City of Kenner
Employee Safety Manual

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Section 1

Forward

The Department of Personnel has been charged with the responsibility of implementing and maintaining a comprehensive safety and occupational health program for the City of Kenner employees. This manual has been prepared to assist all employees in their performance of work in a safe and productive manner.

The value of this manual can only be realized when all supervisors and employees read, understand discuss, and follow these guidelines, and work cooperatively towards a common goal of a safe work environment. This safety manual **should not** be construed to be an answer to all safety problems but should be recognized as a vehicle for improving job safety and as a tool to be a safer, more healthful workplace.

Since this manual cannot cover all specific instructions for every safety situation or all phases of accident prevention, departments are strongly encouraged to supplement these requirements where required.

Suggestions for improvement are encouraged and should be forwarded to the Department of Personnel.

Section 2

Safety Policy Statement

It is the policy of the City of Kenner to provide for safe working conditions for its employees and as a government service organization to provide a safe environment for the citizens of the City of Kenner.

The administration of the City of Kenner is dedicated to the prevention of accidents. All levels of the City of Kenner's workforce are directed to make safety a priority concern, equal in importance to all other job duties and operational responsibilities.

As a condition of continued employment with the City of Kenner, all employees are directed and obliged to incorporate safety knowledge and good safety procedures into their everyday work performance, and to be aware of and follow all safety rules, regulations, policies, and laws.

Only through the commitment of every employee to recognize the importance of safety in the work place and to utilize safety as a fundamental tool in completing each and every task, can the goal of an accident and injury free workplace be achieved.

Section 3

Alcohol, Illegal Drugs, and Firearms, Weapons, or Explosives

The use, possession, distribution, or sale of illegal drugs, paraphernalia, alcoholic beverages, or controlled substances by any person while engaged in work activities, or on the City's time, is ***strictly prohibited*** as outlined in the City of Kenner Substance Abuse Policy.

No weapons or explosives of any kind are permitted on City property or on your person, unless required by your profession. Firearms are permitted on City property, provided that the firearm is kept in the employee's personal vehicle and is hidden from plain view and stays contained in the vehicle.

The City of Kenner reserves the right to carry out reasonable searches of its property at any time. Employees are required to comply with the policies and procedures contained in the City of Kenner's Substance Abuse Policy and Personnel Policy and Procedures handbook. Employees violating said policies are subject to disciplinary action up to termination.

Section 4

Organization/Responsibilities

I. GENERAL

Accidents are preventable through identification and elimination of causes. The most obvious causes of accidents are either an unsafe act or unsafe condition. Unsafe acts and unsafe conditions are the result of one or more basic causes, which can be identified and eliminated. Some basic causes are deficiencies in training, supervision, attitude and work procedure or workplace design. These basic causes can be eliminated through engineering, education, and enforcement.

A. Safety must be built into every function of the City of Kenner's operations. It is not something separate but is an integral part of all City of Kenner services and operations. It is designed to accomplish one primary purpose:

TO PREVENT ACCIDENTS

B. The following section relates to structure, tasks, and responsibilities relative to the City of Kenner's Safety and Occupational Health Program.

II. RESPONSIBILITIES

DEPARTMENT DIRECTORS are responsible for the implementation of the Safety Program within their jurisdiction and for maintaining all applicable records and reports relating to the program. Each department head has the full authority to, and responsibility for, maintaining safe and healthful working conditions within his / her jurisdiction, whether it is in the field, in the shop, or in the office. Each department head is responsible for:

- Maintaining a safety program that provides necessary accident controls and fosters a safe and healthful working environment for all operations and activities.

- Adhering to all City of Kenner's safety policies and procedures.

- Provide the leadership and positive direction essential in maintaining firm loss prevention policies as a prime consideration in all operations.

- Denote a portion of staff meetings, as necessary, to review department losses and discuss plans to bring about a more positive loss prevention program. This will vary with the frequency and

severity of losses and the degree on hazardous operations involved in each department.

- Actively participate in the City safety committee meetings when convened. Note: In case of a schedule conflict, a designated representative shall attend these meetings.

- Ensure appropriate refinements, which are specified in safety standards. They are taken into consideration in planning for construction, remodeling facilities, procedure changes, and purchasing of new equipment.

- When needed, request the assistance of the Safety Inspector in promoting an aggressive and effective loss prevention program.

- Hold each division head fully accountable for an explanation of the preventable injuries, vehicle accidents, and property damages incurred by his / her employees. An excessive number is an indication that some management policies and practices need re-evaluation or stronger implementation.

SUPERVISORS are key people in Accident Prevention. Each supervisor has the full responsibility for the safety of his / her employees and to ensure the safe operation of machinery and equipment under his / her jurisdiction. The supervisor has full authority to enforce the provisions of this manual and all applicable safety requirements to eliminate or reduce losses:

- Ensure that each employee is fully trained for the tasks they are assigned to perform.

- Assume full responsibility for safe and healthful working areas, machines, and equipment under his / her jurisdiction.

- Correcting of unsafe acts and unsafe conditions, both mechanical and physical. Initiate corrective action of hazards and deficiencies identified in facilities, work procedures, equipment, and employee job knowledge or attitudes that adversely affect the City's loss prevention efforts.

- Investigating accidents and providing complete objective reports when any accident causes injury to an employee, or property damage to City property. Notify proper authorities of accidents and forward response to the Insurance / Personnel Department.

- Providing personal leadership in supporting the City of Kenner's Policy and to see to it that:

a. Each of his employees understands the properties and hazards of the material stored, handed, or used by them.
b. The necessary precautions are observed when using equipment, including the use of proper safeguards and proper personal protective equipment.
c. The employees understand and follow the established City and departmental work procedures for their safety, and the safety of others. Have employees certify in writing that they understand compliance.
d. Safety rules are prepared, provided to each employee, and posted at each workplace and job site.
e. Ensure good housekeeping standards are enforced.

- Be fully accountable for injuries, property damage, and vehicle accidents caused by his / her employees.

- Ensure that all management policies are fully implemented for maximum efficiency within his / her area of responsibility.

- Be firm in enforcement of work policies by being impartial and taking disciplinary action against anyone who fails to conform, and by being prompt in recognizing those who perform well.

- Cooperate fully with the Safety Inspector in ceasing operations considered to be an imminent danger to employees and the general public.

- Ensure employees wear and use prescribed protective clothing and equipment.

- Attend supervisor's safety training courses conducted by the Safety Inspector.

- Request assistance from the Safety Inspector to resolve safety related issues, when necessary.

- Conduct safety inspections of workplace and jobsites at least once a month, using a checklist type report prepared with the assistance of the Safety Inspector.

- Conduct safety meetings at least once monthly and maintain a record of topics discussed, date, and names of employees attending.

- Ensure that employees injured on the job receive prompt medical attention, including first aid.

- Conduct job safety analysis to ensure safe job procedures.

EMPLOYEES are responsible for adhering to all safety rules, procedures, and practices and to use personal protective equipment and devices provided as a condition of employment. Employees are required, as a condition of employment, to exercise due care in the course of their work to prevent injuries to themselves and others, property damages, and to conserve materials.

Employees are to make safe work practices a part of all operations.

- Report or correct unsafe and unhealthy conditions at once.
- Report all on-the-job accidents, injuries, and illnesses to their immediate supervisors. This must be done as soon as physically possible.
- Participate in all required safety and occupational health training as directed by the supervisor. .
- Insure that their actions don't endanger their fellow employees or the general public.
- Leave their work area in an orderly and safe condition. Maintain good housekeeping standards.
- Accept personal responsibility for assisting in and supporting the City's safety program and working towards its success.
- Employees must adhere to all rules included in the City's Substance Abuse program.

THE SAFETY INSPECTOR is responsible for day-to-day management of the Occupational Health and Safety program. He is fully responsible for the coordination of this program, and shall take all action deemed essential to produce a positive reduction in accidents. The Safety Inspector shall also assist the Executive Safety Committee and serve as a resource to this body.

The Safety Inspector will be designed to review, analyze, and make recommendations for improving the major functions of the safety program.

a. Inspection (facility/work site)

b. Accident Investigation

c. Training

d. Departmental safety committees

The purpose of the Safety Inspector shall be to see to it that all Departments adhere to the Safety Policy of the City of Kenner. In order that this may be accomplished, he shall have access to all City of Kenner facilities, property, equipment, jobsites and all City of Kenner records.

The authority of the Safety Inspector shall be to authorize in cases of immediate danger, to halt work site activities, and he shall act in an advisory capacity in all safety matters. Specifically, the Safety Inspector shall:

1. Develop and implement Loss Prevention program incorporating the current practices and philosophies adapted by the safety profession as the most effective in preventing occupational injuries / illnesses, eliminations / control of hazards, vehicle accidents, liabilities, and damaged to equipment and material.

2. Consult directly with all management personnel and employees on safety matters and provide the necessary guidance to ensure effective administration of this program.

3. Periodically attend department / division safety meetings to promote maximum understanding of the program and its objectives.

4. Establish quality control procedures to review department / division accidents and inspection reports to ensure that they are timely and contain an unbiased and thorough investigation / inspection.

5. Ensure a thorough investigation is conducted of all accidents resulting in lost time, hospitalization, death, and property damage.

6. Monitor first aid cases to identify trends that would require immediate attention to prevent serious injury or property damage.

7. Fully utilize the assistance available from all sources on matters pertaining to safety and health.

8. Maintain complete records on City accidents in accordance with established requirements and publicize information that will apprise management and employees of trends which call for strong corrective measures.

9. Establish an inspection program to include periodical inspections of all facilities, field, and shop areas. Inspections shall evaluate the administration of the departments loss prevention program in compliance with City and department safety work standards.

10. Publish and disseminate safety information to all employees through safety

newsletters, posters, etc.

11. Serve as an advisor to the City Accident Review Board and conduct presentations on program status, and be responsible for administrative functions, such as agendas, minutes of meetings, and follow-ups on open items.

12. Implement a safety awards program to recognize departments and employees for outstanding accident prevention achievements.

13. Recommend the use of approved type and source of safety equipment essential for specified hazardous operations.

14. Establish an effective training program to include the following:

    a. Defensive Driving course
    b. Supervisory Safety training
    c. Cardiopulmonary Resuscitation (CPR) training
    d. First Aid training
    e. Continual Job Safety training / Regular Safety meetings
    f. New Employee Orientation
    g. On-the-job and formal training for Safety Specialists

THE DEPARTMENT OF PERSONNEL consists mainly of (but not limited to) the Director and Safety Inspector, have the following responsibilities and authority:

1. Formulating, administering, updating and making necessary changes in the accident prevention program as changes dictate or regulations are updated.

2. Acting in an advisory capacity on all matters pertaining to safety as required for the guidance of top management, department directors, and supervisors.

3. Maintaining a system of accident records and reports.

4. Developing, implementing, updating safety education and training programs.

5. Making facility and work site inspections for the purpose of discovering and correcting unsafe conditions or unsafe work practices before they cause accidents.

6. Enforcing compliance with all safety rules, regulations, and standards as set forth by the Executive Safety Committee by on-the-spot counseling, immediate work correction, recommendation to supervisor, and work stoppage in cases of imminent danger.

7. Informing top management and department directors of legal requirements and changes that have a bearing on the City of Kenner's safety.

8. Securing necessary help or advice from organizations, medical services, other governmental agencies, an insurance carrier on matters pertaining to safety and health.

III. THE EXECUTIVE SAFETY COMMITTEE

A. The primary function of the Executive Safety Committee (Field and Office) is to review and evaluate safety policy and procedures and make recommendations for improvement.

B. Departments are separated and grouped by like functions to better address common safety problems.

C. The **Executive Safety Committee** will be organized as follows:

1. The Personnel Director shall chair the committee through his assigned representative.
2. The following departments will be represented:

   Fleet Management
   Code Enforcement
   Drainage
   Fire
   Parks and Recreation
   Public Works
   Streets
   Sewerage
   Parkways

3. The director of the department (or equivalent) will be the primary representative on the Executive Safety Committee.
4. An alternate representative will be designated from each department to improve attendance.
5. Meetings will be held every other month.
6. The Department of Personnel will support this committee

D. The **Departmental Safety Committee** will be organized as follows:

1. The Mayor shall chair the committee through his assigned representative.

2. The following departments will be represented:

Planning	Community Development
Code Enforcement	Fire
Civil Service	Clerk of Court
Community Services	Council
Finance	Fleet Management
Information Technology	Internal Audit
Legal	Personnel
Public Information	Public Works
Purchasing	Recreation
Police	

3. Only department heads and/or Assistant Directors will attend and participate in the active meetings of the committee.

4. The Department of Personnel will support these committees.

IV. ACCIDENT REVIEW BOARD

Policy

A. An Accident Review Board will be designated to review, analyze, and make recommendations for improving the major functions of the safety program.

1. Inspection (facility/worksite)
2. Accident Investigation
3. Training
4. Departmental safety committee

B. The Accident Review Board will be made up of seven (7) members, with a fifth (5^{th}) member to make a quorum.

C. The Accident Review Board is hereby authorized to hold hearings, call witnesses, and review evidence for all accidents involving City owned motorized vehicles, equipment, and personal injury, except those that may be considered minor and of little or no consequence.

D. After such hearing and review, the Accident Review Board shall classify each accident as follows:

1. Preventable: The City employee failed to do everything reasonable that could have been done to avoid the accident.
2. Non-Preventable: The employee did everything reasonable that could have been done to avoid the accident.
3. Undetermined: The evidence was insufficient or inconclusive to form a judgment or preventable or non-preventable.

C. Employees involved in an accident / incident may be required to appear before the Accident Review Board.

D. Meetings of the Accident Review Board will be held monthly.

Schedule of Suggested Corrective Action

A. Preventable accidents shall be subject to progressive, corrective action. Employees will be subject to disciplinary action as outlined in the City of Kenner Personnel Policy manual.

Preventable Accident		Suggested Schedule of Corrective Action
1st		A. Verbal Counseling
		B. Written Reprimand or
		C. Suspension
2nd		A. Written Reprimand
		B. Suspension or
		C. Re-assignment*
3rd		A. Suspension
		B. Re-assignment* or
		C. Dismissal
4th		A. Minimum 3-day Suspension
		B. Re-assignment *
		C. Dismissal
5th		A. Non-Driving
		B. Re-assignment*
		C. Dismissal

B. The above suggested schedule of corrective action should only be used as a guideline. Each case shall be dealt with on an individual basis with all the facts and circumstances being taken into consideration. Depending on the nature, scope, severity, and frequency, disciplinary action may vary.

*Re-assignment may be to a position (provided that a vacancy exists) which does not involve regular driving, or a position involving less strenuous or frequent driving. The action may also be accompanied by transfer.

V. DEPARTMENTAL SAFETY COMMITTEE

A. Departmental safety committees can be an effective means in reducing injury and improving the safety practices in the department.

B. This effectiveness will come about when the committee receives full support from the department director and, in turn, the department director receives constructive advice and results from the committee.

1. PURPOSE

   a. To assist the director in safety as he/she desires.

   b. To reduce personal injury and property damage.

   c. To make improvements of unsafe conditions in the workplace.

2. ORGANIZATION

   a. The Executive Safety Committee member will head the departmental committee.

   b. The number of members will be determined by the department.

   c. Field departments will meet quarterly. Office departments will meet quarterly. Meetings should be scheduled on the same day of the month/quarter.

   d. The committee should act as an advisory group only accountable to the department head.

3. FUNCTIONS – Review, analyze, and make recommendations in the following areas:

   a. Work site and facility inspection program.

   b. Training efforts.

   c. Work practices of crews/employees.

   d. Review accident investigation reports.

e. Accident trends and statistics.

f. Availability and use of personal protection equipment.

g. Other functions as directed by the department head.

4. AUTHORITY

1. The committee is advisory only. It may not take unilateral action nor interfere with the work of employees.

2. The committee should **NOT** be involved in disciplinary action. Any disciplinary action resulting from not conforming to the City of Kenner or departmental work rules should be restricted to departmental line managers based on the results of the initial accident investigation.

5. COMMUNICATION

a. One of the primary functions of the committee is to advise top management on safety matters within the department.

b. Equally important is to keep supervisors and other employees informed on the working of the committee and act as a sounding board for employee suggestions and safety problems.

Section 5

Training

I. GENERAL

Training plays a vital role in accident prevention. When employees are trained to do their jobs properly, they will do their jobs safely. Safe performance is encouraged by developing safe work procedures, but teaching the procedures effectively, and by insisting that they be followed. Safe performance is also encouraged by teaching employees the facts about accident causes and preventive measures.

II. INDOCTRINATION TRAINING

A. Departments will provide employees initial indoctrination and such continued training as will enable them to perform their work in a timely and safe manner.

B. This training shall include but not be limited to:

1. General safety policies and the safety requirements of this manual.

2. Responsibility of reporting all accidents quickly and accurately.

3. Availability of first aid and medical treatment facilities.

4. Procedures for reporting or correcting unsafe conditions and practices.

5. Emergency procedures.

III. TOOLBOX SESSIONS

A. Departmental employee safety meetings are short (10-20 minutes) meetings held regularly to increase the safety awareness of employees. They are also commonly known as "toolbox" sessions.

B. Departmental employee safety meetings can cover any aspect of safety but to be most effective, they should generally be confined to the specific safety problem areas confronting a particular department, division, or crew.

C. Because of the diverse activities of the City of Kenner, no specific format is prescribed.

D. The general thrust and content of the meetings should realistically match the activities of the department. For example, the content of a safety meeting of a

Public Works Parkway crew would differ from one held for the Planning Department – for that matter, the clerical section of the Public Works Department.

E. Should additional material be desired, it may be obtained through the Department of Personnel.

F. Shorter meetings held more frequently are better than longer meetings held at greater intervals.

G. Ideally, the meeting should be held at the beginning of the workday rather than the end.

H. Since the meetings are short they should be planned and controlled. Keep it simple – generally one topic per meeting.

I. Try to make the examples as current and job-related as possible.

J. Encourage employee participation.

K. Safety training is one of the duties of all supervisors.

L. Recent changes to the Louisiana Worker's Compensation Law require that regular safety meetings be held for employees.

M. Avoid the meeting, "TRAP."

1. Departmental safety meetings can be an opportunity to improve communication between the supervisor and the employee, increase safety awareness, and reduce accidents. However, in order for them to be successful and meet the intended purpose, they must be controlled by the department and the supervisor must perform the necessary planning and preparation.

2. The "TRAP" – unprepared safety meetings become a drudgery that has to be suffered through or gotten over with as quickly as possible. They are counter-productive. The greatest dangers to the success of these meetings are routine and repetition. Don't get drawn into a regular routine where every meeting becomes a dull, predictable repetition of the last. It is an easy trap to fall into.

N. Departments (field) will hold departmental employee safety training meetings at least once a month. They are encouraged to hold these meetings once a week.

O. Departments (office) will hold departmental employee safety training meetings at least once a quarter. They are encouraged to hold these meetings once a month.

P. Departments will document the fact that meetings are being held as outlined above – including date, time, attendance, subject discussed, and who conducted it. This function will be checked as part of the departmental inspection program.

IV. FORMAL SAFETY TRAINING

A. The Department of Personnel offers training throughout the year in various areas of safety. Special arrangements can be made in many cases for the convenience of the department. Some courses are mandatory – others are optional on a voluntary or need-to-have basis.

1. MANDATORY

Safety Leadership for all supervisors

Accident Investigation for all supervisors

Defensive Driving for all City of Kenner vehicle drivers

Work Area Traffic Control for supervisors that work on or near the roadway

2. PRESENTATIONS/DEMONSTRATIONS

Lifting and carrying

Poison Ivy/Insects/First Aid Awareness

Tractor/Equipment Safety Program

Chain Saw/Tree-Falling Safety

Back care

3. TRAINING COORDINATED WITH OTHER AGENCIES

Herbicide certification and re-certification (yearly); seminar every three years

Work Area Traffic Control

B. HAZARDOUS CONDITIONS TRAINING

All persons that are required to enter into confined or enclosed spaces or atmospheres immediately dangerous to life shall be instructed as to the hazards involved and precautions to be taken. They shall be trained in the use and care of

such emergency and protective equipment as self-contained oxygen breathing apparatus (SCBA), hose line masks, fire extinguishers, and respirators. Training shall be by a qualified person. The employee shall comply with any specific regulations that apply to work in dangerous or potentially dangerous areas.

1. All employees who are required to handle or use poisons, caustics, or other harmful substances shall receive instruction regarding the safe handling and use and be made aware of the potential hazards, personal hygiene, protective equipment and other personal protective measures involved or required. (See Sections 15 and 21)

2. All Emergency Services Personnel persons who may be called upon to use rescue or life-saving equipment shall be familiarized with the location of the equipment and shall be instructed and trained on its proper use.

3. Where employees are exposed to cold, heat, harmful insects, plants, vermin, bacteria, or animals, they shall be instructed in the recognition, potential hazards, avoidance of injury and first aid procedures to be used in the event of injury.

4. All personnel involved must be made aware of each space within the facility that is considered a confined space, the position and function of fixed detecting / sensing devices, if any, and that gases may accumulate within that space.

5. All personnel involved must have a clear understanding of the effects of the gases that may accumulate within each confined space and their effects on the body and / or their flammability characteristics and the proper functioning of equipment.

6. All personnel involved must be made aware that confined space entry is **NEVER** attempted alone.

7. The attending employee must be made aware that if a person within the confined space is rendered helpless, the first thing to do is to communicate this fact (with the provided portable communication device) to the local fire department or rescue unit and any other personnel as designated. A rescue should never be attempted without the use of a self-contained breathing apparatus that has been tested on site.

8. The documented confined space entry procedure must be reviewed step by step with each employee involved and each involved party must be asked to perform the procedure properly. The training procedure must be performed every six (6) months and records of each session must be maintained.

9. Each new employee, regardless of prior experience, must be given a tour of the facility, with emphasis placed on the confined spaces, monitoring devices, and entry procedures.

C. HAZARDOUS MATERIALS TRAINING

1. All personnel involved must be made aware of each hazardous material that they may be confronted with while on the job or in an emergency situation, including the effects of each material on the body, and the safety procedures to be used when materials are encountered.

2. Care must be taken to provide monitoring and detection equipment that is suitable for the gases they may come in contact with.

Section 6

Inspection of Facilities / Work Sites

SAFETY INSPECTIONS

A. Safety inspections are one of the principal means of locating accident causes and help determine what safeguarding is necessary to protect against hazards before accidents and personal injury occur.

B. Inspections should not be limited to search for unsafe physical conditions, but should also try to detect unsafe work practices. Prompt correction of unsafe conditions and work practices is one of the best methods of accident prevention and the most important part of the inspection program

C. The objectives of an inspection program includes:

1. Maintaining a safe work environment through hazard recognition and removal.

2. Determining that people are behaving and working in a safe manner.

3. Determining that operations meet or exceed acceptable safety and governmental standards.

4. Maintaining quality.

D. All supervisors constantly check throughout the workday for hazards to the people, materials, and equipment under their supervision. This continuous checking is considered a normal part of the job.

E. The need to combine this informal type of inspection with a more formal, regular safety inspection is considered necessary in order to reduce hazards in the work place. Formal inspections should be made on a scheduled basis using a checklist. These formal inspections can be the foundation for a strong loss control program.

