Jefferson Parish Safety Manual

SAFETY FIRST

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SECTION 1: SAFETY POLICY STATEMENT

It is the policy of Jefferson Parish Government to provide for safe working conditions for its employees and as a government service organization to provide a safe environment for the citizens of Jefferson Parish. The administration of Jefferson Parish Government is dedicated to the prevention of accidents. All levels of the parish workforce are directed to make safety a top priority, equal in importance to all other job duties and operational responsibilities.

The Department of Human Resource Management has been charged with the responsibility of implementing and maintaining a comprehensive safety and occupational health program for Jefferson Parish employees. This manual has been prepared to assist all employees in their performance of work in a safe and productive manner, to increase efficiency of operations, and to save money for the taxpayers of Jefferson Parish.

As a condition of continued employment with Jefferson Parish, all employees are directed to incorporate safety and health knowledge and good safety procedures into their everyday work performance, and to be aware of and follow all safety rules, regulations, policies, and laws in order to increase efficiency of operations and to save money for the taxpayers of Jefferson Parish. 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 tool for improving job safety and to be used to implement a safer, more healthful workplace. Safety and health rules shall be followed and ignorance will not be accepted as an excuse for their violation.

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. 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.

This manual is not to be construed as a contract of employment, to create any such contractual obligations for the parish, and does not create or abridge any rights otherwise provided by local, state or federal law. Nothing in this manual should be constructed as a guaranty of any particular term or condition of employment or of any particular position or otherwise confer the expectation of continued employment.

Suggestions for improvement are encouraged and should be forwarded to the Director of the Department of Human Resource Management.

SECTION 2: ORGANIZATION RESPONSIBILITIES

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.

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

TO PREVENT ACCIDENTS

The following section relates to structure, tasks, and responsibilities relative to the parish Safety and Occupational Health Program.

RESPONSIBILITIES

1. PARISH PRESIDENT - is responsible for the overall management and administration of the comprehensive Safety and Occupational Health Program.

2. CHIEF OPERATING OFFICER - is the chief advisor to the President regarding safety.

3. DEPARTMENT DIRECTORS - are responsible for the implementation of the Safety Program within their departments and for maintaining all applicable records and reports relating to the program. Responsibilities include but are not limited to:
   - 3.1 Adhering to all parish safety and occupational health policies and procedures.
   - 3.2 The Director shall periodically evaluate the effectiveness of the safety and loss prevention program, implementing corrective action and improvements whenever appropriate.
   - 3.3 Director ensures that supervisors and employees are held accountable for adherence to their safety and loss prevention responsibilities.

4. SUPERVISORS - are key people in accident prevention and have responsibility for the safe actions of their employees and the safe operation of machines and equipment within their operating area. Responsibilities include but are not limited to:
   - 4.1 Training all personnel to work safely.
   - 4.2 Enforcing all safety and occupational health regulations.
   - 4.3 Correcting any unsafe acts and unsafe conditions, both mechanical and physical.
   - 4.4 Investigating accidents, incidents and losses and making complete objective reports.

5. EMPLOYEES - are responsible to adhere to all safety rules, procedures, and practices and use personal protective equipment and devices provided as a condition of employment. Responsibilities include but are not limited to:
   - 5.1 Reporting or correcting unsafe and unhealthy conditions at once.

5.2 Reporting all on-the-job accidents, injuries, and illnesses to their immediate supervisors as soon as possible.
5.3 Participate in all required safety and occupational health training.
5.4 Insure that their actions don't endanger their fellow employees or the general public.
5.5 Leave their work area in an orderly and safe condition.

6. THE DEPARTMENT OF HUMAN RESOURCE MANAGEMENT - the Director, Safety Manager and Safety Officers, and Human Resource Managers have the following responsibilities and authority:
   6.1 Formulating strategic goals and objectives for administering a parish-wide safety and occupational health program issued by Parish President directives, in the Safety Manual or by Department directives.
   6.2 Acting in an advisory capacity on all matters pertaining to safety as required for guidance. Develops and revises parish-wide safety and occupational health policies as necessary.
   6.3 Maintaining a system of accident records and reports.
   6.4 Developing, implementing, updating safety education and training programs.
   6.5 Conducts facility and work site inspections for the purpose of discovering and correcting unsafe conditions or unsafe work practices.
   6.6 Enforcing compliance with all safety rules, regulations, and standards as set forth by the Parish President, the Safety Manual or by Department directives. Compliance actions may include, but are not limited to: on-the-spot counseling, requesting immediate work correction, or issuance of a stop work order in cases of immediate danger.
   6.7 Other responsibilities as directed by the Parish President.

7. RESPONSIBILITY OF PARISH SAFETY MANAGER – the Safety Manager's responsibility is to ensure that all Departments adhere to the Safety policies and directives of Jefferson Parish. In order that this may be accomplished, he shall have access to all parish facilities, property, equipment, jobsites and all parish records. The authority of the Safety Manager shall be to issue on-the-spot counseling; request immediate work correction; or issue a stop work order in cases of immediate danger. Further, the Safety Manager shall act in an advisory capacity in all safety matters.

The Safety Manager is responsible for coordinating Accident Investigation Committees, Inspection and Audit Committees and any additional Special Committees as needed.
   7.1 An Accident Investigation Committee's mission is to conduct investigations and assessments on Worker's Compensation, automobile and general liability accidents and make recommendations for corrective action to prevent recurrence.
   7.2 An Inspection and Audit Committee's mission is to conduct inspections and audits of parish facilities to locate accident causes and unsafe working practices and conditions and to determine corrective action if necessary.

8 DEPARTMENTAL SAFETY COMMITTEE - Departmental safety committees can be an effective means in reducing injury and improving the safety practices in the department. The

purpose of a departmental safety committee is to assist the director in safety, to reduce personal injury and property damage, and to make improvements of unsafe conditions in the workplace.

8.1 Organization – the Departmental Safety Committee members will be designated by the Department Director. The number of members will be determined by the Safety Manager and the Department Director.

8.2 Meetings – The Safety Manager will establish a schedule as to how often the departmental safety committee needs to meet.

8.3 The Departmental Safety Committee is an advisory group only accountable to the Department Director. The Committee may not take unilateral action nor interfere with the work of employees. The Committee should not be involved in disciplinary action. Any disciplinary action resulting from not conforming to parish rules should follow established protocols.

8.4 Functions of the Departmental Safety Committee are to review, analyze, and make recommendations in the following areas:

a) work site and facility inspection program;
b) training efforts;
c) advise management on safety matters within department;
d) work practices of crews/employees;
e) review accident investigation reports;
f) accident trends and statistics;
g) availability and use of personal protection equipment; and
h) other functions as directed by the Department Director.

SECTION 3: MAINTAINING STANDARDS OF EFFECTIVE SERVICE AND CORRECTIVE DISCIPLINE

Jefferson Parish is committed to enforcing a system of corrective discipline that is critical to the overall enforcement of policies, rules, and regulations. Corrective disciplinary action will be taken when an employee is unwilling or unable to perform the duties of the employee's position in a satisfactory manner, has engaged in prohibited conduct, violated the provisions of this manual, neglected to perform any action, or has otherwise become subject to corrective action. Jefferson Parish hereby provides notice to all employees that discipline may be imposed for substandard performance, unacceptable or prohibited conduct, or as otherwise inappropriate. "Corrective action" is defined to include but not be limited to an oral warning, written reprimand, fine or restitution, suspension, denial of salary increase, demotion (reduction in pay) and termination.

The purpose of this policy is to address serious incidents of misconduct, wrongful acts, and repeated violations of policies, regulations, rules, or unacceptable performance of any employee and to provide a procedure for corrective disciplinary action, including but not limited to disciplinary suspensions.

This policy applies to all appointing authorities, classified, unclassified, full-time, and part-time employees under the administrative authority of the Parish President. The authority to administer disciplinary suspensions resides with the appointing authorities. This policy is not intended to create or confer any interest in employment of position beyond that which is established pursuant to the parish home rule charter and the Personnel Rules of the Classified Service.

Corrective Disciplinary action may include:

1. Verbal Warning
2. Written reprimand
3. Fine or restitution
4. Suspension
5. Denial of annual merit salary increase
6. Demotion-reduction in pay
7. Termination

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 or could it justifiably correct the situation, termination action could occur.

Establishment

All employees who are entrusted with or charged with the use of parish property and equipment have an affirmative obligation to use, maintain, and protect the equipment from loss or damage. Employees will be held responsible for damage to or loss of parish property. If damages or loss occurs, the employee entrusted with the care and custody of the property may be required to pay restitution for the repair or replacement of the damaged property. Restitution or a fine may be imposed after determining that such damage or loss is the result of willful neglect, recklessness, negligence, or accident.

Purpose

The purpose of this policy is to provide a uniform, corrective policy as it relates to damage to all parish vehicles, equipment, and property; to provide a fair, reasonable policy which encourages employees to be cautious and protective of parish property and equipment; and to provide a reasonable measure by which the parish may recover for the damages or loss to parish property and equipment by employees.

Scope

This policy does not preclude the parish from pursuing any other remedy available by law to recover for property loss or damage from an individual who ceases to be in the employ of the parish. This policy does not preclude seeking recovery whether by way of fine or restitution, or other appropriate action, against an employee of the parish.

Supervisory responsibility

Each supervisor has an affirmative obligation to ensure that parish equipment is only used by employees in furtherance of their job duties. Further, each supervisor has an affirmative obligation to ensure that property which is entrusted to and used by employees in the furtherance of their job duties is returned and its use unimpaired by damage. Any loss or damage to parish

property by an employee shall be documented and reported to the appointing authority for appropriate action.

Appointing authority responsibility

Appointing authority shall receive any reports of damage or loss to parish property and shall take appropriate action in accordance with this policy.

Procedure

Disciplinary action will be determined by the appointing authority who shall consider the information provided by and recommendations of the employee's supervisor. A pre-disciplinary hearing shall be conducted in accordance with this policy prior to reaching a final decision regarding whether disciplinary action will be taken. An order to pay a fine or restitution is considered disciplinary action under the Personnel Rules of the Classified Service. Any order to pay a fine or restitution must comply with this policy, the Personnel Rules of the Classified Service, and the Administrative Management Policies manual.

Fines and Restitution

Fines

For damage or loss of property, the replacement or repair of which exceeds $1000.00 but is less than $5000.00, the employee may be ordered to pay a fine up to 50% of the value of the property or of the repair or $1000.00. For damage or loss of property the replacement or repair of which exceeds $5000.00, the employee may be ordered to pay a fine up to 25% of the value of the property or repair or $2500.00.

Restitution

For damage or loss of property, the replacement or repair of which is less than $1000.00, the employee shall be ordered to pay reasonable restitution. In determining restitution, the value of the property or the cost of repair shall be considered but is not determinative. In the case of repair, restitution shall not exceed the actual cost of repair. In case of replacement, the cost of replacement shall be considered. Other factors which may be considered are date property was first acquired, wear-tear on property prior to being lost or damaged, and whether equipment technology is considered obsolete.

The procedure for payment of fines or restitution shall be the same procedure specified for Recoupment of Overpayment in the Administrative Management Polices manual. No action shall be made to secure payment of a fine or restitution until all delays for appeal to the Personnel Board have expired, and the disciplinary action is considered final.

Pre-Disciplinary Hearings

It is the policy of the parish to afford employees a "pre-disciplinary" hearing before formal disciplinary action is taken for violation of policy, rule, regulation, substandard performance, unacceptable or prohibited conduct, or otherwise committed some act to the prejudice of service.

"pre-disciplinary" hearing is defined as a meeting between the appointing authority, or designated representative, and a subordinate employee who is alleged to have violated a policy,

regulation, rule, performance standard or has otherwise acted or failed to act in a manner to the prejudice of parish employment.

Purpose

The purpose of "pre-disciplinary" hearing is to provide notice to an employee of allegations of violations of policy, rule, regulation, performance standard by the appointing authority, or designee before disciplinary actions, as defined by the Personnel Rules of the Classified Services, is taken.

Scope

The policy applies only to parish employees in classified service. Every employee of the classified service shall be offered the opportunity to participate in a pre-disciplinary hearing before an employee is (1) terminated; (2) suspended; (3) subjected to reduction in pay; (4) demoted; (5) involuntary retirement; (6) fined or ordered to pay restitution. The policy does not apply to unclassified employees whose term of employment is at-the-will of the appointing authority.

Appointing authority responsibility

Pre-disciplinary hearings may only be conducted by an appointing authority.

It is the primary responsibility of the appointing authority to conduct a pre-disciplinary hearing with an employee prior to taking any formal disciplinary action which may warrant an appeal under the parish Personnel Rules of the Classified Service.

The appointing authority is responsible for preparing and providing written notice to the employee of the pre-disciplinary hearing.

Human Resource Management shall be contacted and assist in conducting a pre-disciplinary hearing for the employee upon a determination that formal disciplinary action may be warranted.

Human Resource Management responsibility

Human Resource Management shall attend all pre-disciplinary hearings for the purpose of facilitating and verifying that the department has adhered to the “pre-disciplinary” policy and that the employee is given an opportunity to present information in favor of employment or opposition to any disciplinary action.

Human Resource Management shall assist the appointing authority in preparing notice of pre-disciplinary hearing to the employee.

Notice

The employee shall be given notice of the pre-disciplinary hearing reasonably in advance of the scheduled hearing either (1) by hand in writing, except in exigent circumstances notice may then be oral; or (2) by mail, U.S. mail, post-marked five (5) calendar days in advance of scheduled hearing.

The notice shall (1) state the date, time, and place of pre-disciplinary hearing; (2) describe the conduct, action or inaction, which gives rise to the pre-disciplinary hearing; (3) describe

information or facts which is the basis for the hearing; (4) refer to the policy, law, regulation, rule or performance standard which has been violated; (5) inform the employee that the employee will have an opportunity to respond to the information and facts presented and to present information and facts; (6) inform the employee that formal disciplinary action may be taken based upon information provided and findings reached following the pre-disciplinary hearing.

Procedures

The pre-disciplinary hearing shall be documented. The documentation shall include but is not limited to the following:

1. Date, time, place and duration of hearing;
2. Copy of notice of pre-disciplinary hearing;
3. Description facts and/or copy of evidence presented during the hearing that tend to establish the conduct, action or inaction, on the part of the employee which is a violation of a policy, law, regulation, rule or performance standard which has been violated;
4. Description of facts and/or copy of evidence presented during the hearing by the employee that tend to establish the employee did not engage in conduct, action or inaction, which is a violation of a policy, law, regulation, rule or performance standard;
5. Documentation that the employee was provided an uninterrupted opportunity to present any facts or evidence which tend to establish that the employee did not engage in conduct, action or inaction, which is a violation of a policy, law, regulation, rule or performance standard;

A digital recorder is preferred but not required for purposes of documenting the hearing. If a digital recorder is used, the employee must be notified and the recording must begin with a statement that the hearing is being taped.

Disciplinary action may be imposed, but is not limited to the following safety violations:

1. Failure to use or wear proper safety equipment as required;
2. Neglect or failure to observe parish 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 parish material or property as a result of unaccountability, actions of omission, neglect of duty, gross negligence, carelessness, violation of safety regulation, violation of established practices or procedures governing operation, care maintenance and safe keeping, or mismanagement;
5. Reckless driving of parish vehicles or reckless operation of parish 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 Louisiana's driver's license including CDL if required to perform a job;

7. Threatening, intimidating, coercing, distracting, causing confusion, shouting, or in any way interfering with work of fellow employees;
8. Failure to report any personal injury to a supervisor or appropriate authority within 24 hours;
9. Failure to immediately report a known equipment accident or damage to equipment in which employee was (directly or indirectly) involved;
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 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 the parish Substance Use Policy i.e.-an employee is prohibited from reporting to work with any detectable gravity of alcohol or illegal drugs in their system. Employees shall follow the rules of the parish Substance Use Policy;
14. Bringing firearms, fireworks, or knives with blades longer than 3" or items of explosive or hazardous nature not required to perform an employee's duties onto parish property or to any place of parish business;
15. Non-compliance to participate in safety training, failure to participate after being directed to do so by proper supervisory authority, or being disruptive during training session;
16. Any violation of parish, 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 or damage to parish property;
18. Insubordination which includes, but not limited to failure to follow legitimate safety related order by an appropriate supervisor;
19. Theft of parish property or the theft of property of a fellow employees;
20. Engaging in sabotage;
21. Providing false information relative to an accident, loss or damage of material or property or filing of accident reports;
22. Smoking in unauthorized area or restricted zone;
23. Intentionally misusing or damaging parish property or the property of another employee;
24. Unauthorized operation of tools, machinery or equipment;
25. Removing safety materials or signs without approval;
26. Creating or contributing to unsanitary conditions;
27. Sleeping on the job; or
28. Failure to observe parking rules;
29. Unauthorized use and removal of parish property.

This list is not all inclusive and other prohibited conduct and grounds for disciplinary actions not listed may be determined on a case by case basis. Violation of rules constitutes misconduct on the part of the employee and may result in disciplinary action taken against the employee. In no case can disciplinary action be taken against a classified employee that is inconsistent or supersedes Rule X of the parish Civil Service Personnel Rules.

SECTION 4: EMPLOYEE SAFTEY RULES OF CONDUCT

1. Department Directors are responsible for the implementation of the Safety Program within their jurisdiction and to adhering to the rules as set forth in this policy. This includes but is not limited to ensuring that all applicable records and reports concerning accidents are properly maintained.
2. Supervisors are essential in accident prevention and safety. Supervisory personnel are required to train all employees to work safely and enforce all safety rules. Also, supervisors are required to make certain that all safety equipment, gear, clothing, and protective items are available and being utilized on a continuous basis.
3. Employees are responsible for adhering to all safety rules, procedures, and practices and use personal protective equipment as a means of mitigating accidents. It is the responsibility of each individual employee to make sure that before a job is started, all required safety equipment, gear, clothes, and protective items are in place and being utilized as designed.
4. All employees are responsible for maintaining standards of effective service. If an employee chooses to disregard safety standards, responsibilities, practices, rules or supervisory instructions concerning safety matters, they will be subject to corrective disciplinary actions.
5. Employees have an obligation to perform their duties in a safe and efficient manner and to report any and all unsafe acts or situations to their supervisor immediately. Being "unaware" will not serve as a reason for an employee to fail to perform his or her job in a manner consistent with safety standards.
6. Additionally, employees shall report all hazardous conditions or practices to their supervisor, Department Directors or the parish Safety Manager or Safety Officers.
    - 6.1 Employees must report any accident involving property, equipment, or injury to their immediate supervisor.
    - 6.2 Employees are required to participate in all safety and occupational health training.
    - 6.3 Employees are required to follow the parish's Substance Use Policy. Additionally, employees who are deemed safety sensitive must receive approval from the parish's Medical Review Officer before reporting to work while taking prescription medication.
    - 6.4 Employees who are under medical treatment and using prescription medication should ask their physician's advice regarding the safe performance of their duties while taking medication.

6.5 Employees' job performance is evaluated on an annual basis including their safety performance for the proceeding twelve (12) month time period. Employees who are rated NI (Needs Improvement) or BE (Below Expectations) in the Safety category (UPF4) will receive an overall NI or BE on their annual performance evaluation.

6.6 Fireworks, firearms, other weapons, or any other items of explosive or hazardous nature shall not be brought onto parish property or to any place of parish business.

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

6.8 Fighting, horse play, or practical joking in a work area is strictly prohibited.

6.9 Smoking is not allowed in parish buildings or parish vehicles.

6.10 Employees should always use personal protective equipment to protect themselves from potential hazards that cannot be eliminated.

6.11 Operate equipment only if you are trained and authorized.

6.12 Employees should inspect their workstations daily for potential hazards and ensure that the equipment or vehicle is in safe operational condition before using it.

6.13 If there is any doubt about the safe work method to be used, consult the supervisor before beginning work.

6.14 At the end of each work period, employees are responsible for cleaning work stations/job sites and equipment must be properly stored in the appropriate place.

6.15 Metal stock, lumber and cased or crated goods should be stored in a neat, safe and orderly manner. Round stock should be blocked to prevent rolling; gas cylinders should be secured by chains in an upright position.

Office Safety

1. Spilled liquids should be cleaned up immediately to prevent accidents such as slips or falls.
2. Employees should immediately pick up any items that have fallen on the floor.
3. Department offices, desk and cabinets should be kept clean and orderly.
4. Drawers and cabinet doors should be kept closed.
5. Employees should use handles when closing desk drawers, file cabinets, and doors. Avoid curling fingers around tops and sides of drawers where they may be cut or injured when closing drawers.
6. Chairs should be used for sitting only. Do not lean back to the extent that the front legs are lifted off the floor. Employees should notify the supervisor of any defects in office furniture.
7. If items are stored above eye level, employees should use a ladder or a step stool to retrieve or store them. Avoid standing on a chair or other type of makeshift ladder.
8. When using stairways, employees should take one step at a time. Stair rails or wall rails should be used to prevent falls when ascending or descending stairs.
9. When using paper cutters, employees should pay attention and keep hands and fingers on the handle of the paper cutter. Keep paper cutter handle in closed/locked position when not in use.
10. Do not place objects on window sills.

11. Employees are prohibited from using space heaters in all parish facilities.

Office Ergonomics

Most employees use computers to perform their jobs. Some employees use computers throughout the entire day, others use computers only part of the day and some employees use them occasionally. Whatever the frequency of computer usage, there are some basic health and safety procedures that should be practiced in order to prevent injuries. No matter how comfortable your workstation is, sitting for long periods of time can be tiring and stressful.

1. Stretch your arms and fingers occasionally.
2. If possible, get up from the terminal and do other tasks.
3. Alternate different tasks throughout the work day to vary work rhythms. Take time out to collate documents or deliver completed work. This will keep strain and tension from building up.

SECTION 5: WORKPLACE INSPECTIONS

Regularly inspect your worksite and address the following:

Employer Posting

1. Display the required Department of Labor Workplace Poster in a prominent location where all employees are likely to see it.
2. Post emergency telephone numbers where they can be readily found in case of emergency.
3. If employees may be exposed to any toxic substances or harmful physical agents, have the appropriate Safety Data Sheets (SDS) posted or otherwise made readily available to the employees.
4. Post signs concerning "Exiting from buildings," "room capacities," or "floor loading" where appropriate and easily seen.

Fire Protection

1. Assign the maintenance of automatic sprinkler systems to responsible persons or to a sprinkler contractor.
2. Portable fire extinguishers are to be provided in adequate numbers and types.
3. Fire extinguishers are to be recharged regularly as noted on the inspection tag.
4. Employees are to be periodically instructed in the use of extinguishers and fire protection procedures.
5. Fire extinguishers are to be checked monthly and documentation entered on a list.

