3.1 Definitions

a) **Incident** – An incident is an undesirable occurrence that could, but usually does not, result in a loss.

b) **Accident** – An accident is an unplanned, unforeseen and undesirable occurrence which interrupts a normal activity and which results in either an injury, loss of life, damage to material, equipment or facility or any combination of these.

c) **Preventable Accident** – An accident that occurred as a result of an act or failure to act on the part of an employee or the management or both.

d) **Unpreventable Accident** – An accident which no act whatsoever on the part of the employee could have prevented the injury or damages to vehicle, equipment or property.

e) **Unsafe Act** – Any act on the part of a person which increased his or her chances of having an accident.

f) **Unsafe Condition** – A condition within the working environment which increases the worker’s chances of having an accident, or which may cause impairment of health.

g) **Hazard** – Any arrangement, equipment, material, object, condition, method or procedure capable of causing bodily harm or impairment of health or both.

3.2 Basic Activities

Successful accident prevention requires a minimum of four fundamental activities:

a) A study of all working areas to detect and eliminate or control physical hazards which contribute to accidents.

b) A study of all operating methods and practices.

c) Education, instruction, training and discipline to minimize human factors which contribute to accidents.

d) Thorough investigations of accidents to determine contributing circumstances.

3.3 Most Accidents are Preventable
a) Many persons, either through ignorance or misunderstanding, unfortunately believe that accidents are the inevitable results of unchangeable circumstances, fate or a matter of luck.

b) It must be emphasized that accidents do not happen without cause, and the identification, isolation and control of these “causes” are the underlying principles of all accident prevention techniques.

c) No person in a supervisory position can be effective in his job of accident prevention unless he/she fully believes that accidents can be prevented and constantly strives to do so.

3.4 Typical Unsafe Acts

The majority of unsafe acts of persons may be assigned to one or more of the following classifications:

a) Failure to follow instructions or a proper job procedure.

b) Cleaning, oiling, adjusting or repairing equipment that is moving, electrically energized or pressurized.

c) Failure to use available personal protective equipment such as gloves, goggles, hard hats.

d) Failure to wear safe personal attire.

e) Failure to secure or warn.

f) Improper use of equipment.

g) Improper use of hands or body parts.

h) Making safety devices inoperative.

i) Operating or working at unsafe speeds.

j) Taking unsafe position or posture.

k) Unsafe placing, mixing, combining.

l) Using tools or equipment known to be unsafe.

m) Clowning.

n) Horseplay.
3.5 Reasons for Unsafe Acts

Unsafe acts are brought about usually by one of the following:

a) Lack of knowledge, skill, coordination or planning.
b) Improper attitude.
c) Physical or mental incapability.
d) Carelessness.

3.6 Unsafe Conditions

Most unsafe or hazardous conditions can be grouped into one of the following classifications:

a) Defective, inferior or unsuitable tools, machinery, equipment or materials.
b) Hazards of surroundings. (Poor housekeeping)
c) Hazardous methods or procedures.
d) Placement hazards. (Person not mentally or physically compatible with job requirements.)
e) Inadequate guarding of machinery, equipment, work areas, etc.

3.7 Control of Accident Causes

There are four main methods utilized in the control of accident causes. They are (1) engineering; (2) education and training; (3) enforcement; (4) enthusiasm. These four methods sometimes referred to as the four E’s of safety, area as outlined below.

a) Engineering. Environmental causes of accidents, or unsafe conditions, can be eliminated through the application of engineering principles. When an operation is mechanically and physically safe, it is unnecessary to be as concerned about the uncertain behavior (unsafe acts) of people. Machines are less apt to fail than men. It may be necessary to make mechanical revisions or modifications to eliminate existing unsafe conditions and, in some cases, to prevent unsafe acts.

Design of machine guards, automobile brakes, traffic signals, pressure relief valves and handrails are varied examples of safety engineering at work.
OSHA now prefers engineering practices to take precedence over the wearing of personal equipment. For example, OSHA recommends the use of mechanical ventilation over the assignment of respirators to deal with harmful vapors.

b) **Education and Training.** Just as safety engineering is the most effective way of preventing environmental accident causes (unsafe conditions), safety education is the most effective tool in the prevention of human causes (unsafe acts). Through adequate instruction, personnel gain useful knowledge and develop safe attitudes.

Safety consciousness developed in personnel through education will be supplemented and broadened by specific additional instructions in safe working habits, practices and skills.

Training is a particularly important accident prevention control; it gives each man a personal safety tool by development in him habits of safe practice and operation.

c) **Enforcement.** Usually accidents can be prevented through adequate safety engineering and education. However, there are some people who are a hazard to themselves and others because of their failure to comply with accepted safety standards. It is these persons for whom the strict enforcement of safety practices is necessary, backed by prompt corrective action.

No organized accident prevention effort can be successful without effective enforcement because accidents are frequently the direct result of violations of safety principles. This is particularly true of vehicle accidents, many of which are caused by unsafe acts which constitute traffic law violations.

Heads of departments and supervisors are responsible for enforcing safety standards and regulations. Failure to do so would, in some cases, be condoning conduct that leads to preventable accidents.

d) **Enthusiasm.** Can be effective to a good degree in prevention of accidents.

When we say one is enthusiastic about preventing accidents to himself or his co-workers, we mean that he/she does all within his endeavor as a human being to prevent the creation of an unsafe condition; corrects or reports an unsafe act or a hazard; uses the right tool for the job; uses the personal protective equipment provided for his job and works safely unsupervised.
An enthusiastic motorist would give up his right of way to an irate driver who insists on grabbing it. Enthusiasm about safety or accident prevention could be an inborn attitude and perhaps has ancestral origin. It is something that comes out of one’s free will and no coercion whatsoever.