F. Due to the many diverse functions and activities of the various departments within the City of Kenner, it is impossible to provide a single comprehensive standardized inspection form for all departments.

G. Each department shall develop an inspection form to log the physical conditions/working practices that is relevant to their functions and type of work. Such inspection forms shall be submitted to the Safety Inspector for review.

Also, such forms shall be evaluated at least yearly by each department and the Safety Inspector for possible changes or corrections.

H. All inspection reports and follow-up actions must be maintained on file in each respective department for record purposes.

I. There are three types of scheduled inspections: periodic, intermittent and general.

1. Periodic inspections include the inspection of specific items that are made weekly, monthly, semi-annually, or at other intervals.

2. Intermittent inspections are performed at irregular intervals. For example, an accident in another department that has involved a piece of equipment similar to that used in your department would lead to an intermittent (special) inspection of your equipment.

3. General inspections are designed to include all areas that do not receive periodic inspections, including parking lots, sidewalks, and fences.

a. As a minimum procedure, inspections of physical conditions and work practices (field crew) will be conducted once a month for field type departments.

a. As a minimum, periodic inspections will be conducted once every three months for office type departments.

b. All departments will conduct general inspections yearly.

4. All departmental inspections should be conducted by competent personnel trained in recognizing hazards.

K. In some cases, intermediate action is necessary. If permanent correction of the problem will take time, consider temporary measures that will help to prevent an accident. Roping off the area, tagging or locking our equipment or posting warning signs are examples of intermediate actions. When such intermediate actions are taken, it is essential that follow-up permanent actions are made as quickly as possible.

L. Dangerous conditions should be reported immediately to the appropriate supervisor, the City of Kenner Safety Inspector, or Department Director. Precise recommendations for removal or correction of the conditions should also be made.

M. All departments will be subject to safety inspections or surveys conducted by the City of Kenner's insurer and/or the City of Kenner's Safety Inspector. Recommendations for corrective actions will be reported to the respective directors and the Chairman of the Executive Safety Committee will require department heads to submit a written report of corrective actions the survey recommendations. The City of Kenner Safety Inspector will conduct a follow-up survey of all recommendations.

N. As the coordinator of the City of Kenner Safety Program, the Department of Personnel will monitor the departmental self-inspection program and conduct safety inspections as considered necessary.

1. Follow-up, this inspection and report is simply a record of conditions found in the workplace. The true value of the report is the follow-up action to correct any unsafe conditions or work practices. The goal of the program is remedial action not just detection.

2. An appropriate departmental representative will accompany insurance company representatives and/or the Department of Personnel representative, the City of Kenner Safety Inspector when workplace or worksite inspections are conducted.

Section 7

Accident Investigation

I. An accident investigation is the account and analysis of an accident based on factual information. IT IS NOT a mere repetition of a worker's explanation of the accident. Good accident investigation includes the objective evaluation of all facts, opinions and statements, as well as the action taken to prevent a recurrence of this type of accident and possible similar accidents.

II. The following facts are needed in any accident investigation if it is to be effective:

a. Who had the accident?
b. When did it happen?
c. Where did it happen?
d. What is the occupation of the person involved?
e. What inflicted the injury or damage?
f. Who had the most control of what inflicted the injury or damage?
g. What happened?
h. What things caused the accident?
i. After regular office hours report all serious accidents to Claims Administrator
j. Identify employer and insurance carrier of injured party.
k. Note time, weather, witnesses or any other information no matter how insignificant it seems.

III. SIX STEPS TO EFFECTIVE ACCIDENT INVESTIGATION

A. TREAT THE INJURED

Maintain injured person's comfort until EMT or other qualified individuals arrive. Prompt and proper emergency care can keep a person from dying, excessive bleeding, shock, infection, or other complications.

B. INVESTIGATE PROMPTLY

Information disappears quickly from people's mind. Things are moved or disappear from an accident site. These losses of information affect the quality of an investigation. Take pictures of accident site and the wounds of the injured. Investigating accidents is a responsibility of all levels of management. Generally, the line supervisor is in the best position and has the responsibility for accident investigation; however, the Department Director should determine the best way to accomplish the job properly.

C. GET THE FACTS

Information is obtained by interviewing people, examining equipment and tools, looking at relative positions of people, equipment, and facilities, and also by examining records.

1. Interview people separately, obtain telephone numbers and addresses.

2. Let the person tell what they saw of heard.

3. Ask for facts and details as to the cause of the accident.

4. Ask how the accident could have been avoided.

D. WRITE THE REPORT
A good report shares information so all can benefit.

E. FOLLOW-UP
Follow-up actions insure that the recommended actions are understood and taken. It is also important to verify that the action met the need or removed the basic causes.

F. All accident victims are given a form with the telephone number of the third party administrators at the time of accident or after notification of the accident.

IV. STANDARDIZED FORM

The Supervisor's Investigation Report will be filled out for all personal injury and automobile accidents and used by the Departmental Safety Review Committee and other departmental use and follow-up. One copy of this report will be sent to the Office of Risk Management when the accident investigation is complete.

V. **ALL ACCIDENTS WILL BE REPORTED**

VI. The importance of accident investigation can be summarized in one word – PREVENTION.

VII. Disciplinary Action should not be taken for having an accident – Disciplinary Action comes into play when an employee breaks a work rule. All disciplinary action should be handled through the normal line chain of command and not by committee.

VIII. Accidents are symptoms of problems in the system – training maintenance, procedural or management problems.

The role of higher management is critical to the success of the accident investigation program and is directly related to its attitude and actions. Specific responsibilities include:

A. Positive interest

B. Prompt review and analysis

C. Provide assistance when necessary

D. Meet reporting deadlines

E. Insist on quality reports

F. Factual and timely information

IX. Departments should consider the corrective action and follow-up as the whole purpose and payoff point of accident investigation.

Section 8

Accident/Injuries Reporting Procedures

I. All accidents will be reported immediately, no matter how large or small.

II. Employees are responsible for reporting all accidents to their immediate supervisor. The City Safety Inspector must be notified of all accidents by the immediate supervisor.

III. The appropriate insurance Loss Claim Form (personal injury, motor vehicle, or general liability) will be submitted within 24 hours of a loss occurrence or accident to the City of Kenner Insurance Department.

IV. An accident investigation will be conducted in accordance with **Section 6** of this manual.

A. The Supervisor's Investigation Report will be used for this purpose.

B. The report will be used by the Departmental Safety Review Committee and other departmental use and follow-up.

C. One copy of the report will be sent to the Insurance department and Safety Inspector as soon as the investigation is completed.

V. When an employee is involved in an accident, whether being injured on the jobsite, in the office, or in a vehicle or moving machinery, the following procedures must be adhered to:

A. If you should become injured or ill, report the condition to your supervisor immediately.

B. Secure the area.

C. Do not leave the accident / injury site until the supervisor arrives at location, unless it is an extreme emergency (i.e. life-threatening situation).

D. Employees will not leave the site and transport themselves to another location, unless it is an extreme emergency (i.e. life-threatening situation).

E. Any employee that is involved in an accident that involves a moving vehicle or any type of moving machinery will be required to be seen by a doctor and a drug / alcohol screening will be administered.

F. The supervisor will transport the injured employee to the appropriate medical facility and ensure that the employee is checked in to the facility.

G. The supervisor will transport the injured employee to the department office to fill out an accident report and acquire necessary authorization forms.

H. When employee is released from facility, he / she is to notify the department. The supervisor will transport the employee back to the department office, where the employee will return any required paperwork / documentation from the medical facility for record-keeping purposes.

****NOTE: Any employee that does not report an accident / injury immediately may be subject to appropriate disciplinary action up to, and including, termination.**

Section 9

Employee Safety Rules of Conduct

I. Job safety is the responsibility of each individual employee. It is each employee's responsibility to make sure that before a job is started that all required safety equipment, gear, clothes, and protective items are in place, procedures, and practices are being observed.

II. Supervisory Personnel are required to insure that safety work rules, practices, and procedures are operational and that all safety equipment, gear, clothing, and protective items are in place and being utilized on a continuous daily basis.

III. Under no circumstances can any employee disregard safety requirements for personal preferences, choice, reason or hast.

IV. If an employee chooses to disregard safety standards, responsibilities, practices, rules or supervisory instructions concerning safety matters, they will become subject to corrective disciplinary actions as outlined in **Section 29.** (Maintaining standards of effective service and corrective discipline)

V. Being "unaware" will not serve as a reason for an employee to fail to perform his or her job in a manner consistent with the safety standards presented in this manual.

VI. Employees are prohibited from engaging in any work behavior or conduct that constitutes grounds for corrective disciplinary action outlined in **Section 29.**

VII. Additionally, employees shall report all hazardous conditions or practices to their Supervisor, Department Directors or the City of Kenner Safety Officer.

A. An employee must report any accident involving property, equipment or injury to their supervisor immediately.

B. An employee is required to know the safe methods of performing their job duties, and is required to participate in all safety and occupational health training.

C. An employee is required to follow the City of Kenner's Substance Abuse Policy.

D. An employee shall always be aware of the safety of his or her fellow employees and that of the general public and will insure that their actions don't endanger anyone else.

E. An employee will be evaluated on an annual basis in conjunction with their annual service rating relative to their safety performance for the preceding (12) twelve months time period.

F. Every employee is responsible to know the contents of the safety manual and an employee's contention that he or she "did not know" will not serve as a basis to avoid corrective action when warranted.

G. Employees who are under medical treatment and receiving prescription medication containing narcotics or tranquilizing agents should ask their physician's advice regarding and safe performance of their duties while under medication.

H. Fireworks, firearms, or other weapons or any other items of explosive or hazardous nature not connected with an employee's duties will not be brought onto the City of Kenner's property or to any other place of City of Kenner business.

I. All employees are to leave their work area at the end of each work day in a safe and orderly manner.

J. When entering a work yard or jobsite, all safety regulations must be followed and upheld.

Section 10

Vehicle Operation

I. GENERAL RULES:

A. All City of Kenner employees who drive or operate motor vehicles or motorized equipment, and employees who operate privately-owned vehicles on official business are responsible for:

1. **Safely** operate the vehicle or equipment at all times.
2. **Knowing** and obeying all State of Louisiana and local motor vehicle laws, regulations outlined in this manual and departmental policies and procedures. The driver will pay any costs for traffic tickets he/she receives.
3. **Possessing** at all times a valid State of Louisiana operator's license for the type of vehicle or equipment he/she is to operate.
4. **Reporting** all accidents to his/her immediate supervisor and to the police or sheriff's office if the vehicle is involved in a traffic accident.
5. **Reporting** equipment damage and malfunctions to his/her immediate supervisor.
6. **Satisfactorily** completing the Defensive Driver's Course conducted by the Department of Personnel. All drivers will be notified when they are scheduled to attend this course.
7. **Radios** with earphones must not be worn while driving a City of Kenner vehicle.

B. Employees who are taking prescription medication containing narcotics or tranquilizing agents need a doctor's written approval to operate all vehicles and equipment. Notification of your immediate supervisor is required if the medication could impact your job performance.

C. City of Kenner regulations and Louisiana State Law require that seat belts must be worn by **all motor vehicle drivers and passengers** if the vehicle is so equipped.

D. Privately-owned vehicles used on official City of Kenner business must have a current, valid brake tag and the owner of the vehicle must carry automobile liability insurance limits required by State Law.

E. Employees must report to their Director immediately upon suspension or revocation of his / her driver's license for any reason.

FOR CITY OF KENNER-OWNED VEHICLES AND EQUIPMENT ONLY

F. Maintenance schedules for vehicles equipment established by Fleet Management must be followed. Fleet Management maintains a regular program for servicing vehicles and equipment based on mileage and/or hours of operation.

G. Employees are authorized to drive or operate only vehicles which have been assigned to them by their supervisor. Unauthorized personnel are not allowed to drive or operate vehicles. All vehicles and equipment are to be used for City of Kenner business only. Do not pick up hitchhikers.

H. Only authorized personnel are permitted to ride in City vehicles, except in cases of emergencies. No more than three persons shall ride in the front of any vehicle. Where only two single seats exist, no more than one person shall occupy each seat.

I. City vehicles must be turned off when unoccupied. Leaving a City vehicle running when no one is in it is strictly prohibited.

J. Turning signals and warning signals will be utilized by all vehicle operators as required by state law to warn.

K. Reckless driving such as speeding, weaving in and out of traffic, running stop signs, running yellow or red lights, or any horse play with other employees will not be allowed in any City of Kenner vehicle. Riding on the sides, running boards, tool boxes, tailgates, or roof of any vehicle is prohibited.

L. Radios, I-pods or any entertainment device with earphones must not be worn while working. Such devices must also not be worn while driving a City vehicle.

M. Use of handheld cell phones must be authorized by the Director of your department. Use of handheld cell phones, whether personal or City- owned, while behind the wheel of a moving vehicle being used for City business is strictly prohibited. The use of hands free technology is permissible only if you are authorized for cell phone use.

N. Use of handheld City issued 2-way radio while behind the wheel of a moving vehicle being used for City business is strictly prohibited. Vehicle should be safely stopped before transmitting 2-way frequencies. Although the use of hands free technology is permissible, the use of radios should be limited as much as possible.

O. Engaging in other distracting activities including, but not limited to, eating, putting on make-up reading or changing radio stations or music, is strongly prohibited while driving- even when in slow traffic.

II. VEHICLES AND EQUIPMENT

A. Licensing

1. Class "A" Commercial Driver's License – "Combination Vehicle" permits the operation of all vehicles within Classes B, C, D, and E with any

appropriate endorsements, and any combination of vehicles with a gross combination weight rating of 26,000 and one or more pounds, provided that the gross vehicle weight rating of the vehicle or vehicles being towed is in excess of 10,000 pounds.

2. Class "B" Commercial Driver's License – "Heavy Straight Vehicle" permits the operation of any vehicle within Classes C, D, And E with any appropriate endorsements, plus any vehicle with a gross vehicle weight rating of 26,000 and one or more pounds, or any such vehicle towing a vehicle not in excess of 10,000 pounds gross vehicle weight rating. A straight vehicle defined, for the purpose of this class, as being one that does not bend or have any movable joint in its frame between the driver's seat and the cargo or passenger compartment.

3. Class "C" Commercial Driver's License – "Light Vehicle" permits the operation of any vehicle within Classes D & E with any appropriate endorsements, plus any single vehicle less than 26,000 and one or more pounds gross vehicle weight rating, or any vehicle towing a vehicle not in excess of 10,000 pounds gross vehicle weight rating. This group includes vehicles designed to transport 16 or more Passengers, including the driver and which are not in Group A and are used in the transportation of materials found to be hazardous. This class does not include the operation of motorcycles and motor scooters, except as an endorsement to the basic license.

6. Class "D" Chauffeur's License – permits the operation of all vehicles included in Class "E", plus any single motor vehicle used in commerce to transport passengers or property if the motor vehicle has a gross vehicle weight rating of 10,000 and one or more pounds but less than 26,000 and one pounds, or any combination of vehicles used in commerce to transport passengers or property if the motor vehicle has a combined gross vehicle weight rating of ten thousand one or more pounds inclusive of a towed unit with a gross vehicle weight rating or more than ten thousand pounds; or any such vehicle designed or utilized for the transportation of passengers for hire or fee; and not utilized in the transportation of hazardous materials.

5. Class "E" Driver's License – "Personal Vehicle" permits the operation of any single motor vehicle under 10,000 and one pounds gross vehicle weight rating or any such vehicle towing a vehicle not in excess of 10,000 pounds gross vehicle weight rating; any personal use of recreational vehicles or combination of vehicles; or any vehicle which is not within the definition of Group "A", "B", "C", or "D" and not utilized in the transportation of hazardous materials. This class does not include the operation of motorcycles and motor scooters, except as an endorsement to the basic license.

B. Endorsements

1. "P" – Passenger vehicle

2. "N" – Tanker

3. "H" – Hazardous materials

4. "X" – Combination tank vehicle and hazardous materials.

C. Restrictions

1 "L" – Air brake restriction – Any driver that does not have an "L" endorsement can not operate a vehicle with air brakes.

2. Any other restriction required by the Louisiana Department of Motor Regulations, as long as it is fully explained on the license.

III. AUTOMOBILE AND LIGHT TRUCKS

A. PRE-TRIP INSPECTION

Each vehicle operator must insure that the vehicle is in mechanically safe condition at the start of each day by visually checking the following:

1. Tire – inflation, cut breaks, tread wear, etc.

2. Leaks – oil, fuel, water.

3. Crankcase oil level.

4. Coolant level in radiator and over flow tanks.

5. Lights and signal devices, in proper operation.

6. Glass, license plate and lamp lens – clear and clean.

7. Mirrors – properly adjusted and clean.

8. Windshield wipers and washers – functioning and in good condition.

9. Fuel supply – adequate for expected travel. Diesel powered vehicles should be topped in the evening to minimize condensation.

10. Horn – functioning.

11. Auxiliary equipment – e.g., tire changing tools, first aid equipment, spare tire, road flares, etc.

12. A copy of ownership (pink slip) and insurance papers in the glove compartment.

13. Fire extinguisher in vehicle and in operating condition.

14. Brakes and brake lights.

15. Valid brake tag.

16. Overall vehicle cleanliness, (exterior and interior) -Wash exterior and sweep and remove trash from interior.

17. Safety belt in good condition and operating properly.

Note: Any vehicle deemed deficient should not be operated until deficiency is corrected or permission for operation is granted by supervisor.

B. OPERATION

1. Adjust the seat and mirrors to a comfortable position that assures excellent control of the vehicle and maximum visibility. Make sure all passengers and the driver are wearing seat belts.

2. Be prepared to stop and yield the right of way in all instances when necessary to avoid an accident.

3. Warning flasher lights must be used when vehicles are stopped on or along public roads.

4. Keep a sharp lookout for pedestrians and children, especially in school zones or where they are playing, and–

BE PREPARED TO STOP IMMEDIATELY.

5. Pick-up trucks are to have their tailgates closed when in operation (**Up position).**

6. Vehicles are not to be parked on bridges or culverts, except when necessary for work.

7. Operator will always make sure the front, side, and rear is clear prior to moving any machinery. Additional checks for overhead clearance will be made on cranes, lifts, platforms, and trenches before movement.

8. Before backing a vehicle / machinery, get out and check the area for obstructions and people. Back slowly and keeping a constant lookout the entire time while backing. If another employee is available, he/she is to assist the driver in backing and give a warning of approaching danger.

9. Do not use radio transmitters while the vehicle is being filled with gasoline. All ignition systems are to be turned off and smoking is not permitted while refueling.

10. Driving speeds are to be governed by conditions, i.e. reduce speed and use caution on:

    h. Road shoulders
    i. Steep grades
    j. Rough surfaces
    k. Congested areas
    l. Wet or ice-covered surfaces

11. Keep the clutch engaged while going down a grade. If a pick-up truck is heavily loaded let it remain in low or second gear on steep grades.

12. When stopped on an incline, the brakes are to be properly applied, the vehicle left in gear and the front wheels set at an angle against the curb. When facing down the incline, put the vehicle in reverse or park. When facing up the inline, put it in a forward gear or in park.

13. Turn off the engine if the vehicle is to be stopped for a prolonged period of time. Lock the vehicle if you have to leave it.

14. Step vans must have back doors closed when the van is operating on the highway.

15. Loose objects, such as tools, flashlights, soft drinks, lunches, etc., are not to be stored on vehicle dashboard, floorboards, or where they might interfere with safe operation of the vehicle.

16. Trailers or other towed equipment must be fastened securely to hitches. Safety pins and pintle locks must be used. Safety chains should be crossed under the hitch and securely fastened before moving the vehicle. All operators must make sure that the load they are carrying is properly covered with the vehicles bed tarp.

C. ARTICLES

Tools, supplies, and equipment placed in vehicles are to be stored in such a manner as not to interfere with vision or proper operation of the vehicle. They must be secured so they cannot slide, pull, or fly out.

D. SPECIAL NOTE:

Exhaust systems on newer models of cars and pick-up trucks have catalytic converters which give off large amounts of heat, especially if the engine is out of tune. Report any damage to the heat shield under the exhaust system. Do not park the vehicle in grassy areas or over flammable materials unless absolutely necessary.

IV. HEAVY EQUIPMENT

A. OPERATION

1. Become familiar with the manufacturer's operator manual for the particular piece of equipment assigned to you. These manuals explain how to operate the equipment as well as how to perform routine maintenance. You are to follow the specifications in these manuals.

2. You are expected to fully understand the equipment's limitations and capabilities. Do not go beyond the manufacturers recommendations.

3. Inspect the work area on foot before operations begin. Mark clearly all large rocks, tree stumps, overgrown gullies and ditches, and other obstacles and avoid them. Also, avoid low hanging tree branches and wires.

4. Keep the equipment at a safe distance from the edge of a gully, ditch or canal.

5. Only one person, the operator, is permitted on a piece of equipment unless it is designed to carry a passenger.

6. Make sure that building doors and windows are open if the equipment is started in a shed or garage.

7. Operate the equipment only from the driver's seat. This seat should be equipped with a seat belt and wear it belt when in operation.

8. When the equipment is stopped, the engine must be shut off, the gear shift placed in neutral, the power takeoff disengaged, and front end or rear mounted equipment lowered to the ground before performing any service operation or when leaving the equipment unattended.

9. When transporting loads in a loader bucket, keep bucket low enough to the ground for good visibility, but high enough to clear obstacles.

10. Clear the work area of all unauthorized people.

11. When traveling on a roadway or highway, remain in the right lane and use safety lights if so equipped. Obey all traffic laws. Remember, the brakes must be interlocked for proper braking.

12. Do not operate the equipment in areas where it can tip over or slide.

13. Keep the equipment in gear while going down hill.

14. Connect equipment to be towed to the drawbar, not to the seat, rear axle or any other part of the equipment.

15. Load binders and proper strength chains are to be kept in good condition. Report damaged binders and chains to your supervisor.

16. Never modify in any way the original design of the equipment.

17. All Equipment Operators must check vehicle licensing requirement stickers on vehicle windshield before operating equipment.

B. PRE-TRIP INSPECTION

1. Visually check the equipment for leaks and broken, missing or malfunctioning parts.

2. Check water, oil, and fuel levels for proper capacity.

3. Check the operator's area for oil, mud, or water. Clean this area before mounting. When mounting and dismounting, be sure to have a firm grip and good footing. Clean footwear is a must.

4. Before starting, be sure the parking brake is set and the transmission is in neutral.

5. After the engine is started, check all dials to see if they show the correct levels for operating the equipment.

6. Never accelerate the engine or run it at full speed immediately after starting.

7. Always let the engine warm up before engaging the transmission, PTP, or accessories.

V. LIGHT EQUIPMENT (LAWN MOWERS)

A. OPERATION

1. Become familiar with the piece of equipment you are to use before operations begin.

2. Before starting, check for loose or broken parts. Disconnect the spark plug and clean grass, leaves, and excessive grease from engine.

3. Before operation check all equipment guards and safety features to insure they are attached and in proper working conditions.

4. Clean the work area of all wire, stones, branches, trash and other debris before beginning work. Avoid large rocks, curbs and tree roots.

5. Keep all other personnel away from the equipment while it is in operation.

6. Whenever possible, discharge away from the roadway. When not possible, additional safety measures must be provided (cones, flagmen, etc) to protect area vehicular traffic.

