completely removed.
6. Components should be hand-dried with a clean lint-free cloth or air-dried.
7. Reassemble face piece, replacing filters, cartridges, and canisters where necessary.
8. Ensure that all components work properly.

Policy Number: 1910.252

Effective Date:

Revision Date:

Approved By:



Safety & Health Policy and Procedure Manual

Welding, Cutting & Brazing Policy

1.0 PURPOSE

The purpose of this policy is to establish standards for welding, cutting, brazing and burning operations for Gaston County. This policy will meet the requirements as set forth by 29 CFR 1910.252.

2.0 SCOPE

This policy applies to all employees, and visiting Contractors, while working and providing services throughout all work sites under the authority of Gaston County. This policy will regulate not only welding and cutting, but all forms of spark or heat-producing operations occurring in work areas where the potential for ignition or combustion of materials is possible.

3.0 RESPONSIBILITIES AND DUTIES

3.1 Department Directors/Supervisors will be responsible for the safe usage of welding and cutting equipment.

- A Hot Work Permit will be filled out when performing welding/brazing where danger may exist as set forth in this policy.
- The Department Director, or Designee, will authorize welding and cutting operations.

3.2 The Department Director, or Designee, will ensure that Welders or Cutters are suitably trained in the safe operation of their equipment and how to safely perform the process.

3.3 The Department Director, or Designee, shall inform all Contractors about flammable materials or hazardous conditions and ensure a safety briefing has been given to the main Contracting Manager or Supervisor.

3.4 The Supervisor and employees will be responsible for the following:

3.4.1 Safe handling of the welding or cutting equipment and the safe use of the welding or cutting process.

3.4.2 Determining the combustible materials and hazardous areas present, or likely to be present, in the work location.

3.4.3 Protecting combustibles from ignition by the following:

- Have the work moved to a location free from dangerous combustibles,
- If the work cannot be moved, have the combustibles moved to a safe distance from the work or have the combustibles properly shielded against ignition,
- Monitor air and properly ventilate the working space of toxic or flammable gases or vapors prior to work, or
- See that welding and cutting are so scheduled that facility operations that might expose combustibles to ignition are not started during welding or cutting.
- Secure authorization for welding or cutting operations from the Designated Department Representative.
- Ensure that the Welder secures his/her approval that conditions are safe before going ahead.
- Ensure that fire protection and extinguishing equipment are properly located at the site.
- Ensure that fire watchers are on the site when they are required.

3.4.4 All supervisors, employees and contractors performing welding, cutting or brazing will be trained in the proper procedures.

3.4.5 Safety procedures and hazards associated with specific areas of Gaston County will be reviewed with all employees and contractors performing welding and cutting work on site

3.4.6 Welding, cutting or brazing in a posted Confined Space will require securing a Confined Space Permit, in addition to a Hot Work Permit by Gaston County, to allow and control entry into a permit space.

4.0 PROCEDURES

4.1 BASIC PRECAUTIONS

4.1.1 To prevent inadvertent fire damage, employees will be provided a safe area to weld or grind in accordance to specific steps. The basic precautions for fire prevention in welding or cutting work are listed below and should be followed in the order listed

Step One:

If the object to be worked on cannot readily be moved, all movable fire hazards such as solids, liquids, or gases in the vicinity, will be ventilated or objects taken to a safe place.

Step Two: If objects to be worked on cannot be moved and if all fire or explosion hazards cannot be removed, then guards shall be used to confine the heat, sparks and slag, and protect the immovable fire hazards.

NOTICE:

If the requirements stated in Steps One and Two, above, cannot be followed then welding, cutting, brazing will not be performed.

4.1.2 Whenever 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 which might drop through the floor. The same precautions will be observed with regard to cracks or holes in walks, open doorways and open or broken windows.

4.1.3 Fire extinguishing equipment will be maintained in a state of readiness for instant use.

4.2 FIRE WATCHERS

4.2.1 Fire watchers will be required whenever welding, cutting or brazing is performed where any of the following conditions exist:

- Appreciable combustible material in building construction or contents that are closer than 35 feet to the point of operation.
- Appreciable combustible materials are more than 35 feet away but are easily ignited by sparks.
- Wall or floor openings within a 35 foot radius which expose combustible material in adjacent areas concealed spaced in walls or floors, and
- Combustible materials are adjacent to the opposite side of metal partitions, walls, ceilings or roofs and are likely to be ignited by conductions or radiation.

4.2.2 Fire watchers will

- Have fire extinguishing equipment readily available and be trained in its use.
- Be familiar with facilities for sounding an alarm in the event of a fire.
- Watch for fires in all exposed areas, try to extinguish them only when obviously within the capacity of the equipment available, otherwise, sound the alarm and evacuate.