Medical Services and First Aid

1. Post all emergency phone numbers where they can be clearly seen.
2. Department shall have at least one person who has been trained in CPR.
3. Each defibrillator (AED) is to be inspected at least monthly and entered on the Monthly Maintenance Checklist. Copies of this form can be requested from the Safety Division or downloaded from the parish intranet under on-line forms.

Personal Protective Equipment and Clothing

1. Protective goggles or face shields shall be provided and worn where there is any danger of flying particles or corrosive materials.
2. Approved safety glasses are required to be worn at all times in areas where there is a risk of eye injuries such as punctures, abrasions, contusions, or burns.
3. Protective gloves, aprons, shields, or other means of protection are to be provided and required where employees could be cut or where there is reasonably anticipated exposure to corrosive liquids or chemicals.
4. Hard hats shall be provided and worn where danger of falling objects exists.
5. Hard hats are to be inspected periodically for damage to the shell and suspension system.
6. Appropriate foot protection is required where there is the risk of foot injuries from falling objects or poisonous substances.
7. Approved respirators are to be provided for regular or emergency use when needed.
8. Special equipment, if needed for electrical workers is to be made available.
9. Protection against the effects of occupational noise exposure is to be provided when sound levels are excessive.

General Work Environment

1. All worksites shall be clean and orderly.
2. Work surfaces are to be kept dry or appropriate means taken to assure the surfaces are slip resistant.
3. Combustible scrap, debris, and waste are to be stored safely and removed from the worksite promptly.
4. All work areas are to be adequately illuminated.
5. Pits and floor openings are to be covered or otherwise guarded.

Walkways

1. Aisles and passageways shall be kept clear.
2. Aisles and walkways are to be marked as appropriate.
3. Wet surfaces are to be covered with non-slip materials.
4. Aisles or walkways that pass near moving or operating machinery shall be arranged so employees will not be subjected to potential hazards.
5. Steps on stairs and stairways are to be designed or provided with a surface that renders them slip-resistant.

Exiting or Egress

1. All exits are to be marked with an exit sign and illuminated by a reliable light source.
2. There are to be enough exits to permit prompt escape in case of emergency.
3. All exits shall be kept free of obstructions.
4. All exit signs shall have the word “Exit” in lettering at least five inches high and the stroke of the lettering at least 1/2 inch wide.

Portable Ladders

1. All ladders are to be maintained in good condition, joints between steps and side rails tight, all hardware and fittings securely attached and moveable parts operating freely without binding or undue play.
2. Non-slip safety feet shall be provided on each ladder.

3. Ladder rungs and steps shall be free of grease and oil.
4. No ladders are to be placed on boxes, barrels, or other unstable bases to obtain additional height.

   Portable Ladder Safety Tips:

   4.1 All employees shall be instructed to face the ladder when ascending or descending.

   4.2 No employees shall be permitted to use the top step of ordinary stepladders as a step.

   4.3 When using portable rung ladders to gain access to elevated platforms, roofs, etc., the ladder shall extend at least 3 ft. above the elevated surface.

   4.4 When portable rung ladders are used, the base shall be placed so that slipping will not occur, or it is lashed or otherwise held in place.

Portable (Power-Operated) Tools and Equipment

1. Grinders, saws and similar equipment shall be provided with appropriate safety guards.
2. All cord-connected electrically-operated tools and equipment are to be effectively grounded or of the approved double insulated type.
3. Effective guards are to be in place over belts, pulleys, or chains on equipment, such as concrete mixers or air compressors.
4. Portable fans provided are to have full guards or screens which have openings 1/2 inch or less.

Machine Guarding

1. All machinery and equipment shall be kept clean and properly maintained.
2. There shall be a power shut-off switch within reach of the operator's position at each machine.
3. Electrical power to each machine shall be locked out for maintenance, repair, or security.
4. Manually operated valves and switches controlling the operating of equipment and machines are to be clearly identified and readily accessible.
5. All pulleys and belts on the working level shall be properly guarded.
6. All emergency stop buttons shall be colored red.

Lockout Tag out Procedures

1. All machinery or equipment capable of movement is required to be de-energized or disengaged and blocked or locked-out during cleaning, servicing, adjusting or setting up operation, whenever required.
2. All equipment control valve handles are to be provided with a means for locking out.
3. The lock-out procedure shall require that stored energy (mechanical, hydraulic, air, etc.) be released or blocked before equipment is locked – out for repairs.
4. Appropriate employees are to be provided with individually keyed personal safety locks.
5. Only the employee exposed to the hazard shall place or remove the safety lock.
6. All employees are to check the safety of the lock-out by attempting a start up after making sure no one is exposed.
7. In the event that equipment or lines cannot be shut down, locked-out and tagged, a safe job procedure shall be established and strictly followed.

Welding, Cutting and Brazing

1. Only authorized and trained personnel are permitted to use welding, cutting or brazing equipment.
2. All compressed gas cylinders are to be regularly examined for obvious signs of defects, deep rusting, or leakage.
3. Storage of cylinders, safety valves, and relief valves are to be handled carefully in order to prevent damage.
4. Signs shall be posted reading: Danger – "No Smoking," or the equivalent, near the gas cylinders.
5. Cylinders, cylinder valves, couplings, regulators, hoses and apparatus shall be kept free of oily or greasy substances.
6. Unless secured on special trucks, regulators are to be removed and VALVE-protection caps put in place before moving cylinders.
7. Before a regulator is removed, the valve(s) are to be closed and gas released from the regulator.
8. When no one is in attendance, the electrical power to the welder is to be shut off.
9. Suitable fire extinguishing equipment shall be available for immediate use.
10. Fire watchers are to be assigned when welding or cutting is performed in locations where a serious fire might develop.
11. Before hot work is begun, used drums, barrels, tanks, and other containers are to be thoroughly cleaned so that no substances remain that could explode, ignite, or produce toxic vapors.
12. When working in confined places, environmental monitoring tests shall be taken and means provided for quick removal of welders in case of an emergency.

Compressors and Compressed Air

1. Compressors shall be equipped with pressure relief valves and pressure gages.
2. Safety devices on the compressed air system are to be checked frequently.
3. Before any repair work is done of the pressure system of a compressor, the pressure is to be bled off and the system locked – out.
4. Signs shall be posted to warn of the automatic starting feature of the compressor.
5. Belt drive systems totally enclosed are to provide protection for the front, back, top and sides.
6. Employees shall be aware that it is strictly prohibited to direct compressed air towards a person.

Compressed Gas Cylinders

1. Cylinders are to be legibly marked to clearly identify the gas contained.
2. Compressed gas cylinders are to be stored in areas which are protected from external heat sources such as intense radiant heat, electric arcs, or high temperature lines.
3. All cylinders shall be located or stored in areas where they will not be damaged by passing vehicles or subject to tampering by unauthorized persons.
4. Valve protectors are to be placed on cylinders when the cylinders are not in use or connected for use.

Flammable and Combustible Materials

1. All combustible scrap, debris and waste materials, such as oily rags, shall be stored in covered metal receptacles and removed from the worksite promptly.
2. Approved containers and tanks shall be used for the storage and handling of flammable and combustible liquids.
3. Storage rooms for flammable and combustible liquids shall have explosion-proof lights.
4. Fuel gas cylinders and oxygen cylinders shall be separated by appropriate distance, fire-resistant barriers while in storage.
5. Fire extinguishers are to be provided for the types of materials in the areas where they are to be used.
   5.1 Class A - Ordinary combustible material fires.
   5.2 Class B - Flammable liquid, gas or grease fires.
   5.3 Class C - Energize – electrical equipment fires.
6. All fire extinguishers serviced, shall be maintained and tagged at intervals not to exceed one year.
7. "No Smoking" signs shall be posted where appropriate in areas where flammable or combustible materials are used or stored.
8. Only safety cans for dispensing flammable or combustible liquids are to be used at a point of operation.
9. Spills of flammable or combustible liquids shall be cleaned up promptly using parish provided spill kits.

Hazardous Chemical Exposure

1. Employees shall be trained in the safe handling practices of hazardous chemicals such as acids or caustics.
2. Eye wash fountains and safety showers are to be provided in areas where corrosive chemicals are handled.
3. Employees shall use personal protective clothing and equipment when handling chemicals, for example: gloves, eye protection and respirators.
4. All flammable or toxic chemicals shall be kept in closed containers when not in use.
5. Standard operating procedures are to be established and are to be followed when cleaning up chemical spills utilizing parish provided spill kits to contain all spilled material and prevent it from entering the storm drain.
6. Respirators intended for emergency use shall be adequate for the various uses for which they may be needed.
7. Ventilation equipment is to be provided for removal of contaminants from such operations as: production grinding, spray painting and vapor degreasing, and is to be operating properly. If internal combustion engines are used, carbon monoxide shall be kept within acceptable levels.

Electrical

1. Employees shall be instructed to make preliminary inspections or appropriate tests to determine what conditions exist before starting work on electrical equipment or lines.
2. Employees must report, as soon as possible, any obvious hazard to life or property involving electrical equipment or lines.

3. When electrical equipment or lines are to be serviced, maintained or adjusted, all necessary switches are to be opened, locked – out and tagged whenever possible.
4. All portable electrical tools and equipment shall be grounded or of the double insulated typed.
5. Electrical appliances such as vacuum cleaners or polishers shall be grounded.
6. Extension cords being used shall have a grounding conductor.
7. In wet or damp locations, electrical tools and equipment shall be appropriate for the use or location or otherwise protected.
8. The locations of electrical power lines and cables shall be determined before digging or similar work begins.
9. All disconnecting switches and circuit breakers shall be labeled to indicate their use or equipment served.
10. All energized parts of electrical circuits and equipment shall be guarded against accidental contact by approved cabinets or enclosures.
11. All unused openings (including conduct knockouts) in electrical enclosures and fittings are to be closed with appropriate covers, plugs or plates.
12. Electrical enclosures such as switches, receptacles, or junction boxes shall be provided with tight-fitting covers or plates.

    Electrical Safety Tip: The use of metal ladders shall be prohibited in areas where the ladder or the person using the ladder could come in contact with energized parts of equipment, fixtures or circuit conductors.

Noise

1. Noise levels are to be measured using a sound level meter and are records being kept.
2. In the workplace there should not be areas where continuous noise levels exceed 85 dba.
3. When possible, engineering controls shall be used to reduce excessive noise levels. If this is not possible, then approved hearing protection equipment shall be used.
4. Employees that frequently work in high noise areas shall be given periodic audiometric testing to ensure that there is an effective hearing protection system in place.

Fueling

1. It is prohibited to fuel an internal combustion engine with a flammable liquid while the engine is running.
2. Fueling operations are to be done in such a manner that the likelihood of spillage is minimal.
3. If spillage occurs during fueling operations, the spilled fuel shall be picked up and cleaned according to established parish procedures as stated in Section 5, Workplace Inspection, “Flammable and Combustible Materials.”
4. It is prohibited to handle or transfer gasoline in open containers.
5. Employees shall be aware that open lights, open flames, or sparking, or arcing equipment are prohibited near fueling operations.
6. Smoking is never allowed in the vicinity of fueling operations.
7. Employees shall be aware that fueling is prohibited in buildings or other enclosed areas that are not specifically ventilated for this purpose.

Material Handling

1. There shall be a safe clearance for equipment through aisles and doorways.
2. Motorized vehicles and mechanized equipment shall be inspected daily and prior to use.
3. All vehicles shall be shut off and brakes set prior to loading or unloading.
4. All hand trucks shall be maintained in safe operating condition.
5. Pallets shall be inspected before being loaded or moved.
6. Hooks with safety latches or other arrangements shall be used when hoisting materials so that slings or load attachments will not accidentally slip off the hoist hooks.
7. All securing chains, ropes, clocks or slings shall be adequate for the job to be performed.
8. When hoisting material or equipment, provisions are to be made to assure no one will be passing under the suspended loads.

SECTION 6: JOB SAFETY ANALYSIS

General

Job Safety Analysis (JSA) is a basic method for establishing the safe approach to performing a task. This procedure is to be used to review job methods and to uncover all hazards associated with these methods. Job Safety Analysis, when properly used, is a valuable tool to reduce accidents and increase efficiency. It is the starting point for hazard identification. There are four basic steps in performing a job safety analysis:

1. Selecting the job,
2. Breaking down the job into a sequence of steps,
3. Identifying the potential hazards, and
4. Recommending safe job procedures

Selecting the Job

Care should be taken to select the appropriate job to be analyzed. For the purpose of this analysis, a job is defined as a sequence of separate steps or events that together accomplish a work goal. The job selected should not be too broad (construct an office building) or too narrow (turn a light switch on). For example, the proper procedure for operating a chainsaw would be suitable. Normally, a JSA suitable job is the type assigned by a superintendent or a foreman.

Jobs selection for a JSA should be based on the following factors:

1. Frequency of Incidents - the larger the number of accidents or injuries, the greater the need for a JSA.
2. Rate of Disabling Injuries – for every job where a disabling injury has occurred a JSA should be completed.
3. Severity Potential - jobs that have the potential for producing severe injury should be selected for a JSA.
4. New Job Status - a JSA for any new job should be created as soon as the job is created.

Break Down the Job into a Sequence of Steps

A list of the steps involved in performing a specific job is to be made by a superintendent or a foreman and the person or operator who normally does the job. There is a good reason for this,

the superintendent or foreman and operators are likely to be more familiar with the jobs in their department. The person selected to perform the job should be experienced, cooperative, and willing to share ideas about the job. Steps to take are:

1. Observe the employee performing the job and write down the basic steps.
2. The list of steps should be in consecutive order.
3. Completely describe each step.
4. Each step should tell what is done and not how it is to be done.
5. The wording of each step should begin with an action word. The action is completed by naming the item to which the action is applied.
6. Lastly, review the breakdown of each individual step with the superintendent or foreman and/or operators.

Identifying Potential Hazards

Look for hazards in each step of the job process. The purpose is to identify all hazards. Look at all possibilities. Close observation and knowledge of the particular job are required if the JSA is to be effective. Each step must be made safer and more efficient. For example, is there danger of striking against, being struck, or otherwise making injurious contact with an object as the operator performs the job? Can the operator be caught in, on or between objects? Can the operator slip, trip, or fall on the same level or from one level to another? Is the environment hazardous?

Recommending Safe Job Procedures

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 supervisor's experience. Number each recommendation with the same number used for the job step and potential hazard.

After the JSA is completed, it should be reviewed by other supervisors and operators doing similar jobs. Recommendations for performing the JSA should be specific and permanent. Generalizations such as "be careful" are too generic and should not be used.

Additional Job Safety Analysis Benefits

In addition to reduced accidents and increased efficiency, other benefits from JSA are derived. These benefits include:

1. A new way may be found to perform the job.
2. Physical conditions that created the hazard can be changed.
3. Reduced frequency of incident occurrences.
4. Supervisors often learn more about the jobs they supervise.
5. When operators are involved with the analysis, it tends to make them more safety conscious and improve their safety knowledge.
6. New employees on the job must be trained in the basic job steps, taught to recognize the hazards and instructed in the necessary precautions.

The benefits of JSA are realized when they are used for training purposes and job performance. Departments are encouraged to take advantage of Job Safety Analysis as a means of reducing

accidents and injuries. Pick out the jobs that are giving the most problems and have highest number of accidents.

SAFETY JOB ANALYSIS

Job Title: _____
Date of analysis: _____

Job location: _____

WHAT TO DO (Steps in sequence)	HOW TO DO IT (Instructions) (Reverse hands for left-handed operator.)	KEY POINTS (Items to be emphasized. Safety is always a key point.)
1. Remove extinguisher from wall bracket. 2. Carry to fire. 3. Remove pin. 4. Squeeze discharge lever. 5. Apply water stream on fire. 6. Return Extinguisher. Report Use.	1. Left hand on bottom lip, fingers curled around lip, palm up. Right hand on carrying handle palm down, fingers around carrying handle only. 2. Carry in right hand, upright position. 3. Set extinguisher down in upright position. Place left hand on top of extinguisher, pull out pin with right hand. 4. Place right hand over carrying handle with fingers curled around operating lever handle while grasping discharge hose near nozzle with left hand. 5. Direct water stream at base of fire.	1. Check air pressure to make certain extinguisher is charged. Stand close to extinguisher, pull straight out. Have firm grip, to prevent dropping on feet. Lower, and as you do remove left hand from lip. 2. Extinguisher should hang down alongside leg. (This makes it easy to carry and reduces possibility of strain.) 3. Hold extinguisher steady with left hand. Do not exert pressure on discharge lever as you remove pin. 4. Have firm grip on handle to steady extinguisher. 5. Work from side to side or around fire. After extinguishing flames, spray water on smoldering or glowing surfaces.

SAFETY JOB ANALYSIS

Job Title: _____

Date of analysis: _____

Job location: _____

Step	Hazard	New procedure or protection

Tailgate Sessions

1. Departmental employee safety meetings are short (10-20 minutes) meeting held regularly to increase the safety awareness of employees. They are also commonly known as "toolbox" meetings or "tailgate" sessions.
2. 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.
3. Because of the diverse activities of the parish, no specific format is prescribed.
4. 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.
5. Should additional material be desired, it may be obtained through the Department of Human Resource Management.
6. Shorter meetings held more frequently are better than longer meetings held at greater intervals.
7. Ideally, the meeting should be held at the beginning of the work day rather than the end.
8. Since the meetings are short they should be planned and controlled. Keep it simple – generally one topic per meeting.
9. Try to make the examples as current and job-related as possible.
10. Encourage employee participation.
11. Safety training is one of the duties of all supervisors.
12. Avoid the meeting, "TRAP."

    12.1 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.

    12.2The "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.
13. Departments (field) shall hold departmental employee safety training meetings at least once a month; however, they are encouraged to hold these meetings once a week.
14. Departments (office) shall hold departmental employee safety training meetings at least once a quarter; however, they are encouraged to hold these meetings once a month.
15. Departments shall document the fact that meetings are being held as outlined above – including date, time, attendance, subject discussed, and who conducted meeting. This function will be checked as part of the departmental inspection program.

SECTION 7: OFFICE SAFETY

Most office workers believe their office is not a hazardous environment, but potential safety hazards do exist in the office and if not corrected, can result in serious injury. One of the most common office accidents is falling. Falls account for a large number of serious injuries and the highest percentage of lost workdays.

Falls from chairs may occur when workers lean back to tilt chairs, place their feet on the desk, sit down without looking, and rise from or move around in the chair. Slips, trips, and falls can result from poor housekeeping such as wet surfaces, improperly placed electrical cords and walkways obstructed by trash. Falls may also occur when workers stand on chairs or other office furniture to reach elevated objects.

Injuries from strain and overexertion may occur when office workers attempt to move or improperly lift heavy objects, such as books, office furniture, equipment and supplies, without help. Office workers may be injured if struck by objects. For example computers or equipment can fall from a rolling table or employees can be injured when bumping into doors and desks. File cabinets inadvertently left open are another source of injury. Also, cuts may result from sharp objects normally found in office environments such as from papers, staples and pens or fingers can get caught under the knife of a paper cutter.

The process for controlling hazards in the office is similar to the way hazards are controlled in industrial settings. The preferred means of hazard control is to eliminate the hazard. Another means is to minimize exposure to the hazard. Office related hazards are controlled by carefully considering the office environment and by following office safety procedures.

Office Safety Procedures

Aisles, Floors and Hallways:

1. Running in offices is prohibited.
2. Employees should stand clear of the door's swing path to prevent accidents as doors are opened.
3. Employees should not attempt to carry stacks of materials that obstruct their vision.
4. Ensure that carpeting or floor mats do not have curled edges, tears, or frayed spots that slip or slide.
5. Keep all floors clean and dry.
6. Prevent slips and falls by keeping aisles, hallways, and floor spaces clear of boxes, wastebaskets, extension cords, power and telephone wires, etc. Pick-up any loose objects that you see in aisles, hallways and floors.
7. Have all hazardous conditions corrected as soon as they are observed.
8. Approach hallway corners with caution to avoid accidents.

Chairs

1. Do not sit in a chair while rolling the chair across the floor. Do not lean sideways in a chair to pick up objects from the floor. Do not lean back in the chair with your feet on the desk.

2. Do not use chairs as step stools.
3. Be careful when sitting in a chair with rollers. Make sure it does not roll out from under you when you sit down.
4. Do not roll chairs over electrical cords.
5. Repair or report any chair damage that could be dangerous.

Filing Cabinets

Filing cabinets should be used with care. When using filing cabinets, follow these safety tips:

1. Close all file drawers immediately after use.
2. Close the file drawer with the drawer handle and not by using your feet.
3. Open one file drawer at a time to avoid toppling the cabinet.
4. Never leave an open drawer unattended and never open a drawer if someone is underneath it.
5. Never climb on a filing cabinet.

Office Equipment

Employees using any office equipment to complete their job duties must be familiar with both the specific manufacturer's operating procedures and with the following guidelines:

1. Do not operate machines unless you are trained and qualified to do so.
2. Office machines, which might move during operation, should be secured to a stable surface.
3. Keep all moving parts of office machines guarded to prevent hands or clothing from being caught in the mechanism.
4. Use care to avoid heating elements or hot parts when removing paper jams from copy machines.
5. Report immediately any defects in the operation of any office machine or piece of equipment.

Electrical Equipment

1. Electrical appliances such as coffee makers, radios, and lamps can become sources of fire or electrical shock. Appliances should be equipped with electrical plugs that have a ground prong or the appliances should be marked as "double insulated" by the manufacturer.
2. Electrical extension cords must never be used as a substitute for permanent wiring.
3. Do not overload electrical outlets by connecting additional appliances, tools or equipment with adapters and multiple extension cords.
4. Ensure that electrical cords are not split or frayed. Also, ensure that the cords do not have worn insulation or lose plugs.
5. Never touch metal parts of electrical office machines, appliances, or light fixtures with wet hands or conductive material when the machines are operating.
6. Store all electrical cords in a safe place where they will be protected from damage and water.
7. Never leave a microwave unattended while you are cooking food. Fires have been started by burning food.

Fire Alarms

When the fire alarm sounds, your immediate response should be to evacuate. Calls for information only serves to slow down the evacuation. There are no false alarms; the alarm sounds for a reason – it has been tripped. After everyone is out safely and accounted for, an investigation will determine the cause.