7. Keep hands and feet from under the machine and cut of the discharge chute while engine is running.

8. When refueling, have the engine shut off and wait until it has cooled. Wipe up gasoline spills.

9. Never start the engine indoors.

10. Be sure the equipment will not tip over while starting. Always start on level ground.

11. If you hit an object, stop the engine, remove the spark plug wire and check the equipment for damage. Disconnect the spark plug whenever checking or cleaning the blade.

12. Keep all wheels on the ground while operating the equipment.

VI. PROTECTIVE EQUIPMENT

A. HEAVY & LIGHT EQUIPMENT

1. Always wear proper fitted clothing. Never wear loose or torn clothing, excessive jewelry, or overalls with large or heavy cuffs. Loose clothing,

excessive jewelry, and long loose hair can get caught in moving parts or on pedals and levers.

2. Wear leather work shoes that are in good condition for sure footing. Wear a leather work boot for greater protection when getting off equipment in rough terrain.
(See Section 21-Personal Protective Equipment)

3. Wear all required safety equipment in the work area and when operating equipment.

4. Wear goggles or safety glasses when operating in areas with loose dirt, breaking cement, loading mud, rocks or gravel, dust, or areas where grass or trees are being cut.

VII. HEAVY EQUIPMENT AND TRUCKS

City employees have no special traffic rights except when actually working on streets or roadways properly barricaded or marked with warning cones, flags or signs. All traffic rules must be observed.

A. Users of motor vehicles must keep the motor vehicle in good operating condition AT ALL TIMES. Any vehicle operated in an unsafe condition endangers the lives and property of others and may result in the loss of your privilege to drive if you are involved in an accident as a result of operating an unsafe motor vehicle. BE SURE YOUR MOTOR VEHICLE IS PROPERLY MAINTAINED WITH ALL EQUIPMENT IN WORKING CONDITION AND PROPERLY ADJUSTED.

B. Projections from the rear of 4 feet or more extending over the length of vehicle must be marked by red flags. Red flags must be used on any equipment traveling at a very slow speed to warn overhauling traffic.

C. Operators must not load equipment beyond their rated capacity or in such a way as to allow excessive material spillage or cause vehicle structural damage.

D. Heavy equipment and trucks, as well as all motor vehicles, must keep to the proper side of the road and maintain a reasonable speed.

E. Caution should be exercised when the operator's view of traffic is limited or reduced by the load.

F. Your supervisor should be consulted if you are doubtful as to the weight limit of a bridge or via duct.

G. When backing or where the clearance is doubtful, ALWAYS get assistance in guiding the driver.

H. Safety chains, as well as hooks with safety clips, must be used when towing another piece of equipment.

I. All field crew trucks will carry a first aid kit, fire extinguishers and triangle kit.

J. Truck and trailer operators must abide by posted load limit weights.

K. Any vehicular traveling equipment with height of 13 feet – 6 inches or above must receive a State Permit for operation.

L. All Overpass and Underpass clearances must be verified by operators before hauling equipment.

F. All electrical hookups for lights and brakes must be used.

VIII. TRANSPORTING PERSONNEL

Transportation of City Employees in open trucks or vans is an extremely difficult and hazardous practice. Follow all rules. Never transport employees in open trucks or vans while traveling.

A. All vehicles transporting personnel must be equipped with steps and proper seating with required seat belts.

B. Vehicle operators must see that workers get on and off vehicles in an orderly manner.

C. Vehicle operators should start only after all passengers are seated with seat belts fastened.

D. When climbing onto or dismounting any vehicle always use available handgrips.

E. Workers are never to ride in the rear of a loaded truck.

F. There should be no more than 3 people in the front seat of any vehicle that has seat belts. In vehicles that have no seatbelts, only 2 people are allowed in the front seat of the vehicle.

G. Rides on running boards, fenders, steps, or with the head, arms, legs or any part of the body protruding beyond the sides or rear of vehicles is forbidden.

H. All vehicles transporting mud, limestone, sand, or debris must maintain their covers in proper working order and operators are required to cover all loads being transported.

Section 11

Power Operated Tools, Equipment, and Machinery

I. GENERAL

A. Do not make adjustments while the machine is running.

B. Inspect the machine's operating controls, protective devices, power drives, sharpness of cutting edge, and other parts to be used before starting the machine.

C. Wear earplugs or ear muffs at all times when the machine is in operation if it is required by your supervisor.

D. Wear safety glasses or face shields while the machine is in operation.

E. Wear close fitting clothing. Loose fitted clothing can get caught in moving parts. Do not wear rings, bracelets, neck chains, or other jewelry which may become entangled in moving parts of the machine. Keep long sleeve cuffs buttoned.

F. Never leave a machine running when not in use.

G. If you have long hair, wear cap or other head covering completely covering the hair.

H. Radios with headphones must not be worn while operating machinery.

II. CIRCULAR TABLE SAWS

A. Keep hands and fingers out of the line of cut while cutting. Use push sticks or blocks of wood to feed the way.

B. Adjust the blade height to clear the stock by about ⅛ inch.

C. Use the right saw for the job. A crosscut saw must not be used for ripping nor a ripsaw for crosscutting.

D. Do not leave the saw until it is shut off and the blade has stopped running.

E. Use a brush or stick to clear sawdust from the table. Never use your hands.

F. Do not crosscut long stock on a table saw.

G. All power tools with safety guards should be in place and in operating condition.

H. Do not find ways to defeat the safety guards, utilize them as the effective tools that they are.

I. Circular saws shall be equipped with guards that automatically and completely endorse the cutting edges and shall be provided with splitters and anti-kick back devices.

III. MACHINE TOOL (Grinders, machines that shape and form metals)

A. Never use compressed air or other gases to blow chips out of the machine unless it is absolutely necessary. Instead, use a brush or vacuum. If it is necessary to use compressed air, do not use oxygen or other gases. Wear cup-type goggles and gloves and clear the area of other workers. Never use over 30 PSI air pressure to blow off machinery or clothing.

B. Secure the metal to be worked on in such a manner that it doesn't move or slide while the machine is operating.

C. Check the grinding wheel for wear. If needed, dress with proper tool or replace if necessary. A maximum ⅛ " gap should be left in between the safety bar and the grinding wheel. Keep and maintain all safety view screens.

D. SPECIAL NOTE
Special protective equipment must be used if a wire brush wheel is to be operated. Wear an apron of leather, heavy canvas or other heavy material, leather gloves and a face shield.

E. Do not grind soft metals such as aluminum, cooper, or brass. The grinding wheel can clog and explode causing injuries resulting from flying particles.

IV. MACHINE GUARDING
The purpose of mechanical guarding is to protect against and prevent injury, such as persons making contact with the moving parts of a machine, clothing becoming caught, or equipment being caught in the moving parts. The following are mechanisms that require guards:

A. Rotating mechanisms such as fly wheels, pulleys, shafting, belts, and clutches.

B. Cutting or shearing mechanisms such as band or circular saws, drilling and boring machines, lathes, grinding wheels, and fan blades.

C. Screw or worn mechanisms such as on conveyors and grinders- dangerous because of the shearing action set up between the moving screw and the fixed parts on the machine.

D. In-running nip points such as meshing gears, v-belts on pulley sheaves, chain sprockets or gears, and any other rotating objects as they pass fixed objects. The

danger on an in-running nip point is that it draws objects and flattens or crushes. Once an object gets engaged, it is usually difficult, if not impossible, to withdraw it. Gloved hands and loose clothing are good candidates for such machinery. Hand gloves should not be worn when operating drills.

V. EQUIPMENT OPERATION PROCEDURES

These procedures are designed to provide guidance for the safe operation of municipal equipment and to minimize accident potential to employees and citizens. There is substantial risk of injury and/or property damage to employees, municipality residents, and the public at large in the daily operation of municipality-owned equipment. These procedures will minimize the incidence of employees suffering disabling injuries, as well as the risk of liability claims against the municipality. They are based on using highly qualified employees and following pre-planned instructions with proper, well-maintained equipment. Additionally, supervisory monitoring and control are to be exerted to identify / resolve potential problems and enforce correct practices.

A. Training

1. All equipment operators will receive initial and continuing refresher training. Only these trained and authorized personnel will be allowed to operate equipment.

2. Training will include the data specified in the manufacturer's manual as well as the municipality's own training outlines.

3. Training will be documented on appropriate forms and included in individual personnel folders. The trainer / supervisor will certify administration and trainees will acknowledge receipt.

B. Maintenance / Servicing

1. Operators are normally expected to service equipment as specified in their initial training.

2. Maintenance of equipment may be required in specific instances, but will be performed only as instructed and authorized.

3. Maintenance and servicing will be performed only after shutdown and appropriate chocking/blocking and guarding of service/maintenance success areas.

4. Deck plates, steps, and floor areas will be kept clear and free of grease, oil, etc, and will have anti-slip materials applied as necessary.

5. Operators will not dismount trucks or other equipment by jumping off, but will climb down using available steps, handholds, etc.

C. Operation

1. Equipment will be inspected prior to start each day to insure that the engine is ready, actuating system have been serviced, and all safety devices are functional.

   Particular attention will be given to cable conditions, actuator hinge pins, and control linkages.

2. Operators will always make sure that the front, sides, and rear is clear prior to moving any machines. Additional checks for overhead clearance will be made on cranes, lifts, platforms, and trenches before movement.

3. Speeds are to be governed by conditions, i.e. reduce speed and use caution on:

   a. Road shoulders
   b. Steep grades
   c. Rough surfaces
   d. Congested areas
   e. Wet or ice-covered surfaces

4. Loaded equipment will have right-of-way on haul roads and all equipment will stop to clear prior to entry on public roads, unless appropriate traffic controls are established.

5. Before leaving any equipment, the operator will lower the blades, bowl, boom, or bucket to ground level, flat surface, and out of the flow of traffic. If level surface is not available, blocks or chocks should be inserted to prevent vibration-induced movement.

6. Coupling and towing require special clearance procedures for other personnel in the area.

   a. If an assistant is present, equipment should be backed on his signal only.
   b. Before coupling, the shift lever is to be placed in neutral and the brakes set.
   c. Towed units should have a safety chain to the pulling unit.
   d. Towed equipment should be latched, bolted, or otherwise secured for maximum clearance and to prevent drop / ground strikes.

D. Shutdown / Parking

1. Equipment shall be positioned clear of traffic routes prior to shutdown.

2. Whenever feasible, equipment will be returned to the storage yard at the end of each workday. If removal is not possible, appropriate advisory / warning devices will be installed prior to job site departures.

3. Job site parked equipment will have its operation disabled to preclude vandalism or theft, through the removal of ignition keys, distribution rotor, battery cables, spark plugs, etc. as necessary.

4. Loading / unloading of equipment will be accomplished away from traffic routes, unless appropriate warning devices or flagmen are pre-positioned to control traffic.

Section 12

Hand and Portable Power Tools

I. HAND TOOLS

A. GENERAL

1. Select the right tool for the right job. Never use a file or screwdriver as a pry bar, a wrench as a hammer, pliers instead of the wrench, etc. Use tools only for the purpose that they were designed.

2. Keep tools in good condition. Inspect tools before using them and report worn or frayed tool to your supervisor.

3. Keep tools in a safe place. Never put knives, chisels, screwdrivers or other sharp-edge tools in your pocket. Do not leave tools on the floor, on chairs, on benches, or in walk paths.

4. Never carry tools up or down a ladder or while climbing if it prevents you from having a secure hand hold.

5. Throwing tools or materials from one location to another, from one employee to another, or dropping them to lower levels is prohibited.

B. Loose, fringed, or frayed clothing, loose, untied, or long hair, dangling jewelry, rings, chains, or wrist watched shall not be worn while working with any power tools or machine.

7. Power tools shall be inspected, tested, and determined to be in safe operating order prior to use. Tools having defects that will impair their intended operation or render them in any way unsafe for use shall be removed from service immediately.

8. Only non-sparking tools shall be used in locations where sources of ignition may contribute to a fire or explosion.

B. METAL CUTTING TOOLS

1. Chisels

a. Use a chisel large enough for the job so the blade is used instead of the point or corner.

b. Safety goggles or face shields are to be worn when the chisel is used for chipping.

c. Chisels are to be held with suitable holders (not with the hands) while being struck with a sledge hammer by another employee.

d. Discard chisels with mushroomed heads. Do not grind and reuse.

2. Tap and Die Work

a. Firmly mount the material in a vise before beginning your work.

b. Keep hands away from broken tap ends.

3. Hack Saws

a. Install the blade with the teeth facing forward. Select the right blade for the job (number of teeth marked on the blade).

1. Use a 14-teeth-to-the-inch blade for soft solid metals.

2. Use an 18-teeth-to-the-inch blade for iron pipe, hard metal and general shop use.

3. Use a 24-teeth-to-the-inch blade for drill rods, sheet metal and tubing.

4. Use a 32-teeth-to-the-inch blade for thin sheet metal and tubing.

b. Apply pressure on the forward stroke only. Apply even, steady pressure; don't jerk the saw.

c. Judge cutting speed by the hardness of the metal. Forty to fifty strokes per minute for metals of average hardness. A faster rate may ruin the blade.

C. WOOD CUTTING TOOLS

Safety code for woodworking machinery (ANSI 01.1) shall govern the installation, operation, and maintenance of all woodworking machinery.

1. Saws

a. Use the right saw for the job. (Points per inch are stamped on the saw's heel).

1. When cutting across the grain, use a crosscut saw.
2. When cutting with the grain, use a ripping saw.

3. For fast crosscut work on green wood, use a saw with 4 to 5 points per inch.
4. For smooth cutting of dry wood, use a saw with 7 to 8 points per inch.

b. When the saw is not in use, store it in a rack and hang it by its handle. Clean it and put a light coat of oil on the blade to prevent rusting.

c. A brush shall be provided for the removal of sawdust, chips, and shavings from all woodworking machinery.

c. Band saw blades shall be fully enclosed, except at point of operation.

d. Use of cracked, bent, or otherwise defective parts is strictly prohibited. Cracked, bent, or damaged blades should be reported and replaced immediately.

e. The power control for each machine shall be located to prevent accidental starting and to enable the operator to cut off the power without leaving his operating position. All fixed power driven woodworking tools shall be provided with a disconnect switch that can either be locked or tagged in the off position.

f. Blades of planers and jointers shall be fully guarded and have cylindrical heads with throats in the cylinder.

g. A push-stick, block or other safe means shall be used on all operations close to high-speed cutting edges.

h. Circular saws shall be equipped with guards that automatically and completely endorse the cutting edges and shall be provided with splitters and anti-kick back devices.

i. Power saws shall not be left running unattended.

j. Radial arm power saws shall be equipped with automatic brakes. The table of radial arm or swing saws shall extend beyond the leading edge of the saw blade.

k. All swing cutoff and radial saws or similar machines that are drawn across a table shall be equipped with limit stops to prevent the leading edge of the tool from being thrown back toward the operator.

l. Each hand-fed crosscut table saw and each hand-fed circular rip saw shall be furnished with a spreader to prevent the material from squeezing the saw or being thrown back at the operator.

2. Axes

a. Before swinging an ax, be sure the area is clear of other workers. Avoid low hanging branches and wires.

b. Check the ax head for a right fit on the handle. If the handle is loose or has splinters, report it to your supervisor.

c. Use the right ax for the job.

1. A narrow ax with a thin blade should be used for hard wood.
2. A wide ax with a thick blade should be used for soft wood.

d. Carry an ax at your side, not over the shoulder.

e. Safety equipment-wear safety shoes and goggles when using an ax. Always wear approved gloves.

3. Knives

a. Do not cut towards the body. The cutting stroke must be away from the body.

b. Never leave a knife lying on a chair, bench, or on the floor.

c. Do not carry a knife on you unless it is in a sheath.

d. Throwing of knives is **strictly prohibited**.

D. MATERIALS HANDLING TOOLS

1. General

a. Never lay a shovel, rake or pick on the ground. Stand it against something or place it in a rack.

b. Report splintered or loose handles to your supervisor. Do not use if handle is damaged or loose.

c. Wear goggles while working with a shovel, pick, or rake.

d. Wear approved safety shoes, boots, and gloves.

2. Shovels

Use the ball of the foot, not the arch, to press the shovel into the mud or other materials. Occasionally, dip the shovel in a pail of water to clean it. A clean shovel is easier and safer to use.

3. Rakes

Clean the rake when it becomes clogged with leaves and debris.

4. Picks

a. Before swinging a pick, be sure the area is clear of other workers. Avoid low hanging branches and wires.

b. Always use safety glasses or goggles when using a pick.

c. Always wear approved gloves when using a pick.

E. TORSION TOOLS

1. Wrenches

a. There is a correct size wrench for every nut and bolt. Select the right fitting wrench for the job.

b. Never use a pipe extension on the handle or strike the wrench handle with a hammer. There are specially made wrenches for these purposes.

c. Never use a wrench as a hammer.

d. Use an adjustable wrench for light jobs because they are not likely to slip.

e. Wrenches should be pulled, not pushed, especially when using adjustable wrenches. Place the opening jaw of an adjustable wrench facing you.

f. Pipe wrenches should be kept clean in order to prevent slipping. Never use a pipe wrench on nuts and bolts.

g. Pay attention to the position of your hand in relation to the work piece to avoid hand, finger and arm injuries.

2. Pliers

a. Do not substitute pliers for a wrench.

b. Wear safety goggles when using pliers to cut short ends of wires.

c. When cutting wire, move the pliers or wire cutters up and down. Do not bend the wire to the right and left.

3. Screwdrivers

a. Do not use a screwdriver as a punch, wedge, pry bar, or chisel.

b. Never hold the part you are working on in your hand. The screwdriver may slip and injure your hand. Place the work on the floor, table, vise or bench.

c. Replace if tip or handle is chipped or flawed.

d. Never use a screwdriver to stop or slow down a motor shaft.

e. Do not try to reshape a screwdriver tip.

f. Match the screwdriver to the screws. Do not use a screwdriver that is too small or big.

II. PORTABLE POWER TOOLS

A. GENERAL

1. Disconnect the source of power before accessories are changed or adjustments are attempted.

2. Protective guards are not to be removed unless the tool is being cleaned or serviced. When they are replaced, put the guard in the correct adjustment before the tool is used again.

3. Cords and hoses are not to be strung across pathways unless they are protected by wood stripes or special raceways.

4. Do not leave the tool in an overhead place where pulling the cord or hose might cause the tool to drop.

5. Do not hang cords or hoses over nails, bolts or sharp edges. Keep them away from oil, hot surfaces, and chemicals.

6. Report all faulty, broken, or defective tools to your supervisor.

7. Throwing tools or materials from one location to another, from one employee to another, or dropping them to lower levels is prohibited.

8. Loose, fringed, or frayed closing, loose, untied, or long hair, dangling jewelry, rings, chains, or wrist watched shall not be worn while working with any power tools or machine.

9. Power tools shall be inspected, tested, and determined to be in safe operating order prior to use. Tools having defects that will impair their intended operation or render them in any way unsafe for use shall be removed from service immediately.

10. Portable power nailing and stapling tools shall be operable only when held against the work surface with a force of at least five pounds more than the weight of the fully-loaded tool. In addition, this condition shall be necessary to operate the trigger or switch for each fastener driven.

B. ELECTRICAL TOOLS

(see Section 18, Electrical for General Use and Care.)

C. AIR POWER TOOLS (PNEUMATIC TOOLS)

Explosive actuated tools and their use shall conform to the requirements of Safety Requirements for Power Actuated Fastening Systems (ANSI A10.3).

1. Safety clips or retainers are to be installed and maintained on pneumatic impact tools to prevent dies, bits, and tools from being accidentally expelled from the barrel.

2. Pressure must be shut off and exhausted from the line before disconnecting the line from any tool or connection.

3. Safety lashing must be provided at connection between tool and hose, and at all quick makeup-type connections.

4. Air hoses, pipes, valves, filters, and other fittings are to be pressure-rated by the manufacturer and this pressure must not be exceeded. All defective hoses must be removed from service. Use only sound hoses.

5. Do not lay hoses over ladders, steps, scaffolds, or walkways in such manner as to create a tripping hazard. Coil hoses when not in use.

6. The use of compressed air for blowing dirt from hands, face or clothing is prohibited.

7. The use of compressed air for cleaning wheel bearings is prohibited.

8. Do not use compressed air for other cleaning purposes except where reduced to less than 30 psi and then only with effective chip guarding.

Toggles must be worn. The 30 psi requirement does not apply for concrete form, mill scale and similar cleaning purpose.

9. Do not use hoses for hoisting or lowering tools.

10. All air lines exceeding ½ inch inside diameter subject to whipping on tools and such equipment as track drills shall have a safety device at the source of supply or at the branch line to reduce pressure in case of hose failure.

11. Manufacturers' prescribed safe operating pressure for hydraulic hoses, valves, pipes, filters, and other fittings shall not be exceeded.

12. All hydraulic or pneumatic tools which are used on or around energized lines or equipment shall be equipped with non-conducting hoses having adequate strength for the normal operating pressure.

13. Impact wrenches must have a locking device for retaining the socket.

14. Jackhammers

    a. Jackhammer operators are to wear gloves, ear plugs, safety goggles, and approved safety shoes.
    b. Workers in the immediate work area of a jackhammer are to wear safety goggles and ear plugs.
    c. Do not squeeze the trigger until the hammer is on the work surface.
    d. Never point the hose at anyone. Practical jokes with compressed air tools and hoses have caused many serious injuries.
    e. Before using or changing one pneumatic tool for another, turn off the air control valve.
    f. Never kink hose to stop the air flow.

D. EXPLOSIVE ACTUATED TOOLS

1. Explosive actuated tools are to be used, operated, repaired, serviced, and handled only by authorized personnel. Authorized personnel are those who have been trained in the safe use and servicing of the particular tool in question. Permission to operate on a specific worksite must be granted by the Public Works Director.

2. The use of explosive actuated tools is prohibited in explosive or flammable atmospheres.

3. The tool operator must wear safety goggles, face shields or other approved face and eye protection.

4. Explosive actuated tools and the charges must be secured at all times to prevent unauthorized use or possession.

5. All tools shall be so constructed as not to be operable other than against a work surface with a force of at least five pounds greater than the total weight of the tool.

6. Do not fire the tool until it is in the proper firing position. The firing mechanism of all tools shall be so constructed that the tool cannot fire during loading or preparation to fire, or if the tool is dropped while loaded.

7. Driving into soft or easily penetrable materials is prohibited unless they are backed by a substance that will prevent the pin or fastener from passing completely through the creating a flying missile hazard on the other side.

8. Explosive actuated tools must be inspected, thoroughly cleaned, and tested after each 1,000 fastenings. Daily inspection, cleaning, and testing must be performed as recommended by the manufacturer.

9. High velocity explosive actuated tools are to be used only for those applications where low velocity tools will not meet the job requirements. A high velocity tool is defined as a tool which propels or discharges a fastener at velocities in excess of 300 feet per second when measured at 6.5 feet from the muzzle.

10. Do not use explosive actuated tools in reinforced concrete when the fastener may strike rebar cast iron, glazed tile, surface hardened steel, glass blocks, live rocks, face bricks or similar materials.

11. Explosive actuated tools must be tested each day before loading to see that safety devices are in proper working condition. Follow the manufacturer's instructions for testing.