4.3 RESTRICTIONS

Welding, cutting and brazing shall not be permitted in the following situations:

- In areas not authorized by the Supervisor/Department Director
- In sprinkler buildings while such protection is impaired
- In the presence of explosive atmospheres (mixtures of flammable gases, vapors, liquids, or dust within air), or explosive atmospheres that may develop inside uncleaned or improperly prepared tanks or equipment which have previously contained such materials, or that may develop in areas with an accumulation of combustible dust.

- In any posted CONFINED SPACE without first securing a CONFINED SPACE PERMIT.
- In areas near the storage of large quantities of exposed, readily ignitable materials.

4.4 PROTECTION OF EMPLOYEES

Personal Protective Equipment Requirements:

- A welder or helper working on platforms, scaffolds, manholes or runways will be protected against falling. This may be accomplished by the use of railings, safety harnesses and life lines or some other equally effective safeguards.
- Helmets or hand shields will be used during all arc welding or cutting operations. Helpers or standby persons will be provided with eye protection that is approved for welding.
- Goggles or other suitable eye protection will be used during all gas welding, oxygen cutting and or brazing operations.
- All Operators and Attendants operating welding and brazing burning equipment are required to use transparent face shields or goggles, depending on their particular job. This is to protect their faces and/or eyes.
- Helmets and hand shields shall be worn by employees to protect the face, neck and ears from direct radiant energy from the arc.
- Goggles will be ventilated to prevent fogging of the lens.
- Employees exposed to the hazards created by welding, cutting, brazing or burning operations will be protected by personal protective equipment. Personal protective clothing is required for all welding operations and will vary with the size, nature and location of the work to be performed. Department Directors/Supervisors shall instruct employees on the proper donning and doffing of welding personal protective equipment.

4.5 SAFE WELDING AND CUTTING PRACTICES

- Each operator will be acquainted with the welding equipment and its safe operation, the gases to be used, and the materials to be worked on before any welding or cutting is done.
- All fittings, hose connections, regulators, valves and safety devices must be checked for leaks and be in proper working condition. Soap suds (never open flame) should be used for leak detection tests.
- Hose, valves, regulators and other apparatus must be kept clean. Under no circumstances shall oil or grease be permitted to come in contact with any portion of the oxygen equipment.
- When parallel lengths of oxygen and fuel hose are taped together for convenience, and to prevent tangling, not more than 4 inches out of 12 will be covered by tape.
- Hose connections will be clamped or otherwise securely fastened in a manner that will withstand, without leaking, twice the pressure they are normally subjected to, but in no case less than 300 psi.

- Hoses showing leaks, burns, worn places, or other defects must be repaired or replaced before being used.
- The generally recognized colors are: red for acetylene and other fuel gas hoses, green for oxygen hoses, and black for inert gas, an air hose.
- Pressure from cylinders shall be reduced through regulators designed and marked for the product being used.
- Matches or hot metal shall not be used to light a torch. A friction lighter or pilot is the only safe method to be used.
- All torches must have flash back protection installed to prevent flash back into the torch and/or cylinders.
- Acetylene will never be used at pressures in excess of 15 psi unless special job requirements dictate otherwise.
- Suitable eye, face and body personal protective equipment must be worn at all times.
- Adequate protective clothing shall be used as the job requires.
- Cylinder valves shall be opened slowly and keys or handles shall be left on the valve stem while in service. Operators must stand clear of the face of the regulators when cracking a cylinder valve.
- Only approved wrenches will be used. Valves must not be hammered or forced open.
- All cylinders will be securely fastened to a cart, or other carrier, in an upright position during and after use.
- The acetylene and oxygen hose shall never be left inside tanks, vessels or enclosed areas when not in use.
- Proper fire extinguishing equipment shall be readily available at all times. Work shall be supported on a non-combustible material.
- Proper ventilation must be provided, or respiratory equipment used, when brazing or welding where toxic fume conditions are present.
- Welding or cutting must never be done in an explosive or fire hazardous area. Tanks or manholes which have contained flammable materials should be thoroughly purged or ventilated and instrument tested before welding or cutting.
- Atmospheric conditions shall be checked, at least hourly, for combustible levels.

5.0 EYE PROTECTION GUIDELINES

- Employees performing welding/brazing operations are required to wear the appropriate personal protective equipment (PPE) for the eyes. This policy also applies to all Contractors assisting in welding tasks.
- The following table provides guidelines on the filter lens requirements as related to specific welding types.