When you hear the fire alarm:

1. Evacuate to your assembly areas and close – but do not lock – doors behind you.
2. Notify others to evacuate.
3. Help assist those requiring assistance.
4. Notify your Floor Coordinator of any department members not present.
5. Only the Fire Department will make decisions on re-entry after they have the situation under control. You will be notified by either the Fire Department or the Building Security Staff when you can reenter.

Jefferson Parish Building Safety Systems

Jefferson Parish buildings have safety features incorporated into them to protect the employees. Some of these features include emergency lighting, evacuation alarms, sprinklers, lighted exit signs, fire resistant construction and fire rated walls and stairwells. For the safety of everyone, the following guidelines shall be observed:

Do not circumvent any building safety features:

1. Emergency exists and fire doors should not be blocked or not be wedged open.
2. Exit signs are not to be obscured.
3. Stored items, shelves, racks, etc., must be at least 18 inches below a sprinkler head.
4. Sprinkler heads are not be covered or painted.
5. Do not cover or obscure fire pull boxes or fire extinguishers.
6. Permanent storage is never allowed in stairwells.
7. Items must not be placed along hallways that could fall into the traffic path during an emergency evacuation.
8. Do not block electrical shut-offs or circuit panels.

SECTION 8: ERGONOMICS

Ergonomics is the science of studying the relationship between the physical demands of performing one's job duties and one's physical capabilities, with the ultimate goal of preventing job-related musculoskeletal disorders (MSDs). Injuries can result from repetitive motion, overuse, heavy lifting, forceful exertion, vibration, contact stress, awkward posture, rapid hand and wrist movements.

It is the responsibility of Jefferson Parish Government to provide a safe and healthful workplace for its employees. In order to accomplish this, the following essential elements in the ergonomic process shall be practiced:

1. Worksite analysis
2. Hazard Prevention
3. Medical Management

4. Training and Education

Worksite Analysis

Conducting a thorough ergonomic analysis of a worksite reveals the relationship between the demands of performing a specific task and its effects on the worker. Variables to be considered during the worksite analysis include:

1. The task to be performed
2. The employee who will perform the task
3. The environmental conditions the employee will be working under

Ergonomic hazards that are identified can then be corrected. Employees are a key factor in offering first hand feedback to assist management in identifying the actual and potential hazards, developing, and implementing corrective measures to eliminate hazards.

Hazard Prevention

1. Preventing ergonomic hazards can best be achieved through properly designing the work environment and using the appropriate ergonomic tools and equipment to perform required job duties.
2. Tools and equipment shall be properly maintained according to the manufacture's guidelines in order to achieve optimal performance.
3. A reduction in the time, frequency, and severity of exposure to an ergonomic hazard is an important factor in preventing injuries.
4. The appropriate personal protective equipment (PPE) can be beneficial in preventing or reducing ergonomic hazards.

Medical Management

A variety of medical conditions and illnesses can be caused by ergonomic hazards. Employees are required to:

1. Notify management of any injury that occurs on the job as soon as is possible.
2. Follow through with the appropriate medical referral and doctor's recommendations for care.

Training & Education

1. Increased safety awareness can be achieved by management and employees through training programs.
2. Site specific training may be necessary for the employee to learn what their ergonomic hazards are and how to prevent injury. For example, this can include the proper use of tools/equipment, whether PPE should be used, and proper body mechanics.

SECTION 9: WORKZONE SAFETY AND TRAFFIC CONTROL ON OR NEAR PARISH STREETS AND HIGHWAYS

Whenever operations are taking place in streets, parkways, sidewalks, or other places where citizens as well as parish employees may be endangered, the supervisor or crew leader on the work site is responsible for the safety of both the public and the employees. The supervisor must

spend time before, during, and after the work is completed to protect employees and the public from the hazards created by this work. The following procedures shall be followed:

1. If street construction or repair work is scheduled, preparations shall be made to assure vehicle and pedestrian safety before such work is allowed to begin.
2. If traffic is affected by the operation, proper signage shall be displayed in advance of the work area. Traffic control signs in and around the affected area shall be correctly placed and maintained throughout the period work is performed.
3. Where barricades and signs are used overnight, supervisors shall examine the work area for proper placement at the end of the workday and at the beginning of the next day's work.
4. Lighted barricades shall be used whenever possible for night time protection.
5. Where traffic must be periodically stopped or obstructed by workers or equipment in the traveled portion of a roadway, a flagman wearing a reflective vest shall be stationed appropriately and shall use a paddleboard.
6. Flagman shall be used to slow and direct traffic where the approach to the work area does not provide adequate visibility to drivers or where traffic poses a threat to the safety of the public or parish employees.
7. All plates used to cover holes in the street on a temporary basis shall be safely secured.
8. Where streets are significantly obstructed or closed for any period of time, the Police Department, Fire Department, Jefferson Parish Public Information Office, and any other affected department or governmental organization shall be notified of the situation and told approximately how long the closure will be in effect.
9. Employees shall be equipped with approved flotation device and lifelines as appropriate when working on elevated areas near or over bodies of water.
10. The location of utility systems shall be determined prior to starting work and appropriate measures shall be taken to protect these systems as well as the public, parish employees, and equipment.
11. When pedestrian traffic is impeded by work operations; barricades, restrictive tape, rope or other restraints shall be used to keep pedestrians from the work site.
12. When pedestrian traffic must be routed off sidewalks and into the street, protection shall be provided by cones, barricades or signs to guard pedestrians from vehicular traffic.
13. Holes in the sidewalk or roadway, which must be left open, shall have perimeter protection, and be obviously identified and barricaded.
14. All employees performing roadway operations shall wear a reflective vest or other appropriate attire that enhances visibility.
15. All employees performing roadway operations should be alert to weather conditions and know how to protect themselves during adverse weather conditions.
16. All employees performing lifts or overhead operations of any kind are required to wear hard hats.

*** Remember to ALWAYS call the Louisiana One Call or other appropriate utility agencies before digging.**

SECTION 10: PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment (PPE) is equipment or a device that protects a worker's body from hazards and any harmful conditions (existing and potential) that may result in injury, illness, or possibly death. PPE may be an item worn on the body, such as gloves, or a device, such as a protective shield or barrier. PPE is the least effective way to protect workers because it does not eliminate or reduce the hazard; it only places a barrier between the worker and the hazard. If the PPE fails or is not used, then the worker is not protected from the hazard; therefore, consider more effective methods to control the hazard before resorting to PPE. Use a system of strategies, called the "Order of Controls," which prioritizes control methods that try to remove or reduce the hazard.

Order of Controls - (Most to least effective)

1. Engineering Controls
2. Work Practice Controls
3. Administrative Controls
4. Personal Protective Equipment (PPE)

1. Engineering Controls

Engineering controls are the best and the "first line of defense" against injury and illness because they focus on the hazard itself and have the potential to reduce the probability of harmful exposure. This may be done by removing the employee from the hazard or providing distance between the worker and the hazard. If you can modify the work environment to prevent employee exposure to the potential hazards, then you have eliminated the hazard with an engineering control. A primary advantage of engineering controls is they do not rely on human behavior to be effective. For example, instead of requiring employees to wear respiratory protection, which must be monitored, inspected, trained, and managed; it is more effective to install a ventilation system that does not require any of those management activities.

2. Work Practice Controls

Work practice controls reduce employee exposure to hazards by changing or redesigning safe work practices into job procedures. They also include changing work procedures to reduce overexertion, lifting, and exposure to extremes in temperature. If you can reduce your employees' exposure to the potential hazards by changing the manner in which they perform their jobs, then you have reduced the hazards with work practice controls. Work practice controls rely on human behavior, which must be managed and must be accompanied by good worker training, reinforcement, and consistent, reasonable enforcement.

Examples of work practice controls may include:

A. Wetting down surfaces to reduce dust or contaminates in the air;
B. Using safe lifting techniques;
C. Maintaining equipment and tools in good repair.

3. Administrative Controls

Administrative controls limit employees' exposures to hazards through scheduling breaks, changing the number of workers doing a job and other changes in the frequency and duration of

exposure. If you can limit your employees' exposure to the potential hazard by manipulating their schedules, then you have reduced the hazard with an administrative control. Administrative controls do rely on human behavior, which must be managed.

Administrative Controls may include:

A. Reducing shift length;
B. Increasing the number of breaks;
C. Increasing break time;
D. Rotating workers through different jobs;
E. Using additional relief workers.

4. Personal Protective Equipment

When hazards cannot be engineered completely out of normal operations or maintenance work, and when safe work practices and other forms of administrative control cannot provide sufficient additional protection, use PPE as a supplementary method of control.

Ask these questions: (select the appropriate PPE based on the answers to these questions)

A. What PPE is available to mitigate this kind of hazard?
B. What type of hazard is it, how severe is it, and what capabilities must the PPE have?
C. What is the minimum protection required? Provide a greater protection than the minimum so that it will be adequate under less than optimum conditions and will have a reasonably long life.

Protecting the Head

Head protection equipment, namely hard hats, shall be worn where there is a possible danger of head injuries from overhead impact or falling objects.

1. All hardhats must meet American National Standards 289.1.
2. The shell and the suspension of the hardhat should be checked daily to see if they are in good condition. Replace the hardhat or the suspension if it's needed.
3. Do not paint the shell. Solvents in the paint may soften the shell material.
4. If you are working around machinery or in locations where your hair can get caught in revolving shafts, or other moving parts, wear a hat or hair net that completely covers your hair.

Eye Protection

Safety glasses, goggles, or face shields are required whenever there is danger of exposing the eyes to flying particles, caustic substances or harmful light rays. All eye protection must meet ANSI 297.1 regulations.

In areas that are designed for eye protection, everyone must wear eye protection, including employees performing the job, those working nearby, and visitors. Safety goggles/glasses worn over regular glasses must be comfortable and not disturb the adjustment of corrective lenses. All employees should check their safety glasses before each wearing.

Safety glasses, goggles or face shields shall meet the following requirements:

1. Provide adequate protection against particular hazards for which they are designed.
2. Fit is reasonably comfortable when worn under the designated conditions. The brow protector should fit against the face. This helps protect against particles entering the eye

from above the glasses.
3. Fit snugly without interfering with the movements of the wearer.
4. Durable.
5. Capable of being disinfected. Glasses used by different employees should be disinfected before being used by another employee.
6. Easily cleanable.
7. Kept in good repair. Lenses should be clean and free of scratches, cracks, or pitting.
8. If there is a headband, it should fit snugly. Headbands that are slack should be replaced.
9. Contact lenses are not a substitute for safety glasses. Contact lenses also pose a special threat to the user. Hazardous dust, glasses, vapor, or liquids can cause excess watering and inflammation of the eye, which may dislodge the lenses during operation. Contact lenses shall not be worn in hazardous atmospheric conditions and shall not be worn under respirators.

Where a person's eyes or body may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use. An example of this would be an Emergency Eye Wash.

Welding Eye Safety

Employees adjacent to welding areas must be protected from the rays of noncombustibles by flameproof screens, shields or they must wear appropriate welding safety goggles.

1. Helmets or head shields must be used during all welding or cutting operations.
2. Helpers or attendants must be provided with proper eye protection.
3. All filter lenses and plates must meet ANSI 287.1 standards for transmission of radiant energy.

Hearing Conservation Program

Parish policy is to protect employee's hearing and effectively manage or eliminate hazardous noise exposures. Based upon monitoring results, a continuing Hearing Conservation Program (HCP) is established to meet these objectives.

Each employee exposed to sound levels in excess of 85 DBA, will be:

1. Given a baseline audiogram prior to assignment and an annual audiogram thereafter. The testing is provided at no cost to the employee.
2. Provided with a choice of suitable ear protectors. Employees are required to use them. Wearing of ear protection is mandatory for employees working in areas where noise exposure exceeds 90 DBA (8-hour time-weighted average).
3. Notified of the results of noise exposure monitoring when their exposure is determined to be 85 DBA (1 hour time weighted average) or greater.
4. Notified of any abnormal audiogram indicating a standard threshold shift.
5. Provided annual training and information.

Respiratory Protection Equipment

Respirators shall be worn when working with chemicals or products that pose health hazards when inhaled or ingested in the form of dusts, vapors or mists. The correct respirator must be specified for each job operation.

Respiratory protective devices fall into three classes:

1. Air-Purifying.
2. Supplied air.
3. Self- contained breathing devices.

The following guidelines are to be used for the proper selection of respiratory protection equipment:

1. Respirators shall be selected on the basis of the hazard to which the worker is exposed.
2. A qualified individual supervising the respiratory protection program (the Respirator Administrator) usually specifies the type of respirator to be used in the work procedures. This individual shall have the appropriate training and experience to administer or oversee the respiratory protection program.
3. The individual issuing respirators shall be adequately qualified to ensure the correct respirator is issued.
4. Respirators shall meet the guidelines of ANSI Z88.2-1992 and approved by the National Institute of Safety and Health (NIOSH).

An employee shall not be assigned tasks requiring use of a respirator unless it is determined that employee is physically able to perform the work and use the equipment.

1. The user must be instructed and trained in the selection, its limitations, and the use and maintenance of the respirator.
2. Respirators shall have a good seal around the face to prevent contaminated air from getting in. Scars, missing dentures, beards, mustaches, long sideburns, and long hair can interfere with a good seal.
3. When using eyeglasses, remember that corrective glasses with long temple bars may interfere with the seal; and wearing contact lenses in contaminated atmospheres is not allowed.

Respirators shall be inspected before each use. Also, respirators shall be cleaned, inspected and disinfected after each use and whenever needed. Respirators should be stored in such a manner as to protect against dust, harmful chemicals, sunlight, excessive heat and moisture. Emergency use respirators shall be kept in a place where they are readily accessible. Worn or deteriorated parts shall be replaced.

Self- Contained Breathing Apparatus (SCBA)

1. Respirators for emergency use such as the SCBA shall be thoroughly inspected after each use.
2. The SCBA shall be inspected every thirty (30) days even if it has not been used. A signed and dated inspection form must be kept by the SCBA to show the inspection record.
3. Check for holes, cracks or any sign that the respirator may not be providing the best protection.

Protecting the Torso

Employees shall wear appropriate protection if they are exposed to hazards that could injure their torso, such as: intense heat, splashes of hot metals and other hot liquids, cuts or hazardous chemicals. Some types of personal protective equipment (PPE) for body include:
vests; aprons; coveralls; welding leathers; or high-visibility or reflective clothing, such as when directing traffic or doing night work.

Vests and Lifelines

In jobs involving potential fall hazards, work vests, lifelines, body harnesses, and/or lanyards shall be used. If there is a danger of falling into water while working, a Coast Guard approved life jacket or work vest shall be used. Always inspect lifelines and body harnesses/safety belts carefully before each use. Check for signs of deterioration such as torn fibers. Inspect lifeline attachments carefully. If lifelines are used where they may be cut or damaged accidentally, such as by contact with sharp edges, they shall be padded or protected. Body harnesses shall be used for fall arrest systems when appropriate. Lanyards shall be at least 2" inch nylon or the equivalent and shall be short enough to allow a fall of less than 6 ft. They shall be firmly secured above the working surface.

Protecting the Back

Ergonomically designed back supports, commonly called "lumbar supports belts," are available in a variety of styles and designs. These supports shall 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 a common feature of some belts. All serve as a constant reminder to lift correctly.
These back supports compliment, but never substitute for, a proper lifting techniques program.

Safe Work Clothing

Ordinary work clothing, if clean, in good repair and suited to the job, may be considered safe. Good fit is important; trousers should not have cuffs that can catch flying embers, sparks or other harmful matter.
Neckties, long or loose sleeves, gloves and loose-fitting clothing may create a hazard around moving or revolving machine parts. All types of jewelry are unsafe in a shop work setting. Rings, bracelets, wrist watches, necklaces and key chains can cause serious injuries, especially working near moving machinery. Metal jewelry can be dangerous when worn around electrical equipment.
Clothing soaked with oil or flammable solvents are not only a definite fire hazard but can result in serious skin irritation.

Hand Safety

Appropriate hand protection shall be required where employees are exposed to injurious chemicals or abrasive materials or any other hazard that has the potential for hand injuries. Gloves of an appropriate type shall be worn when handling rough, sharp, and/or hot materials.
Types of gloves:

1. Rubber, vinyl, or neoprene gloves are for use with caustic chemicals such as acids, cleansers, and petroleum products.
2. Leather gloves protect against sparks, rough surfaces, and scraping objects.
3. Cloth gloves provide traction for holding slippery objects, insulate against moderate heat or cold and protect hands from some sharp edges.
4. Insulated gloves are often made of rubber and worn underneath leather gloves as protection against electrical shock and burns.

Other Hand Protection:

1. Barrier creams protect against corrosive or other irritating substances, but are not substitutes for gloves.
2. Wash hands frequently.
3. Keep hands away from your face when working with chemicals.
4. Don't use your hands for feeding materials into saws and other machinery.
5. Don't use hands to sweep up metal or wood chips.

Foot Protection

1. Steel-toed shoes are required where employees work with heavy objects or machinery that can cause foot injury. Inspect shoes regularly for damage such as dampness, cuts, cracks, etc. which might expose feet to danger.
2. Never wear defective footwear on the job.
3. Wear shoes that fit properly.
4. Safety shoes must be worn when a significant risk of foot injury exists. Each department shall determine which operations require foot protection. Safety shoes must meet ANS1 Z41 - 1991 standards.

Protecting the Legs

Knee pads protect employees whose work requires much kneeling such as cement finishing and tile setting. Ballistic nylon (Chaps) is required when using a chain saw. They will stall the saw by clogging and blocking chain teeth on contact. Leggings protect from heat hazards like welding sparks. They protect the lower legs and feet and have safety snaps for quick removal.

SECTION 11: MOTOR VEHICLE OPERATIONAL SAFETY

Motor vehicles are used to conduct Jefferson Parish business and to deliver many of its services to the community. Only parish employees completing assigned tasks and in support of official business for Jefferson Parish may operate or be a passenger in parish-owned vehicles. Exceptions are allowed for law enforcement, emergency responders, and fire-suppression personnel completing essential functions of their jobs. Any other exception is at the discretion of the department's director the vehicle is assigned to.

Employees who are operating a parish owned vehicle or who are operating their personal vehicle for parish business must obey traffic laws and drive in a courteous manner. In addition,

employees shall obey the following rules before operation, during vehicle operation, and regarding vehicle maintenance and safety checks.

Before Operation

Before operating a parish vehicle or a vehicle on behalf of Jefferson Parish, employees shall follow these rules:

1. Have in their possession a valid current driver's license authorizing operation of the class of vehicle to be driven. (This license must not be expired.) This includes any required medical exams for Commercial Licenses when necessary.
2. Have successfully completed the appropriate training for operation of the vehicle.
3. Receive instruction about operating the vehicle. Never operate motor vehicle until you have been properly trained on the safe operation of the vehicle.
4. Be fully alert. Never operate a motor vehicle when you are very tired, physically ill, impaired, emotionally upset, or when, for any reason, you are not fit for duty.
5. Never operate a motor vehicle while you are under the influence of alcohol or any other drug or medication capable of impairing your ability to drive the vehicle.
6. Under no circumstances is smoking allowed in any Jefferson Parish vehicle.
7. Privately-owned vehicles used on official parish business must have a current, valid break tag and the owner of the vehicle must carry automobile liability insurance and proper vehicle registration.
8. You must notify your Appointing Authority within 72 hours of a conviction for any traffic violations (except parking), regardless what type of vehicle being driven.
9. You must also notify your Appointing Authority of any arrest for Driving Under the Influence (DUI).
10. You must notify your Appointing Authority immediately if your license is suspended, revoked, canceled, or if you are disqualified from driving for any reason.

A. Pre-Trip Inspection: Each vehicle operator must insure that the vehicle is in mechanically safe conditions at the start of each day before operating the vehicle by conducting a pre-trip inspection which includes visually checking the following:
    1. Tire – inflation, cut breaks, tread wear, etc.
    2. Leaks – oil, fuel, water.
    3. Crankcase oil level – sufficient.
    4. Coolant level in radiator and over flow tanks - sufficient.
    5. Lights and signal devices – operating properly.
    6. Glass, license plate and lamp lens – clear and clean.
    7. Mirrors – properly adjusted and clean.
    8. Windshield wipers and washers – functioning, 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 and insurance documents in the glove compartment.
    13. Fire extinguisher in vehicle and in operating condition.

14. Brakes and brake lights – operating properly.
15. Valid brake tag.
16. Overall vehicle cleanliness, (exterior and interior). Wash exterior and sweep and remove trash from interior.
17. Safety belts in good condition and operating properly.

B. Vehicle Maintenance Safety Checks: Before operating parish vehicles, employee must perform safety inspections:

1. Before operating any vehicles regularly assigned to you or provided for your use, inspect the vehicle's components to insure they are in good condition and are operating properly and make certain you are familiar with the vehicle gauges and operational controls. Complete all required pre- and post- use check lists accurately and return copies to your department.
2. Never disconnect or override any computer, governor, or any other service that was installed on a motor vehicle to increase the safety and operation of that vehicle.
3. Report damage or unsafe conditions to your supervisor immediately. Do not operate unsafe motor vehicles.
4. Any employee who drives either a parish vehicle or their own vehicle as a major part of their job shall have their driver's license and insurance checked annually by their Supervisor and a member of the Safety Department.
5. 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.
6. Drivers should not back up their vehicles unless they have a spotter. If a spotter is not available, the driver should get out of the vehicle and check for safety hazards before backing up.
7. When a vehicle is towing a trailer or semi-trailer by means of a trailer hitch, safety chains from the trailer or semi-trailer to the vehicle shall be attached. Safety chains shall be connected to the towing vehicle by crossing the chains under the tongue of the trailer. These safety chains shall be of sufficient strength to maintain connection of the trailer or semi-trailer to the pulling vehicle under all conditions while the trailer or semi-trailer is being towed by the vehicle. This requirement shall not apply to trailers or semi-trailers using a hitch, known as a fifth wheel.

Operation

While operating a parish vehicle or a personal vehicle for parish use, employees shall follow the rules listed below:

1. Employees are authorized to drive or operate only vehicles, which have been assigned to them by their supervisor.
2. The use of cell phones, whether personal or parish issued, while driving a vehicle being used for parish business is strictly prohibited.