12. Explosive actuated tools are to be loaded just before firing. Neither loaded nor empty tools are to be pointed at anyone. Hands are to be kept clear of the open barrel end.

13. **Do not ever point explosive actuated tools at another person.**

E. CHAINSAWS

1. Before attempting to operate a chainsaw, review the manufacturer's instructions on operation and maintenance. If the instructions are not available, ask your immediate supervisor for instructions on the machine's operations.

2. Wear safety sleeves, chaps, heavy duty boots, and safety helmet with chinstrap and do not wear any jewelry that might get caught in the chain. Wear proper eye protection or a face shield.
3. Before starting the chainsaw, inspect it for loose fittings, proper chain sharpness and tension, loose sparkplug, dirty air filter, frayed or worn starting cord, or a missing or defective muffler.
4. The chain saw shall be started with the chain brake engaged.
5. Do not attempt to operate a faulty chain saw. If you cannot repair it, report it to your supervisor.
6. Add the correct amount of oil to the fuel according to the manufacturer's guidelines. Wipe up any spilled gas or oil before starting it. Allow the machine to cool off before refueling. Never attempt to fuel a running chainsaw. The chain saw shall be started at least 10 feet from the fueling area.
7. Never smoke while operating the chainsaw. Never operate the chainsaw near flames. The chain saw shall be fueled at least 10 feet from any open flame or other source of ignition.
8. Check the area to be sure all bystanders are clear of the cutting area. Never work alone.
9. Before you begin cutting, check the material to be cut for any nails or wire.
10. When felling trees, plan a path of retreat away from the place where the trees will fall. The chain saw operator shall be certain of footing before starting to cut. The chain saw shall not be used in a position or at a distance that could cause the operator to become off balance, to have insecure footing, or to relinquish a firm grip on the saw.
11. After starting the engine, hold the saw away from your body with both hands. Don't allow the saw to touch anything. For best control, keep a firm two-handed grip on the handles.
12. Do not cut wood that is directly overhead or at a distance that is away from you, causing you to give up control of the saw.
13. If possible, stand on the opposite side of the tree trunk when trimming felled timber. If the saw slips, you have the trunk between you and the saw.
14. The chain saw shall be shut off or the throttle released before the feller starts his retreat.
15. The chain saw shall be shut down or the chain brake shall be engaged whenever saw is carried further than 50 feet. The chain saw shall be shut down or the chain brake shall be engaged when a saw is carried less than 50 feet if conditions such as, but not limited to, the terrain, underbrush and slippery surfaces, may create a hazard for an employee.
16. Only qualified employees should operate chainsaws. These employees should be trained and familiar with all chainsaw safety features and the manufactures recommended methods of use and the equipments limitations.

Section 13

Traffic Control for the Work Area
(on or near streets and highways)

I. GENERAL SAFETY RULES:

These procedures are designed to provide safe, effective work areas for street repair and to warn, protect, control, and expedite vehicular and pedestrian traffic flow. Streets and sidewalk repair activities can make employees highly vulnerable to injury / accidents and the municipality very susceptible to liability claims. Hazards such as open trenches, spoil piles, and equipment / structures in or on normal traffic routes can result in severe injuries and / or property damage.

A. Each foreman and/or employee working on the roadway has the responsibility for establishing and maintaining safe and efficient traffic controls for the protection of employees and the general public.

B. The foreman and/or employee is responsible for placing control devices and has the authority to make changes from the original plan when they are needed to improve traffic control as work progresses.

C. Choose traffic warning and control devices that will move traffic smoothly past the work area and provide maximum protection for people and equipment (i.e. cones, signs, lights, or barricades).

D. Workers on or near the work area should wear orange safety vests, hard hats, all personal safety gear, proper work shoes, safety glasses, etc.

E. Whenever possible, workers should face traffic when on the roadway and when climbing out of manholes.

F. Whenever it is possible, park the work vehicles between approaching traffic and the work area and turn on the beacon or vehicle hazard flashers. Make sure there is enough room between the vehicle and the work area to prevent the truck from being pushed into the workers if it is hit.

G. Never work between two closely-parked vehicles.

H. Pedestrians must always be protected from open manholes, trenches, excavations, and any dangerous situation. Set up barricades or special guardrails around openings and provide pedestrian travel lanes at a safe distance from the work area.

I. Radios with earphones must not be worn when working around traffic.

J. Construction equipment or other official vehicles not engaged in work must not be parked where they restrict or obstruct traffic flow.

II. PLANNING

Routine maintenance of arterial streets should be scheduled such that to minimize traffic interference. All street/lane closures are to be pre-planned and coordinated with the appropriate agencies.

A. On busy roadways, always try and schedule work during off-peak hours.

B. Check with necessary authorities before starting work:

1. Police Department
2. Fire Department
3. Issue public announcement to any emergency agencies, hospitals, etc.
4. Contact Louisiana One Call (1-800-272-3020) or other appropriate utility agencies.
5. Location of work in relation to roadway.
6. Time of day and night.
7. The availability and condition of safety devices on your work vehicle and extra safety devices needed to perform the work.
8. Coordinate with Department of Public Works- Traffic Division - and with the City Safety Inspector.

III. TRAFFIC CONTROL

City follows all rules, regulations, and material pertaining to Traffic Control described by the Louisiana Department of Transportation and Development's Manual on Uniform Traffic Control Handbook.

Section 14

Confined Space Entry Procedures

I. DEFINITION OF A CONFINED SPACE

A "confined space" is defined as any enclosed or semi-enclosed space that has limited openings for entry and exit, that is not intended for continuous employee occupancy and that does not have sufficient natural or mechanical ventilation to prevent build-up of a hazardous atmosphere. Typical confined spaces are manholes, sewers, metering stations, valve or siphon chambers, pump stations, empty tanks, pits or any other area which has limited size, entrance and exits.

All confined spaces in which toxic or flammable gases may accumulate or in which oxygen depletion may occur should be labeled on all possible entrances: "DANGER OF DEATH: FOLLOW CONFINED SPACE ENTRY PROCEDURE BEFORE ENTERING"- in bold letters, noticeable to all who may try to enter.

II. POTENTIAL HAZARDS OF CONFINED SPACES

A. There are a number of hazards associated with confined spaces. These include:

1. Explosive gases
2. Toxic gases
3. Oxygen deficiency (asphyxiation)
4. Falling
5. Bumping into obstructions
6. Suffocation
7. Vehicular traffic

B. All of the above hazards can lead to "FATAL ACCIDENTS." All employees must be made aware of this fact. All of the above hazards can be eliminated, resulting in no lost time or loss of life. The prevention of accidents takes a common sense approach to work in confined spaces and strict adherence to all safety rules associated with confined spaces.

III. NECESSARY EQUIPMENT FOR CONFINED SPACES

The following is a list of equipment which should be considered as the minimum necessary for entering and working in confined spaces:

A. Fresh air blower and large diameter flexible hose for manhole ventilation;

B. Properly calibrated Atmosphere-testing equipment to guard against oxygen deficiency and combustible gas and toxic hydrogen sulfide (H^2S) gas prior to making entry and continuous monitoring while personnel are in confined space;

C. Harness and individual life lines for each person going underground and for the standby crew above ground;

D. Self-contained air breathing apparatus with a full tank for each person going underground and for the standby rescue crew above ground;

E. Protective clothing, including rubber boots, gloves, rain gear, hard hats with chin straps, and face shields or goggles;

F. Explosion-proof lights;

G. First aid kit (including amyl-nitrite capsules for H^2S exposure);

H. Barricades, traffic cones, reflective vests, warning signs and traffic flags;

I. Miscellaneous tools, including shovels, pike poles, chain jacks, pry bars, and manhole hooks.

J. Two-way communication devices

IV. ATMOSPHERIC TESTING OF CONFINED SPACES

The principle atmospheric tests will be for oxygen deficiency, explosion and range, and toxic gases. Combination meters are available that will give an indication of the percentage of oxygen in the atmosphere and the percentage of the lower explosive limit of the tested atmosphere. The atmosphere should also be tested for the presence of hydrogen sulfide, carbon monoxide, methane, carbon dioxide, or any other gas suspected of being present in the particular space.

A. It is important to understand that some gases or vapors are heavier than air and will settle to the bottom of a confined space. Further, some gases are lighter than air and will be found around the top of the confined space area. Therefore, it is necessary to test all areas (top, middle, and bottom) of a confined space to determine what gases are present.

B. If the atmosphere has an oxygen concentration of less than 19.5% or greater than 25%, the area must be ventilated and no one will be allowed to enter the space without using a SCBA. However, flammable gases must be purged by ventilation before any work is performed to eliminate any potential ignition sources. Manhole covering upstream and downstream from the work area should be opened. If air-monitoring continues to indicate unsuitable conditions for workers after ventilation, including the use of an air supply blower for positive displacement of the manhole atmosphere will be necessary for the employee to utilize respiratory protection equipment while in the confined space. Entrance into an atmosphere

containing any type of hazardous gas will require the use of self-contained breathing apparatus (SCBA).

V. OXYGEN-DEFICIENT ATMOSPHERES

An oxygen-deficient atmosphere will have less than 19.5% available oxygen (O^2). Nineteen and one-half percent (19.5%) must be considered the minimum level for safe entry into a confined space without a breathing apparatus. An atmosphere with less than 19.5% available oxygen places the employee in imminent danger. Atmosphere with 16% available oxygen will cause impaired judgment and breathing. A level of 14% leads to faulty judgment and rapid fatigue. As the oxygen level drops to 6%, breathing is extremely difficult and death occurs in minutes.

The oxygen level in a confined space can decrease because of work being done, such as welding, cutting and brazing. The oxygen level can also be decreased if displaced by another gas, such as carbon dioxide or nitrogen. Total displacement of oxygen by another gas will result in unconsciousness followed by death.

VI. FLAMMABLE AND EXPLOSIVE ATMOSPHERES

For a confined space to have an explosive or flammable atmosphere, four components are necessary: air, a flammable gas in excess of 10 percent of its lower flammable limit (LFL), vapor or mist in the proper mixture, and a source of ignition (fire, hot work). Different gases have different flammable ranges. Explosive and flammable gases encountered in wastewater facilities may include methane, hydrogen sulfide, gasoline, and carbon monoxide.

An oxygen-enriched atmosphere is an environment with available oxygen above 21%. This type of atmosphere will cause flammable materials, such as clothing and hair, to burn violently when ignited. **Never** use oxygen to ventilate a confined space.

VII. TOXIC ATMOSPHERES

All substances (liquid, vapors, solid materials, and dusts) should be considered hazardous in a confined space. Toxic substances can come from the following:

A. The product stored or conveyed in the space. The substance can be absorbed into walls and give off toxic gases when removed or, when cleaning out the residue of the substance, toxic gases can be given off. This is especially true in confined spaces in wastewater plants due to the presence of sludge sand decomposing material. Toxic gases which may be encountered in confined spaces include ammonia, carbon monoxide, hydrogen sulfide and sludge gas. Confirm what was last stored in the tank before entering.

B. Examples of work which can cause the creation of toxic substance are welding, cutting, brazing, painting, scraping and sanding. Monitor continuously.

C. The process of industry feeding material to the confined space:

Toxic atmosphere can be generated in various processes.
For example, cleaning solvents are used in many industries.
The vapors from these solvents are very toxic in a confined space.

VIII. ISOLATION/LOCKOUT/TAGGING

Whenever entry into a confined space is necessary, the space should be isolated from all other systems. This is to insure that injury does not occur from inadvertent actions while an employee is in the confined space.

A. There should be electrical isolation of the confined space to prevent accidental activation of moving parts that would be hazardous to the worker by locking circuit breakers and/or disconnects in the open (off) position with a key-type padlock. In addition to lockout systems, there must be an accompanying tag that identifies the operation and prohibits use.

B. Equipment with moving mechanical parts should also be blocked in such a manner that there can be no accidental rotation.

IX. ENTERING A CONFINED SPACE

Any person entering a confined space shall do so only after all safety procedures have been followed and only while wearing a safety harness with life line attached, and while attended by an employee stationed outside of the confined space. While monitoring a confined space or while working therein, all involved employees will be required to carry a portable communication device that will allow them to talk with each other and the local fire or rescue department in the case of an emergency.

A. When entering a manhole or other confined space which has a manhole for entry, always use a specially designed tool or pick to remove the cover. Leave the cover two or three feet from the manhole and flat on the ground.

B. If the manhole is in an area of vehicular or pedestrian traffic, barricades and warning devices such as traffic cones should be used.

C. When entering a manhole, be alert for loose or corroded steps. Always test or kick each step individually before using. If required, portable ladders should be used for entrance. If ladders are used, they should be adequately secured for safety.

1. At least one worker will be assigned to stay at the opening to watch workers down in the chamber and to attend the life line attached to workers in the chamber.

2. All trucks, cars, or gasoline powered equipment must be kept downwind from any fresh air blowers.

3. Manhole covers upstream and downstream are to be removed if they exist. Manhole covers are to be removed with the proper hook.

D. A first aid kit should always be at the work site when entry into a confined space is made. Kit should include amyl-nitrite capsules for hydrogen sulfide exposure.

X. WORKING IN A CONFINED SPACE

When work is being done in a confined space, stand-by personnel, preferably at least two, should be present in case of accident or should rescue become necessary.

A. All employees working in the confined space must be wearing a safety harness with an individual life line. An emergency hoist must be available to lift employees out of the confined space should the need arise.

B. Employees who are in the confined space must be equipped with a continuous atmospheric monitoring device. The indicator must have an audible alarm that sounds in an unsafe environment.

C. High temperatures and humidity can lead to suffocation. If the worker begins to feel dizzy or light-headed, he / she should leave the confined space immediately.

D. Hard hats should always be worn in confined spaces.

E. Only one employee at a time is permitted on a ladder or rungs in the chamber.

F. Smoking is not permitted while in the chamber.

G. Once inside the chamber, an inspection must be made for any unsafe conditions or damage. These must be reported to the immediate supervisor. Missing, broken or loose rings must also be reported.

H. If a flammable liquid is found in the chamber, it must be removed before work can begin.

XI. PUMP ROOMS

A. Unless designed with adequate ventilation, pump rooms must be considered confined spaces. Before entering any pump room that is experiencing problems, the atmosphere must be tested and ventilation provided.

B. The operator must be aware of the following conditions:
1. Ladders and floors that may be oily or slippery.
2. High voltage electrical current.
3. Damp and/or "oily" atmosphere.
4. Possibility of hazardous gas due to leaking of packing on pumps.

XII. PERSONAL HYGIENE

A. Unless designed with adequate ventilation, pump rooms must be considered confined spaces. Before entering any pump room that is experiencing problems, the atmosphere must be tested and ventilation provided.

B. Rubber gloves must be worn when cleaning pumps, handling waste-water, screening, sludge, grit or for other work where a person comes in direct contact with untreated sewerage or sludge.

C. Gloves must be worn if an employee's hands are chapped, burned or when the skin is broken.

D. Before eating or smoking and after work, hands must be washed thoroughly with soap and hot water. When this is not possible, an approved waterless cleaner must be used.

XII. CONFINED SPACE ENTRY PERMIT

A. PERMIT

A permit is an authorization and approval in writing that specifies the location and type of work to be done. It certifies that all existing hazards have been evaluated by a qualified person and necessary protective measures have been taken to insure the safety of each employee. The supervisor or a qualified person should be responsible for securing the permit and both should sign off when the work and hazards have been located and described. This permit is good for only one job. One permit cannot be used for more than one worksite.

B. SUMMARY

Any City of Kenner employee entering a confined space or working in a confined space outlined in this policy, must test for gases and fill out a work permit. This will specifically be manholes and wet wells or any unconfined spaces, personnel must be equipped with a continuous atmospheric monitoring device with an audible alarm.

Section 15

Office Safety

I. GENERAL

The attitude that office accidents do not amount to much is one of the prime causes of office accidents.

A. Do not lift heavy objects. Get someone who it is their job to do so.

B. Letter openers are to be used for that purpose only.

C. Unplug or turn off all electrical appliances such as coffee pots, hot plates, radios, portable heaters, and fans at the end of the working day.

D. Do not attempt to remove jammed staples without using a staple remover. If electric, unplug the stapler before taking it apart.

E. Do not attempt any electrical repairs and never remove the ground prong of a three prong plug.

F. Day dreaming is a dangerous habit. Keep your mind on the job.

G. Sharpened pencils should be placed point down in the pencil holder.

H. REMEMBER, report all hazards and on the job injuries to your supervisor immediately.

II. TRIPPING AND SLIPPING HAZARDS

A. Chairs, wastebaskets, electrical cords, etc., must not be placed in or across aisles or where they create a tripping hazard.

B. Report defective floors, rugs, and floor mats to the maintenance department for correction.

C. Keep paper clips, pencils, and rubber bands off floor area, as they create a slipping hazard.

D. Make electrical cords safe, place and secure them so that they do not lie in a traffic area. Do not place a cord through a doorway which may be closed and cause the cord to be out or cause a tripping hazard.

F. Defective tiles, boards, floor mats, or carpet should be reported and repaired immediately. Keep a log of all work order requests.

G. Razor blades, thumb tacks, or other sharp objects should not be thrown loosely into desk drawers.

F. Use "WET FLOOR" signs or cones in appropriate areas.

G. Use mats at entrances and exits where water may collect.

H. Do not store material, boxes, or waste baskets where they create a tripping hazard, or in areas of heavy traffic.

III. CHAIRS

A. Scooting across the floor while sitting in a chair is forbidden.

B. Chairs are not to be stood on at any time. Use a safe ladder or stool and never use boxes or cabinets for climbing.

C. Leaning back in a chair and placing feet on top of a desk is forbidden.

D. Report all broken chairs and keep records of all chair repairs.

E. Check tension in chair before sitting in any unfamiliar chair.

F. Check all furniture before using.

IV. FILING CABINETS AND DESKS

A. Only one file drawer is to be opened at a time.

B. Never leave a file drawer or desk drawer open when unattended.

C. Close a desk drawer or file drawer with your hands. Never bump them with your chest, legs, or feet. Use the handles.

D. Climbing on an open file drawer or desk drawer is forbidden.

E. To prevent tipping, file cabinets should be bolted together or secured to the wall.

F. All written documents should be stored in file cabinets in case of fire.

V. HALLWAYS AND STAIRS

A. Running is prohibited in all offices and stairwells.

B. Keep to the right in hallways and up or down stairs.

C. Go single file up or down stairs.

D. When carrying materials, do not pile them high enough that they obstruct your vision. Do not carry stacks of materials on stairs. Use the elevator.

E. One hand must be free to hold the railing when using stairs.

F. Do not congregate on stairs or in the stair well.

G. Climb one step at a time. Do not take two or three steps at a time.

H. Do not store materials or boxes on stairs or in hallways.

I. Do your reading at your desk, not in hallways or stairs.

VI. GOOD HOUSEKEEPING

A. Litter should be picked up whenever it is spotted, even if it's not yours.

B. Wipe up spilled liquids immediately. If spills are on floors, place a "WET FLOOR" sign until the floor is dry.

C. Do not place loose, broken glass in the wastebasket. First, wrap the glass in heavy paper and clearly mark on it "Broken Glass." Fine pieces of glass should be blotted up with a damp paper or cloth towel.

D. Broken glass should be swept up or vacuumed immediately.

E. Housekeeping shall be a part of the daily routine, with cleanup being a continuous procedure.

Section 16

Fleet Management

I. GENERAL

A. Do not start an engine in the repair shop unless the doors and windows of the shop are open or proper ventilation has been made. The use of an exhaust control device is advised to guide exhaust outside of work areas.

B. Adequate lighting is needed to work safely. Report poor lighting conditions to the supervisor.

C. Engines must be turned off before refueling. Never smoke or allow anyone else to smoke in the area while refueling any equipment. Refueling must be done in the open or other specifically designated area where ventilation is adequate to carry away fuel vapors.

D. Liquid fuels, such as gasoline and diesel fuel, must be handled and stored in accordance with the National Fire Protection Association "Flammable and Combustible Liquids Code," NFPA 30.

E. Do not attempt to lift heavy parts or equipment alone. Use a hoist, jack, or other lifting device when available or ask someone for assistance. Use proper lifting techniques (body mechanics) when lifting. Use a lumbar support belt when available or required.

F. Proper load limits for hoists shall be established, posted, and observed at all times.

G. When inflating a tire, turn your face away from it. Never hold the tire between your legs. Always use a safety cage when inflating tires equipped with lock rings.

H. Carry or store small quantities of gasoline or other flammable solvents only in UL approved safety cans. Do not use such products to wash hands or clothing.

I. Proper safe cleaning agents shall be provided and used for such operations.

J. Preventative maintenance schedules shall be established according to the manufacturer's recommendations and adhered to for all mechanical equipment. Such information must be documented properly.

K. A first aid kit and fire extinguisher shall be provided in each shop, be readily available, and be appropriately stocked. Fire extinguishers must be tagged and updated as needed.

II. JACKS

A. Check the capacity of the jack to make sure it can support the load.

B. Inspect the jack before and after each use. Do not use a jack with hydraulic fluid leaks or broken or worn teeth. Report defective jacks to your supervisor.

C. Impact-resistant safety glasses shall be worn when under equipment.

D. Never throw or drop a jack on the floor.

E. Make sure that the jack is level before raising it. If the jack is used outside and the surface is not concrete, use hardwood blocking under the jack. The blocking should be at least twice the size of the jack's base.

F. To prevent the load from slipping, place a hardwood shim, longer and wider than the face of the jack head, between the jack head and the load.

G. Stand to one side of the jack handle in case it kicks back.

H. Do not leave a raised load supported only by jacks. Place supports under the load immediately.

III. PROTECTIVE EQUIPMENT

A. All employees shall wear leather shoes with skid-resistant soles while working in the shop. Tennis shoes cannot be worn.

B. When applying paints to small areas, appropriate gloves and goggles must be worn. If ventilation is poor, a respirator recommended by the paint manufacturer must be worn. An approved paint spray booth is required for spray painting large areas.

C. Face shield must be worn when welding, grinding, or cutting metals. (See Section 20, Welding and Cutting Metals)
Proper aprons and gloves shall be worn when welding or cutting overhead.

D. Proper hearing protection shall be required for any operation producing loud noise.

IV. HOUSEKEEPING

A. Keep the work area clean and orderly. Wipe up spilled grease and liquids immediately.

B. Know and obey the rules for the use of hand tools and portable tools.

C. Discard waste materials in places that are designated for that specific purpose.

D. Metal cans with securely closing metal lids shall be used for trash in all work areas.

E. All motors, mechanical equipment and tools shall be kept clean and free of dirt and grease.

F. Proper portable fire extinguishers shall be provided and readily accessible for the types of hazards present (i.e. class A, B, C, D fires).

G. Floor load limits shall be established, prominently posted, and not exceeded.

V. TIRE REPAIRS

A. A safety tire rack, cage or equivalent protection shall be provided and used when removing a split rim tire from the rim, mounting and inflating a new tire or tires with rims equipped with locking rings or similar devices.

B. Appropriate clip-on chucks will be used when inflating split rim tires.

C. When inflating a tire, turn your face away from it. Never hold the tire between your legs. Always use a safety cage when inflating tires equipped with lock rings.