Wiping an oil slick off the floor, disposing of an unattended smoldering cigarette butt, removing an obstruction from the walkway, keeping dangerous objects away from the reach of children, anticipating problems and taking measures to avert them are all characteristics of a safety enthusiast. If we all are sufficiently enthusiastic about safety and accident prevention, we will undoubtedly be living in a safer world.

To be completely effective, accident prevention controls cannot be applied “hit or miss.” All engineering, education, training, supervision and enforcement measures will be directed toward the solution of specific problems based on collection of facts relating to unsafe acts or unsafe conditions.

3.8 Elimination of Unsafe Conditions

One of the most effective means of preventing accidents is the elimination of unsafe conditions. To preach safety while permitting unsafe conditions to exist is bound to create an obstacle to cooperation required from employees. The supervisor must take the initiative in these matters without need for instructions from higher authority. If the elimination is beyond the supervisor’s scope of authority, he must bring the matter to the attention of his immediate supervisor or the head of his department.

Following are some of the procedures that should be carried out to eliminate unsafe conditions:

a) Remove all obstacles and impediments to the safe movement of personnel, vehicles or machines.

b) Repair damaged floors, broken steps, broken glass, cracked walls and ceilings.

c) Replace damaged floors, broken steps, broken glass, cracked walls and ceilings.

d) Replace worn or damaged tools.

e) Provide proper equipment for the hoisting and movement of heavy objects.

f) Install guards for moving parts of machinery, fans, etc.

g) Provide protective equipment such as goggles and hard hats.
h) Insist on good housekeeping practices – remove debris, waste material and obsolete or useless equipment.

i) Replace worn electrical wiring and fixtures.

j) Post warning signs of hazards in certain areas.

The important part of eliminating unsafe conditions is doing so before an accident occurs – the principle goal of the supervisor should be to search out hazardous conditions and eliminate them before they cause work interruption or bring injury. Too often an unsafe condition is allowed to exist simply because it has not caused an accident – yet! The job must be made as safe as possible.

3.9 Control of Work Habits

a) Regardless of the degree of safety built into a job, unsafe actions on the part of human beings will always be a cause of injuries. Teaching employees good work habits means showing them how to do their tasks with less risk to themselves, less spoilage of materials and less damage to equipment. Much of this instruction can be boiled down to a few simple principles or job rules. By concentrating on these, by showing the “why” as well as the “how” and by constant supervising to correct promptly, safe work can obtain acceptance by employees.

b) Whenever possible, actual demonstrations of right and wrong ways of doing tasks should be conducted, always accompanied by the basis for preferring one work habit to another. Fully important as the initial instruction is the watchful eye on subsequent performance. When the right way has been presented and agreed to by the individual worker, it is essential that failure to comply should be noted.

c) It may be desirable to insist that a certain step be repeated or a job be redone, simply to emphasize the seriousness with which safe practice is taken by the department. Disregard of safety rules should be met with appropriate disciplinary action, including discharge if necessary. No matter how skillful an employee may be in performing his duties, if he does not perform them safely, he is not considered to be a competent employee.

3.10 Safety Orientation of New Employees

a) When a new employee comes to work, he immediately begins to learn things and form attitudes about the job, his boss and fellow employees. If the head of department, supervisor and fellow employees appear to be unconcerned about accident prevention, he will most probably believe that safety is unimportant.
b) To form good safety attitudes, the new employee must be impressed by everyone’s concern with the prevention of accidents at the time he starts to work. He must be told that unsafe workers will not be tolerated and that he will be required to obey safety rules and instructions, wear protective equipment whenever required and attend safety meetings in order to continue as an employee of the City.

c) It will never be taken for granted that previous experience and apparent qualifications means that “somewhere along the way” the new employee has learned to do the job the safe way. For example, a driver’s license plus many years of driving experience does not automatically exempt a newly hired vehicle operator from being thoroughly instructed in safe driving practices – he must be made aware of what is expected of him in his capacity of operating a City vehicle; and he must be checked to assure that he understands.

d) The supervisor will review safety rules and procedures with the new employee pointing out the possible hazards involved in doing the job. If possible, the new employee should be assigned to work with a safety-minded employee during the first few weeks. The new employee should be checked at frequent intervals, asked about any problems that may have arisen, and reminded of safe practices. Any tendency to overlook safety procedures should bring a prompt and vigorous warning.

3.11 Safety Training

The City considers safety training one of the most effective and efficient methods of maintaining a safety conscious work force and, therefore, shall provide training at the time of hiring and periodically throughout employment.

Specialized training for hazardous operations such as driving and heavy equipment operations shall also be provided.

a) Basic Safety Course (BSC)

All City employees shall be required to complete a Basic Safety Course (BSC). This training shall review the established safety rules and procedure, fire prevention and protection, written hazard communication program, emergency evacuation procedures, hazard recognition and reporting, employee’s role in accident prevention and essence of prompt reporting when an accident does occur.

b) Supervisor Job Instruction

New and regular employees shall be trained on a continual basis through the supervisor’s job instruction and when a new process or equipment is introduced.
c) Safety Meetings

i) Supervisors shall conduct regular departmental safety meetings. Time shall be set aside at safety meetings to allow for employee discussion and recommendations. The Safety Officer shall attend these meetings as often as possible.

ii) All operating and line departments shall hold safety meetings at least once a month during regular employee working hours.

iii) All other departments shall hold their safety meetings at least once a month.

iv) Supervisors shall keep records of attendance and submit a report of each meeting on City of Manassas Safety Meeting Report form to the Safety Officer not later than the third work day after the conduct of the meeting.