3. The use of hands-free devices such as blue tooth cannot be used while driving a vehicle used for parish business. In addition, the composing, sending, and reading of text messages while driving a vehicle used for parish business is prohibited.
4. The use of hand held parish issued two-way radios while driving a vehicle being used for parish business is strictly prohibited. The vehicle should be safely stopped before transmitting on two-way frequencies.
5. Parish regulations and Louisiana state law requires that seat belts must be worn by all motor vehicle drivers and passengers. The driver shall not operate a vehicle until driver and all passengers are seated with properly fastened seatbelts.
6. Do not pick up hitchhikers. Only authorized personnel are permitted to ride in parish vehicles.
7. Never operate any motor vehicle used for parish business beyond its capability or for other than the purpose for which it was designed.
8. When operating a parish vehicle, do not cause undue wear and tear on any part of the vehicle.
9. All drivers must obey posted speed limits and traffic warning signs.
10. Adjust speed so that the vehicle can safely be operated or stopped under adverse road or weather conditions.
11. Avoid sudden stops and unnecessary lane changes to prevent accidents.
12. Use directional signals well in advance to indicate all turns or lane changes.
13. Properly secure any vehicle before leaving it unattended.
14. Avoid distracted driving. For example a driver should avoid eating, drinking, reading, and applying makeup while driving.
15. Be prepared to stop and yield the right of way in all instances when necessary to avoid an accident.
16. Warning flasher lights must be used when vehicles are stopped on or along public roads.
17. Keep a sharp lookout for pedestrians and children, especially in school zones or where they are playing, and – BE PREPARED TO STOP IMMEDIATELY.
18. Tailgates shall be closed when the vehicle is in operation and not transporting long loads.
19. Do not park vehicles, etc. on bridges or culverts except when necessary for work.
20. Do not use radio transmitters while the vehicle is being fueled. All ignition systems are to be turned off and smoking is not permitted while refueling.
21. Keep the clutch engaged while going down a grade. If a pick-up truck is heavily loaded, keep it in low or second gear on steep grades.
22. When driving a standard transmission and 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 incline, put in a forward gear or in park.
23. Turn off the engine if the vehicle is to be stopped for a prolonged period of time. Lock the vehicle and roll-up windows when exiting vehicle.
24. That the driver and all passengers use available handgrips and the three point system when entering or exiting the vehicle. The three point system means three of your four limbs are in contact with the vehicle at all times.
25. That no one rides in the open area of a parish vehicle – i.e. bed of a pickup truck.

26. Riding on a running boards, fenders or steps of parish vehicles or equipment is strictly prohibited.

CDL Classifications - Licensing

1. Class "A" Commercial Drivers – Combination Vehicles

Age Requirements: 18 years or above for intrastate and 21 years or above for interstate. The class "A" License 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 twenty six thousand and one pounds or more provided that the gross vehicle weight rating of the vehicle or vehicles being towed in excess of ten thousand pounds.

NOTE: if the pulling unit of the combination vehicle is twenty-six thousand pounds or less, a restriction (55-No. 18-wheelers) must be added to the license.

2. Class "B" Commercial Driver's License – Heavy Straight Vehicle

Age Requirements: 18 years or above for intrastate and 21 years or above for interstate. The Class "A" License permits the operation of any vehicle within Classes "C", "D", and "E", with any appropriate endorsement(s) plus any single vehicle with a gross vehicle weight rating of twenty-six thousand and one pounds or more or any such vehicle towing a vehicle not in excess of ten thousand pounds gross vehicle weight rating. A "straight vehicle" is defined for the purpose of this class as being one that does not bend or have a moveable joint in its frame between the driver seat and the cargo or passenger compartment.

3. Class "C" Commercial Driver's License – Light Vehicle

Age Requirements: 18 years or above for intrastate and 21 years or above for interstate. Permits the operation of any vehicle within Classes "D" and "E", with any appropriate endorsement(s), plus any single vehicle less than twenty-six thousand and one pounds Gross Vehicle Weight Rating, or such vehicle towing a vehicle not in excess of ten thousand pounds Gross Vehicle Weight Rating. This group includes vehicles designed to transport 16 or more passengers, including the driver, and which are not within the definition of a Group "A" or "B" vehicle, and vehicles used in the transportation of placarded amounts of hazardous materials.

4. Class "D" – Chauffeurs Driver's License

Age Requirement: 17 years or above. 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 ten thousand and one or more pounds, but less than twenty-six thousand and one pounds or any combination of vehicles used in commerce to transport passengers or property if the vehicle has a combined vehicle weight rating of ten thousand and one or more pounds but less than twenty-six thousand and one pounds inclusive of a towed unit with a gross vehicle weight rating of more than ten thousand pounds and one pounds; or any vehicle designed or utilized for transportation of passengers for hire or fee; and not utilized in the transportation of materials found to be hazardous under the provisions of the Hazardous Materials Transportation Act which requires the vehicle to bear a placard under the provision of Hazardous Materials Regulations (49 CFR Part 172, Subpart F).

ENDORSEMENTS
LSA-R.S. 32:408 (3)
The following endorsements are possible to the classes of Commercial Driver's Licenses:

"T" Double/Triple Trailer
"P" Passenger
"N" Tank Vehicles
"H" Hazardous Materials (issued only to persons 21 years or age or above)
"X" Combination Tank Vehicles and Hazardous Materials

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.

Special Note - exhaust systems on newer models of cars and pick-up trucks have catalytic converts, 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.

Heavy Motor Vehicles Operational Safety

Employees have no special traffic rights except when actually working on streets or roadways. When working on streets and roadways, properly barricade or mark with warning cones, flags, or signs. All traffic rules must be observed. In addition to the operating rules set out above, heavy motor vehicle operations shall comply with the following:

1. 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 employment action or the loss of your privileges to drive if you are involved in an accident as a result of operating an unsafe motor vehicle.
2. Projections extending 3 ft. or more in length from the rear of the vehicle must be marked by red flags. Red flags must be used on any vehicle traveling at a very slow speed to warn overhauling traffic.
3. Operators must not load equipment beyond their rated capacity or in such a way as to allow excessive materials spillage or cause vehicle structural damage.
4. All parish vehicles transporting mud, limestone, sand, or debris must maintain adequate covering in proper working order. Vehicle operators are required to cover all loads at all times.
5. Heavy equipment and trucks, as well as all motor vehicles, must keep to the proper side of the road and maintain a reasonable speed.
6. Caution should be exercised when the operator's view of traffic is limited or reduced by the load.
7. Your supervisor should be consulted if you are doubtful as to the weight limit of a bridge or viaduct.
8. When backing or where the clearance is doubtful always get assistance in guiding the driver.
9. All field crew trucks must carry a first aid kit, fire extinguisher and triangle kit.

10. Truck and trailer operators must abide by posted load limit weights.
11. Any parish vehicle must receive a state permit for operation if any of the following apply:
    11.1 It has a height of 13 ft. 6 inches or greater.
    11.2 It is 18 ft. wide or greater on a two lane highway.
    11.3 It is 120 ft. long or more.
12. All overpass and underpass clearances must be verified by operators before hauling equipment.
13. All electrical hookups for lights and brakes must be used.

SECTION 12: HEAVY EQUIPMENT

Heavy Equipment is both powerful and dangerous both for the operator and for those who work around it. It's important that you know the safety precautions to take when working with and around heavy equipment such as backhoes, excavators, and cranes.

Operation

1. Become familiar with the manufacturer's operator manual for the heavy equipment assigned to you. Operator manuals explain how to properly operate the equipment as well as how to perform routine maintenance. Completely follow all directions outlined in the manuals.
2. You are expected to fully understand the equipment's limitations and capabilities. Do not exceed the manufacturer's recommendations.
3. Physically inspect the work area before operations begin. Mark clearly all large rocks, tree stumps, overgrown gullies and ditches, and other obstacles. Avoid these areas as much as possible. 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 or other enclosed area.
7. Operate the equipment only from the driver's seat. This seat should be equipped with a seat belt and which must be worn when in operation.
8. Learn and use the accepted hand signals used by your department.
9. Know the working range of the equipment and make certain that others are out of the swing radius of the equipment.
10. When the equipment is stopped, the engine must be shut off, the gear shift placed in neutral, the power take off disengaged and front end or rear mounted equipment lowered to the ground before performing any service operation or when leaving the equipment unattended.
11. When transporting loads in a loader bucket, keep bucket low enough to the ground for good visibility, but high enough to clear obstacles.
12. Clear the work area of all unauthorized people.

13. 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.
14. Do not operate the equipment in areas where it can tip over or slide.
15. Keep the equipment in gear while going downhill.
16. Connect equipment to be towed to the drawbar, not to the seat, rear axle or any other part of the equipment.
17. Load binders and appropriate proper strength chains shall be kept in good condition. Report damaged binders and chains to your supervisor immediately.
18. Never modify, in any way, the original design of the equipment. Never remove any safe guards.
19. Equipment Operators must check vehicle licensing requirement stickers on vehicle windshield before operating equipment.

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 has been started, check all gauges 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, or the power take off.

SECTION 13: LIGHT EQUIPMENT

Light equipment, such as mowers and weed eaters, is frequently used throughout Jefferson Parish by many different departments. However, light equipment like mowers and weed eaters present certain dangers if not properly operated or if the necessary precautions are not taken.

Operation

1. Become familiar with the type of equipment to be used 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. Check all equipment guards and safety features to insure they are attached and in proper working condition**. Do not remove equipment guards or safety features.**
2. Clean the work area of all wire, stones, branches, trash, and other debris before beginning work. Avoid large rocks, curbs, and tree roots.
3. Keep all other personnel away from the equipment while it is in operation.

4. Whenever possible, discharge away from the roadway. When not possible, additional safety measures must be provided (cones, flagmen, etc.) to protect area vehicular traffic.
5. Keep hands and feet from under the machine and cut off the discharge chute while engine is running.
6. When refueling, turn the engine off and wait until it has cooled. Wipe up a gasoline spill.
7. Never start the engine indoors.
8. Be sure the equipment will not tip over while starting. Always start on level ground.
9. 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.
10. Keep all wheels on the ground while operating the equipment.

Weed Eater Safety Precautions

1. When you start your weed eater, make sure that you have good balance and footing. Hold the machine with two hands, and make sure that you are in open area.
2. The cutting part of the weed eater should never go above waist height.
3. The speed of the string should never be faster than what is required to cut the vegetation.
4. Do not operate a weed eater in the immediate vicinity of others; debris from a weed eater can fly over 30 ft.
5. When you have completed your weed eating, let the machine idle for a few minutes to cool down before you shut it off.
6. **Under no circumstances is a safety guard to be removed.**

SECTION 14: ENTERING AND WORKING IN A CONFINED SPACE

Special caution must be taken when working in a closed, unventilated area. Confined spaces can be highly dangerous areas. Their hazards are often invisible, fast working, and difficult to escape. Even empty, well cleaned spaces can pose risks. A Confined Space means a space that:

1. Is large enough that an employee can bodily enter and perform assigned work.
2. Has limited or restricted means for entry or exit (for example, ship compartments, tanks, vessels, silos, storage bins, hoppers, vaults, and pits).
3. Is not designed for continuous employee occupancy

No work in a confined space should be performed without careful evaluation of the space

ENTERING A CONFINED SPACE

1. 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 2 or 3 ft. from the manhole and flat on the ground.
2. If the manhole is in an area of vehicular or pedestrian traffic, barricades and warning devices such as traffic cones should be used.
3. 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.

4. 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.
5. All trucks, cars, or gasoline powered equipment shall be kept downwind from any fresh air blowers.
6. Manhole covers upstream and downstream are to be removed if they exist. Manhole covers are to be removed with the proper hook.

WORKING IN A CONFINED SPACE

1. 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.
2. Employees working in the confined space shall wear a safety harness with an individual life line. An emergency hoist shall be available to lift employees out of the confined space should the need arise.
3. Employees who are in the confined space shall be equipped with a continuous atmospheric monitoring device. The indicator shall have an audible alarm that sounds in an unsafe environment.
4. High temperatures and humidity can lead to suffocation. If the employee begins to feel dizzy or light-headed, the employee should leave the confined space immediately.
5. Hard hats shall always be worn in confined spaces.
6. Only one employee at a time is permitted on a ladder or rings in the chamber.
7. Smoking is not permitted while in the chamber.
8. Once inside the chamber, an inspection shall be made for any unsafe conditions or damage. Unsafe conditions or damage shall be reported to the immediate supervisor. Missing, broken or loose rings shall also be reported.
9. If a flammable liquid is found in the chamber, it shall be removed before work can begin.

If working in a pump room abide by the following:

1. Unless designed with adequate ventilation, pump rooms shall be considered confined spaces. Before entering any pump room that is experiencing problems, the atmosphere shall be tested and ventilation provided.
2. The operator shall be aware of the following conditions:
    - 2.1 Ladders and floors which may be oily or slippery.
    - 2.2 High voltage electrical current.
    - 2.3 Damp and/or “oily” atmosphere.
    - 2.4 Possibility of hazardous gas due to leaking of packing on pumps.

SECTION 15: TRENCHING AND SHORING GUIDELINES

General

Excavating is recognized as one of the most hazardous work related operations. This section of the safety manual shall provide guidance for employees who perform excavations as part of their job description.

Definitions

Aluminum hydraulic shoring: an engineered shoring system comprised of aluminum hydraulic cylinders (cross braces), used in conjunction with vertical rails (uprights) or horizontal rails (walers). Such a system is designed specifically to support the sidewalls of an excavation and prevent cave-ins.

Benching: a method used to protect employees from cave-ins by excavating the sides of an excavation to form one or a series of horizontal levels or steps, usually with vertical or near-vertical surfaces between levels.

Excavation: any man-made cut, cavity, trench, or depression in an earth surface that is formed by earth removal.

Shield (shield system): a structure that is able to withstand the forces imposed on it by a cave-in and thereby protects employees with the structure. Shields can be permanent structures or can be designed to be portable and moved along as work progresses; also known as a trench box or trench shield.

Shoring (shoring system): a structure such as a metal hydraulic, mechanical or timber shoring system that supports the sides of an excavation and which is designed to prevent cave-ins.

Sloping (sloping system): a method of protecting employees from cave-ins by excavating to form sides of an excavation that is inclined away from the excavation activity to prevent cave-ins.

Support System: Refers to the structures such as underpinning, bracing, and shoring that provide support to an adjacent structure or underground installation or to the sides of an excavation or trench.

Trench: a narrow excavation (in relation to its length) made below the surface of the ground. In general, the depth is greater than the width, but the width of the trench is not greater than 15 feet.

Requirements

Excavations shall be made in accordance to the following standards:

Supervisor, Foreman, or Superintendent shall be placed in charge of all excavation activities.

The competent person shall have and be able to demonstrate training, experience, and knowledge of:

1. Soil analysis
2. Use of protective systems
3. Proper trenching techniques

Supervisors, Foreman, or Superintendents shall have the ability to detect:

1. Conditions that could result in cave-ins
2. Failures in protective systems
3. Hazardous atmospheres
4. Other hazards including those associated with confined spaces.

Supervisor, Foreman, or Superintendent shall have the authority to take prompt corrective measures to eliminate existing and predictable hazards and to stop work when required.

1. Underground utilities must be located and marked before excavation begins.

1. You must always dial 811 before any type of excavation takes place.
2. Employees are not allowed in the excavation site while heavy equipment is digging.
3. Supervisor, Foreman, or Superintendent shall conduct visual inspections:
    - 3.1 Daily and before the start of each shift
    - 3.2 As dictated by the work being done in the trench
    - 3.3 After every rain storm
    - 3.4 When tension cracks, sloughing, undercutting water seepage, or other similar conditions occur
    - 3.5 When there is a change in the size, location, or placement of the spoil pile.
4. For trenches 4 ft. or greater in depth, a trench inspection form shall be completed by a Supervisor, Foreman, or Superintendent.

Soil Categories

Soil is often categorized into three types.

- Type A: Most Stable: clay, sandy clay, and silty clay loam. No soil is type A if it is subject to vibrations of any type, has previously been disturbed, or has seeping water.
- Type B: Medium stability: silt, disturbed soils or soils subject to vibrations.
- Type C: Least stable: sand and loamy sand, soft clay, submerged soil, and soil from which water is freely seeping.

Test Methods and Evaluating Soil Type

The Supervisor, Foreman, or Superintendent in charge of the excavation shall be responsible for determining whether the soil is type A, B, or C. If the competent person wants to classify the soil as type C, testing is not required. However, test must be conducted to determine if the soil can be classified as type A or B. To do this, the competent person shall use a visual test coupled with one or more manual tests.

Visual Test

In addition to checking the items on the trench inspection form, the competent person should perform a visual test to evaluate the conditions around the site. In a visual test, the entire excavation site is observed, including the soil adjacent to the site and the soil being excavated. The Supervisor, Foreman, or Superintendent shall also check for any signs of vibration.

The Supervisor, Foreman, or Superintendent should also look for signs of bulging, as well as signs of water seeping from the sides of the excavation or from the water table. In addition, the evaluator should check the spoil distance from the edge of the excavation.

Manual Testing

1. Thumb Penetration Test: attempt to press the thumb firmly into the soil in question. If the thumb makes an indentation in the soil only with great difficulty, the soil is probably type A. If the thumb penetrates no further than the length of the thumb nail, it is probably type B soil, and if the thumb penetrates the full length of the thumb, it is type C soil.
2. Dry Strength Test: Take a sample of dry soil. If it crumbles freely or with moderate pressure into individual grains, it is considered granular (type C). Dry soil that falls into

clumps that subsequently break into smaller clumps is probably clay in combination with gravel, sand, or silt (type B). If the soil breaks into clumps that do not break into smaller clumps and the soil can be broken only with difficulty, then it is type A.

3. Plasticity or Wet Thread Test: Take a moist sample of the soil. Mold it into a ball and attempt to roll it into a thin thread approximately 1/8 inch in diameter by two inches in length. If the soil sample does not break or tear when held by one end, it may be considered type B.

Ingress and Egress

Access to and exit from the trench requires the following conditions:

1. Trenches 4 ft. or more in depth should be provided with a fixed means of egress.
2. Spacing between ladders or other means shall be placed at a certain distance that will enable workers to travel less than 25 ft. laterally to the nearest means of egress.
3. Ladders shall be secured an extended a minimum of 36 inches above the landing.
4. Metal ladders should not be used when electrical utilities are present.

Exposure to Falling Loads

The following steps shall be taken to ensure employees are protected from loads/objects falling from lifting or digging equipment.

1. Employees are not allowed to work under raised loads.
2. Employees are required to stand away from equipment that is being loaded or unloaded to avoid being struck by falling materials or spillage.
3. Equipment operators or truck drivers may remain in their equipment during loading and unloading if the equipment is properly equipped with a cab shield or adequate canopy.

Warning Systems for Mobile Equipment

The following steps shall be taken to prevent vehicles or people from accidently falling into a trench:

1. Barricades must be installed where necessary.
2. Hand or mechanical signals must be used as required.
3. Trenches left open overnight shall be fenced and barricaded.

Standing Water and Water Accumulation

Methods for controlling standing water and water accumulation shall be provided and shall consist of the following when employees must work in the excavation site:

1. Water removal equipment, such as pumps used and monitored by a supervisor.
2. Surface water diverted away from the trench.
3. Employees shall be removed from the trench during a rainstorm.
4. Trenches carefully inspected by a supervisor after each rain and before employees are permitted to re-enter the trench.

Protective Systems

Protective systems are methods of protecting workers from cave-ins of materials that can fall or roll into an excavation site, or from the collapse of adjacent structures. If an excavation site is

less than 5 ft. deep, it does not require protective systems unless the supervisor sees signs of a potential cave-in. For trenches between 5 ft. and greater, shoring and sheeting, shielding and sloping are all acceptable protective measures. It is up to the supervisor of the job to determine which protective measure is the most appropriate.

Shoring

Shoring is used when the location or the depth of the trench makes sloping impractical. There are two basic types of shoring: timber and aluminum hydraulic.

The following rules will apply whenever shoring is used:

1. Workers shall 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 materials should be the appropriate size.
3. Shoring shall be installed immediately following excavation. The longer a trench is left unsupported, the greater the probability of a cave-in.
4. Soil shall not be placed closer than two feet from the sides of the trench in order to prevent the material from falling or rolling back into the trench.
5. Excavations of 10 ft. or more shall be contracted out.
6. All timber should be stored out of the weather.

Aluminum Hydraulic Shoring

This type of shoring provides a critical safety advantage over timber shoring because it is light enough to be installed by one worker who does not have to enter the trench to install them. Hydraulic shoring shall be checked at least once per shift for leaking hoses and cylinders, broken connections, any other damages or defective parts.

The top cylinder of hydraulic shoring shall be no more than 18 inches below the top of the excavation. The bottom cylinder shall be no higher than four ft. from the bottom of the excavation. 2 ft. of trench wall may be exposed beneath the bottom of the rail or plywood sheeting if used.

Stringers (wales) are installed no more than two ft. from the top and no more than 4 ft. from the bottom, and no more than 4 ft. apart-vertically.

Pneumatic Shoring

Pneumatic shoring works in a manner similar to hydraulic shoring. The primary difference is that pneumatic shoring uses air pressure in place of hydraulic pressure. A disadvantage to the use of pneumatic shoring is that an air compressor must be on the excavation site.

Shielding

Trench boxes are different shoring because, instead of shoring up or otherwise supporting the trench face, they are intended primarily to protect from cave-ins and similar incidents.

The excavated area between the outside of the trench box and the face of trench should be as small as possible. The space between the trench box and the excavation side shall be backfilled to prevent lateral movements of the box. Shields shall not be subjected to loads exceeding those which the system was designed to withstand.

Trench boxes are generally used in open areas, but they may also be used in combination with sloping and benching. The box shall extend at least 18 inches above the surrounding area if there is sloping toward the excavation. This can be accomplished by providing a benched area adjacent to the box.
Shields may ride two ft. above the bottom of the excavation, provided the shields are calculated to support the full depth of the excavation and there is no caving under or behind the shield.
Workers shall enter and leave the shield in a protected manner such as by ladder or ramp. Workers shall not remain in the shield while it is being moved.

SECTION 16: FIRE SAFETY AND PREVENTION

Fire Prevention

One of the most costly and destructive causes for loss of life and property damage that the parish could experience would be from a major fire. All facilities or parts thereof used by parish employees shall have a current written Emergency Evacuation Plan that will provide for the safe evacuation of all persons in the event of an emergency of any kind. This Plan should be put into action, evaluated and updated as necessary, or at least annually.

The Safety Division has a list of all buildings either owned or leased by Jefferson Parish. All single story buildings occupied by five or more employees shall have a written building evacuation plan and shall conduct at least one evacuation every year. All buildings with two or more stories shall conduct their evacuations twice a year. The Safety Division will track dates and times, as well as the results, for all evacuations drills. Directors shall report to the Safety Division which buildings they are responsible for and who will be responsible for conducting the evacuations. Directors shall also report to the Safety Division the expected dates and times of the specific building evacuation drills. After each evacuation drill is completed, the results shall be reported to the Safety Division noting any problems or concerns. If you have any questions, including questions about which buildings you are responsible for, please direct them to the Safety Division.