Section 17

Storage and Handling of Chemicals, Paints and Gases

I. GENERAL RULES

Few chemicals are completely harmless. Many cause injuries by burning and blistering of tissue both internally and externally. Contacting the skin, breathing fumes, or swallowing chemicals all have harmful effects on the human body.

A. Do not use or handle any chemical or paint without permission from your supervisor.

B. It is the employee's responsibility to read all instructions provided by the manufacturer in the handling, storage, disposal, and use of chemicals and instructions are to be followed exactly.

C. After using a hazardous chemical, immediately wash your face and hands thoroughly with soap and water.

D. DO NOT EAT OR SMOKE before washing hands and face.

E. If a chemical odor or leakage is detected, inform your supervisor immediately. Walk away from the area, do not run. Do not take deep breaths; breathe as shallow as possible.

F. Do not wear clothing saturated with or coated with residue of any hazardous chemical product.

G. Do not mix two chemicals together without approval from your supervisor.

H. Obey all "NO SMOKING" signs.

I. Wear the proper protective equipment or garments when using chemicals, liquids, gases or solids. This includes goggles, gloves, aprons, proper safety shoes and respirators or filters.

J. Use the proper fire extinguisher on any flammable liquid or chemical fire. Do not use water.

K. Know the location of emergency showers and eye wash stations and how to use them.

II. FLAMMABLE LIQUIDS

A. Do not store or use flammable liquids near furnaces, heaters, devices using

pilot lights, open flames, near sources of static electricity and other such exposures.

B. Do not smoke, burn, chip or create sparks around any flammable liquid.

C. Flammable liquids must not be stored in open containers. Close all containers after usage.

D. Flammable liquids must be stored in proper Underwriters Laboratory approved containers.

E. Approved self-closing safety faucet and approved safety vent must be used on drums where the product is being drawn from.

F. Where drums are used for direct draw of product, they must be grounded and a bonding wire must be used from the drum to the container while being filled.

G. An approved safety "drip can" must be positioned below each drum faucet to catch spills or drippings from the faucet.

H. Oily rags and waste are to be kept in an approved waste container and emptied each day.

I. When filling vehicle fuel tanks, make sure the fill nozzle is grounded to the tank mouth to prevent ignition of static electricity.

J. Clean small containers and drums, which contained a flammable liquid, outside a building in an open location.

K. Before working on any container or drum having held a flammable liquid, be sure to empty and purge. After purging, fill container with water or inert gas.

L. Large tanks and drums must be continuously monitored even after purging to be gas or vapor free. Heating of the metal, by grinding, burning or other such operation will liberate vapor from the metal after initial purging.

III. COMPRESSED GASES

A. Do not remove or change numbers or marks stamped on cylinders.

B. Cylinders are to be stored in well-ventilated locations. Cylinders must not be taken into confined spaces, especially if they contain any oxygen or fuel gas.

C. Cylinders containing the same gas are to be stored together. When a cylinder is empty, clearly mark it as such and keep it separate from filled cylinders.

D. Cylinders in storage must be separated from flammable or combustible material by at least 40 feet or by a fire resistive partition.

E. Cylinders containing oxygen or oxidizing gases in storage must be separated from cylinders containing fuel gases by at least 20 feet.

F. NO SMOKING wherever cylinders are stored.

G. Protect cylinders from extremes of temperature, physical damage, and electric current. Do not drop or let them strike each other.

H. Cylinder valves must be closed and cylinder valve caps must be in place when cylinders are in storage, in transit, not in use, or empty.

I. All compressed gas cylinders in service are to be secured in fixed or portable racks or hand trucks. Compressed gas cylinders transported by crane, hoist, or derrick must be transported in cradles, nets, or skip pans, and never directly by slings, chains, or magnets.

NOTE: During transport of compressed gas cylinders, always remove cylinder regulator and make doubly sure that the protective cylinder cap is properly secured.

J. Compressed gas cylinders must be secured by chain or straps in an upright position at all times, except when being hoisted.

K. Place the valve wrench or wheel in operating position when the cylinder is in use. Valves must be opened slowly. Quick closing valves on fuel gas cylinders may not be opened more than 1½ turns.

L. Cylinders are to be used only for the designed purpose of containing a specific compressed gas. Cylinders can be refilled only by qualified persons. Cylinders are to be tested as the manufacturer recommends.

M. Do not handle a cylinder in a manner which will weaken or damage the cylinder or valve. Never drag a cylinder, rather roll it on its bottom or use a hand truck.

N. Movement of leaking cylinders is discouraged. However, supervisors, acting within the guidelines of their departments' respective SOP (standard operating procedure), can direct such movement – SAFETY permitting. In cases where movement is directed, keep personnel and the leaking cylinder away from all sources of ignition. Tag the cylinder "DEFECTIVE".

O. Never bleed cylinders that contain toxic gases.

P. Do not use oxygen or compressed gases as a substitute for compressed air.

Q. Keep oxygen cylinders and fittings away from oil or grease. Cylinders, cylinder valves, couplings, regulators, hose, and apparatus are to be kept free from oil or greasy substances and must not be handled with oily hands or gloves. Do not direct at oil surfaces, greasy cloths, oxygen or within a fuel, oil, or other storage tank or vessel.

R. Oxygen and fuel gas pressure regulators, including their related gauges, shall be in proper working order while in use.

S. Do not stand directly in front of regulator gages when opening the valve. Sudden pressure could blow out gauge glass and parts.

IV. CHLORINE – SAFE HANDLING

A. GENERAL

Chlorine causes severe irritation of the skin, eyes, mouth, nose and throat. The longer the exposure or the higher the concentration the more serious are the effects. Annual training is required for all employees who handle or come in contact with chlorine or ammonia.

B. HANDLING

Chlorine cylinders are handled no differently than other compressed gas cylinders. (Paragraph III).

1. Stationary or movable jib cranes or traveling overhead rail hoists of at least two tons capacity are suitable for moving ton chlorine tanks.

2. A beam equipped with hooks to grip the edge of the tank is a satisfactory device for lifting the tank.

C. REMOVING CHLORINE FROM CYLINDERS AND TANKS

1. Connections:
   a. Outlet threads on container valves are not tapered pipe threads – make connections with yoke and adaptor.

   b. Flexible ⅜" cooper or stainless steel tubing, of at least 500 lbs. working pressure, is recommended from connections between container and stationary piping.

   c. A shut-off valve is needed after the container valve or at the

beginning of stationary piping to simplify changing of containers.

2. Valves:
   a. To open, strike end of wrench with heel of gloved hand to rotate the valve stem in a counterclockwise direction then open slowly.

   b. One complete turn permits maximum discharge. Do not force valve beyond this point.

   c. If valve is too tight to open, loosen the packing gland nut slightly to free the stem.

   d. Do not use large wrenches or pipe wrenches on container valves. Only use tools / wrenches provided by cylinder supplier.

D. CHLORINE LEAKS

Chlorine leaks must be taken care of immediately or they will become worse. Corrective measures should be undertaken only by trained people wearing proper safety equipment. All other persons should leave the danger area until conditions are safe again. If the leak is large, all persons in the affected area should be warned and moved from the contaminated area.

1. To find the leak, use commercial ammonia water (26 Baume) in a squeeze bottle or a cloth tied to a stick and dipped in ammonia water. When ammonia water is held near (but not on) a chlorine leak or is sprayed into the air near (but not on) a leak, a white fog will form. Don't spray ammonia water on copper or steel fittings.

2. If the leak is found in equipment in which chlorine is being used, close the valves on the chlorine container at once. If the leak is in the chlorine container and cannot be stopped quickly, departmental SOP's may allow movement of the container to another on-site SAFE AREA.

3. If chlorine is escaping as a liquid from a cylinder or a ton tank, rotate the container so that the leak is in the uppermost portion. Chlorine thus escapes as a gas, not as a liquid. Liquid chlorine vaporizes in the air, and the amount of gas produced by a liquid leak is about 15 times greater than from a gas leak through an opening of the same size.

4. NEVER PUT WATER ON A CHLORINE LEAK. The mixture of water and chlorine will increase the rate of corrosion of the container and make the leak larger. Besides, water may warm the chlorine, thus increasing the pressure and forcing the chlorine to escape faster.

5. If chlorine gas from a leaking container can be quickly drawn out into the operating system, the pressure in the container will be lowered and the leak will be less serious.

6. Leaks around valve stems can often be stopped y closing the valve or tightening the packing gland nut. Tighten the nut or stem clockwise. Use the correct tools for this job.

7. Leaks at the valve discharge outlet can often be stopped by replacing the gasket or adapter connection.

8. Pinhole leaks in the walls of a damaged cylinder or ton tank can sometimes be stopped by driving a hardwood peg or metal drift pin into the hole. This is only a temporary measure, and the container should be emptied as soon as possible

9. A LEAKING CONTAINER MUST NOT BE SHIPPED.

E. EMERGENCY PLAN

All departments using chlorine cylinders and tanks will establish chlorine emergency plans. This plan shall define and incorporate the four (4) Emergency Guideline Classifications as they pertain to an incident. **EXAMPLE:**

1. **Unusual Events**
2. **Alert Status**
3. **Site Area Emergency**
4. **General Emergency**

This plan will be in writing and will be used as the Standard Operating Procedure in the event of a leak. As a minimum, it shall include:

1. Warning system – alarm, windsock, notification of 911 and personnel evacuation when necessary.

2. Availability, location and use of respirators and other personal protective measures, when applicable.

3. Routine repair procedures where allowable.

4. Use of A and B repair kits.

5. Training requirements of personnel concerning the hazards of chlorine use and care of respirators, proper usage of A and B repair kits when allowable.

6. Emergency phone number (9-911) along with an appropriate agency notification plan depending upon quantity of reportable product released. (Reportable Released Quantity equals ten (10) lbs. or greater of product).

Section 18

Loading and Hauling Materials

I. LIFTING

A. Inspect materials for slivers, jagged edges, burrs, rough, or slippery surfaces.

B. Get a firm grip on the object.

C. Keep fingers away from pinch points, especially when setting down materials.

D. When handling lumber, pipe, or other long objects keep hands away from the ends to prevent them from being pinched.

E. Wipe off greasy, wet, slippery or dirty objects before trying to handle them.

F. Wear gloves, hand leathers, or other protectors when necessary.

G. Check the route over which an object is to be carried for obstructions or spillage on the floor.

H. When you are changing direction, turn the entire body, including your feet. Do not twist your body.

I. Slide an object into a tight space instead of lifting it in, when possible.

J. Lifting Tips

1. Place one foot alongside the object, the other behind the object.

2. Bend your legs and stoop down to the object, keeping the back straight, but inclined forward.

3. Keep arms and elbows close to the body.

4. Grip the object with the palms. (Making sure of a firm grip)

5. Tuck your chin in and look down at the object. Keep your chin in that position as you lift up.

6. Position your body weight over your feet. Start the lift with a thrust of the rear foot.

7. When placing an object down, bend your legs and stoop down to the ground. Keep chin in and back straight and inclined forward.

K. If an object is awkward, large, or too heavy to lift, ask for help. Utilize one, two or three employees to lift the object. If the object still can't be handled properly, use mechanical means to lift the object.

II. HAND TRUCKS

A. Tip the load to be lifted forward slightly, so that the tongue of the truck goes under the load, using two people when necessary for extra safety.

B. Push the truck all the way under the load to be moved.

C. Keep the center of gravity of the load as low as possible. Place heavy objects below lighter objects. When loading trucks, truckers and loaders should keep their feet clear of the wheels.

D. Place the load well forward so the weight will be carried by the axle, not by the handles. When a two-wheeled truck or wheelbarrow is loaded in horizontal position, raise it to a traveling position by lifting with the leg muscles and keeping the back straight. Observe the same principle in setting a loaded truck or wheelbarrow down – the leg muscles should do the work, not the back.

E. Place the load so I will not slip, shift, or fall. Load only to a height that will allow a clear view ahead.

F. Let the truck carry the load. The operator should only balance and push.

G. Never walk backwards with a hand truck. When going down an incline, keep the truck ahead. When going up, keep the truck behind. (This advice applies to four-wheeled as well as two-wheeled trucks.)

H. For extremely bulky items or pressurized items, such as gas cylinders, strap or chain the items to the truck.

I. Move trucks at a safe speed. Do not run. Keep truck constantly under control.

III. LOADING AND UNLOADING VEHICLES

A. Loads which may shift should be locked or lashed. Tie downs should be fastened on the right side or on top of the load. Using tie downs on the right side of the load will put the driver out of the roadway area, should the driver have to pull over to reset any loose binders, or readjust the load.

B. If material extends beyond the end of the tailgate, a red flag (or a red light at night) should be fastened to the end of the material.

C. Materials are not to extend over the sides of the truck.

D. Before loading or unloading the truck, the brakes must be set or the wheels blocked.

E. Do not start the truck until all workers are off of it or safely seated.

F. Don't walk, stand behind, or in front of vehicle while it is running or while driver is in it.

IV. FORKLIFTS

A. Driving a lift truck at excessive speeds is forbidden.

B. Stunt driving and horseplay are not permitted.

C. Come to a complete stop at blind corners before passing through the door or doorways.

D. On inclines, do not use the reverse gear as a brake.

E. Never push an object out of the way or to another location with the forklift. Tow the object instead.

F. Keep arms, legs, hands, and feet inside the operating area of the truck.

G. Leave the forklift only after its controls are in neutral, the power is shut off, the brakes are set and the key is removed or the connector plug is pulled.

H. Never park the forklift in an aisle or in a doorway.

I. The forklift is to be operated with caution around other workers.

J. Do not ride anyone on a forklift.

K. Starts and stops are to be easy and gradual to prevent the load from shifting.

L. Do not raise or lower a load while moving.

M. Only qualified personnel are to operate a forklift.

N. Place the forks flat on the ground when the truck is not in use.

Section 19

Warehouse (Storing Materials)

I. GENERAL

A. Materials shall not be stacked closer than 18 inches under sprinkler heads. This distance shall be increased to 36 inches when stored materials are flammable.

B. Do not stack materials so that they block electrical boxes, fire hoses, fire extinguishers, doors, alarms, controls, first aid kits, light switches, fuse/circuit breaker boxes, or emergency exits.

C. All aisles and exit doors are to be kept clear at all times and should be properly marked. Aisles and exit doors are to be properly marked.

D. Material in round containers shall be blocked to prevent them from rolling.

E. Lean materials away from aisles to prevent toppling.

F. Bagged materials, such as cement, should be cross-tied when piling.

G. Smoking shall be strictly prohibited in any storage or warehouse area.

H. Boxes and crates should be stacked on the side having the greatest area, unless the contents requires special handling

I. Stacking cardboard cartons should be piled with care because of their weakness. They should be protected from moisture to prevent collapse. Separations must be placed between layers.

J. Do not allow unauthorized people in a storage area.

K. Store heavy supplies and tools on lower shelves and lighter items on upper shelves. Do not overload shelves or boxes.

II. PIPE AND LUMBER

A. Sort and stack pipe and lumber according to size in separate piles with a separation every 6^{th} or 7^{th} row.

B. Place lumber and pipe on top of the pile gently and do not drop them. When removing lumber or pipe, take it carefully from the top of the stack.

C. If a slide begins, get out of the way and keep other workers clear of the area.

Do not attempt to stop the slide with your hands, feet, and body.

D. All nails, screws and staples must be removed from lumber before it is stored or discarded.

III. HOUSEKEEPING

A. The practice of good housekeeping promotes a safe worksite.

B. Wipe up all spills immediately.

C. Do not allow trash to accumulate in the storage area. Discard these materials immediately.

D. Inspect the floors periodically, and pick up any materials which may have dropped or spilled.

E. Proper portable fire extinguishers shall be provided and readily accessible for the types of hazards present (i.e. class A, B, C, D fires).

F. Floor load limits shall be established, prominently posted, and not exceeded.

IV. LOOSE BULK MATERIAL (SHELLS, GRAVEL, SAND, ETC.)

A. Loose bulk materials are to be stored in bins with retaining walls with enough bracing to withstand the stock pile pressure.

B. Loose bulk materials not stored in bins are to be piled at a slope, which will prevent the material from sliding.

C. Stock piles should be stored in layers and not cone-shaped.

D. Only authorized personnel are to be in the area where materials are being loaded onto trucks and loaders.

Section 20

Electrical

I. GENERAL

Correctly used, electricity is our most versatile form of energy. Failure to take suitable precautions in its use creates conditions which are certain to result in bodily harm.

A. Obey all high voltage signs and warnings.

B. Inspect electrical equipment thoroughly before operating it. Check for worn insulation, loose contacts, and faulty switches. Report faulty equipment to your supervisor at once.

C. Clean equipment of dust and grease build-up. When cleaning electric motors or any rotating machinery, it is best to turn off the equipment. If shutting down equipment is not feasible, be extra cautious with cleaning rags and do not wear any loose clothing that may become entangled in the machinery. When cleaning equipment wear proper goggles and gloves.

D. Employees shall wear nonconductive head protection & equipment for eyes or face whenever here is danger to these areas.

E. Do not operate electrical equipment or tools where flammable gases, vapors, dust, and other flammable materials are present unless the equipment or tool are especially designed to be operated in those conditions.

F. Keep electrical equipment free of water and moisture. Do not use any electrical equipment or tools in damp or wet areas unless the equipment or tool is properly grounded and GFI (ground fault interrupter) protected.

G. Inspect extension cords for broken or exposed wire strands before using them. Care must be taken not to kink or bend extension cords in use. Use only properly grounded extension cords with equipment and tools which require grounding.

H. Approved Electrical or Lineman's rubber gloves must be worn when working on high voltage machinery. The gloves are to be first inspected for holes or tears and discarded if any are found. Rubber gloves are not to be used as a substitute for electrical safety devices but only as added protection.

J. Pliers, screwdrivers, testing lights, and other tools used in the repair maintenance or inspection of electrical equipment and tools must be insulated.

K. Do not pull a plug from a socket by yanking on the cord.

L. When working on a circuit out of sight from disconnecting means (circuit breaker, fuses, or disconnect switch) always tag the device, such as "DO NOT ENERGIZE THIS LINE – MEN WORKING ON CIRCUIT" and REMEMBER "LOCK IT OUT IF OUT OF SIGHT".

M. When working on any electrical apparatus that requires a ladder, a wooden or fiberglass ladder is best. Always lower a ladder before changing locations or working around power lines. If an aluminum ladder is used, be sure it is equipped with rubber feet.

N. Never replace a blown fuse with one of a larger size.

O. For high altitude aerial electrical work out of buckets, see Section 25 – Aerial Lifts.

P. When working with poles around electrical lines use only wooden and fiber glass poles.

II. LOCKOUT & TAGGING OF CIRCUITS

A. Unexpected operation of electrical equipment that can be started by automatic or manual remote control may cause injuries to persons who happen to be near enough to be struck. Unexpected starting of motors may injure a person working on them as well as people operating machines controlled by the motors.

B. For that reason, when people repair motors or other electrical equipment the circuits should be de-energized, rendered inoperative, and have tags attached at all points where such equipment or circuits can be energized.

C. The following is a generally acceptable lockout procedure:

1. Alert the operator.

2. Before starting work on an engine or motor, line shaft or other power transmission equipment, or power-driven machine, makes sure it cannot be set in motion without your permission.

3. Place your own padlock on the control switch, lever, or valve, even though someone has locked the control before you. YOU WILL NOT BE PROTECTED UNLESS YOU PUT YOUR OWN PADLOCK ON IT.

4. If no padlock is available, place a "MAN AT WORK" sign at the control and block the mechanism in some effective manner. Make

sure that both sign and blocking are fastened securely so that they cannot be easily removed. Remove appropriate fuses or over current devices so that equipment or circuits cannot be energized.

5. When through working at the end of your shift, remove your own padlock, or your own sign and blocking. Never permit someone else to remove it for you, and be sure you are not exposing another person to danger by removing your padlock or sign.

III. BATTERY CHARGING

A. Battery charging installations shall be located in areas designated for that purpose.

B. Unsealed batteries shall be located in enclosures with outside vents, or in well ventilated rooms, so arranged as to prevent the escape of fumes, gases, or electrolyte sprays into other areas.

C. Ventilation shall be provided to ensure diffusion of the gases from the battery to prevent the accumulation of an explosive mixture.

D. Racks and trays shall be substantial and treated to be resistant to the electrolyte.

E. Floors shall be of acid resistant construction or be protected from acid accumulations.

F. Facilities for quick drenching of the eyes and body shall be provided for emergency use in the immediate vicinity of the work area.

G. Facilities shall be provided for flushing and neutralizing spilled electrolyte, for fire protection, for protecting charging apparatus from mechanical damage, and for adequate ventilation for dispersal of fumes from batteries.

H. When charging batteries, the vent caps shall be kept in place to avoid electrolyte spray. Care shall be taken to assure vent caps are functioning.

I. Precautions should be taken to prevent open flames, sparks, or electric arcs in battery charging areas. SMOKING IS PROHIBITED.

Section 21

Tree & Grass Cutting

I. GENERAL RULES

The employer must provide and maintain first-aid kids wherever logging operations will take place. The following list sets forth the minimally acceptable number and type of first-aid supplies for first- aid kits:

- Gauze pads (at least 4x4 inches)
- Two large gauze pads (at least 8x10 inches)
- Box adhesive bandages
- One package gauze roller bandage at least 2 inches wide
- Two triangular bandages
- Wound cleaning agent, such as sealed moistened towelettes
- Scissors
- At least one blanket
- Tweezers
- Adhesive tape
- Latex gloves
- Resuscitation equipment, such as resuscitation bag, airway, or pocket mask
- Two elastic wraps
- Splint
- Directions for requesting emergency assistance

A. Tree Cutting

1. Never work on a tree which is closer than 10 feet to an existing **primary** power line. Contact your local Power Company for assistance when cutting trees within 10 feet of a power line.

2. If work on trees is to take place on or near a street or highway, proper barricading of the work area is required.

3. If work is to be performed over public sidewalks then barricades must be placed around the work area.

4. When axes and chainsaws are being used, guidelines listed in Section 10 of this manual, HAND AND PORTABLE POWER TOOLS, must be followed as they pertain to the use of axes and chain saws.

5. When cutting trees and limbs, goggles or safety glasses, gloves, hard hat, safety chaps, sleeves and safety shoes must be worn.

6. Before any work is to begin, the tree must be inspected for poisonous plants (poison ivy, oak, etc.) and stinging insects. If any are found, employees must make every effort to avoid contact with them.

7. Trees must be inspected for rotting branches.

8. Tools must not be thrown to a worker or dropped from the tree.

9. When not in use, all tools and equipment must be placed in the truck.

10. Partially sawed limbs must not be left unattended.

11. All tools must be removed from the tree at the end of each day or when work is completed.

12. Never attempt to cut or trim trees near power transformers during wet or rainy conditions.

B. Grass Cutting

1. Cut in the direction of traffic to prevent objects from flying at vehicles. Grass should disperse into neutral ground.
2. Always wear an orange traffic work vest when working on or near roadways.

3. Always wear eye protection when cutting, trimming, or edging grass.

4. Before any work is done under a lawnmower, always disconnect the spark plug wire first.

5. Always cut sideways on a hill, never up and down. Possible slippage could cause severe injuries to the body.

6. All motorized cutting machinery should have slow moving placards on them. All slow moving vehicles should be courteous to traffic.