FILTER LENSES FOR PROTECTION AGAINST RADIANT ENERGY

Operation Shade (Comfort)	Electrode Size inches (mm)	Arc Current (Amps)	Minimum Protective Shade	Suggested Number
Shielded metal arc welding	<3 in. (<2.5 mm)	<60 amps	7	7
	3-5 in. (2.5-4 mm)	60-160 amps	8	10
	5-8 in. (4-6.4 mm)	160-250 amps	10	12
	>8 in. (>6.4 mm)	250-550 amps	11	14
Gas metal arc welding & flux cored arc welding		<60 amps	7	7
		60-160 amps	10	11
		160-250 amps	10	12
		250-550 amps	10	14
Gas tungsten arc welding		<50 amps	8	10
		50-150 amps	8	12
		150-500 amps	10	14
Air carbon Arc cutting	(Light)	<500 amps	10	12
	(Heavy)	500-1000 amps	11	14
Plasma arc welding		<20 amps	6	8
		20-100 amps	8	10
		100-400 amps	10	12
		500-80 amps	11	14
Plasma arc cutting	(Light)	<300 amps	8	9
	(Medium)	300-400 amps	9	12
	(Heavy)	400-800 amps	10	14

RESPONSIBILITIES FOR HOT WORK PERMIT SYSTEM:

5.1 Department Director/Supervisor shall:

- Inspect area for which permit will apply and ensure all precautions listed on permit have been performed.
- Sign Permit in "Permit Approval" block authorizing work.
- Perform final inspection 30 minutes after last welding or cutting work was performed, examining for any signs of sparks, open flame or combustion.
- Retain original copy for file.

NOTICE: Supervisors/Department Directors may authorize Designees to perform the above duties. Original copy of Hot Work Permit must be forwarded to Supervisor/Department Director to be filed when work is complete.

GASTON COUNTY HOT WORK PERMIT

Date _____ Time _____

Name of Person(s) Performing Work _____

Specific Location of Work _____

Yes No

- | | | |
|-----|-----|--|
| ___ | ___ | Cutting or welding permitted in an area that has been made fire safe. |
| ___ | ___ | All movable fire hazards in the area have been taken to a safe place. |
| ___ | ___ | Guards used to contain the heat, sparks and slag if fire hazards cannot be removed. |
| ___ | ___ | Floor or wall openings or cracks, open doorways and windows protected or closed. |
| ___ | ___ | Fire extinguisher available for instant use. |
| ___ | ___ | Fire Watch in areas where other than a minor fire might develop such as around combustible material. |
| ___ | ___ | Floors swept clean of combustible material for a radius of 35 feet. |
| ___ | ___ | Combustible floors have been kept wet, covered with damp sand or protected by fire resistant shields. |
| ___ | ___ | Welding/cutting done only in areas authorized by management. No welding/cutting in sprinkled building when sprinkler system is impaired or in presence of explosive atmosphere, or in area of storage of readily ignitable material. |
| ___ | ___ | Dusts and conveyor systems that might carry sparks to distant combustibles protected or shutdown. |
| ___ | ___ | Cutter/welder is trained in safe operation of equipment and the safe use of the process. |
| ___ | ___ | Any on-site contractors advised about flammable material or hazardous conditions of which they may not be aware. |

Welding or Cutting Containers:

- | | | |
|-----|-----|---|
| ___ | ___ | Container thoroughly cleaned and ventilated |
| ___ | ___ | Any pipe lines or connections to containers disconnected or blanked. |
| ___ | ___ | PPE used as needed-e.g. eye protection, helmet, protective clothing, respirator, gloves |
| ___ | ___ | Warning sign posted to warn other workers of hot metal. |
| ___ | ___ | Appropriate ventilation provided. |
| ___ | ___ | When working in confined spaces, a permit has been issued as per 1910.146 |

For specific requirements, refer to General Industry Standards 1910.146; 1910.252; .253;.254 and .272 and Construction Standards 1926.803; .350; .352 and .353.

Authorized Signature-Supervisor _____



Gaston County

Gaston County
Board of Commissioners
www.gastongov.com

Human Resources

Board Action

File #: 19-310

Commissioner Philbeck - Human Resources - To Approve Revisions to the Gaston County Personnel Policy Manual and to Approve the Safety and Risk Management Policy

STAFF CONTACT

Pam Overcash - HR - 704-866-3722

BUDGET IMPACT

No additional County funds.

BUDGET ORDINANCE IMPACT

None

BACKGROUND

The Gaston County Board of Commissioners approved the Gaston County Personnel Policy Manual to be effective July 1, 2010. The Policy Manual is reviewed annually for revisions and corrections. Policies being revised are: Holiday Pay, Sick Leave, Educational Reimbursement, Incidental Expenses, Misconduct and Tobacco Use in County Vehicles. Also, a new policy addressing safety and risk management has been written and requires approval by the Board of Commissioners.

POLICY IMPACT

See Attachment

ATTACHMENTS

Resolution, Policy Change Summary, Safety and Risk Management Policy

DO NOT TYPE BELOW THIS LINE

I, Donna S. Buff, Clerk to the County Commission, do hereby certify that the above is a true and correct copy of action taken by the Board of Commissioners as follows:

NO.	DATE	M1	M2	CBrown	JBrown	AFrale	BHovis	TKeigher	TPhilbeck	RWorley	Vote
2019-231	08/27/2019	CB	AF	A	A	A	A	A	A	A	U

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