The following rules emphasize key fire safety elements, which include good housekeeping; caution in the use of flame, heat, or spark producing devices; caution in the use, handling and storage of flammable or combustible materials; and knowledge of basic procedures in the event of a fire.

Good Housekeeping

Good housekeeping habits are essential to preventing fires. All employees can minimize fire hazards by complying with the following rules:

1. Do not store within your work area unnecessary flammable or combustible materials. Put the materials in a safe storage area at the end of each work day.
2. Keep all machines, equipment, and floors free from oil and grease buildup.
3. 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.
4. Do not allow waste or trash to accumulate except in proper disposal containers.

5. Dispose of trash daily.
6. Keep fire sprinkler systems free of all foreign materials. Do not hang anything on sprinkler heads or pipes, and make sure there is a clear space of at least 18" around a sprinkler head.
7. Keep portable fire extinguishers mounted on proper brackets, and do not block or conceal them with furniture, equipment, supplies, or clothing.
8. Recharge an extinguisher immediately after any use, regardless of the amount of extinguishing agent used. If the extinguisher is not rechargeable, dispose of it properly and replace it immediately.

Reporting Fires

All employees shall report fires immediately to 911 and follow the procedures outlined in their Emergency Evacuation Plan. Note: In many office buildings, it is required to dial "9" to get an outside line; therefore, you may need to dial 9-911.

Note: Know the location of the exits and the location of the nearest fire extinguisher. Also, Know how to correctly operate the fire extinguisher. If you have questions, contact the Safety Division.

Portable Fire extinguishers

All portable fire extinguishers shall be inspected by the division/department each month with the inspection date and inspector's initials recorded on the extinguishers inspection tag.
Access to fire extinguishers must be kept clear at all times.

1. A fire extinguisher shall be used only on a small fire.
2. Use a fire extinguisher only <u>if trained</u> to use it.
3. Most portable fire extinguishers are classified:
    a. "A" for fires involving combustibles such as wood or paper.
    b. "B" for flammable liquids.
    c. "C" for electrical wiring and equipment.
    d. "ABC" for combination fires.
    e. "D" for combustible metals such as magnesium and sodium.
    f. "K" for industrial kitchens or whenever there is a fire suppression hood.
4. Signs should be visible indicating the location of fire extinguishers.
5. Replace or recharge used fire extinguishers as soon as possible after each use.

SECTION 17: FLAMMABLE AND COMBUSTIBLE LIQUIDS

As defined by National Fire Protection Association (NFPA) 30, *Flammable and Combustible Liquids Code*, a flammable liquid is any liquid having a flash point below 100 F (37.8 C). A combustible liquid is any liquid having a flash point at or above 37.8 C (100 F) and below 93.3 C (200 F). Flammable liquids are classified as IA, IB, and IC (see NFPA 30 and NFPA 321, Basic Classification of Flammable and Combustible Liquids.)

Class I shall include flammable liquids having flash points below 100 F (37.8 C) and having a vapor pressure less than or equal to 40 psia (276 kPa) at 100 F (37.8 C). Examples of flammable liquids are gasoline, acetone, and lacquer thinner.

Combustible liquids - although they do not ignite as easily as flammable liquids, combustible liquids can be ignited under certain circumstances and must be handled with caution. They are divided into four classes: II, III, IIIA and IIIB. Examples of combustible liquids are kerosene, fuel oil, mineral spirits, and brake fluid.

General Safety Practices

1. Do not use or handle any chemical or paint without permission from your supervisor.
2. All instructions provided by the manufacturer in the handling, storage, disposal, and use of chemicals are to be followed exactly.
3. Obey all "No Smoking" signs.
4. 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.
5. Use the proper fire extinguisher on any flammable liquid or chemical fire. DO NOT USE WATER.
6. Know the location of emergency showers and eye wash stations and how to use them.
7. All containers shall be labeled properly.
8. The transfer of any liquid from one container to another shall include grounding and bonding.
9. Ensure there are no leaks in containers of flammable or combustible materials.
10. Clean up all spills immediately.
11. Guard carefully against flammable or combustible liquids spilling on or soaking into your clothing and change clothing before continuing to work if a spill happens.

Use of Flammable Liquids and Combustible Liquids

Whenever flammable and combustible liquids are stored or handled, the liquid is usually exposed to the air at some point in the operation, except where the storage is confined to sealed containers that are not filled or opened on the premises or where handling is in closed systems and vapor losses are recovered. However, there is always the possibility of breaks or leaks which could permit the liquid to escape. Therefore, ventilation is of primary importance to prevent the accumulation of flammable vapors.

Hazards created by flammable and combustible liquids may be avoided or reduced by the substitution of relatively safe materials. Such materials should be stable, have a low toxicity, and be either nonflammable or have a high flash point. Flammable and combustible liquids require careful handling. Mixing these liquids and handling them in the presence of sparks or open flames add to the hazard. Practical safety tips to follow:

1. Do not smoke, burn, chip, or create sparks around any flammable or combustible liquid.
2. An approved safety "drip pan" must be positioned below each drum faucet to catch spills or drippings from the faucet.
3. Oily rags and waste are to be kept in an approved waste container and emptied each day.

4. When filling vehicle fuel tanks, make sure the fill nozzle is grounded to the tank mouth to prevent ignition of static electricity.
5. Clean small containers and drums that contained a flammable or combustible liquid outside a building in an open location.
6. Before working on any container or drum having held a flammable or combustible liquid, be sure to empty and purge. After purging, fill container with water or inert gas.
7. Large tanks, barges, and even 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.
8. Some of the more hazardous flammable and combustible liquids that may be encountered in the work area are: (listed in approximate order of hazard):
    Aerosol Cans
    Gasoline
    Catalyst MEK peroxide
    Carburetor cleaner
    Acetone
    Lacquer and lacquer thinner
    Adhering liquid (for silk-screen process)
    Paint thinner
    Alcohol
    Shellac
    Paint Resin (polyester)
    Stain and varnish
    Danish Oil
9. Read and follow instructions for handling and mixing catalysts with resins or finishes.
10. Never pour catalysts back into the bottle.
11. Always add the catalyst to the resin and not the resin to the catalyst.
12. Never apply resin, paint, or other finishing material near areas used for cutting, welding, grinding, or other hot work.
13. Be sure the work area is well ventilated.
14. Properly dispose of unwanted flammable liquids and combustible materials daily.
15. Use a solvent only after determining its properties, the type of work that must be performed, and understanding the correct manner in which solvent should be used.

Storage of Flammable Liquids and Combustible Liquids

1. Inside storage cabinets shall be grounded.
2. 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.
3. Flammable liquids and combustible must not be stored in open containers. Close all containers after usage.
4. Flammable and combustible liquids shall be stored in proper Underwriters Laboratory approved containers.
5. Approved self-closing safety faucet and approved safety vent must be used on drums that the product is being drawn from.

6. 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.
7. Store thinners and solvents only in original purchase containers or approved safety containers.
8. Storage cabinets shall be marked "FLAMMABLE—KEEP FIRE AWAY".
9. Proper ventilation must be maintained at all time for storage of flammables and combustible liquids.

SECTION 18: BOILERS AND UNFIRED PRESSURE VESSELS

The American Society of Mechanical Engineers' (ASME) Boiler and Pressure Vessel Code are intended for manufacturers, designers, repairers, and inspectors. Boilers and unfired pressure vessels owned and operated by Jefferson Parish will be inspected, operated, and maintained in accordance with the ASME Code. Compliance with the code will be determined by authorized inspectors commissioned by National Board of Boiler and Pressure Vessel Inspectors and the State Fire Marshal's Office. The National Board of Boiler and Pressure Vessel Inspectors have published their own inspection code (referred to as the NB Code). Both boiler and unfired pressure vessels shall be inspected by a Certified Inspector every twelve (12) months before being issued a certificate of approval. Both the ASME Code and the NB Code should be used for guidance when repairing and altering boilers and pressure vessels. Strict compliance with all applicable federal, state, and local codes is mandatory. Further information can be obtained from the National Fire Protection Association's NFPA 85A, 85B, 85D, and 85E, Boiler-Furnace Standards.

Every code compliant pressure vessel has a nameplate on which is stamped the manufacturer, maximum allowable working pressure (MAWP), square feet of heating surface, rate of steaming capacity, serial number, year built, and a national board registration number.

Boilers

In its simplest definition, a boiler is a closed vessel in which water is heated by combustion of fuel or other heat source. The heat forms steam, hot water, or high-temperature water under pressure. A high-pressure steam boiler is one which generates steam or vapor at a pressure over 15 psig. A low-pressure boiler is defined as a steam boiler that operates below 15 psig pressure or a hot-water boiler that operates below 160 psig or 250° F. In order to minimize boiler fires and explosions caused by faulty controls and safety devices, Jefferson Parish has:

1. Established a test and servicing program where operating controls, safety controls, and safety and relief valves are tested and maintained at regular intervals according to the manufacturer's recommendations;
2. Makes sure that safety and relief valves are always tested with pressure on the boiler to prevent damage to the valve seats;
3. Has repairs made immediately upon any indication of malfunction or leakage of operating or safety controls;
4. Has only qualified individuals or service organization check, clean, or service the boiler;

5. Keeps a log book to ensure that necessary tests, maintenance, and services are performed and that the records are available at all times.

Unfired Pressure Vessels

Unfired pressure vessels are compressed air tanks, steam kettles, digesters, vulcanizers, and other such vessels. These vessels can be subjected to internal pressure other than direct fire of burning fuel. If heat is generated in such a 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.

Unfired pressure vessels are covered in the ASME Code, Section VIII, Divisions 1 and 2. The following classes of vessels, however, are exempt from the code's scope:

1. Vessels subject to federal regulations;
2. Vessels with a nominal capacity of 120 gallons or less of water under pressure, in which any trapped air serves only as a cushion;
3. Vessels having an internal or external operating pressure not exceeding 15 psi with no limitation on size;
4. Vessels with an inside diameter not exceeding 6 in. and no limitation on pressure;
5. Hot water storage tanks heated by steam or other indirect means—heat input of 200,000 Btu or less, water temperature of 200° F or less, and nominal capacity of 120 gallons or less.

Note: the Code provides that vessels designed for pressures over 3000 psi may be code stamped. This is covered under Section VIII of the ASME Code, Division 1 and 2.

Division 1

This division covers vessels with ratings of 3,000 psi or less. Vessels built to these specifications may be used anywhere the pressure and temperature do not exceed the ratings allowed by the Code.

Division 2

Design calculations in Division 2 are more complex than those in Division 1. The alternate rules of Division 2 apply only to vessels installed on a fixed location and subjected to a specific service.

General Safety Practices

1. Use safe ladders with no defects as well as scaffolds, hoists, and cables in gaining access to boiler components. Use safe work stands.
2. When entering a boiler, make sure all valves, lines, and similar connections for steam, water, fuel, air, and flue gas are tightly closed or blanked off.
3. Use low-voltage lamps and extension cords with proper guards and insulation.
4. Wear all required personal protective equipment.
5. If it is necessary to open lines, maintenance personnel should always assume that the lines are loaded and under pressure and extreme caution should be taken. Establish a line-breaking permit procedure.
6. When taking a vessel out of service for a prolonged period, clean it promptly and have it inspected.
7. Schedule shutdowns of boilers in continuous service in order to perform preventative maintenance. Observe all lockout/tagout rules during the shutdown.

8. Do not locate walkways near water glasses or safety-valve discharge areas where an operator may accidentally be scalded.

SECTION 19: ELECTRICAL SAFETY

While electricity is important in daily work, it can also be hazardous. Misused or uncontrolled, electricity can cause injury to others and damage property. The following rules are designed to ensure safe handling of electricity jobs performed by Jefferson Parish employees.

General Rules

When using any electrical equipment, employees shall follow these basic rules:

1. Know how to safely handle anything that carries or is powered by electrical current, and only use electrically powered equipment that you are trained and qualified to operate.
2. Never try to repair any faulty electrical wiring, fixtures, or equipment.
3. Report all electrical problems to your supervisor. Work orders shall be completed and sent to your perspective Building or Maintenance division for immediate attention.
4. Be especially cautious when using electrical equipment in moist or damp areas.
5. Never put anything that is electrically powered, including equipment, in or near water.

Circuits and Outlets

These rules ensure proper use and maintenance of electrical circuits and outlets:

1. Do not overload circuits.
2. Do not bypass fuses with coins or other materials.
3. Cover all switches, switch boxes, junction boxes, fittings, and outlets, and ensure that the covers are in good repair.
4. Label all circuit breakers, fuse panels, and disconnects as to their use.
5. Maintain a clear area of 36” in front of electrical panels and disconnects.
6. Report all cases of frequently blown fuses or tripped circuits so that the cause can be found and corrected.
7. Do not put liquids or containers of liquids on electrical equipment such as wiring ducts, transformers, switch boxes, fixtures, etc.
8. Use caution when handling liquids near electrical wiring or outlets.
9. Never stick anything into electrical outlets except approved plugs.

Outside Wires and Electrical Power Lines

Employees must use caution and obey the following rules when working near outside wires or power lines:

1. Unless your work specifically requires you to do so, do not work closer than 10 ft. from any electrical power line.
2. When carrying metal poles, ladders, etc., make certain that contact is not made with electrical power lines.

3. When operating trucks or other high-profile motor vehicles, ensure that you have sufficient clearance from all electrical power lines.
4. Do not touch any other person in contact with a live or possibly live electrical power line. Try to break the contact and free the person without endangering yourself by using rope; a belt that does not contain metal; or a strong, dry stick or board.

Electrical Tools and Machinery

Any employee using electrical tools or machinery shall comply with the following:

1. Do not use an electrical tool that sparks or stalls. Turn off the power. The tool should be inspected and if necessary, repaired by a qualified person.
2. Always unplug electrical power tools before cleaning or adjusting.
3. Lockout all electrically powered machinery or equipment before performing cleaning, adjustments, or repairs.
4. Never turn on or use an electrical tool while standing on a wet floor or surface.
5. Never touch electrical tools, machinery, appliances, or fixtures with wet hands.
6. Do not touch electrical tools, machinery, plumbing or other metal objects at the same time.

Cords and Plugs

Employees shall be aware of the rules for using and maintaining electrical cords and plugs which include the following:

1. Do not use electrical cords or extension cords that are frayed, split, spliced or defective in any way.
2. Always be sure to use the right type and size of electrical power cord for the job. If in doubt, ask your supervisor or maintenance section.
3. When disconnecting an electrical cord from an outlet, machine, tool, or other equipment, grasp the plug and unplug from electrical outlet. Do not pull or yank the cord out of the electrical outlet.
4. Do not place electrical power cords under rugs, carpeting, or across aisles or driveways.
5. Do not wrap electrical cords around steam pipes, appliances, or other metal objects, and keep them away from heat and water.
6. Do not remove the insulating discs from electrical plugs.

Grounding

Proper grounding is essential to prevent electrical shock or fire. To ensure proper grounding employees shall comply with the following rules:

1. Use an appropriate adapter plug with a ground wire if the outlet used has no place to receive the ground prong.
2. Do not remove the ground prongs from any electrical plug.
3. Use double insulated tools if a three-wire cord grounded extension cord, or other approved grounding, is not available.

Lockout/Tagout

The Control of Hazardous Energy (Lockout/Tagout) standard covers the servicing and maintenance of machines and equipment for which the unexpected energization or start-up could cause injury to employees.

Each applicable department of Jefferson Parish Government must establish an Energy Control Program and utilize procedures for affixing appropriate lockout/tagout devices. The lockout/tagout rules require departments to establish a written Energy Control Program that includes:

1. A listing of employees and job titles authorized to lockout/tagout.
2. Documented energy control procedures.
3. An employee-training program.
4. Periodic inspections of the procedures.
5. A specific statement of the intended use of the procedure.
6. A specific statement to ensure that machines and equipment are isolated and inoperative before any employee performs service or maintenance where the unexpected energization, start-up, or release of stored energy could occur and cause injury.
7. Specific procedural steps for shutting down, isolating, blocking and securing machines or equipment to control hazardous energy.
8. Specific requirements for testing a machine or equipment to determine and verify the effectiveness of lockout energy control measures.

An employee having the need to secure an energy source shall:

1. Utilize tags that are legible and understandable by all authorized employees.
2. Utilize dedicated lockout devices substantial enough to prevent accidental removal.
3. Utilize lockout/ tagout devices that indicate the identity of the employee applying the device.
4. Utilize specific procedures during shift or personnel changes to ensure the continuity of lockout/tagout protection.

Before lockout/tagout devices are removed and energy is restored to the machine or equipment, employees shall:

1. Inspect work area, machines/equipment to ensure nonessential items have been removed and to ensure machine or equipment components are operationally intact.
2. Check work area to ensure all employees have been safely positioned or removed.
3. Only remove lockout/tagout devices from each energy-isolating device by the employee who applied the device.
4. The employee, along with an authorized employee other than the one utilizing the Energy Control Program, should complete periodic inspections during the year.

Battery Charging

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

2. Where the eyes or body of any person may be exposed to injuries or corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.
3. Battery charging shall be done in a well-ventilated area.
4. Facilities for flushing and neutralizing spilled electrolyte shall be provided.
5. Personal protective equipment shall be worn as needed and required (safety glasses, goggles, face shields, gloves, etc.).
6. Because there is a possibility of hydrogen gas being produced by the charging of a battery: "No Smoking" signs shall be posted in battery charging areas. No smoking rules are to be enforced.
7. Tool and other metallic objects shall be kept away from the tops of uncovered batteries.

SECTION 20: WELDING AND CUTTING METALS

The purpose of this section is to ensure the protection and safety of employees from accidents, injury and illness while maintaining the protection of property from damage by fire and explosions arising from welding, cutting and allied processes.

General Safety Practices

1. Supervisors shall designate approved areas for welding and cutting.
2. Supervisors shall be responsible for the safe use of the welding/cutting equipment and the welding process.
3. Welders shall understand the hazards of the operation to be performed and the procedures being used in order to control hazardous conditions.
4. Welders shall handle the equipment safely and use it in an appropriate manner that does not endanger lives and property. All welding equipment should be in good repair, dry, and capable of providing protection for the welder.
5. Signs shall be posted designating welding areas, and indicating that eye protection and other applicable protective devices shall be worn.
6. Workers or other persons adjacent to the welding area shall be protected from radiant energy and spatter of welding and cutting by the installation of non-combustible or flame resistant screens or shields.
7. The casual passerby to welding operations should be protected by the use of screens, curtains or adequate distance from aisles, walkway, etc.
8. Welding arcs should not be viewed except through welding filter plates.

Personal Protective Equipment

1. Proper personal protective equipment is to be used when using welding equipment.
2. Helmets or hand shields with filter lenses and cover lenses shall be used by operators and nearby personnel when viewing the arc. Filter lenses shall be in accordance with ANSI Z87.1 and the shade shall be selected in accordance with AWS F2.2.
3. Protective spectacles with side shields, arc goggles or other approved eye protection shall also be worn.

4. Helmets and hand shield bodies should be made of material that is noncombustible and flame-resistant. Additionally, helmets and hand shields are to provide protection from electric shock.
5. An outer cover lens shall be provided to protect the filter lens in goggles, helmets or hand shields from welding splatter, pitting or scratching.
6. Helmets, hand shields and goggles shall be well maintained and should not be transferred from one employee to another.
7. Clothing shall be selected to minimize the potential of ignition, burning, trapping hot sparks or electric shock. Additionally, clothing should provide sufficient coverage and be made of suitable materials, to minimize skin burns caused by sparks, spatter or radiation.
8. All gloves provided to welders and cutters should be flame-resistant, should be in good repair, dry, and capable of providing protection from electric shock by the welding equipment.
9. Properly fitted flame-resistant plugs in the ear canals shall be used where hazards to the ear canals may exist.
10. When necessary, caps made from flame resistant material shall be worn under helmets to prevent head burns.

For further information, please refer to Section 10 titled "Personal Protective Equipment."

Ventilation

The possible effects of over-exposure to fumes and gases range from irritation of eyes, skin and respiratory system to more severe complications.

1. Adequate ventilation shall be provided for all welding, cutting, brazing and related operations.
2. When controls such as ventilation fail to reduce air contaminants to allowable levels or when the implementation of such controls are not feasible, respiratory protective equipment shall be used to protect personnel from hazardous concentrations of airborne contaminants. Only approved respiratory protection shall be used.
3. Welders and cutters shall take precautions to avoid breathing fumes directly.

Fire Prevention and Protection

1. No welding or cutting shall be done unless the atmosphere is nonflammable and unless combustibles are moved away or protected from fire hazards.
2. Where it is not practical to move work to a safe location, all movable nearby fire hazards shall be relocated to a safe location.
3. Where the work and fire hazards are not movable, safeguards shall be used to protect the immovable fire hazards and nearby personnel from heat, sparks and slag.
4. Fire extinguishing equipment shall be ready for use where welding and cutting work is being done. Permissible fire extinguishing equipment shall be pails of water, buckets of sand, hose or portable extinguishers.
5. Fire watchers shall be posted where welding or cutting is done and where a large fire might develop.
6. Fire watchers shall be trained in the use of fire extinguishing equipment. They shall be familiar with facilities for sounding an alarm in the event of a fire.

7. Management shall assure that fire protection and fire extinguishing equipment are properly located at the site and that fire watchers are assigned and hot work procedures are followed as required.

For further information, please refer to Section 16 titled "Fire Safety and Prevention."

Gas Welding and Oxygen Cutting

Hoses

1. Do not use unnecessarily long hoses – it's hard to purge properly. When long hoses must be used, ensure that the hose does not become kinked or tangled and that it is protected from being run over by vehicles 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 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. 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.

Torches

1. Select the proper welding head, mixer, tip or cutting nozzle as identified in chart 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 is permissible. If the welding or cutting is to be stopped for a longer period (during lunch or overnight), proceed as follows in the order stated:
    - 3.1. Close oxygen and acetylene cylinder valves,
    - 3.2. Open torch valves to relieve all gas pressure from hose and regulator, and
    - 3.3. 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 in a direction away from people or objects that may burn 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 flame has not been completely extinguished, it may heat cylinder or even burn a hole through it.
6. When extinguishing flame, close 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.

For further information, please refer to Section 22 titled "Handling, Using and Storing of Compressed Gas Cylinders."