C. Always clear grass of objects (glass, metal, etc.) before cutting begins.

D. A rock guard should be included and in working order on all grass cutting equipment.

E. Orange traffic cones should be placed around vehicles when parked on streets.

II. TREE CLIMBING

A. Any employee climbing into a tree must be secured with a safety line before any climb is started.

B. Rotten and dead branches must be avoided. These branches are to be marked or pointed out to employees assigned to climbing into the tree.

C. Fences or other objects must not be used as a means of climbing into or out of a tree. Use only safe and approved tree climbing equipment.

D. When possible, workers are to keep their hands on separate limbs so that if one limb breaks, the body can be supported by the other limb.

III. CHIPPER

A. The chipper must not be parked directly under the tree being trimmed or cut.

B. Goggles, face shield or safety glasses must be worn at all times by chipper feeders. Unbuttoned or loose fitted clothing, excessive jewelry and scarves must not be worn by feeders. Feeders are to wear gloves in good condition as torn gloves is a hazard.

C. Feeders are to keep their hands from inside the feeder shield. Branches are to be thrown into the cylinder while standing to one side, not directly in front of it.

D. Only small amounts of wood are to be fed into the chipper.

E. If a branch will not feed easily into the chipper, pull it out and try again. Never use another object to force a jammed branch through the chipper. Use available reverse mechanism or emergency shut off on chipper for jammed branches.

F. Never put sweepings through the chipper. By-pass the chipper by throwing them directly into the truck.

G. Only one worker at a time is to feed wood into the chipper. Workers are to keep clear of the chip chute.

H. Before any work or adjustments can be made to the chipper, the engine must be shut off, the ignition key removed, and the clutch disengaged.

IV. AERIAL LIFTS

See Section 25 for information concerning work requiring Aerial Lifts.

V. TREE FELLING & CUTTING

A. Before deciding which direction the tree is to fall, the area must be thoroughly inspected. Fences in the way must be taken down if permission can be obtained.

B. All felling cuts must be properly wedged in the direction of the fall.

C. Workers must have an escape route to one side of and away from the direction of the fall. Workers are not allowed to go directly opposite the direction of the fall as kick-back may create a hazard.

D. If the falling area is a lawn, all stubs which might dig in must be removed. A blanket of brush and logs must be placed on the lawn to cushion the fall.

E. All trees that would strike any property while falling or cause any damage must be properly roped, guided and anchored.

F. All felling cuts must be properly made and adequate holding wood must be left to hinge the tree.

G. Employees on the fall line of the blocks must be constantly alert and the rope must be pulled taut before any cutting is started. The blocks are not to be up as tight as to bind the saw or break the tree prematurely.

H. Saw operators must be clear of the working area before the tree is pulled over.

I. For proper chain saw operation for tree cutting and felling see Section 10, Subsection II, Item E – CHAIN SAWS.

Section 22

Welding and Cutting Metals

(Rules for storing and handling gas cylinders are listed in Section 15; STORAGE AND HANDLING OF CHEMICALS, PAINTS AND COMPRESSED GASES)

I. GENERAL RULES

A. Employees who are not qualified, experienced, or designated as a welder should not attempt to use any type of welding equipment, be is electric or gas.

B. When welding, burning, or cutting, the immediate area must be free of combustible materials and all flammable liquids.

C. The correct type of fire extinguisher must always be available during welding operations.

D. Always exercise special care when working in confined spaces. Adequate ventilation shall be maintained at all times.

E. Never weld or cut on any container which has held a flammable substance until it has been thoroughly purged, cleaned, and tested.

F. Never strike an arc on a cylinder or drum.

G. Wear the correct eye and face protection at all times. This includes any person assisting the welder.

II. GAS WELDING AND OXYGEN CUTTING

A. SAFE USE OF GAS CYLINDERS

1. Use cylinders, particularly those containing liquefied gases and acetylene in an upright position and secure them against accidentally being knocked down.

2. Unless the cylinder valve is protected by a recess in the head, keep the metal cap in place to protect the valve when the cylinder is not connected for use. A blow out on an unprotected valve might cause gas under high pressure to escape.

3. Make sure all threads on the regulator or union correspond to those on the cylinder valve outlet. Do not force connections that do not fit.

4. Open cylinder valves slowly. A cylinder not provided with a spindle key should be opened with a special wrench or other tools provided

or approved by the gas supplier.

5. Do not use a cylinder of compressed gas without a pressure-reducing regulator attached to the cylinder valve, except where cylinders are attached to a manifold, in which case the regulator will be attached to the manifold header.

6. Before making connection to a cylinder valve outlet, "crack" the valve for an instant to clear the opening of particles, dust or dirt. Always point the valve and opening away from your body and not toward anyone else. Never crack a fuel gas cylinder valve near other welding work or near sparks, open flames, or other possible sources of ignition.

7. Use regulators and pressure gages only with gases for which they are designed and intended. Do not attempt to repair or alter cylinders, valves or attachments. This work should be only by the manufacturer.

8. Unless the cylinder valve has first been closed tightly, do not attempt to stop a leak between the cylinder and the regulator by tightening the union nut.

9. Fuel gas cylinders in which leaks occur should be taken out of use immediately and handled as follows:

   a. Close the valve, and take the cylinder outdoors well away from any source of ignition. Properly tag the cylinder, and notify the supplier. A regulator attached to the valve may be used temporarily to stop a leak through the valve seat.

   b. If the leak occurs at a fuse plug or other safety device, take the cylinder outdoors well away from any source of ignition, open the cylinder valve slightly, and permit the fuel gas to escape slowly. Tag the cylinder plainly. Post warnings against approaching with lit cigarettes or other sources of ignition. A responsible person should stay in the area until the cylinder is depressurized to make sure that a fire does not occur. Promptly notify the supplier, and follow his instructions for returning the cylinder.

10. Do not permit sparks, molten metal, electric currents, excessive heat or flames to come in contact with the cylinder or attachments.

11. Never use oil or grease as a lubricant or valve or attachments of oxygen cylinders. Keep oxygen cylinders and fittings away from oil and grease, oily hands, gloves, or clothing. Oxygen and petroleum

products do not mix and they will react explosively.

12. Never use oxygen as a substitute for compressed air in pneumatic tools, in oil pre-heating burners, to start internal combustion engines, or to dust clothing. Use it only for the purpose for which it is intended.

13. Never bring cylinders into tanks or unventilated rooms or other closed quarters or confined spaces.

14. Do not fill cylinders except with the consent of the owner and then only in accordance with DOT regulations. Do not attempt to mix gases in a compressed gas cylinder or use it for purposes other than those intended by the supplier.

15. Before a regulator is removed from a cylinder valve, close the cylinder valve and release the gas from the regulator.

16. A check valve should be installed at the torch and on both the oxygen and acetylene lines.

B. ATTACHING REGULATORS OR REDUCING VALVES TO GAS CYLINDERS

1. To blow out dust or dirt that otherwise might enter the regulator, "crack" the discharge valve on the cylinder by opening it slightly for an instant and then close it. On a fuel gas cylinder, first see that no open flame or other source of ignition is near; otherwise, the gas may ignite at the valve.

2. Connect the regulator to the outlet valve on the cylinder. Be sure the regulator inlet threads match the cylinder valve outlet threads. Never connect an oxygen regulator to a cylinder containing fuel, gas, or vice versa. Don't forget connections which do not fit easily. Be sure those connections between the regulators and cylinder valves are gas tight.

3. Release the pressure-adjusting screw on the regulator to its limit; turn it counterclockwise until it is loose.

4. Open the cylinder valve slightly to let the hand on the high pressure gauge move up slowly. On an oxygen cylinder gradually open the cylinder valve to its full limit, but on an acetylene cylinder make no more than 1-½ turns of the valve spindle.

5. Attach oxygen connections to outlet of oxygen regulator and to oxygen inlet valve on torch. Attach acetylene hose to outlet to

acetylene regulator and to acetylene inlet on torch.

6. Test oxygen connection for leaks. Be sure torch oxygen valve is closed; then turn oxygen regulator pressure adjusting screw clockwise to give about normal working pressure. Using soapy water (nonfat soap) or approved leak test solution, check connections for leaks. At the same time, check regulator for creeping indicated by an increase in the reading on the low pressure (delivery) gauge. If the regulator creeps, have it repaired before it is used.

7. Test acetylene connections for leaks. Be sure the torch acetylene valve is closed and proceeds in a manner similar to No.6. Except that the acetylene regulator pressure-adjusting screw should be set to produce a pressure of about 10 psi.

8. If the torch is to be used immediately, proceed as in No. 9. If not, close cylinder valves, open torch valves, and release pressure on regulator, etc. Close torch valves and release pressure adjusting screws on regulator.

9. To adjust the pressure of oxygen and fuel gas prior to using a torch, proceed as follows: with all torch valves closed, slowly open oxygen cylinder valve, open torch oxygen valve, turns in pressure-adjusting screw on oxygen regulator to desired pressure, then close torch oxygen valve. Open acetylene cylinder valve (1-½ turn only), and with torch acetylene valve closed, turn in pressure-adjusting screw on acetylene regulator to desired pressure.

10. Purge each line individually. Open the oxygen torch valve and release oxygen into the atmosphere for a few seconds before closing the valve; the open acetylene torch valve and release acetylene into the atmosphere for a few seconds and closes the valve.

11. Open torch acetylene valve, light flame, and readjust regulator. Then close torch acetylene valve. (Acetylene pressure should first be adjusted with torch valve closed to prevent release of acetylene to air).

12. Open the torch valves and light the torch according to procedure described in instructions provided with the equipment. The procedure for operating one torch is not necessarily best or even satisfactory for other types of torches.

C. HOSES

1. Do not use unnecessarily long hoses – it's hard to purge properly. When long hoses must be used, see that the hose does not become

kinked or tangled and that it is protected from being run over by trucks or otherwise damaged. Where a long hose must be used in areas exposed to vehicular or pedestrian traffic, suspend it overhead, high enough to permit unobstructed passage. On construction work it is sometimes advisable to use long hoses rather than to hoist cylinders and fasten them to building structures.

2. Repair leaks at once. Besides being a waste, escaping fuel gas may become ignited and start a serious fire; it may also set fire to the welder's clothing. Repair hose leaks by cutting the hose and inserting a splice. Don't try to repair leaky hoses by taping.

3. Examine hose periodically and frequently for leaks and worn places, and check hose connections. Test for leaks by immersing the hose under normal working pressure in water.

4. Protect hoses from flying sparks, hot slag, other hot objects, grease and oil. Store hoses in a cool place.

5. A single hose having more than one gas passage, a wall failure of which would permit the flow of one gas into the other gas passage, is not recommended. When parallel links of oxygen and acetylene hoses are taped together for convenience and to prevent tangling, not more than 4 inches of each 12 inches of hose should be taped.

6. The use of hoses with an external metallic covering is not recommended. In some machine processes and in certain types of operations, hoses with an inner metallic reinforcement, which is exposed neither to the gas passage nor to the outside atmosphere, is acceptable.

7. If a flashback occurs and burns the hose, discard the burned section. Purge new hose before connecting it to the torch and regulator.

D. TORCHES

1. Select the proper welding head or mixer, tip or cutting nozzle (according to charts supplied by the manufacturer), and screw it firmly into the torch. Inspect the torch for leaking gas before work is to begin.

2. Before changing torches shut off the gas at the pressure-reducing regulators and not by crimping the hose.

3. To discontinue welding or cutting for a few minutes, closing only the torch valves are permissible. If the welding or cutting is to be stopped for a longer period (during lunch or overnight), proceed as

follows:

a. Close oxygen and acetylene cylinder valves

b. Open torch valves to relieve all gas pressure from hose and regulator

c. Close torch valves and release regulator pressure-adjusting screws

4. Do not use matches to light torches. Use a friction lighter, stationary pilot flame or other suitable source of ignition. When lighting, point the torch tip so no one will be burned when the gas ignites.

5. Never put down a torch until the gases have been completely shut off. Do not hang torches from a regulator or other equipment so that they come in contact with the sides of gas cylinders. If the flame has not been completely extinguished, it may heat the cylinder or even burn a hole through it.

6. When extinguishing the flame, close the acetylene and oxygen valves in the order recommended by the torch manufacturer. However, if the oxygen valve is closed first, the acetylene flame enlarges appreciably and could burn the welder. Unburned carbon "features" will also be deposited in the area. If the acetylene is turned off first, the loud report or "bang" which results can distract nearby workers.

E. POWER CUTTING

Power cutting processes for metal and concrete use similar equipment and gas supplies as do oxygen cutting operations. The precautions preciously discussed for safe handling and use of compressed gas equipment and cutting torches therefore apply. Manufacturer's recommendations for the operation and maintenance of the power dispensing apparatus both pneumatic and vibratory should be followed.

III. RESISTANCE WELDING

A. Do not make adjustments or try to repair the equipment unless authorized to do so.

B. Use the line-disconnecting switch before making adjustments.

C. Check the cable for weak spots before using the equipment.

IV. ARC WELDING AND CUTTING

A. Before beginning a job, inspect the cables. Replace or repair damaged cables.

B. Do not, under any conditions, attach welding transformers to lighting circuits.

C. If a gasoline-powered welding generator is used inside a building or in a confined area, the engine exhaust must lead to the outside of the building.

D. Do not adjust the tap to increase voltage unless authorized by your supervisor.

E. Keep cables orderly and out of the ways to permit passage of workers and vehicles.

F. Never dip hot electrode holders in water. Keep an extra holder handy to replace one that has become too hot to handle.

G. Sweating increases the chances of electric shock. Never permit the bare metal part of an electrode holder to touch your skin or any wet clothes on your body. Some tips for preventing electric shock are:

1. In confined places, cover or arrange cables to prevent contact with falling sparks.

2. Never change electrodes with bare hands or wet gloves, or when standing on wet floors or grounded surfaces.

3. Ground the flames of welding units, portable or stationary, in accordance with the National Electrical Code. With a small welding unit, a primary cable containing an extra conductor, one end of which is attached to the frame of the welding unit, can be used. By means of a proper polarized plug, this ground connection can be carried back to the permanently grounded connection in the receptacle of the power supply.

4. Arrange receptacles of power cables for portable welding units so that it is impossible to remove the plug without opening the power supply switch, or use plugs and receptacles which have been approved to break full load circuits of the unit.

5. If a cable (either work lead or electrode lead) becomes worn, exposing bare conductors, cover the exposed portion with rubber, plastic or friction tape equivalent in insulation to the cable covering.

6. Keep welding cables dry and free of grease and oil to prevent premature breakdown of the insulation.

7. Suspend cables on substantial overhead supports if the cables must be run some distance from the welding unit. Protect cables that must be laid on the floor or ground so that they will not interfere with safe passage or become damaged or entangled.

8. Take special care to keep welding cables away from power supply cables or high-tension wires.

9. If welding or cutting in a confined space or building, make certain there is adequate ventilation to permit gases to escape.

V. PROTECTIVE EQUIPMENT

A. Filter lens must be worn under face shields or welding helmets during welding and cutting operations by the welder and his helper. The proper lens shade numbers are to conform to the chart on the next page:

Welding Operation			
			Suggested Shade Number
Shielded metal-arc welding, up to 5/32 in. (4mm) electrodes			10
Shielded metal-arc welding, 3/16 to ¼ in. (6.4 mm) electrodes			12
Shielded metal-arc welding, over ¼ in. (6.4 mm) electrodes			14
Gas metal-arc welding (nonferrous)			11
Gas metal-arc welding (ferrous)			12
Gas tungsten-arc welding			12
Atomic hydrogen welding			12
Carbon arc welding			14
Torch soldering			2
Torch brazing			3 or 4
Light cutting, up to 1 in. (25mm)			3 or 4
Medium cutting, 1 to 6 in. (25 to 150mm)			4 or 5
Heavy cutting, over 6 in. (150mm)			5 or 6
Gas welding (light) up 1.8 in. (3.2)			4 or 5
Gas welding (medium)⅛ to ½ in. (3.2 to 12.7mm)			5 or 6
Gas welding (heavy) over ½ in. (12.7mm)			6 or 8

* It is possible to combine the shade of the plate in the welding helmet with that of the goggle worn underneath to produce the total shade required.

B. Welding helmets must be worn during welding and cutting operations which use current exceeding 30 amperes. Plastic face shields are to be worn during other operations where sparks and metal particles are emitted.

C. Eyeglasses that darken in sunlight and fade indoors in low light cannot be substituted for filter lens.

D. Protective clothing welders are required to wear are:

1. Flame-resistant gauntlet gloves, except on very light work.

2. Aprons of leather or other flame-resistant materials to withstand radiated heat and sparks.

3. For heavy work, fire-resistant leggings, high boots, or similar protective equipment.

4. Safety shoes, wherever heavy objects are handled. Low-cut shoes with unprotected tops should not be used because of the spark hazard.

5. For overhead work, capes or shoulder covers of leather or other suitable material should be used. Skull caps of leather or flame-resistant fabric may be worn under helmets to prevent lead burns. Also, for overhead welding, ear protection (wool or rubber plugs or wire screen protectors) is sometimes available.

6. Safety hats with chinstraps or other head protection against sharp or heavy falling objects must be worn.

7. Approved respirators must be used when welding or cutting in confined areas.

VI. WELDING IN CONFINED SPACES

A. Before welding, always check work area with a gas detector for low oxygen or flammable gases.

B. For proper ventilation, a fresh air blower should be available in the work area.

C. A fire extinguisher must be available on site when welding in confined spaces.

D. Two people must be present when welding or working in confined spaces. One must be outside the confined area by the opening and must be ready in case of emergency.

E. See Section 12 for additional information concerning working in confined spaces.

Section 23

Personal Protective Equipment

I. GENERAL

A. When a hazard is found in the workplace, every effort should be made to eliminate or control it by engineering revisions, by safeguarding, or by limiting exposure time. If these methods are impractical or impossible, use of personal protective equipment is mandatory. This equipment can protect a person from head to toe. Personal protective equipment should be considered only as a last resort.

This section addresses personal protective equipment in general terms. Operations or procedures requiring special equipment is covered in other sections of this manual.

B. In order to effectively evaluate the need for the use of personal protective equipment, supervisors should:

1. Be familiar with required standards and requirements (such as the Occupational Safety and Hazard Act).

2. Be able to identify hazards quickly.

3, Be familiar with the best safety equipment on the market to protect against the specific hazard(s).

4. Know the department's procedures for purchasing and maintaining the equipment.

5. Develop an effective method for persuading employees to dress safely and to wear the proper protective equipment.

C. Once it is determined that personal protective equipment is needed, the proper type must be selected.

1. The equipment must be available when needed.

2. The equipment must be maintained correctly.

3. The employer shall provide training to each employee who is required to use personal protective equipment. Each such employee shall be trained to know at least the following:

a) When PPE is necessary
b) What PPE is necessary

c) How to properly don, doff, adjust, and wear PPE
d) The limitations of PPE
e) The proper care, maintenance, useful life, and disposal of the PPE

4. Each affected employee shall demonstrate an understanding of the training specified above, and the ability to use PPE properly, before being allowed to perform work requiring the use of PPE.

5. The employer shall verify that each affected employee has received and understood the required training through a written certification that contains the name of each employee trained, the date(s) of training, and that identifies the subject of the certification.

6. It must be used by ALL employees needing protection for a particular situation.

II. PROTECTING THE HEAD

A. Safety hats are needed on job where a person's head is menaced by falling or flying objects, especially in locations damaged by explosions, fires, or floods. America National Standard z89.1, "Requirements for Protective Headgear for Industrial Workers," gives the specifications that a protective hat must meet.

B. Impact resistance is essential. Non-conductive hats are required in areas where contact with energized circuits is possible, or when working near a high voltage electrical hazard.

C. A brim all around the hat provides the most complete protection for the head, face and back of the neck. In situations where the brim would be in the way, the cap type may have to be worn.

D. Bump Hats or Bump Caps should only be used in confined spaces where the exposure is limited to bumping. Bump Hats or Caps should never be used on construction sites or on other locations where exposure to any hazard is greater than bumping the head against obstruction. This type of headgear does not meet the requirements of ANSI Z89.1.

E. The safety hat suspension must not be removed. This practice completely destroys the protection given by the hat.

F. Eye shields, chin straps and brackets to support welding masks or hearing protection are available on some types of safety hats and should be supplied if job requirements fit the need for this equipment.

III. PROTECTING THE EYES

A. Flying objects such as metal, stone chips, nails or abrasive grits cause most

eye injuries. In the following situation a full face shielding/or goggles are required. Other hazards requiring eye protection include:

1. Flying objects set in motion by hand tools, sledging, hammering or chipping

2. Abrasive wheels create small flying particles during grinding, cutting or dressing of metals, stone, or masonry materials

3. Corrosive substance

4. Injurious light or heat rays

5. Splashing metals

6. Poisonous gases or fumes (Section 21-VI)

7. Woodworking or cutting tools used at head level or overhead

8. Cutting wire and cable

9. Using hand drills

10. Removing nails from scrap lumber

11. Shoveling material to head level

12. Using a lawnmower or weed eater

B. Employees shall be provided with eye protection equipment when machines or operations present potential eye injury from physical, chemical, or radiation agents. All eye protection must meet the American National Standard (ANSI z87.1, Practice for Occupational and Educational Eye and Protection).

C. In work areas with appreciable amounts of dust, smoke or irritating fumes, or liquid irritations that could splash into the eyes, contact lenses are not recommended unless proper safety spectacles or goggles are worn over the contacts. Contact lenses must never be worn under a respirator in a contaminated area.

D. Protective equipment for the eyes includes:

1. Cover goggles, which are usually worn over spectacles, protect against pitting as well as breaking.

a) Regular glasses can not be used in place of safety glasses.

b) If a non-safety type corrective lens is worn, protective goggles and / or face shields must be used.

2. Tempered lenses as used in ordinary eye-corrective spectacles, although offering additional protection against ordinary exposure, are inadequate for industrial exposures and usually do not meet the ANSI standard.

3. Protective spectacles without side shields may be worn only when it is unlikely that particles will fly toward the side of the face. Protective spectacles with side shields are recommended whenever there is an additional side exposure.

4. Splash-resistant goggles, with soft vinyl or rubber frames, protect eyes against splashes from chemicals and exposure to fine dusts or mists. For exposures involving chemical splashes, they are equipped with baffled ventilators on the sides. For vapor or gas exposures, they must not be ventilated. There are available types that fit over corrective spectacles.

5. Leather mask dust goggles should be worn when non-corrosive dusts are present, such as cement or charcoal powder. Wire-screen ventilators around the eye cup provide air circulation.

6. Welders goggles are equipped with filter lenses and must be used for oxyacetylene welding, cutting, lead burning and brazing. The filter shade is available in a range of radiation-absorbent levels for protection from arc-welding processes to meet the ANSI Z87.1-1979 standard.

7. Goggle frames should be corrosion-resistant. They should neither irritate nor discolor the skin. They must withstand sterilization, and be flame-resistant or non-flammable. Metal frames must never be worn around electrical equipment or near intense heat. Frames should be fitted by specialist to assure proper fit and comfort.

E. Eye protection equipment must be sterilized before being reissued to different employees. This involves disassembly as much as possible, and washing with soap and detergent in warm water, rinse thoroughly and immerse all parts in a solution containing germicide, deodorant and fungicide. Do not rinse. Hang to dry in air and store in a clean sealed bag.