Arc Welding and Cutting

1. Before beginning a job, inspect the cables. Replace or repair damaged cables.
2. Do not, under any conditions, attach welding transformers to lighting circuits.
3. 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.
4. Do not adjust the tap to increase voltage unless authorized by your supervisor.
5. Keep cables orderly and out of the way to permit passage of workers and vehicles.
6. Never dip hot electrode holders in water. Keep an extra holder handy to replace one that has become too hot to handle.
7. 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:
   - 7.1 In confined places, cover or arrange cables to prevent contact with falling sparks;
   - 7.2 Never change electrodes with bare hands or wet gloves, or when standing on wet floors or grounded surfaces;
   - 7.3 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;
   - 7.4 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;
   - 7.5 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;
   - 7.6 Keep welding cables dry and free of grease and oil to prevent premature breakdown of the insulation;

7.7 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;
7.8 Take special care to keep welding cables away from power supply cables or high-tension wires; and
7.9 If welding or cutting in a confined space or building, make certain there is adequate ventilation to permit gases to escape.

For further information, please refer to Section 19 titled "Electrical Safety."

Radiation

1. Welding may produce radiant energy that is harmful to health. Everyone should acquaint themselves with the effects of this radiant energy.
2. Radiant energy may be ionizing (such as X-rays) or non-ionizing radiation (such as ultraviolet, visible light or infra-red). Radiation can produce a variety of effects such as skin burns and eye damage if excessive exposure occurs.

Welding in Confined Spaces

1. Before welding, always check work area with a gas detector for low oxygen or flammable gases.
2. A fresh air blower should be available in the work area for proper ventilation.
3. A fire extinguisher must be available on site when welding in confined spaces.
4. Two people must be present when welding or working in confined spaces. One person must be outside the confined area stationed by the opening and be at the ready in case of emergency.

For further information, please refer to Section 14 titled "Entering and Working in Confined Spaces."

SECTION 21: HEAT STRESS

Workers may be required to work in hot environments for long periods. When the human body is unable to maintain a normal temperature, heat-related illnesses can occur. The most serious heat illnesses are heat stroke and heat exhaustion. Other heat illnesses, such as heat syncope, heat cramps and heat rash, should also be avoided. Causes of heat-related illness are high temperature and humidity, direct sun exposure, no breeze or wind, low fluid consumption, and direct sun exposure (with no shade) or extreme heat.

The most common symptoms of heat exhaustion include: headache, dizziness, or fainting; weakness and wet skin; irritability or confusion; and thirst, nausea, or vomiting. When a worker is ill from heat you should:

1. Call a supervisor for help. If the supervisor is not available, call 911 (remember, if calling from a parish building you must dial 9-911).

2. Have someone stay with the worker until help arrives.
3. Move the worker to a cooler/shaded area.
4. Remove outer clothing.
5. Fan and mist the worker with water; apply ice (ice bags or ice towels).
6. Provide cool drinking water, if able to drink.

IF THE WORKER IS NOT ALERT or seems confused, this may be heat stroke. **CALL 911 IMMEDIATELY** and apply ice as soon as possible.

There are precautions that should be taken. Any time temperatures are high and the job involves physical work, there are precautions to be taken:

1. Provide training about the hazards leading to heat stress and how to prevent them.
2. Know signs/symptoms of heat illnesses; monitor yourself; use a buddy system.
3. Provide a lot of cool water to workers close to work area. Drink often and before you are thirsty. Drink water every 15 minutes. Avoid beverages containing alcohol or caffeine.
4. At least one pint of water per hour is needed.
5. Schedule frequent rest periods with water breaks in shaded or air-conditioned areas.
6. Block out direct sun and other heat sources.
7. Routinely check workers who are at risk of heat stress due to protective clothing and high temperature.
8. Wear lightweight, light colored, loose-fitting clothing.

SECTION 22: HANDLING, USING AND STORING OF COMPRESSED GAS CYLINDERS

Gas under high pressure can be hazardous if not used properly. The combination of the pressure and the nature of the gas may contribute to a highly hazardous situation. Precautions must be observed when receiving, storing, handling and using compressed gas cylinders. Consult all applicable regulations, local codes, fire underwriters, the National Fire Protection Association (NFPA), trade associations, and specific handbooks for detailed information including the U.S. Department of Transportation (DOT) regulations.

The use of liquefied petroleum (LP) gas as a fuel for powered industrial trucks is increasing. Strict conformance to NFPA 58, *Storage and Handling of Liquefied Petroleum Gases*, and Underwriters Laboratories' Standard for Safety No. 558, *Internal Combustion Engine-Powered Industrial Trucks*, is required.

General Safety Practices - most accidents or injuries involving cylinders happen when moving or handling gas cylinders. Use the right equipment, correct procedures and sufficient number of employees to lift and move cylinders to avoid personal injury or cylinder damage.

1. Do not use or handle any compressed gas cylinders without permission from your supervisor.

2. Follow all instructions provided by the manufacturer in the handling, storage, disposal and use of compressed gas cylinders.
3. If a gas odor or leakage is detected, inform your supervisor immediately.
4. Do not wear clothing saturated or coated with oil or grease.
5. Obey all "NO SMOKING" signs.
6. Use proper protective equipment.
7. Have proper fire extinguisher available for flammable liquid or chemical fires.
8. Do not remove or change numbers or marks stamped on cylinders.
9. Only listed compressed gas containers, designed in accord with U.S. DOT or American Society of Mechanical Engineers (ASME) standards, should be used.
10. A special building or outside storage area is recommended for the storage of fuel containers. When cylinders are stored inside of a building, keep them in a designated safe area as defined by NFPA 58 standards.
11. Do not accept a cylinder from a supplier without an installed protective cap.
12. Always replace cylinder cap when the cylinder is not in use and when cylinder is being moved.
13. Always refer to oxygen, air, and fuel gases by their correct names. Occasionally Oxygen is incorrectly referred to as "air". Never refer only to "gas". Always use the proper name of the gas.

Handling Compressed Gas Cylinders

1. Protect cylinders from extremes of temperature, physical damage, and electric current.
2. Do not drop or let cylinders strike each other.
3. 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.
4. 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.
5. During transport of compressed gas cylinders, always remove cylinder regulator and make certain that the protective cylinder cap is properly secured.
6. Compressed gas cylinders must be secured by chain or straps in an upright position at all times, except when being hoisted.
7. 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.
8. 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.
9. 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.
10. Movement of leaking cylinders is discouraged. However, supervisors, acting within the guidelines of their departments' respective 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".

11. Never bleed cylinders that contain toxic gases.
12. Do not use cylinders for rollers, support or any purpose other than to contain gas.
13. Do not tamper with safety devices on valves or cylinder.
14. When in doubt about the proper handling of a compressed gas cylinder or its contents, consult the supplier of the gas.
15. When empty cylinders are to be returned to the proper vendor, mark cylinder EMPTY or MT with chalk. Close the valves and replace the protection covers.
16. Always treat cylinders as if they were full and handle with corresponding care.
17. NEVER use a flame to unclog a valve.
18. Never place cylinders in hallways, passageways or work areas where they could be struck by people or equipment or be tampered with.
19. Cylinders should be handled, moved or transported by trained personnel only.

Storing Compressed Gas Cylinders

1. Mark the storage area with proper precautionary signs, such as flammable, oxidizer, or toxic.
2. NO SMOKING wherever cylinders are stored.
3. Identify a gas and its dangers before using it. Look for information on labels, Safety Data Sheets (SDS), and cylinder markings. If the cylinder contents are unknown, do not use it.
4. Cylinders are to be stored in well-ventilated locations.
5. Cylinders should not be stored in exits or egress routes.
6. 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.
7. Cylinders in storage must be separated from flammable or combustible material by at least 40 ft. or by a fire resistive partition.
8. Cylinders containing oxygen or oxidizing gases in storage must be separated from cylinders containing fuel gases by at least 20 ft.
9. When oxygen and acetylene cylinders must be stored in the same building, store each type separately a minimum of 20 ft. apart, preferably in separate sections of the building.
10. Chain or otherwise fasten cylinders firmly against a wall, post, or other solid object.
11. All cylinders shall be capped when not in use or attached to a system.
12. Cylinders shall be stored so that gases with the same hazard class are stored in the same area. Insert gases are compatible with all other gases and may be stored together.
13. Do not store flammable substances, such as oil and volatile liquids, within 20 ft. of oxygen cylinder storage.
14. Do not store cylinders near elevators, gangways, stair wells, or other places where they can be knocked down or damaged.
15. Protect cylinders from direct rays of the sun in summer and from radiators, furnace or any other source of heat.
16. Never permit a direct flame or electric arc to contact any part of a compressed gas.

Using Compressed Gas Cylinders

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

2. 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.
3. Oxygen and fuel gas pressure regulators, including their related gauges, shall be in proper working order while in use.
4. Do not stand directly in front of regulator gauges when opening the valve. Sudden pressure could blow out gauge glass and parts.
5. Use cylinders in an upright position.
6. Open cylinder valves slowly.
7. Keep cap in place to protect valve except when cylinder is connected for use.
8. Do not force connections on the regulator or union if they do not fit.
9. Never use oil or grease as a lubricant on valves or attachments of oxygen cylinders.
10. Cylinders must not be taken into confined spaces.

Compressed Gas Cylinders Valves:

1. To open, strike end of wrench with heel of hand to rotate the valve stem in a counterclockwise direction, then open slowly.
2. One complete turn permits maximum discharge; do not force valve beyond this point.
3. If valve is too tight to open, loosen the packing gland nut slightly to free the stem.
4. Do not use large wrenches or pipe wrenches on container valves.
5. Close the cylinder valve of a leaking fuel-gas cylinder, take the cylinder to a safe place outside and away from ignition sources, mark it, and call the supplier or gas distributor.

SECTION 23: WAREHOUSE (STORING MATERIALS)

Warehouse operations can present a wide variety of potential hazards for the worker. The improper handling and storing of materials often result in costly injuries.

General Safety Practices

1. 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.
2. 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.
3. All aisles and exit doors are to be kept clear at all times and should be properly marked.
4. Materials in round containers shall be blocked to prevent them from rolling.
5. Lean materials away from aisles to prevent toppling.
6. Bagged materials such as cement should be cross-tied when piling.
7. Smoking shall be strictly prohibited in any storage or warehouse area.
8. Boxes and crates should be stacked on the side having the greatest area, unless the contents require special handling.
9. Stacked cardboard cartons should be piled with care because of their weakness. They should be protected from moisture to prevent collapse.

10. Do not allow unauthorized people in a storage area.
11. Store heavy supplies and tools on lower shelves and lighter items on upper shelves. Do not overload shelves or boxes.
12. Floor load limits shall be established, be prominently posted and the limits are not to be exceeded.
13. Keep floors clean and free of slip and trip hazards. The practice of good housekeeping promotes a safe worksite.
14. Food products are not to be stored near herbicides, other miscellaneous poisons, and petroleum and fuel products.
15. The warehouse should be well ventilated.
16. Segregate incompatible chemicals which, if accidentally mixed, could cause fire, explosion, or the generation of toxic gases. Hazardous chemical reactions can occur from improper storage when incompatible materials mix.

Storage of Compressed Gas Cylinders

For further information, please refer to Section 22 titled "Handling, Using and Storing of Compressed Gas Cylinders."

Ergonomics

1. Provide employees with task-oriented ergonomic training. If you need assistance call the Safety Division.
2. Do not twist while carrying a load, but shift your feet and take small steps in the direction you want to turn.
3. Reduce lifts from shoulder height and from floor height by repositioning the shelf or bin.
4. Department is responsible to ensure that newly hired employees receive general ergonomics training and task specific training.
5. Employees performing physical work shall have adequate periodic rest breaks to avoid fatigue levels that could result in greater risk of accidents and reduced quality of work.

For further information, please refer to Section 8 titled "Ergonomics."

Fire Safety

There are many fire protection problems in warehouses. Reference should be made to applicable NFPA codes and other sources for more details about particular materials. Some important factors for fire protection in warehouse storage are type of commodity, method of storage, height of storage, distance to other commodities, and lastly, ease of ignition and rate of fire spread and rate of heat produced by each commodity. All of these characteristics help determine the fire hazard and suitable controls.

Commodities should be grouped and stored according to fire code classification. The code will detail the height of storage piles and distance separating piles. These details are very important as this will affect the fire growth, intensity and control. Because of the high density and diversity of material stored, a combination of extinguishing equipment is needed.

A pre-incident firefighting plan for the warehouse must be developed and implemented. The overall success of a warehouse fire-fighting operation is determined long before the fire occurs.

Forklifts

1. Train, evaluate and certify all operators to ensure that they can operate forklifts safely.
2. Do not allow anyone under 18 years of age to operate a forklift.
3. Before using a forklift, examine it for hazardous conditions which would make it unsafe to operate.
4. Drive safely, never exceeding 5 mph and slowdown in congested areas or in those areas with slippery surfaces.
5. Properly maintain forklift equipment, especially tires.
6. Follow safe procedures for picking up, putting down and stacking loads.
7. Ensure that the operator wears a seatbelt installed by the manufacturer.
8. Never drive up to a person standing in front of a fixed object such as a wall or stacked materials.
9. Stunt driving and horseplay is strictly prohibited.
10. Do not handle loads that are heavier than the weight capacity of the forklift.
11. Remove unsafe or defective forklifts from service until the defect is properly repaired.
12. Maintain sufficiently safe clearances for aisles and at loading docks or passages where forklifts are used.
13. Ensure adequate ventilation either by opened door/windows or using a ventilation system to provide enough fresh air to keep concentrations of noxious gases from engine exhaust below acceptable limits.
14. Train employees on the hazards associated with the combustion byproducts of forklift operation, such as carbon monoxide.

Hazard Communication

1. Maintain a Safety Data Sheet (SDS) for each chemical to which workers are exposed in the facility.
2. Follow instructions on the SDS for handling chemical products.
3. Train employees on the risks of each chemical present.
4. Provide spill cleanup kits in any area where chemicals are stored.
5. A spill control plan must be developed and employees should be trained on the plan. Train employees to clean up spills immediately. Employees are to protect themselves and properly dispose of used material.
6. Provide the proper personal protective equipment (PPE). Enforce its use.
7. SDSs expire every 3 years. All sheets available for review are to be current.
8. Store all chemicals safely and securely.
9. Store chemicals away from forklift traffic.
10. Store chemicals according to the manufacturer's recommendations and local or national fire codes.
11. All incoming chemicals are accompanied by a SDS.

For further information, please refer to the parish intranet site under Human Resource Management – Safety, Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Loose Bulk Material (Shells, Gravel, Sand, Mud, Etc.)

1. Loose bulk materials shall be stored in bins with retaining walls with enough bracing to withstand the stock pile pressure.
2. Loose bulk materials not stored in bins shall be piled at a slope which will prevent the material from sliding.

Manual Lifting/Handling

1. If possible, use powered equipment instead of requiring a manual lift for heavy materials.
2. Lift properly. Use your legs and keep your back straight and in a natural position when lifting.
3. Test the load to be lifted to estimate its weight, size and bulk, and to determine the proper lifting method. Get a coworker to help if a product is too heavy.
4. Minimize the need for lifting by using good design and engineering techniques.
5. Get help if the load exceeds the maximum weight a person can lift safely without assistance.

Materials Storage

1. Stack loads evenly and straight.
2. Place heavier loads on lower or middle shelves.
3. Remove one object at a time from shelves.
4. Keep aisles and passageways clear and in good repair.
5. Loose/unboxed materials which might fall from a pile must be properly stacked by blocking, interlocking or limiting the height of the pile to prevent falling hazards.

Pipe and Lumber

1. Sort and stack pipe and lumber according to size in separate piles with a separation every 6^{th} or 7^{th} row.
2. 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.
3. 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 or body.
4. All nails, screws, and staples shall be removed from lumber before it is stored or discarded.

SECTION 24: HANDLING, USING AND STORING HAZARDOUS CHEMICALS

Employees shall be trained on all hazardous chemicals/material used in their work duties as required by the EPA and detailed in the applicable Risk Management Plan. Required documents have been prepared in order to comply with the Environmental Protection Agency's (EPA's) Risk Management Program (RMP), under Section 112 (r) of the Clean Air Act (CAA) Amendments of 1990, 40 CFR Part 68. (Said document can be found in the Water Department).

Hazardous Chemicals General Safety Practices

1. Employees shall know what hazardous chemicals/materials they are working with and the effects of unprotected exposure.
2. Obey all caution signs, warning signs and labels while working with or near any chemical or other hazardous material.
3. Use the proper personal Protective Equipment (PPE) when working with or near any hazardous material.
4. Work in well-ventilated areas.
5. Personal hygiene is necessary. Immediately after use of or exposure to hazardous material, wash hands and other exposed parts thoroughly. Do not wear contaminated clothing or take contaminated clothing home with you.
6. Do not eat, drink or smoke around hazardous materials.
7. Good housekeeping is necessary. Clean up all spills immediately. Know and observe proper disposal methods for contaminated rags and other material.
8. Be aware of proper storage areas and methods.
9. Seek medical help immediately if you should experience any adverse effect from any hazardous materials.
10. Read and be familiar with Safety Data Sheets (SDS) before handling any hazardous chemical.
11. Ensure all chemicals are properly labeled. Keep in their original container unless transferred to smaller, properly labeled containers.

Ammonia

Ammonia is also called Aqua Ammonia, or Ammonia Water. Its proper chemical name is Ammonium Hydroxide. Ammonia is corrosive to copper, copper alloys, aluminum alloys and galvanized surfaces. It is an excellent acid neutralizer. Its pH varies with concentration. The vapor pressure varies with temperatures. Ammonia, as a gas or in aqueous solution, is an irritant and corrosive to the skin, eyes, and respiratory track. It may cause severe burns, eye or lung injuries. Skin and respiratory related diseases are aggravated by exposure.

Ammonia Handling

Aqua ammonia is usually shipped in cargo tanks, polyethylene drums or composite drums. The Ammonia drums should be stored out of the sun and away from the heat. Drums should not be subjected to rough handling. Drums should be emptied by gravity only.

Chemical safety goggles, face shield, rubber aprons and gloves should be worn. Application of pressure to the drum for unloading is dangerous and should not be attempted.
Ammonia solutions in water with concentrations between 10% and 35% have a DOT hazard classification of 8 and are to be labeled as Corrosive. Their identification number is UN2672and they are to be packaged in Group III containers. These requirements are outlined in CFR 173.24a (b)(4): Packaging tested as prescribed in CFR 178.605.

Ammonia Usage

Chloramines are formed when there is a reaction between free chlorine and ammonia. To disinfect water using chloramines, ammonia is added to previously chlorine-treated water. Using chlorine alone as a disinfectant may result in the production of trihalomethanes and other carcinogenic byproducts. Fewer trihalomethanes are formed when chloramines are used. Additionally, Chloramines remain active in water for longer than chlorine, ensuring safety from waterborne pathogens for a longer period of time.

Ammonia Storage

Because the vapor pressure of aqua ammonia is about equal to the atmospheric pressure, it must be stored in closed containers. The storage area should be dry and cool. If ammonia is housed in a closed building, ventilation should be provided, either natural or mechanical. Avoid pocketing of ammonia vapor under floors, roofs or similar structures. Remember, ammonia vapor will burn when mixed in air at concentrations between 15% to 28%. Sparks or ignition sources must be excluded wherever concentrations in this range could exist.

Caustic

The chemical name is Sodium Hydroxide (NaOH). The trade name is Caustic Soda 50%. It is also known as Liquid Caustic Soda, and Lye Solution. Anyone working near or with Caustic Soda should have on all proper PPE.

Caustic Handling

Caustic has Class 8 DOT Classification, Corrosive. This is listed as a dangerous cargo. No one is to be around the C12 scrubber unless work is being done on it. In this event, the scrubber should be turned off to ensure it does not turn on. If the mechanics are testing the scrubber, no one is to be in the area except the mechanic and his helper.

Caustic Usage

The application is the filtering component of the Emergency Chlorine Gas Scrubber. The quantity on site is minimal and is primarily stored within the scrubber unit. Anyone accidentally sprayed with caustic should shower immediately.

Caustic Storing

Caustic may be stored in small volumes in plastic jugs. In large quantities, store in steel storage tanks. Keep storage containers sealed tightly. Keep away from acids. The area around the scrubber is chained off. If anyone sees or hears the scrubber running, operator should be informed immediately.

Chlorine

Chlorine is used to control bacteria and viruses in our drinking water. These bacteria and viruses can cause devastating illnesses such as cholera and typhoid. Chlorine is a greenish-yellow gas with a characteristic pungent odor. Chlorine is 2.5 times heavier than air. The chemical symbol for chlorine is Cl. Its molecular weight is 70.906. Its atomic weight is 35.453. 100 pounds or more of chlorine must comply with EPA's emergency planning requirements [40 CFR Part 355.30].

Chlorine Handling

Chlorine is extremely toxic and corrosive in moist environments. In a dry state it can be safely stored in steel containers and piping. Special precautions should be taken when handling Chlorine. Chlorine will attack some forms of plastics, rubber, and coatings. While chlorine is a non-combustible gas, the National Fire Protection Association has assigned a flammability rating of 0 (no fire hazard) to chlorine; however, most combustible materials will burn in chlorine. Some flammable gases and vapors form explosive mixtures with chlorine. For small fires use water only; do not use dry chemical or carbon dioxide. Contain and let large fires involving chlorine burn. If the fire must be fought, use water spray or fog.

Chlorine cylinders are handled no differently than other compressed gas cylinders. Stationary or movable jib cranes or traveling overhead rail hoists of at least two tons capacity are suitable for moving chlorine tanks. A beam equipped with hooks to grip the edge of the tank is normally utilized for lifting the tanks to the storage area.

Chlorine Usage

Flammable gases and vapors form explosive mixtures with chlorine. Contact between chlorine and many combustible substances (such as gasoline and petroleum products, hydrocarbons, turpentine, alcohols, acetylene, hydrogen, ammonia, and sulfur), reducing agents, and finely divided metals may cause fires and explosions. Contact between chlorine and arsenic, bismuth, boron, calcium, activated carbon, carbon disulfide, glycerol, hydrazine, iodine, methane, oxomonosilane, potassium, propylene, and silicon should be avoided. Chlorine reacts with hydrogen sulfide and water to form hydrochloric acid, and it reacts with carbon monoxide and sulfur dioxide to form phosgene and sulfuryl chloride. Chlorine is also incompatible with moisture, steam, and water.

The National Institute for Occupational Safety and Health (NIOSH) has established a recommended exposure limit (REL) for chlorine of 0.5 ppm mg/m (3)) as a TWA for up to a 10-

hour workday and a 40-hour workweek and a short-term exposure limit (STEL) of 1 ppm (3 mg/m(3))[NIOSH 1992].

American Conference of Governmental Industrial Hygienists (ACGIH) has assigned chlorine a threshold limit value (TLV) of 0.5 ppm (1.5 mg/m(3)) as a TWA for a normal 8-hour workday and a 40-hour workweek and a short-term exposure limit (STEL) of 1.0 ppm (2.9 mg/m(3)) for periods not to exceed 15 minutes. Exposures at the STEL concentration should not be repeated more than four times a day and should be separated by intervals of at least 60 minutes [ACGIH 1994, p. 15].

Chlorine causes severe irritation of the skin, eyes, mouth, nose, and throat. The longer the exposure or the higher the concentration, the more serious the effects. Exposures to 1000 ppm can be fatal, even if exposure is brief. Annual training is required for all employees who handle or come in contact with chlorine.

Chlorine Storing

Controlling worker exposures to chlorine depends on: the process enclosure; local exhaust ventilation; general dilution ventilation; and personal protective equipment. In the event of a spill or leak involving chlorine, persons not wearing protective equipment and fully-encapsulating, vapor-protective clothing should be restricted from contaminated areas until cleanup has been completed.

Sodium Hypochlorite (common Bleach)

Sodium hypochlorite is a clear, slightly yellowish solution with a characteristic odor.
Sodium hypochlorite (NaOCl) is a compound that can be effectively used for water purification, wastewater treatment and odor control. It is used on a large scale for surface purification, bleaching, odor removal and water disinfection. This compound does not present the hazard that gaseous chlorine does, even on a large scale, and is therefore safer to handle.

Sodium Hypochlorite (common Bleach) Handling

1. Never mix Sodium Hypochlorite and Ammonia. Doing so forms a dangerous gas potentially leading to choking and breathing difficulty.
2. Avoid swallowing and getting sodium hypochlorite in the eyes or on the skin. Depending on the strength of sodium hypochlorite, severity can range from mild irritation to severe burns.
3. In the event sodium hypochlorite is swallowed, seek emergency help immediately. If the affected person is alert, give them milk or water to drink. Do not induce vomiting. Seek immediate medical attention.
4. Skin or eyes should be immediately flushed continuously and thoroughly if coming into contact with sodium hypochlorite. Seek immediate medical attention.
5. In the event of inhalation of sodium hypochlorite, leave the affected area and seek fresh air. If breathing is difficult, administer oxygen and seek immediate medical attention.

Sodium Hypochlorite (common Bleach) Usage

Never mix Sodium Hypochlorite and Ammonia. Doing so forms a dangerous gas potentially leading to choking and breathing difficulty.

SECTION 25: HAND AND PORTABLE POWER TOOLS

Hand and Portable Power Tools enable employees to accomplish assigned tasks with increased efficiency. However, when working with tools there is an increase of applied force to a concentrated area coupled with an increase in the potential for personal injury. This section will assist in proper hand and portable power tool selection along with safe work practices and procedures for preventing accidents.

General Safety Practices

1. The parish provides proper protective equipment (PPE) for the employees. The employees must use proper protective equipment.
2. Properly ground power tools using a ground-fault circuit interrupter (GFCI) protected circuit.
3. If the tool comes with an operator's manual, the tool should not be operated unless the manual has been reviewed and fully understood.
4. Do not operate tools unless you are trained and authorized by your department Supervisor.
5. Study the DANGER, WARNING and CAUTION safety signs on your tool and the information signs also.
6. Workers should carry their tools to and from work or the workstation in a tool box or other appropriate tool holder.
7. Employees should never carry tools in a way that might interfere with their ability to climb a ladder.
8. Employees should hand tools to one another; never throw them.
9. Tool Boxes are meant to hold tools; they are not ladders.

Hand Tool Safety – Common Hand Tools

The misuse of hand tools may be a source of injury to workers. A significant part of every new employee's training should include detailed instructions in the proper use of hand tools.
Know and follow the safe method prescribed by your department for using each individual tool required to do your job. Always select and use the correct tools to do the job at hand and never use substitutes or makeshift tools.

1. Keep all tools in a good, safe working condition.
2. Tag and label any tool you find to be broken or defective, "DO NOT USE".
3. Keep all cutting edges sharp.
4. Keep your hands and fingers away from the cutting edges of sharp tools.
5. Never point any sharp-pointed tools toward any part of your body.
6. When tools are not in use, store tools in a safe place so they cannot fall on, or trip anyone. Leaving tools overhead and unattended is especially dangerous.

7. Remove and dispose of impact tools with severely deformed or mushroom heads.

Proper maintenance and repair of tools requires special equipment and expertise. Send tools out to a qualified shop for repairs as required, in accordance with parish contracts.

Axes

1. Never strike an axe against metal, stone, or concrete.
2. Never use an axe as a wedge or maul.
3. Never strike with the side of an axe.
4. Never use an axe with a loose or damaged handle.
5. Do not use a dull axe.

Hot and Cold Chisels

1. Use a chisel large enough for the job so the blade is used instead of the point or corner.
2. Safety goggles or face shields are to be worn when the chisel is used for chipping.
3. Chisels are to be held with suitable holders (not with the hands) while being struck with a sledgehammer by another employee.
4. Chisels with deformed heads, chisels that are bent, cracked, or chipped should be turned in to supervisor for disposal. When grinding a chisel, do not apply too much pressure to the head. The heat generated from the grinding can alter the temper.

Hack Saws

1. Place the blade in the frame so the teeth point toward the end of the frame and away from the handle. Tighten the blade rigidly.
2. Cut away from yourself, and saw with straight, long strokes, using almost the whole blade.
3. Judge cutting speed by the hardness of the metal. If the speed is too fast, it could ruin the blade.
4. Do not saw objects that are too hard. Test objects for hardness with the front or rear end of the blade.
5. Use a 14-teeth-to-the-inch blade for soft solid metals.
6. Use an 18-teeth-to-the-inch blade for iron pipe, hard metal, and general shop use.
7. Use a 24-teeth-to-the- inch blade for drill rods.
8. Use a 32-teeth-to-the inch blade for thin sheet metal and tubing.

Hammers

Select hammers for their intended uses and use them for those purposes. Some examples of common hammers are: Claw, Scaling, Ball-peen, Sledge, Brick Layer's and other miscellaneous hammers.

1. Wear eye protection.
2. Avoid striking an object with a glancing blow.
3. Never use a hammer that has a head that is loose on the handle.
4. Do not use a hammer that has a split in the handle.
5. Never use a hammer with a damaged striking face.
6. Never use a hammer to strike another hammer.

7. Any misuse can result in dangerous flying fragments.
8. Do not use an ordinary hammer to drive hardened steel nails or to strike steel or concrete chisels, or other hardened struck tools. Use a hammer made of metal designed for the purpose, like a ball peen hammer.

Handles

Wooden handles should be made from the best material available. Alternate materials such as fiberglass or steel with a rubber sleeve may be used. Poorly fitted handles make it difficult for workers to control their tools, and such handles can be dangerous. Loose wooden handles in sledges, axes, hammers, cold cutters, and similar tools create hazards. Discontinue use of tools with loose handles. Tools with loose handles should be reported to the supervisor.

Knives

1. Do not cut towards the body. The cutting stroke must be away from the body.
2. Never leave a knife lying on a chair, bench, or on the floor.
3. Do not carry a knife unless it is in a sheath.
4. Throwing knives is strictly prohibited.
5. Keep knives sharp. A sharp knife is actually safer than a dull knife.
6. Use knives with retractable blades when possible.
7. If the job requires metal mesh gloves, wear them.

Pliers

1. Use pliers only when no other tool will do the job.
2. Do not substitute pliers for a wrench.
3. Wear safety goggles when using pliers to cut short ends of wires. Never use pliers for cutting hardened wire unless they have been manufactured for that purpose.
4. Use only insulated pliers when doing electrical work.

Punches

1. Never use a punch with deformed head or with a dull or deformed point.
2. Redress punches as required.
3. Discard punches with deformed heads. Also, discard the punch that is bent, cracked, or chipped. When grinding a punch, do not apply too much pressure to the head. The heat generated from the grinding can alter the temper.

Saws

1. Use the correct saw for the job.
2. When cutting across the grain, use a crosscut saw.
3. When cutting with the grain, use a ripping saw.
4. For fast crosscut work on green wood, use a saw with 4 to 5 points per inch.
5. For smooth cutting of dry wood, use a saw with 7 to 8 points per inch.
6. When the saw is not in use, store it in a rack and hang it by the handle. Clean it and put a light coat of oil on the blade to prevent rusting.

Screwdrivers

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

2. 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.
3. If tip or handle is chipped or flawed, turn screwdriver in to supervisor.
4. Never use a screwdriver to stop or slow down a motor shaft.
5. Do not try to reshape a screwdriver tip.
6. Match the screwdriver to the screws. Do not use a screwdriver that is too small or too large for the screws being used.
7. The larger the diameter of the screwdriver handle, the more force you can apply. Use a screwdriver that is big enough for the job.
8. Drilling a pilot hole will make driving the screw considerably easier.
9. The purpose of ordinary plastic handles is to make a screwdriver more comfortable to use. The plastic handle does not provide electrical insulation.

Shovels, Rakes, and Picks

1. Check handles daily for splinters, cracks, and looseness. If there are splinters, the handle shall be sanded to make it smooth. If the handle is cracked or loose, it must be replaced.
2. Be sure to wear gloves, safety glasses and safety shoes when using a shovel, rake or pick. Goggles should be worn when using a pick.
3. 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.
4. Shovels, rakes and picks should be stored standing up.
5. Clean the rake when it becomes clogged with leaves and debris.
6. Rakes must not be left lying with the prongs turned upward. They could be stepped on injuring the foot, or causing the handle to fly up and injure someone.
7. Before swinging a pick, be sure the area is clear of other workers. Avoid low hanging branches and wires.
8. Take time to warm up: stretch arm, shoulder and upper torso muscles before swinging a pick.

Snips and Cutters

1. Do not use a tool designed for soft metals on hard metals.
2. Use hand pressure alone to make cut. If snips or cutters will not cut under hand pressure, then get a larger pair or use a different type. The size or gage of the metal to be cut will determine the right type of snips and cutters.
3. Do not cut wire on a diagonal, creating a sharp point.
4. Beware of metal bands under tension. These bands may spring out when cut.

Tap and Die Work

1. Firmly mount the material in a vise before beginning your work.
2. Keep hands away from broken tap ends.

Wrenches

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

2. Always pull, do not push on a wrench. You will be less likely to fall if the wrench slips or the bolt suddenly breaks loose.
3. Box and socket wrenches are used when a heavy pull is required.
4. Never overload the capacity of the wrench by using an extension.
5. Never strike the wrench handle with a hammer. There are specially made wrenches for these purposes.
6. When using an adjustable wrench, place the opening jaw of the adjustable wrench facing you. Do not use an adjustable wrench to free a frozen nut, or in any other situation requiring a lot of force.
7. Pipe wrenches should be kept clean in order to prevent slipping. Never use a pipe wrench on nuts and bolts.

Portable Power Tool Safety

Portable power tools present hazards similar to stationary machines performing the same function. However, there are additional inherent risks due to the tool's extreme mobility and proximity to the operator's body.

General Portable Power Tool Safety Practices

1. Operate and use only those portable power tools and machines that you are trained and qualified to operate. Know your power tool.
2. Read the operator's manual.
3. Learn the tool's application and limitations, as well as the specific potential hazards peculiar to it.
4. Disconnect the source of power before accessories are changed or adjustments are attempted.
5. Observe all Lock out/Tag out Procedures.
6. Protective guards are <u>not</u> 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.
7. Never use a power tool or machine beyond its capacity.
8. Never use a power tool with a malfunctioning switch or part. Remove it from service.
9. Do not leave the tool in an overhead place where pulling the cord or hose might cause the tool to drop.
10. Store power tools in a secured area. Keep them away from grease and oil, hot surfaces, and chemicals. Take proper steps to avoid all possible accidental activations.
11. Report all faulty, broken or defective tools to your supervisor.
12. Wear proper clothing for the job. Avoid clothing, jewelry, and long hair that could get caught in the tool.
13. Do not use electric tools on damp or wet ground without the protection of a Ground Fault Circuit Interrupter (GFCI). A GFCI is placed in the line with the tool. It is designed to trip much faster than an ordinary breaker should a fault to ground occur.
14. Beware of lock-on buttons. They are convenient, but they can be very dangerous. Check to be sure that the lock-on button is off prior to plugging it in.
15. Do not start the tool until you are at the work location and ready to begin the work. Switch the tool off immediately after it is clear of the work.

Electrical Portable Power Tools

Electrical Cords

1. Use a ground-fault circuit interrupter (GFCI) protected circuit.
2. Use only tools equipped with a three-prong plug. Never remove the ground prong of a three-prong plug.
3. Always examine both the cord and the connections carefully before using.
4. Do not patch any damage to cord insulation with tape.
5. Always try to route power cords and other lines around high traffic areas. If possible, suspend the cord above the area. Never allow a cord to become a tripping hazard.
6. Do not allow an electrical cord to come in contact with gas piping.
7. Cords should also be kept clear of chemical spills, heat sources, sharp edges and anything else that might damage them.
8. It is very easy to damage a cord with sanders and saws etc. Keep cords out of the path of the tool.

Circular Saws

1. Be sure the power switch is off and the saw is lying or is held in safe position when the plug is inserted.
2. Disconnect from the power source when changing the blade or handling the blade.
3. Do not hold a short board with your foot.
4. Do not let the blade come in contact with the cord.
5. Set the blade's depth to no more than 1/8 inch to ¼ inch greater than the thickness of the material being cut.
6. If the machine has two handles, keep both of your hands on these handles when operating the saw.
7. Release the switch immediately if the blade binds.
8. Do not stand directly in the saw line of this or any other saw. If the blade binds, it has a tendency to kick the saw back out of the cut and the operator's legs could be severely cut.
9. Check the work for nails, wires or other metal objects before making the cut.
10. Support the work properly near the line of the cut. If the stock sags, the blade will bind.
11. Do not begin the cut until the blade has come fully up to speed.

Drills

1. Use only sharp, straight bits of the size intended for the machine.
2. Unplug before inserting or changing bits.
3. When using attachments, use only those approved by the tool manufacturer. Follow the instructions.
4. Tighten the drill bit, the chuck, and attached handles securely before using.
5. When drilling metal, center punch the hole to keep the drill from skidding on the surface.
6. If the drill binds in the work, release the trigger immediately, unplug the drill from the power source, and remove the bit. Never attempt to free a jammed bit by starting and stopping the drill.
7. Always hold and brace the tool securely.

Grinders

1. Use the proper respirator when using this type of equipment.
2. Always hold the wheel or cutter away from yourself and/or co-workers when starting a grinder.
3. Before each use, check the tool for tightness.
4. If the grinder is dropped, check the grinder blade for damage. Report damage to the supervisor and replace the damaged parts as required. This will prevent further damage.
5. Use a grinding wheel that is designed for the grinder. Do not use a regular grinding wheel when the job calls for a high speed wheel.

Jig/Saber Saws

1. Firmly position the saw's base plate/shoe on the work piece before turning on the tool.
2. Throughout cutting procedure, maintain firm contact between the base and the material being cut.
3. When plunge cutting, use a blade designed for that purpose and follow the manufacturer's recommendation.

Miter Saw

1. Clean the lower guard frequently to aid visibility and movement.
2. Do not use abrasive cut-off wheels on miter saws.
3. After completing a cut, release the trigger switch and allow the blade to come to a complete stop.

Reciprocating Saws

1. Without exception, use the blade specifically recommended for the job being done. Read the operator's manual.
2. Use sharp blades.
3. Use the shortest blades possible for the job.
4. When making a blind cut, be sure that hidden electrical wiring or water pipes are not in the path of the cut.
5. Always hold the tool by the specific gripping surfaces.

Routers

1. Install router bits securely and according to the operator's manual.
2. Keep a firm grip with both hands on the router at all times.
3. Always face the cutter blade's opening away from the body.
4. If the router is equipped with a chip shield, keep it properly installed.
5. Be sure that the switch is in the OFF position before plugging the router into the power outlet.
6. Never force the router into the material.
7. Unplug and store the router immediately after use.
8. Always wear eye protection with side shields or full face protection.

Sanders

1. The motion of the sander belt or disk should be away from the body.
2. Use proper respiratory protection. Also, work in a well-ventilated work area.
3. Use goggles and face shield.
4. Never lock this tool in the ON position.
5. Never force a portable sander. The sander's weight applies adequate pressure.

Battery Operated Portable Power Tools

1. Battery charging installations shall be located in areas designated for that purpose.
2. Never force the battery into the charger or the tool, as the batteries are made to fit the appropriate battery charger and tool.

Air Powered (Pneumatic) Tools

Air hoses, air-powered grinders, and pneumatic-impact tools each have specific hazards. By observing certain precautions, however, using these tools will be much safer. Some pneumatic tools, like nail drivers and staple guns, are as powerful as a small caliber rifle. Treat them with the same respect you would give to a firearm.

Air Hose

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 properly functioning 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. Do not use compressed air for other cleaning purposes except where reduced to less than 30 psi. Goggles must be worn. The 30 psi requirement does not apply for concrete form, mill scale and similar cleaning purpose.
7. Do not use hoses for hoisting or lowering tools.

Air Powered Grinders

1. Air powered grinders require the same type of guarding as electrical grinders.

Jackhammers

1. Jackhammer operators are to wear gloves, ear plugs, safety goggles, and approved safety shoes.
2. Workers in the immediate work area of a jackhammer are to wear safety goggles and ear plugs.
3. Do not squeeze the trigger until the hammer is on the work surface.

4. Never point the hose at anyone. Practical jokes with compressed air tools and hoses have caused many serious injuries.
5. Before using or changing one pneumatic tool for another, turn off the air using the control valve.
6. Never kink the air hose to stop the air flow.

Impact Wrenches

1. Use sockets that are specifically designed as impact-wrench sockets. Sockets and accessories that are made only for hand use will not stand up to impact-wrench use. Impact-wrench sockets usually are identified by a black finish on the outside and have a heavier section thickness.
2. Avoid excessive impacting.
3. Do not use nails, bolts, or other makeshift items as substitute safety pins. Impact wrenches must have a locking device for retaining the socket.
4. Do not use manual sockets on a pneumatic wrench.

Percussion Tools (Explosive Actuated Tools)

Percussion tools, such as hammers, rotary hammers, and hammer drills are primarily associated with masonry applications. Percussion tools are firearms. Treat them with the same respect you would give to a firearm. **Do not use a powder actuated tool until you have been trained to use it properly**.

Percussion Tool General Safety Practices

1. Use the handles provided with the tools.
2. Do not force the tool. Added pressure by the operator can only cause operator failure and excessive bit wear.
3. Percussion 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.
4. The use of percussion actuated tools is prohibited in explosive or flammable atmospheres.
5. The tool operator must wear safety goggles, face shields, or other approved face and eye protection.
6. Percussion actuated tools and the charges must be secured at all times to prevent unauthorized use or possession.
7. Do not fire the tool until it is in the proper firing position.
8. Firing into soft or easily penetrable materials is prohibited unless the material is backed by a substance that will prevent the pin or fastener from passing completely through the material creating a flying missile hazard on the other side.
9. Percussion 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.
10. High velocity percussion 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 ft. per second when measured at 6.5 ft. from the muzzle.

11. Do not use percussion 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.
12. Percussion 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.
13. Percussion 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.
14. Never point percussion actuated tools at another person.

SECTION 26: AERIAL LIFTS

An aerial lift is any vehicle-mounted device used to elevate personnel. Aerial lift equipment includes: ladder trucks, vertical tower trucks, extensible boom platforms, articulating boom platforms or any combination of the above.

Aerial lift equipment is commonly used for working above ground. Aerial lifts have replaced ladders and scaffolding on many job sites due to their mobility and flexibility. Boom-mounted buckets, baskets, or platforms are used in constructing and maintaining electric lines, lighting, telephone lines, in playground and ball field lighting maintenance, highway sign and lighting construction and maintenance, and in firefighting work. Aerial lifts are made of metal, fiberglass-reinforced plastic or other material.

CAUTION: Extreme care must be exercised when operating aerial equipment near overhead wires. Use a signalman or spotter to help the operator keep equipment clear of any energized wires.

Hazards of Aerial lifts include, but are not limited to the following: persons falling from elevated level; objects falling from an aerial lift; equipment tip-over; ejection from the elevated lift platform; structural failures; electric shock (electrocution); entanglement hazards; contact with objects; and contact with ceilings and other overhead objects.

The most frequent causes of accidents while using Aerial lifts include, but are not limited to the following: not observing proper precautions against electrical hazards to personnel both in the basket and on the ground; improper positioning of vehicle or outriggers; lack of sufficient blocking under outriggers; or overloading the boom; causing the apparatus to overturn or fail; overreaching from basket or other improper work procedures; not using proper protective equipment, including safety belts; moving the truck while the boom is raised or moving it where there is inadequate clearance for the boom; structural or mechanical failure, or control jamming; swinging the boom or basket against overhead obstructions or energized equipment; moving the boom into positions that interfere with traffic; and inadequately trained personnel.

Training

Only trained and authorized persons are allowed to operate an aerial lift. Training should include: correct operation of the lift including maximum intended load and load capacity; a demonstration of the skills and knowledge needed to operate an aerial lift; when and how to perform inspections; and manufacturer's recommendations as per the operator's manual.

Workers should be retrained if an accident occurs during usage of the Aerial lift, if a hazard is discovered during usage of the Aerial lift, or if a different Aerial lift is to be used. Additionally, workers shall be retrained if the worker is observed using the Aerial lift improperly.

Pre-start Inspection

Prior to each work shift, an effective inspection of the Aerial lift should be conducted. This inspection should verify that all equipment and components are in safe working condition. The manufacturer's recommendations as per the operator's manual should be followed. The inspection should cover the following as a minimum:

1. All attachment welds between actuating cylinders and booms or pedestals,
2. All pivot pins for security of their locking devices,
3. All exposed cables, sheaves, and leveling devices for wear and security of attachments,
4. The hydraulic system for leaks and wear,
5. All lubrication and fluid levels,
6. The boom and the basket for cracks and/or abrasions.

Lifelines, Safety Belts and Lanyards

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. 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. 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 ft. The rope shall have a nominal breaking strength of 5,400 pounds.