IV. FACE PROTECTION

A. The face must be protected against light impact, chemicals, hot metal splashes, heat radiation and other hazards. Usually face protection is incorporated into head and neck protection by attaching to headgear.

Face shields protect the eyes and face while sawing, buffing metal, sanding, light grinding or handling chemicals. Plastic shields with dichotic coating or metal screen face shields deflect heat from the person and still permit good visibility.

B. Some types of face protection include:

1. Welding helmets, shields and goggles protect the eyes and face against splashes of molten metal and the radiation produced by arc welding. Helmets should have the proper filter glass to keep ultraviolet and visible rays from harming the eyes. Impact goggles must be worn under helmets to protect welders from flying particles when the helmets are raised. The spectacle type with side shields is recommended.

2. Hand-held shields can be used where the convenience of a helmet is not needed, such as inspection work, tack welding and other operations requiring little or no welding by the user. Frame and lens construction is similar to that of the helmet.

3. Acid-resistant hoods that cover head, face and neck are used whenever splashes from corrosive chemicals are possible. Hoods must be made of rubber, neoprene, plastic film or impregnated fabrics resistant to different chemicals.

4. Hoods with air supply are worn around toxic fumes, dust, mists or gases. The air supply must be assured to be clean, safe and of breathing-quality.

V. HEARING PROTECTION

Areas of high noise levels will be designated with warning signs. Employees working in designated "high noise level" area of the Sewerage and Water Plants, Pumping Stations, and employees operating chainsaws and jackhammers will wear approved hearing protection.

A. Excessive noise should be reduced by engineering changes and administrative controls, when possible. Ear protection should be used only as a last resort.

B. On the decibel scale, zero is the threshold of hearing for a sensitive ear and 130 dB is the threshold of pain. Permissible noise exposure for eight (8) hour duration is 90 dB. This level is increased slightly as the duration of exposure decreases.

C. Earplugs, if properly fitted and used, may reduce noise reaching the ear by 25-30 dB in higher (more harmful) frequencies. They may give ample protection against sound levels of 115 to 120 dB.

D. Earmuffs can reduce noise an additional 10 to 15 dB, making them effective against sound levels of 130 to 135 dB. Muff devices cover the external ear to provide an acoustic barrier, the effectiveness of which varies with the size, shape, seal material, shell mass and suspension.

E. Combination earplugs and earmuffs give 3 to 5 dB more protection.

F. In no case will the total attenuation (sound reduction) be more than about 50 dB because conduction of noise through the bones of the head becomes significant at this point.

G. Cotton must never be used because of its low attenuating properties and because it must be hand formed. Also, cotton would be a poor choice because it tends to lose its shape during the workday due to the jaw movement.

H. One type of earplug that is popular is one that is molded to fit each ear. Because each person's ear canal is shaped differently, these plugs become the property of the individual to whom they were fitted. Only trained, qualified persons can properly fit these types of earplugs.

I. Radios with earphones must never be allowed to be worn during work. In addition to the possibility of damage to the ears from excessive noise levels, they may prevent a worker from hearing oncoming trucks, vehicular traffic, other workers and any warning signals.

J. HEARING CONSERVATION PROGRAM

The purpose of a hearing conservation program is to take whatever steps are necessary to prevent the irreversible loss of hearing sound clearly.

Departments with high noise level areas and that operating high noise equipment will administer a hearing conservation program which will consist of the following:

1. Locate high noise areas or equipment operations by requesting testing through the individual departments.

2. Conduct pre-placement audiometric examinations for all new and transferred employees who will be working in high noise areas.

3. Provide hearing protection to exposed employees.

4. Determine hearing ability of exposed personnel by performing annual audiometric examinations.

5. Explain the dangers and irreversible damage that over exposure to high noise levels can cause and the advantage of wearing hearing

protection to employees.

VI. RESPIRATORY PROTECTIVE EQUIPMENT

A. Respiratory equipment is regarded as emergency equipment or equipment for occasional use. If contaminants are present, they should be removed at the source or the process should be isolated. Since leaks and breakdowns do occur and since some operation expose a person only briefly and infrequently, respiratory equipment should be available. The user shall be instructed and trained in its proper use and its limitations. All such training must be properly documented.

B. In order to select the proper type of respirator, the chemical or other offending substance must be determined and the extent of the hazard evaluated. Only respirators approved by the National Institute for Occupational Safety and Health (NIOSH) and the Mine Safety and Health Administration (MSHA) is acceptable.

C. In compliance with OSHA Fit Testing Procedures section 1910.134, before an employee is required to use a respirator, the employee must be fit-tested using an OSHA-accepted fit test method.

D. There are 3 types of respirators:

1. Air purifying devices remove contaminants from air as it is being breathed. They can be used only in environments that contain sufficient oxygen to sustain life. They are effective for specific contaminants and only certain ranges of concentrations of the specific contaminant.

   They must never be used in areas containing higher concentrations than the manufacturer's accepted protection factor. These generally consist of a soft, resilient face piece and some kind of replaceable filtering element. Some are completely disposable.

2. Air-supplied devices deliver breathing air through a hose connected to the wearer's face piece. The air source used must be monitored frequently to assure it is not contaminated. This type of respirator can be used in atmospheres immediately dangerous to life and health, especially where conditions demand continuous use of a respirator. Each person should be assigned his/her own respirator. Movement from place to place may be hindered by the hose. Care must be taken to prevent damage to the hose, for example, it should never be permitted to be in oil.

3. Self-contained breathing apparatus (SCBA) provides protection for various periods of time by providing a portable air supply, which is

usually worn by the user. This is the preferred type of respirator for working in environments considered too hazardous by NIOSH / MSHA specifications. Workers requiring the use of SCBA must be physically fit and well trained. They should be retrained at least every 6 months in order to maintain efficiency. Because of the extreme hazard, no one wearing a SCBA should be allowed in an irrespirable atmosphere unless other persons similarly equipped are standing by, ready to give help. SCBA respirators require meticulous inspection, cleaning and maintenance.

E. Respirators must be provided when they are necessary for the protection of the employee.

F. The respirators provided must be applicable and suitable for the purpose intended.

1. Dust mark respirators- dusty areas
2. Air-line abrasive blasting respirator- when sand blasting
3. Fume or toxic respirators- when painting or spraying any solvent or chemicals
4. Hose line or SCBA- when entering untested voids and in areas where there may be an oxygen deficiency (i.e. smoke filled atmospheres)

G. The location of the hazard area with respect to a source of uncontaminated breathable air must be clearly marked.

H. MAINTENANCE AND CARE OF RESPIRATORS

A program for the maintenance and care of respirators should include the basic inspection for air leaks and defects, cleaning and disinfecting, and minor necessary repairs. Respirators should be inspected routinely before and after each use. Respirator regulators and warning devices should be checked for tightness of connections and the condition of the face piece, headbands, valves, connecting tube, and canisters. Records of inspections, findings and necessary repairs should be kept.

VII. PROTECTING THE TORSO

A. The most common protection for the abdomen and trunk is the full apron. Aprons are made of various materials, depending on the type of protection needed. Leather or fabric aprons with padding or stays offer protection against light impact, sharp objects and against other sources of intense conductive heat.

B. Aprons worn near moving machinery must be snug fitting and have instant-release fasteners.

C. Welders should wear leather vests or capes and sleeves, especially when doing overhead welding, as protection against hot sparks and bits of molten metal.

D. RESPIRATORY PROGRAM

Departments that are involved in work requiring respiratory protection for employees will establish a respiratory program. This program will include:

1. Written standard operating procedures governing the selection and use of respirators on the basis of hazards to which workers are exposed.

2. Instruction and training of the wearer in the proper use of respirators and their limitations.

3. Inspection, maintenance, cleaning, disinfecting, and storage of equipment.

4. Medical evaluation of employees that are required to use respirators before fit testing. These evaluations shall be performed by a physician or licensed health care professional.

VIII. SAFETY BELTS AND HARNESSES (NOT INCLUDING VEHICULAR SAFETY BELTS)

A. Safety belts and harnesses with lifelines attached should be worn in the following situations:

1. By those who work at high levels (when a hazard of falling from an elevation of more than 24 feet exists) or in closed spaces
2. Where the air supply may not be adequate (particularly if they are wearing SCBA or supplied-air devices)
3. By those who work where they may be buried by loose material or be injured in confined spaces.

B. Both normal and emergency belts are available. Normal use involves comparatively light stresses applied during regular work, stresses that rarely exceed the static weight of the user.

C. Harness-type safety belts distribute the shock of the arrested fall. It also permits the person to be lifted with a straight back rather than bent over a waist strap. If a long free-fall is possible, the harness should be designed to distribute the impact force over the legs and chest as well as the waist. A shock absorber or decelerating device, which brings the falling person to a gradual stop lessens the impact load on both the equipment and the person.

D. A boatswain's swing chair has one strap, sometimes with a board attached, to sit on and a waist strap fastened on each side so the worker can either stand or sit, but cannot fall out of the seat. The chair and fittings must conform to OSHA regulations.

E. Fixed ladders more than 24 feet high must have some device to prevent the climber from falling. Base sets and ladder guards should be used when cost and space permits. A body belt and clamp that rides a wire rope or rigid device on the ladder is also acceptable. The clamp engages a safety device that locks on the rope or ladder when the climber slips or misses a step.

F. All such safety belts, harnesses, and lifelines must meet the OSHA and ANSI standards to assure quality and protection. Safety belt must be snugly secured around employee's waist and no more than 4 feet of lanyard will be permitted.

IX. PROTECTING THE BACK

A. Ergonomically designed back supports, commonly called "lumbar support belts," are available in a variety of styles and designs. These supports must be worn on the outside of clothing, as they require frequent adjustment. Most have a Velcro adjustment that should be tightened before each lifting activity, but is otherwise worn loose. Some belts have metal stays for firm support. Adjustable shoulder straps for posture control are an optional feature of some belts. All serve as a constant reminder to lift correctly.

B. These back supports **COMPLIMENT**, but never substitute for, a proper lifting techniques program.

C. Lifting Techniques

Lifting is part of everyone's job, but too often it is done incorrectly. Result= pulled muscles, back strains, hernias.

1. Feet parted- one foot alongside the other behind the object
2. Sit down position with back straight, but not vertical
3. Chin tucked- line up neck with spine
4. Grip object with the whole hand, using the palm, not just the fingers
5. Elbows and arms tucked in for more power
6. Body weight directly over the feet, using your legs to lift, not your back

D. Twisting

Twisting during a lift is a common cause of back injury. By simply turning the forward foot out and pointing it in the direction you intend to move, the greatest danger of twisting is avoided.

E. Before you lift any load, know where you're going with it and plan a direct, obstacle-free route.

F. If the load you intend to lift is too big to handle alone, get help, or if available, use lifting equipment to handle it.

X. FLOTATION DEVICES

A. Whenever a worker is subject to fall or slip into a canal or other body of water, or when an employee is working or standing within 3 feet of any barge, structure, or vessel, a flotation device meeting the U. S. Coast Guard-promulgated standards must be properly worn.

XI. SAFE WORK CLOTHING

A. Ordinary work clothing, if clean, in good repair and suited to the job, may be considered safe. "Safety clothing" refers to garments designed for specific, hazardous jobs where ordinary work clothes do not give enough protection against such minor injuries as abrasions, burns, and scratches.

D. Good fit is important.

1. Trousers should not have cuffs that can catch a heel or flying embers, sparks and other harmful matter.
2. No employee shall be slowed to work without a shirt. Shirt should be tucked in and buttoned at least halfway.
3. No pants should be worn below the waist.
4. Neckties, long or loose sleeves, gloves and loose-fitting garments create a hazard around moving or revolving machine parts.
5. All types of jewelry are unsafe in a shop.
6. Rings, bracelets, wristwatches, necklaces and key chains can cause serious injuries, especially working near moving machinery. Metal jewelry can be dangerous when worn around electrical equipment, including batteries.

C. Clothing soaked with oil or flammable solvents are not only a definite fire hazard, but can result in serious skin irritation.

XII. PROTECTING FINGERS, ARMS, PALMS AND HANDS

A. Fingers and hands must be protected against cuts, scratches, bruises and burns. Although fingers are difficult to protect because they are needed for practically all work, they can be shielded from any common injuries with such proper protective gloves, hand leathers or pads, or protective creams.

B. Some of the types of protection available are:

1. High temperature resistant gloves and treated terry cloth gloves protect against burns and discomfort when the hands are exposed to sustained conductive heat.

2 Metal mesh gloves should be used by those who work constantly with knives or other sharp or rough objects.

3. Rubber, neoprene and vinyl gloves are used when handling chemicals or corrosives. Neoprene and vinyl are particularly useful when petroleum products are handled.

4. Rubber gloves worn by electricians must be tested regularly for dielectric strength.

5. Leather gloves resist sparks, moderate heat, chips and rough objects, provide cushioning against blows and are generally used for heavy-duty work.

6. Cotton gloves are suitable for protection against dirt, slivers, chafing and abrasions.

7. Specially made electrically tested rubber gloves worn under leather gloves can prevent punctures and are used by linemen and electricians who work with high-voltage equipment. Rigorous daily inspections must be made of such equipment.

8. Hand leathers or hand pads may be preferred over gloves for protecting against heat, abrasions and splinters.

9. Protective creams may be used to protect skin against many irritants when protective equipment is not practicable. Creams are available in water-soluble or water-resistant types and in many grades for different exposures.

10. Never wear rings when performing electrical work unless safety gloves are being used.

XIII. PROTECTING THE LEGS

A. Leggings which encircle the leg from ankle to knee and have a flap at the bottom to protect the instep, protect the entire leg. The front part may be reinforced to give impact protection. Leggings should permit rapid removal in case of emergency.

B. Knee pads protect employees whose work requires much kneeling such as cement finishing and tile setting. Ballistic nylon pads (chaps) are often used to protect the thighs and upper leg against injury from chain saws.

XIV. PROTECTING THE FEET

A. All safety shoes have toes reinforced with a steel toe cap. Other protective features include:

1. Reinforced inner soles of flexible metal should be worn where hazards from protruding nails or glass exist.

2. For wet work conditions, rubber boots and shoes, leather shoes with wood soles or wood soled sandals are effective.

3. Metal-free shoes, boots or other footwear are available for use where there are specific electrical hazards or fire and explosion hazards.

4. Metatarsal guards should always be worn during operations where heavy materials are handled, or whenever there is a possibility of object falling and striking the foot above the toe cap.

5. As a minimum, employees involved in field type work shall wear leather or other protective work shoes or boots – solid upper and hard sole. Canvas, tennis type, sandal, and thong shoes are not acceptable for field work.

B. Many safety shoe manufacturers are now incorporating these and other safety features into shoes that look like casual sneakers and dress wear. Proper fit and comfort are important. Safety shoes should be fit by a trained, qualified individual.

C. Work shoes shall be worn at all times on a job site. Type of shoes to be worn will be determined by the Department Director and the City Safety Inspector.

XV. PAYING FOR PROTECTIVE EQUIPMENT

A. Whenever the need for personal protective equipment is identified, the department must set a policy for, not only its use, but how it will be obtained initially and replaced when needed.

B. Some commonly used items may be provided free to the employee and stored in a central location to be checked out when needed. Employees may be required to purchase and maintain their personal equipment, in which case departmental policy must address the specifics of type, use and action to be taken when the equipment is damaged or not available. A

shared-cost system may be developed, particularly for personal items such as safety shoes and prescription safety glasses.

C. It is better economy to assume the cost of necessary equipment than to risk possible injury by not having proper personal protective equipment when and where it is needed.

Section 24

Trenching / Excavation

I. GENERAL

Trench cave-ins can occur in a matter of seconds without any advance warning and account for numerous serious accidents or possible death. Factors contributing to a cave-in include:

1. Lack of shoring
2. Improper shoring
3. Incorrect spoil placement
4. Broken utility lines
5. Machine too close to excavation site
6. Road vibration or ground vibrations of job site
7. Soil structure
8. Moisture or rain.

II. PLANNING

Planning enhances the success of any trenching project. Trying to correct mistakes after work has begun slows down the operation and increases the possibility of a trench failure.

A. A support system should be selected that is strong enough to withstand the pressure of the soil as well as the stress exerted by water, vibration, and heavy loads.

B. All underground sewer, telephone, water, fuel, gas and electric lines must be located and protected from damage before digging is started. Utility companies should be contacted to mark actual locations of these installations.

C. At least two (2) means of exit shall be provided for workers in excavation.

D. Diversion ditches, dikes, or other suitable means shall be used to prevent surface water from entering any excavation and to provide good drainage of the area adjacent to the excavation.

E. Guardrails, fences, or other barricades and warning lights or other illumination shall be placed at all excavations from sunset to sunrise, adjacent to paths, walkways, sidewalks, driveways, or other pedestrian or vehicular through fares. Adequate barrier physical protection shall be provided at all remotely located excavations.

III. DESIGN CONSIDERATIONS

Underpinning, shoring, or bracing shall be designed by a qualified person and inspected daily by this person or designated representative.

A. There are two ways to insure the safety of workers in a trench:

1. The sides of the cut can be sloped back to the angle of repose.

2. Shoring strong enough to resist soil pressure can be installed.

a. A trench shield can also be used, provided if the protection it provides is equal to the protection that would be provided by the appropriate shoring system.

b. When designing adequate protection, the following factors should be considered:

1. Soil structure
2. Depth of cut
3. Weather conditions & climate
4. Superimposed loads
5. Vibrations
6. Utility lines
7. Call **ONE CALL (811)** – call **48 Hours before digging** to locate utility lines.

IV. SHORING

Because of the varying conditions on each job, each trench should be treated as an individual problem. Whatever support system is used, follow these guidelines:

1. Workers should always apply shoring starting from the top of the trench and working down.

2. All materials used for shoring must be in good condition, free of defects and the right size.

3. Shoring should be installed shortly following excavation. The longer a trench is left unsupported, the greater the probability of a cave-in.

4. Workers must be able to exit from the trench quickly in case of an emergency during shoring operations. In trenches four or more feet deep, adequate means of exit (such as a ladder or steps) must be provided and located so that maximum travel in any direction does not exceed 25 feet.

5. Ladders should be in good condition, extend from the floor of the trench to three feet above the top, and be secured at the top.

6. Excavated materials (soil, etc.) should not be placed closer than two feet from the sides of the trench to prevent the material from falling or rolling back into the trench.

7. Excavations of 8 feet, but not exceeding 10 feet should be shored with 3" x 12" oak board (dunnage), with a minimum length of 14 feet.

8. Ranger construction of 6" x 6" timbers should also be used. All timber should be stored out of the weather.

9. Excavations of 10 feet or more should be contracted out.

10. Entry into excavations where either insufficient oxygen or hazardous vapors are suspected will not be attempted until the Safety Inspector has been notified and his approval has been granted.

11. Boulders, stumps, or other materials that may roll or slide into the excavation shall be removed or made safe.

12. Materials used for sheeting, sheet piling, cribbing, bracing, shoring, and underpinning shall be in good serviceable condition and of adequate dimensions.

13. Where it is necessary to undercut the side of an excavation, overhanging material shall be safety supported.

14. When mobile equipment is utilized or allowed adjacent to excavations, substantial stop logs or barricades shall be installed.

15. Excavating of hoisting equipment shall not be allowed to raise, lower, or swing loads over workmen in the excavation.

16. Except in hard rock, excavations below the level of the base footing of any foundation or retaining wall shall not be permitted unless the wall is underpinned and all other precautions are taken to insure the stability of adjacent walls.

17. All slopes except for solid rock, hard shale, or cemented sand and gravel shall be excavated to at least the angle of repose. The angle of repose shall be flattened when an excavation has water conditions, silty materials, loose boulders, and areas where erosion, deep frost, and slide planes appear.

18. All banks more than four (4) feet high shall be shored laid back to angle of repose or provided with other equivalent protection.

V. SLIDING TRENCH SHIELDS

A trench box or sliding trench shield may be used in sewer and pipeline work where the line is installed shortly after excavating and where trench wall cave-ins or soil movement is of no importance after the line is installed. Using a sliding trench shield allows backfilling to follow closely behind pipe laying, thus reducing probability of a cave-in.

VI. INSPECTIONS

Shoring systems should be inspected daily by a competent person. Inspections are especially important after a rainstorm or whenever a change in conditions occurs that increases the likelihood of a cave-in or slide. If any dangerous ground movements are detected or appear likely, work in the trench should be stopped immediately until the problem is corrected.

VII. AFTER THE WORK IS COMPLETED

After the trench has been cleared, workers should remove the shoring from the bottom up, releasing jacks or braces slowly. In unstable soil, ropes should be used to pull out the jacks or braces from above.

As soon as work is completed, the trench should be backfilled as the shoring is dismantled. Prompt backfilling makes streets quickly available for surface traffic. Stabilizer, a mixture of sand and limestone should be used in backfill for roadways.

Section 25

Fired and Unfired Pressure Vessels

I. GENERAL

Boilers (fired vessels) and unfired pressure vessels have many potential hazards in common. These vessels hold gases, vapors, liquids, or solids at various temperatures and pressures – sometimes extremely high.

Therefore, both fired and unfired pressure vessels shall be inspected by a recognized certifying authority every twelve (12) months before being issued an appropriate Certificate of Approval.

II. FIRED PRESSURE VESSELS

In order to minimize boiler fires and explosions caused by faulty controls and safety devices:

A. Establish a test and servicing program where operating controls, safety controls, and safety and relief valves are tested and maintained at regular intervals according to manufacturer's recommendations.

B. Make sure that safety and relief valves are always tested with pressure on the boiler to prevent damage to the valve seats.

C. Have repairs made immediately upon any indication of malfunction or leakage of operating or safety controls.

D. Have only qualified individuals or service organization check, clean, or service the boiler.

E. Keep a log book to insure that necessary tests, maintenance, and services are performed and that the records are available at all times.

III. UNFIRED PRESSURE VESSELS

Unfired pressure vessels are compressed air tanks, steam kettles, digester, vulcanizers, autoclaves, and vessels which can be subjected to internal pressure other than direct fire of burning fuel. If heat is generated in the vessel it is by chemical action within the vessel or by application of heat, steam, hot oil, or other heating medium to the contents of the vessel.

A. Entry into such vessels will be in accordance with confined space procedures. (see Section 12)

B. Cleaning methods will depend on the use of the vessel and the manufacturer's recommendations.

C. The vessel should be provided with safety devices which will be adequate to protect it against over pressure, chemical reaction, or other abnormal conditions.

1. Spring-loaded safety valves are the most commonly used devices on vessels containing air, steam, gases, and liquids which will not solidify as they pass through the discharge.

2. If liquid contents are heated, the safety valves should be designed to operate if the vessel is over pressured as the liquid expands.

3. The required testing of safety devices will be documented.

D. Because of the high pressure build-up in auto claves, they should routinely be inspected for cracks, and equipped with an interlock to prevent the opening of the charging door until all pressure has been relieved.

Section 26

Fire Protection

I. INSPECTIONS/HOUSEKEEPING

The best time to stop a fire is before it starts.

A. Periodic inspections required by **Section 5** should include housekeeping practices and fire protection equipment in order to detect and eliminate fire hazards.

B. High standards in housekeeping cannot only help reduce personal injury but also reduce the risk of fire.

1. Oil and paint soaked rags and waste should be deposited in a noncombustible receptacle with self-closing covers and removed from the work area daily.

2. Clean waste is readily combustible and together with other rubbish should not be allowed to accumulate.

3. There shall be no storage in stair enclosures or exit corridors.

4. There shall be no storage in electrical, telephone rooms, heating, ventilation and/or air condition handling rooms.

II. OPEN FLAMES POLICY

It is the intent of this manual to reduce potential hazards which may contribute to loss of property or life on City of Kenner property. The purpose of this policy is to ensure that fire regulations and codes are adhered to. This policy is not intended to restrict the use of City equipment used in normal everyday operations (i.e. welding operations, electrical operations, etc.).

Lit candles, lanterns, oil lamps, and other lighting devices using an open flame or high heat pose a significant and unacceptable fire risk to City buildings. Due to the sensitivity of smoke detection systems, they may also activate building alarm systems, initiating an emergency evacuation and costly response from emergency personnel and the Fire Department. Therefore, the use or possession of open flame devices shall be prohibited inside all City buildings. Open flame devices shall include, but are not limited to, candles (lit or unlit), potpourri burners, incense burners, oil lamps, etc.

City employees found using or allowing the unauthorized use of open flames will be required to extinguish the flame, and may be subject to appropriate disciplinary action up to, and including, termination.

III. FIRE EXTINGUISHERS

Portable fire extinguishers should be available and ready for an emergency to be used on small fires or in the interim, between discovery of a fire and arrival of professional fire fighters.

A. To be effective, portable extinguishers must be:

1. A reliable type—minimum five (5) pound unit.

2. The correct type for each class of fire that may occur in the area.

3. In sufficient quantity to protect against exposure in the area.

4. Located where they are readily accessible for immediate use.

5. Maintained in perfect operating condition, inspected frequently, checked for tampering, and recharged as required.

6. Operated by trained individuals.

B. There should be a record system and an organized plan for checking and repairing the various types of extinguishers.

The inspection and maintenance records should at least consist of durable tags fastened to the extinguishers showing dates of inspection (at least monthly) and examination for recharge and other maintenance work (at least annually).

NOTE: Recharge, maintenance work and yearly inspections shall be completed only by a licensed extinguisher company.

C. In field asphalt operations such as tar pots, a suitable fire extinguisher (10 # BC minimum) should be readily available.

IV. EXITS

Of the many factors involved in safe guarding life from fire, building exit facilities rank among the most important.

Each building should have at least two separate means of exit where required.

1. Exits and paths of travel to reach them shall be provided with adequate illumination.

2. Signs should indicate ways to reach exits when needed.

3. Exits should never be blocked. Adequate aisles should be maintained for exit access.

4. Exit doors with automatic closures shall not be blocked in the open position at any time.

5. Provisions must be made for easy exit from within when Exit Doors are locked, "Panic" hardware (easy opening bar from within) or equivalent systems may be used.
   NOTE: Exit doors shall not be locked as to restrict free egress. However, special locking arrangements can be approved by the local fire authority having jurisdiction.

V. EVACUATION PLAN

All City of Kenner buildings will prepare and post a fire or other emergency evacuation plan.

A. As a minimum the plan will contain:

1. Instruction on how to report a fire

2. Location of exits

3, Location of fire protection equipment

4. Exit instructions

5. Procedures on how to account for all employees following an evacuation

B. Evacuation drills will be held and evaluated at least twice a year.

C. These plans must be posted on every floor, preferably by the elevators or stairs.

Section 27

Aerial Lifts

This section complies with OSHA 19.26.453 – Aerial Lifts.

I. GENERAL REQUIREMENTS

A. Unless otherwise provided in this section, aerial lifts acquired for use on or after the effective date of this section shall be designed and constructed in conformance with applicable requirements of the American National Standard for "Vehicle Mounted Elevating and Rotating Work Platforms," ANSI A92.2- 1069, including appendix. Aerial lifts acquired before the effective date of this section, which do not meet the requirements of ANSI A92.201969, may not be used after January 1, 1976, unless they shall have been modified so as to comply with the applicable design and construction requirements of ANSI A92.2- 1969.

B. Extendable and articulating boom platforms requirements of ANSI A92. 2-2969. Aerial lifts include the following types of vehicle-mounted aerial devices used to elevate personnel to jobsites above ground:

1. Extensible boom platforms
2. Aerial ladders
3. Articulating boom platforms
4. Vertical towers
5. A combination of any of the above

Aerial equipment may be made of metal, wood, fiberglass reinforced plastic (FRP), or other material. It may be powered or manually operated and are deemed to be aerial lifts whether or not they are capable of rotating about a substantially vertical axis.

C. Aerial lifts may be "field modified" for uses other than those intended by the manufacturer provided the modification has been certified in writing by the manufacturer or by any other equivalent entity, such as a nationally recognized testing laboratory, to be in conformity with all applicable provisions of ANSI A92.2-1969 and this section and to be at least as safe as the equipment was before modification.

II. SPECIFIC REQUIREMENTS

A. Ladder Trucks and Tower Trucks

Aerial ladders shall be secured in the lower traveling position by the locking device on top of the truck cab, and the manually operated device at the base of the ladder before the truck is moved for highway travel.

B. Extendable and Articulating Boom Platforms

1. Lift controls shall be tested each day prior to use to determine that such controls are in safe working condition.

2. Only authorized persons shall operate an aerial lift.

3. Belting off to an adjacent pole, structure, or equipment while working from an aerial lift shall not be permitted, except by high altitude electricians on light poles that the aerial lift falls short of the top of the pole.

4. Employees shall always stand firmly on the floor of the basket, and shall not sit or climb on the edge of the basket or use planks, ladders, or other devices for a work position.

5. A body belt shall be worn and a lanyard attached to the boom or basket when working from an aerial lift.

6. Boom and basket load limits specified by the manufacturer shall not be exceeded.

7. The brakes shall be set and when outriggers are used, they shall be positioned on pads or a solid surface. Wheel chocks shall be installed before using an aerial lift on an incline, provided they can be safely installed.

8. An aerial lift truck shall not be moved when the boom is elevated in a working position with men in the basket, except for equipment which is specifically designed for this type of operation in accordance with the provisions of sub-paragraphs (A) and (B) of paragraph (I) of this **Section.**

9. Articulating boom and extensible boom platforms, primarily designed as personnel carriers, shall have both platform (upper) and lower controls. Upper controls shall be in or beside the platform within easy reach of the operator. Lower controls shall provide for overriding the upper controls. Controls shall be plainly marked as to their function.

   Lower level controls shall not be operated unless permission has been obtained from the employee in the lift, except in case of emergency where the employee in the bucket cannot operate the controls.

10. Climbers shall not be worn while performing work from an aerial lift.

11. The insulated portion of an aerial lift shall not be altered in any manner that might reduce its insulating value.

12. Before moving an aerial lift for travel, the boom(s) shall be inspected to see that it is properly cradled and outriggers are in stowed position except as provided in subdivision (8) of this **Section.**

13. When maneuvering the bucket, workers are to face the direction it is traveling at all times.

14. Sudden stops and sudden reversals must be avoided.

15. Only one worker is allowed in the bucket at any time.

16. The aerial lift must never be used as a crane.

17. Never put more weight in the lift than is recommended by the manufacturer.

18. When operating aerial lifts proximate to, under, over, by, or near electrical power lines, the following requirements shall apply:

    A. For lines rated at 50 KV or less, the minimum clearance between the lines and any part of the aerial lift shall be at least 10 feet.
    B. When the lines are rated in excess of 50 KV, the minimum clearance between the lines and any part of the aerial lift shall be at least 10 feet plus 0.4 inches for each kilovolt in excess of 50 KV, or twice the length of the line insulation, but never less than 10 feet.

19. Traffic cones should be placed strategically around working vehicles to alert oncoming traffic.

III. SAFETY BELTS, LIFELINES AND LANYARDS – SECTION 1926 -104 OSHA

A. Lifelines, safety belts, and lanyards shall be used only for employees safeguarding. Any lifeline, safety belt, or lanyard actually subjected to in-service loading, as distinguished from static load testing, shall be immediately removed from service and shall not be used again for employee safeguarding.

B. Lifelines shall be secured above the point of operation to an anchorage or structural member capable of supporting a minimum dead weight of 5,400 pounds.

C. Safety belt lanyard shall be a minimum of ½ inch nylon, or equivalent, with a maximum length to provide for a fall of no greater than 6 feet. The rope shall have a nominal breaking strength of 5,400 pounds.

D. All safety belt and lanyard hardware shall be drop forged or pressed steel, cadmium plated in accordance with type 1, Class B plating specified in Federal Specification QQ-P-416. Surface shall be smooth and free of sharp edges.

E. All safety belt and lanyard hardware, except rivets, shall be capable of withstanding a tensile loading of 4,000 pounds without cracking, breaking, or taking a permanent deformation.

IV. SPECIAL ELECTRICAL LIFT BUCKET OPERATIONS

A. All above regulation must be followed for High Altitude Electrical work.

B. Due to safety precautions on light poles the first 15 foot of steps are removed thus rendering a ground climb to high areas impossible, unless a ladder is used.

1. This makes for a situation where the electrician must follow lift bucket rules up to maximum lift elevation.

2. Once the bucket reaches this elevation the electrician must take his safety lanyard and hook into the existing fall arresting cable, provided on metal poles. The high altitude electrician then must slowly and carefully climb out of the bucket and onto the light pole. At all times during this climb the high altitude electrician must be attached to the arresting cable on the light pole and bucket of the truck. This lanyard must meet **Section 1926-104 OSHA** regulations.

3. On getting back into the bucket the high altitude electrician must reverse **Section IV B (2)** directions, making sure he is secured to the bucket with a lanyard before climbing off of the pole into the bucket. Then he may disconnect the free fall line from the pole.

4. On wooden poles without fall arresting cables a safety rope must be secured around the pole before unhooking from the bucket and must be kept in place securely until hooked into the bucket upon return to the bucket.

C. Follow **Section 18 –** Electrical Regulation

V. TREE CUTTING FROM A LIFT BUCKET

A. All aerial lift regulations must be followed conforming with **OSHA 19.26.453.**

B. At no time is a tree cutter to climb out of the lift bucket while cutting or trimming trees.

C. The cutter must be secured with a belt and safety lanyard to the bucket or boom at all times.

D. Follow **Section 19** – Cutting Regulations.

VI. LADDERS AND SCAFFOLDING

A. Ladders

1. All metal ladders are electrical conductors, their use around electrical circuits of any type, or places where they may come in contact with such circuits, is **NOT** permitted.
2. Ladders should be secured so that they cannot move from its top or bottom points of rest. If securing the ladder at the top is not possible it should be securely fastened at the base. If fastening at the base is not feasible, a man should be stationed at the foot to prevent it from slipping.

    a. Leave both hands free for climbing up and down
    b. Face the ladder
    c. Avoid wearing slippery shoes.
    d. All objects shall be pulled up by means of a rope or other suitable means.

B. Scaffolding

To avoid the use of a makeshift platform or improperly constructed scaffold, each job should be carefully examined ahead of time by the area foreman so that all necessary ramps and platforms can be provided.

1. Only approved scaffold hangers will be allowed for use in all work.
2. Rope used to support scaffolds for welding operations should be discouraged.
3. All scaffold platforms will measure at least 24 inches wide, not less than the equivalent of 2- 2x12 inch scaffold boards or the 2x12 inch aluminum scaffold boards.
4. All lumber used in the construction of ramps, platforms, staging, scaffolding, etc. should be of good quality, seasoned, free of large or dead knots, or other defects. Platforms planks should be tested

by the "Jump Test" method (i.e. two (2) or three (3) men jumping on the plank supported by blocks of six (6) to eight (8) inches at both ends).

C. Housekeeping and Inspection

The following rules are prescribed for maintaining all types of scaffolding in a safe work condition:

1. All scaffolds should be inspected at least daily by the area foreman or his designated supervisor on the job.
2. No change of any kind should be made in scaffolds without the approval of the area foreman.
3. The structure should be cleared of all trash daily.
4. No excess materials should be stock piled on scaffolds.
5. Scaffold structures should be protected from vehicular movements inclusive of cranes, hoist, etc. which may come in contact with them.
6. Working platforms should be free of oil, grease, etc.
7. No open fires should be permitted on or near scaffolds (welding / burning not included).
8. Safety belt or lifelines must be used at heights above 10 feet, or where proper footing is not possible or provided. In all cases, a safety belt is recommended to be used on elevated work platforms.

Section 28

Emergency Conditions

Directors and Assistant Directors should familiarize themselves with the City of Kenner Emergency Operations Plan available in its entirety on the City website, and brief their subordinates on specific assignments that would be implemented in the event of an emergency. Employees are also encouraged to read through the emergency plan for a thorough understanding. All public employees are responsible for providing services to the citizens of the City, especially during times of emergencies.

When an emergency condition exists, the lives and property of our citizens are threatened. This could happen because of bad weather, such as hurricanes and heavy rainstorms, a breakdown in essential services, such as a levee break or water plant failure or accidents involving dangerous chemicals. Some situations may not give ample warning.

I. EMERGENCY WEATHER CONDITIONS

A. Employees who are called during emergency weather conditions must:
   1. Report to their work location immediately, unless ordered to do otherwise.
   2. Upon reporting to work, employees will be assigned specific duties by the supervisor in charge.

B. Employees who were not contacted before the emergency condition are to contact their department as soon as possible after the emergency passes. If phone lines are out, they are to report for work to relieve employees who worked through the emergency.

C. Employees who report for duty during dangerous weather conditions will be allowed time to insure the safety of their families. However, employees must remain on duty until they are ordered to go home.

D. Every effort will be made to update the Kenner website and the employee telephone emergency information line. Employees unable to contact the phone line or access the City website should monitor local television or radio stations for updates.

II. ACCIDENTS INVOLVING DANGEROUS CHEMICALS

A. When these types of accidents occur, the Kenner Fire Department and/or other authority will decide if, when, and where additional City employees are needed. Appropriate supervisors may be called upon report to the scene of the accident and/or command post. Those supervisors may in turn call for assistance as needed. Employees who are called must:

   1. Report to their designated supervisor at the scene of the accident immediately.

2. Follow the route of approach to the scene if instructed to do so.

3. Do not enter the area until cleared by the supervisor or command post.

4. Do not start work until safety equipment and protective clothing have been issued.

5. When not working, employees are to stay a safe distance from the hazardous chemical. Employees are not permitted to leave the scene until ordered to do so.

B. Supervisors at the scene must maintain a list of all City personnel at the scene or having contact with the scene. The supervisor is to remain at the scene until the work is over.

III. BREAKDOWN IN ESSENTIAL SERVICES

A. In most cases where there has been a breakdown in essential services, only employees of the affected department will probably be called to duty. During these circumstances, employees who are called must:

1. Report to their work location immediately unless ordered to do otherwise.

2. Upon reporting for work, employees will be assigned specific duties by the supervisor in charge. Employees must remain on duty until ordered to go home.

Section 29

Maintaining Standards of Effective Service / Corrective Discipline

I. City of Kenner embraces the philosophy that discipline must be corrective rather than punitive in nature. Accordingly, when an employee of the City is unwilling or unable to perform the duties of his or her position in a safe manner, has committed a safety rule violation, has engaged in prohibited conduct, has neglected to perform any safety action it was his or her duty to perform, or has otherwise become subject to corrective action for due cause relative to safety matters, the appointing authority shall take corrective disciplinary action warranted by the circumstances to maintain standards of effective service.

A. Corrective disciplinary action may extend to:

1. Verbal warning

2. Written reprimand

3. Suspension

4. Denial of annual merit salary increase.

5. Demotion – reduction in pay

6. Termination

B. While the goal of corrective discipline is to correct and not punish, when a safety violation is of such nature that it is determined no less severe form of corrective disciplinary action would be appropriate, nor could it justifiably correct the situation, termination action could occur.

II. PROHIBITED CONDUCT & GROUNDS FOR DISCIPLINARY ACTIONS

A. Disciplinary action may include but not be limited to this list:

1. Failure to use or wear proper safety equipment as required.

2. Neglect to or failure of observance of City and/or department safety rules or disregard of common safety practices.

3. Horseplay, rough housing, practical joking, fighting, pushing, shoving, scuffling or other such behaviors.

4. Causing loss of damage of City material or property as a result of unaccountability actions of omission, neglect of duty, gross negligence, carelessness, violation of safety regulations, violation of

established practices or procedures governing operation, care maintenance and safe keeping or mismanagement.

5. Reckless driving of City of Kenner vehicles or reckless operation of City equipment which results in an accident, results in near miss, or results in no accident, but is in direct violation of rules.

6. Failure to maintain a valid CDL if required to perform a job.

7. Threatening, intimidating, coercing, distracting, causing confusion, shouting, or in anyway interfering with work of fellow employees.

8. Failure to immediately report any personal injury to oneself to ones supervisor or appropriate authority.

9. Failure to report a known equipment accident in which an employee was involved (directly or indirectly) immediately.

10. Any act which results in an injury to employee, fellow employee or general public which has been determined to be in violation of work rules, or is the result of carelessness, acts of omission, etc.

11. Failure of any supervisory personnel to enforce work safety rules when such negligence and omission of duty is a contributing factor to the cause of an accident or loss or damage of materials or property.

12. Ordering unsafe job actions.

13. Violation of City of Kenner Substance Policy: Employees are prohibited from reporting to work with any detectable amount of alcohol or illegal drugs in their system. Employees are to comply with the rules of the Substance Abuse Policy.

14. Bringing firearms, fireworks or knives with blades longer than 3″ or any other items of explosive or hazardous nature not required to perform an employee's duties on to City property or to any place of City business.

15. Non-compliance to participate in safety training – failure to participate after being directed to do so by proper supervisory authority, being disruptive during training session.

16. Any violation of Local, State or Federal law while on duty which results in tickets, fines, arrests or convictions when such violations are related to matters of safety.

17. Not assisting a fellow employee in accomplishing work tasks when such refusal to assist could result in physical injury to the fellow employee.

18. Insubordination – failure to follow legitimate safety related order by an appropriate supervisor.

19. Theft of City property or property of fellow employees.

20. Engaging in sabotage.

21. Providing false information relative to an accident, loss or damage of materials or property or filing of accident reports.

22. Smoking in unauthorized area or restricted zone.

23. Intentionally misusing or damaging City property or the property of another employee.

24. Unauthorized operation of tools, machinery of equip

25. Removing safety materials or signs without approval.

26. Creating or contributing to unsanitary conditions by poor housekeeping.

27. Sleeping on the job.

28. Failure to observe parking rules.

29. Unauthorized use and removal of City of Kenner property.

30. Refusing to follow or obey an order relative to safety.

B. This list is not exhaustive and other prohibited conduct and grounds for disciplinary actions not listed may be determined on a case by case basis.

C. Violation of rules constitutes misconduct on the part of the employee.

1. Oral and written warnings may be issued by supervisors, but all suspensions, fines, demotions and terminations can only be recommended by supervisory staff to an appointing authority who has final authority to take such action.

2. In every case of dismissal, suspension, fine or demotion, the employee must be provided a pre-disciplinary hearing.

3. In no case is disciplinary action taken that is inconsistent or supersedes Rule X of the City of Kenner Civil Service Rules.

III. In every case of termination, suspension, reduction in pay, fine, or demotion of an employee in the classified service, the appointing authority responsible for the action shall furnish to the employee involved a written statement of the reasons therefore. The written notice shall also inform the employee of his right of appeal to the Civil Service Board within thirty (30) calendar days of the date of the action taken against him/her, of the address of the Department of Civil Service, and of the fact that forms to assist in the filing of an appeal may be obtained from the Department of Civil Service. In addition, the appointing authority shall forward to the Director of Civil Service a copy of the notification sent to the employee. In any case of alleged liability to furnish the required written notice to a disciplined employee, the Civil Service Board may require evidence, and shall be the sold judge, of the sufficiency and timeliness of the effort. Appointing Authority may review any case of disciplinary action taken against a classified employee, and may on his own initiative, immediately investigate the circumstances.

Section 30

Job Safety Analysis

I. GENERAL

Job Safety Analysis is a basic formula for establishing the safe approach to performing a task. A detailed analysis of the job helps identify the risks in order to prevent an injury.

1. Job safety analysis, properly used, is a most valuable tool to reduce accidents and increase efficiency.

2. A job safety analysis can be the best starting point for hazard identification.

3. The following material explains how to get the program started.

II. STARTING A JOB SAFETY ANALYSIS PROGRAM

A job safety analysis is a written procedure designed to review job methods uncover hazards, and recommend safe job procedures. There are four basic steps in making a job safety analysis:

1. Selecting the job

2. Breaking down the job into a sequence of steps

3. Identifying the potential hazards.

4. Recommending safe job procedures

A. SELECTING THE JOB

1. Jobs should be selected on the basis of potential hazards or those with the highest incidence rate because this will result in quick payoffs in reduced accidents and increased efficiency.

2. The job selected should not be too broad or too narrow. For example, Parkway Maintenance would be too broad but one of the jobs in Parkway Maintenance such as operating a chainsaw would be suitable.

B. BREAKING DOWN THE JOB

1. In most cased a job safety analysis is made by a supervisor and the person or operator who normally does the job.

a. There is a good reason for this. The supervisor and operator are likely to be more familiar with the jobs in their department.

b. The person selected to perform the job should be experienced, cooperative, and willing to share ideas of the job.

2. Have the person perform the job one step at a time.

a. List the steps in consecutive order.

b. Each step should tell what is done, not how. For example for using a portable fire extinguisher the first step should be to remove the extinguisher from the wall bracket.

C. IDENTIFYING THE POTENTIAL HAZARD

1. Look for hazards in each step of the job process. Look at the following possibilities:

a. Is there danger of striking against, being struck, or otherwise making injurious contact with an object as the operator goes into action?

b. Can the operator be caught in, on or between objects?

c. Can the operator slip, trip, or fall on the same level or from one level to another?

d. Is the environment hazardous? Does it contain toxic gas, vapors, mist, fumes, dust, etc.?

2. List the potential hazards for each step. For example, the fire extinguisher could fall and injure an employee's foot or improper lifting could cause strains.

D. RECOMMENDING SAFE JOB PROCEDURES

1. For each potential hazard, list what the person must do to avoid the hazard. Normally the answer can be obtained by watching the operator, discussing precautions with the operator and drawing upon your experience as well as the supervisors.

2. Number each recommendation with the same number used for the job step and potential hazard. For example:

a. Grasp fire extinguisher firmly with right hand.

b. Curl fingers of left hand around the bottom rim, palm up

c. Stand close to extinguisher and pull straight out

3. After the job safety analysis is completed, it should be reviewed by other supervisors and operators doing similar jobs.

4. Recommendations for performing the job safely should be specific and concrete. Generalizations such as "be careful" are useless.

III. ADDITIONAL JOB SAFETY ANALYSIS BENEFITS

A. In addition to reduced accidents and increased efficiency, other benefits from job safety analysis includes:

1. A new way may be found to do the job.

2. Supervisors often learn more about the jobs they supervise.

3. When operators are involved with the analysis, it tends to make them more safety conscious and improve their safety knowledge.

B. The benefits of job safety analysis are realized when they are used for training purposes, job performance and safety training.

C. Departments are encouraged to take advantage of job safety analysis as means of reducing accidents. Pick out the jobs that are giving the most problems and have highest number of accidents.