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 Specifications QQ-P-416. Surface shall be smooth and free of sharp edges. 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. Additionally, employees are to comply with the following:

1. Wear a body belt and a lanyard that is attached to the boom or the basket when working from an aerial lift.
2. Do not belt off from an aerial lift to an adjacent pole, structure, or equipment.
3. Stand firmly on the floor of the basket.
4. Do not sit or climb on the edge of the basket.
5. Do not use planks, ladders, or other devices for a work position.
6. At no time while the worker is aloft is the aerial lift worker to climb out of the lift bucket.

7. Only one person is allowed in basket at any one time, unless the basket is specifically designed for more than one person.
8. Never put more weight in the lift than is recommended by the manufacturer.
9. Do not exceed the boom and basket load limits that are specified by the manufacturer.
10. The aerial lift must never be used as a crane.
11. Do not exceed the boom and basket load limits that are specified by the manufacturer.

Operate an Aerial Lift

Articulating boom and extensible boom platforms, primarily designed as personnel carriers, shall have both platform upper and lower controls. Controls shall be plainly marked as to their function. Upper controls shall be in or beside the platform within easy reach of the operator. Lower controls shall provide for overriding the upper controls.

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.

When operating an Aerial lift, employees are to comply with the following:

1. Only authorized persons shall operate an aerial lift.
2. When maneuvering the bucket, workers are to face the direction it is traveling at all times.
3. Sudden stops and sudden reversals must be avoided.
4. 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.
5. Test lift controls each day prior to use to determine that such controls are in safe working condition.
6. Set the brakes and when outriggers are used, position them on pads or a solid surface. Install wheel chocks before using an Aerial lift on an incline.
7. Do not rest the basket and the boom against mast arm poles.
8. The brakes shall be set and when outriggers are used, they shall be positioned on pads or a solid surface.
9. 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.
10. The insulated portion of an Aerial lift shall not be altered in any manner that might reduce its insulating value.
11. 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.
12. Do not store conductive materials around the boom. (This is to prevent the pylon insulator from being bridged.)
13. Ground the vehicle when working near energized conductors if there is no insulator in the base of the boom.

SECTION 27: LADDER SAFETY

Careless use of and improper maintenance of ladders are frequent causes of accidents. An important point to remember about ladders is to use them correctly. A chair, table, box or piece of equipment is not a safe substitute for a ladder. Do not use ladders for any other purpose; it is not meant to be a platform, scaffold, skid or brace.

Also, remember to use the right ladder for the job. There are numerous ladder designs detailing specifics and height limitations worth knowing. Each ladder must be marked with the manufacturer's product data information including:

1. Manufacturer's or distributor's name or logo;
2. Month and year of manufacture; and
3. Maximum Rated Load

Ladders are rated according to the amount of weight they can safely hold.

Rating	I-A	300 pounds (extra heavy duty)
	I	250 pounds (heavy duty)
	II	225 pounds (medium Duty)
	III	200 pounds (light)

The following safety topics must also be addressed by the labels and markings:

1. Visual inspection
2. Maintenance
3. Overreaching
   Example**:** CAUTION – Overreaching causes a tipping hazard
4. Engagement of the locking mechanism
   Example**:** CAUTION – Make sure locking mechanism is engaged before climbing
5. Holding handrails during ascent and descent
6. Appropriate standing surfaces
7. User orientation during ascent and descent
   Example: CAUTION – Face ladder stand & hold handrails when ascending and descending

Basic Safety

Ladders are tools and as such, the basic safety rules that apply to most tools also apply to the safe use of a ladder:

1. If you feel tired, dizzy, or prone to losing your balance, do not use a ladder.
2. Do not use ladders in high winds or storms.
3. Wear clean slip-resistant shoes. Shoes with leather soles are not appropriate for ladder use since they are not considered sufficiently slip-resistant.
4. Before using a ladder, inspect it to confirm it is in good working condition.
5. Ladders with loose or missing parts must be rendered useless and discarded.
6. Rickety ladders that sway or lean to the side must be rendered useless and discarded.
7. The ladder you select must be the right size for the job.

8. The Duty Rating of the ladder must be greater than the total weight of the climber, tools, supplies, and other objects placed upon the ladder.
9. The length of the ladder shall be sufficient so that the climber does not have to stand on the top rung.
10. When the ladder is set-up for use, it must be placed on firm level ground and without any type of slippery condition present at either the base or top support points.
11. Only one person at a time is permitted on a ladder unless the ladder is specifically designed for more than one climber.
12. Ladders shall not be placed in front of closed doors that can open toward the ladder. The door must be blocked open, locked, or guarded.
13. Read the safety information labels on the ladder.
14. The on-product safety information is specific to the particular type of ladder on which it appears. The climber is not considered qualified or adequately trained to use the ladder until familiar with this information.
15. Never jump or slide down from a ladder or climb more than one rung/step at a time.

Three Points-of-Contact Rule

When climbing a ladder, it is safest to utilize Three Points-of-Contact because it minimizes the chances of slipping and falling from the ladder. At all times during ascent or descent, the climber must face the ladder and have two hands and one foot, or two feet and one hand in contact with the ladder cleats and/or side rails. In this way, the climber is not likely to become unstable and fall in the event one limb slips during the climb. It is important to note that the climber must not carry any objects in either hand that can interfere with a firm grip on the ladder. Otherwise, Three Points-of-Contact with the ladder cannot be adequately maintained and the chance of falling is increased in the event a hand or foot slip occurs. Factors contributing to falls from ladders include haste, sudden movement, lack of attention, the condition of the ladder (worn or damaged), and the user's footwear.

Inspection

A thorough inspection must be made when the ladder is initially purchased and each time it is placed into service. Clean the climbing and gripping surfaces if they have been subjected to oil, grease or slippery materials. Working parts, bolts, rivets, step-to-side rail connections, and the condition of the anti-slip feet (safety shoes) shall be checked. If structural damage, missing parts, or any other hazardous defect is found, the ladder must not be placed into service and should either be discarded or completely repaired. Ropes, cables and pulleys should be inspected frequently to insure proper operation, and replaced when worn or defective.

Ladders exposed to excessive heat, as in the case of fire, may have reduced strength. Similarly, ladders exposed to corrosive substances such as acids or alkali materials may experience chemical corrosion which reduces strength and renders the ladder unsafe. Remove these ladders from service.

Ladders with bent or broken side rails must be removed from service and destroyed.

In the event a ladder is discarded, it must be destroyed in such a manner as to render it useless. Another person must not be afforded the opportunity to use a ladder that has been deemed unsafe.

Inspections of Fixed Ladders and Ladder Safety Systems must be made at least annually to identify signs of rust, corrosion and deterioration. The inspections shall include all the major components: rungs, side rails, supports, fasteners, anchors, Ladder Safety System, backside and front side clearances/obstructions, hatches, hatch opening arms, grab bars, platforms, and side rail extension anchors.
The Fixed Ladder must not be used if any bolts or welds are not secure or missing or if the joints between the rungs and the side rail are not tight.
Where structural defect or defects are identified, the ladder shall be taken out of service, blocked, fenced or removed until repairs are completed by a competent person. Repairs and materials should be at least the equivalent of the original construction.
Records of annual or regularly scheduled inspections as well as repairs should be kept.
If electrical grounding protection has been provided for the ladder, a continuity inspection of the ground connection(s) must be performed at least annually.
If a Fall Protection System has been provided, it must be inspected and tested according to the manufacturer's recommendations.
Upon receipt following shipping and prior to each period of use, each Mobile Ladder Stand or Ladder Stand Platform unit must be visually inspected for damage, such as unusual wear, deterioration or corrosion. Any loose bolts, nuts or connections must be tightened. All threaded fasteners must be equipped with locking hardware. It is the Department's responsibility to comply with the manufacturers' maintenance instructions to maintain the quality and serviceability of the unit.
Units that are damaged or weakened from any cause are not to be used until repairs are completed. Units that are damaged subsequent to their receipt and/or worn beyond repair must be removed from service and destroyed.

Transporting Ladders

When transporting ladders on vehicles equipped with ladder racks, the ladders must be properly supported. Overhang of the ladders beyond the support points of the rack should be minimized. The support points should be constructed of material such as wood or rubber-covered pipe to minimize the effects of vibration, chafing and road shock. Securing the ladder to each support point will greatly reduce the damaging effects of road shock.
Storage racks for ladders not in use should have sufficient supporting points to avoid sagging which can result in warping the ladder. Other materials shall not be placed on the ladder while it is in storage.

Stepladder

The Stepladder is a self-supporting portable ladder that is non-adjustable in length, with flat steps and a hinged design for ease of storage. It is intended for use by one person. Stepladders shorter than 3 ft. are considered Step Stools. The highest standing level on a stepladder is slightly more than 2 ft. from the top of the ladder. Stepladders range in size from 3 ft. to 20 ft. in length along the side rail. The highest standing level is required to be marked on the specifications label on the side rail of the product. Stepladders are not to be used as Single Ladders or in the partially open position.

Single Ladders

Single Ladders rated for heavy-duty or extra heavy-duty service range in length up to 30 ft. as measured along the side rail. Single Ladders rated for medium-duty service are available in lengths up to 24 ft., and those rated for light-duty service do not exceed 16 ft. in length.

Selection of proper Single Ladder size requires knowledge of the height of the top support point. In the event the top support point is a roof eave, the top of the Single Ladder must extend 3 ft. above the roof if the climbers' intent is to access the roof. The ladder must also be tied to the upper access level before climbing onto or off the ladder at the upper level. The user must take care when getting on or off the ladder at the upper level to avoid tipping the ladder over sideways or causing the ladder base to slide out.

Extension Ladders

Extension Ladders have the Fly Section at the bottom and the Base Section at the top with the Rung Locks engaged. The top of an Extension Ladder must be placed with the two side rails equally supported unless the ladder is equipped with a single-support attachment. Extension Ladders may be equipped with rope and pulley systems to assist the user when extending the Fly Sections. The rope must have a minimum breaking strength of 560 pounds. On three-section Extension Ladders, a wire cable may be utilized in place of the rope providing the cable has a minimum 1/8-inch diameter.

When an Extension Ladder has previously been used as a Single Ladder, care should be exercised in properly reassembling the sections to insure that the interlocking guides or brackets are properly engaged before further use. Adjustment of Extension Ladders must be made by the user when standing at the base of the ladder so that proper engagement of the Rung Locks can be observed. Under no circumstances is an extension adjustment to be made when anyone is standing on the ladder. It is also the user's responsibility to make sure the extension rope is tracking correctly in the pulley. The base section of an Extension Ladder must be equipped with slip-resistant feet.

Extension Ladders should be erected as close to a pitch of 75-1/2 degrees from the horizontal as possible for optimum resistance against the bottom of the ladder sliding out, strength of the ladder, and balance of the climber. A simple rule for setting-up the ladder at the proper angle is to place the base a distance from the wall or upper support equal to 1/4 of the extended length of the ladder side rails.

Fixed Ladders

A Fixed Ladder is a non-self-supporting ladder that is non-adjustable in length and permanently attached to a structure at a Pitch ranging from 60 degrees to 90 degrees from the horizontal. The preferred pitch of a Fixed Ladder is between 75 degrees and 90 degrees from the horizontal. A Fixed Ladder is considered to be of "Substandard Pitch" if it is installed at an angle between 60 degrees and 75 degrees from the horizontal. Fixed Ladders having a Pitch greater than 90 degrees are not allowed.

Mobile Ladder Stand and Mobile Ladder Stand Platforms

A Mobile Ladder Stand is a movable, fixed height, self-supporting ladder consisting of wide flat treads in the form of steps which give access to a Top Step. The assembly may include handrails and is intended for use by one person.

A Mobile Ladder Stand Platform is a movable, fixed height, self-supporting unit having one or more standing levels and is provided with a means of access or egress to the platform or platforms. The assembly may include handrails and/or guardrails, and may be designed to accommodate one or more persons.

The Structural Safety Factor for this class of products is 4. Therefore, the units must be capable of supporting 4 times their Rated Load. All threaded fasteners used in the construction of Mobile Ladder Stands and Platforms must be self-locking. All exposed surfaces must be free of sharp edges and burrs. The Rated Load for a Mobile Ladder Stand must be at least 300 pounds. This rating is based upon the combined weight of one worker, materials and equipment. The Steps shall be at least 16 inches wide and be provided with a durable slip-resistant surface. The slip-resistant feature may be an integral part of the surface, or may be provided by dimpling, knurling, shot blasting, coating, metal spraying, or slip-resistant tapes.

Steps must be uniformly spaced and arranged with a rise (vertical spacing) of not more than 10 inches, and a depth of not less than 7 inches. The slope (angle) of the step stringer to which the steps are attached is limited to not more than 60-degrees from the horizontal. Handrails, when used, shall have a vertical height in the range of 29-1/2 to 37 inches, measured vertically (90 degrees) from the front edge of a step.

All of the standing areas of the Mobile Ladder Stand and Platform shall be located within the perimeter of the base frame to reduce the overturning hazard. Ladder Stands with a Top Step height of 4 ft. to 10 ft. must be provided with handrails. The use of movable gates or non-rigid members, such as chains, is permitted for Special Use applications. Ladder Stands with a Top Step over 10 ft. high must have the Top Step protected on three sides by a handrail with a vertical height of at least 36 inches. Top Steps that are 20 inches or more, from front to back, must be provided with a midrail and toeboard. On Mobile Ladder Stands and Platforms provided with wheels or casters, the wheels or casters supporting the unit are required to support four times their proportional share of the unit's rated load plus their proportional share of the unit's weight. In addition, the size, number and type of casters must provide maneuverability of the unoccupied unit. The wheel/caster system must also be equipped with a system that impedes horizontal movement of the unit.

Ladder Stand Platforms with a Platform over 10 ft. high must have Guardrails and Toeboards on the exposed sides and ends of the Platform. The Guardrail must have a height of 42 inches including a midrail approximately midway between the top rail and the working surface. On Special Use applications, the use of removable gates or non-rigid members, such as chains, is permitted.

General maintenance of a Mobile Ladder Stand or Platform includes cleaning, lubrication, painting and the replacement of on-product labels and markings as well as wheels, casters and rubber pads.

Materials and/or equipment shall not be stored on the Steps or Platform of a unit.

The user must face the steps while ascending or descending except when the slope of the steps is 50 degrees or less above the horizontal.

Use Ladder Stands and Ladder Stand Platforms only on level surfaces. They are not to be used on uneven or sloping surfaces.
Access to or egress from a Step or Platform from any other elevated surface is prohibited unless the unit has been positively secured against movement.
Users are not permitted to stand on components of the unit other than the Steps or Platform.

SECTION 28: TREE MAINTENANCE

General Safety Practices

1. Never work on a tree that is too close to an existing power line. Contact the local power company for assistance when cutting trees near power lines. Never attempt to cut or trim trees near power transformers during wet or rainy conditions.
2. If work takes place on or near a street or highway, proper traffic control measures for the work area are required. If work is performed over public sidewalks, work zone safety measures for foot traffic must be utilized around the work area.
3. When cutting tools are used, the guidelines listed in Section 24, HAND AND PORTABLE POWER TOOLS, must be followed.
4. When cutting trees and limbs, goggles or safety glasses, gloves, safety chaps, sleeves and safety shoes must be worn. Eye protection shall comply with American National Standards Institute (ANSI) Z87.1. Additionally, a complete Professional Forestry Helmet System must be used. This helmet system consists of an ANSI approved helmet, ear muffs and face screen.
5. Before any work is to begin, the tree must be inspected for hazards, poisonous plants (poison ivy, oak, etc.) and stinging insects. If any are found, employee must make every effort to avoid contact with them.
6. Trees shall be inspected for rotted/cracked or hazardous branches.
7. Tools shall not be thrown or dropped from the tree.
8. All tools and equipment shall be properly stored when not in use.
9. All tools and equipment shall conform to the requirements of this standard.
10. All tree maintenance equipment shall be equipped and maintained with manufacturers' safety devices, instructions, warnings, and safeguards. Arborists and other workers shall follow instructions provided by manufacturer.
11. All tree maintenance equipment shall be operated or maintained by authorized, qualified, and trained personnel in accordance with parish policies and federal, state, or local laws.
12. Material and equipment carried on vehicles shall be properly stored and secured in compliance with the design of the unit in order to prevent movement during transport.
13. Step surfaces and platforms on mobile equipment shall be skid resistant.
14. Safety seat belts, when provided by manufacturer, shall be worn while a unit is being operated.
15. Hoisting or lifting equipment on vehicles shall be used within rated capacities as stated by the manufacturer's specifications.
16. Units with obscured rear vision, particularly those with towed equipment, should be backed up only when absolutely necessary and a spotter must be used when backing up.

17. When units are left unattended, the engine shall be turned off, keys shall be removed from ignition, and the parking brake applied.
18. Units shall be turned off, keys removed from the ignition, and rotating parts at rest prior to making repairs or adjustments, except where manufacturer's procedures require otherwise. Defects or malfunctions affecting the safe operation of equipment shall be corrected before such units are placed into use.
19. Units shall be operated in the proper gear and at the proper speed relative to the operating environment and the manufacturer's instructions and guidelines.
20. Care shall be taken to ensure that a unit's exhaust system does not present a fire hazard.

Wood Chipper/Shredder

1. A wood chipper/shredder shall not be parked directly under the tree being trimmed or cut.
2. Keep bystanders, pets and children at least 75 ft. from the machine while it is operating. Stop the machine if anyone enters the immediate work area.
3. Goggles, face shields, or safety glasses shall be worn at all times by chipper/shredder feeders. Unbuttoned or loose fitted clothing, excessive jewelry, and scarves must not be worn by feeders. Feeders shall wear tight fitting gloves in good condition. Do not wear gloves that have cuffs.
4. Be familiar with all controls and their proper operation. Know how to stop and disengage them quickly.
5. Feeders shall keep their hands from inside the feeder shield. Do not put hands or feet near the needing chamber and/or discharge openings.
6. Branches shall be thrown into the cylinder while standing to one side, and not while standing directly in front of the cylinder.
7. Only small amounts of wood shall be fed into the chipper/shredder.
8. If a branch will not feed easily into the chipper/shredder, 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/shredder for jammed branches.
9. Never put sweepings through the chipper. Sweepings shall be thrown directly into the truck.
10. Only one worker at a time is to feed wood into the chipper/shredder. Workers are to keep clear of the chip chute.
11. Before any work or adjustments can be made to the chipper/shredder, the engine must be shut off, the ignition key removed, and the clutch disengaged. Disconnect the spark plug ignition wire and ground it against the machine.

Aerial Lifts

For further information, please refer to Section 26 titled "Aerial Lifts."

Tree Felling & Cutting

1. Before deciding which direction the tree is to fall, the area shall be thoroughly inspected. The natural lean of the tree shall be considered.
2. When necessary, felling cuts must be properly wedged in the direction of the fall along with the use of a wedge.

3. Workers shall 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.
4. All trees that would strike any property while falling or cause any damage shall be properly roped, guided, and anchored.
5. All felling cuts shall be properly made and adequate holding wood shall remain to hinge the tree.

Stump Grinder/Cutter

1. The machine is equipped with safety decals, guards and designs for your protection. Do not take the machine for granted; always be cautious and careful when operating your equipment.
2. Read and follow all the instructions in the operator manual thoroughly.
3. Before operating machine, all potential operators shall read and understand operator's manual and decals, watch videos and follow the manufacturer's recommendations.
4. Keep children, bystanders and animals clear of working area. Never operate equipment that is in need of repair or adjustment.
5. Operators shall at all times be located within easy reach of all feed control and shut-off devices when unit is running. Operators must be attentive and prepared to activate devices.
6. Never wear torn or loose clothing when operating the machine. Torn or loose clothing is more likely to get caught in moving machinery parts. Make sure machine is in excellent condition, and all the guards are in place, tight and secure.
7. Wear eye and all required personal protection equipment. All safety equipment shall be worn including, hard hat, face shield, gloves, eye protection, ear protection, etc. per ANSI standards.
8. Never sit, stand, lay, climb or ride anywhere on machine while it is running, operating, or in transit.
9. Do not go near or in-line with the debris field of the stump grinder/cutter while in operation. While grinding stumps, the chips and portions of the stump fly from the cutter head and can cause severe injury.
10. Do not operate this machine unless all hydraulic control devices operate properly. They must function, shift and position smoothly and accurately at all times. Faulty controls can cause personal injury.
11. Never grind any materials that might contain wires, stones, nails, or other metal objects which may damage the teeth and become dangerous projectiles.
12. Do not work on the machine if the engine is running with the clutch disengaged.
13. Do not attempt to start the engine or engage the engine power-take-off (PTO) system on the machine if the cutter wheel is jammed or frozen in place.
14. Do not start to grind a stump unless you are completely sure there are no power lines, water lines, sewer lines, phone lines, etc. in the area above or below ground level where you are grinding.
15. Never approach cutter wheel or cutting teeth while engine is running or cutter wheel is coasting to a stop. Allow cutter wheel to come to a complete stop before inspecting.
16. Replace immediately any missing or damaged decals.

17. When the need arises to replace a machine component with a decal attached, the decal shall be replaced.
18. Do not operate machine without a full set of cutting teeth present on the blade. Operating machine without a full set of cutting teeth can cause excessive vibrations and premature bearing failure.

SECTION 29: CHAIN SAWS

The potential risk of injury when using a chainsaw increases after hurricanes and natural disasters, when chainsaw are widely used to remove fallen or partially fallen trees and tree branches. Accident reports indicate that a number of employees have been involved with incidents when fueling, handling or maintaining chain saws and when felling, limbing and cutting up trees. Parish administration has stated their desire to prevent injuries to parish personnel and to protect public and private property. This section of the safety manual is a means to help employees identify causes of chainsaw accidents and measures employees may take to remove causes, thereby eliminating or reducing the number of accidents. Employees who operate chainsaws are responsible for knowing all policies, rules and regulations concerning safe operation and maintenance of chainsaws and proper techniques of safe tree trimming and felling.

Read Manufacturer's Operations and Maintenance Manual

Before attempting to operate a chainsaw, review the manufacturer's instructions concerning operation and maintenance. If the instructions are not available, ask your immediate supervisor for instructions on the chainsaw's operations. Only qualified employees should operate chainsaws. Employees should be trained and familiar with all chainsaw safety features and the manufacture's recommended methods of use and the equipment's limitations. Use only chainsaws that have been manufactured and maintained according to ANSI Standards.

Ask questions if you have any doubts about doing the work safely. Safety procedures used will depend on where the work is conducted (e.g., on the ground or elevating device) and on the presence of slip, trip and fall hazards. Follow the chainsaw service/preventive maintenance schedule recommended by the Manufacturer or required by Department policy.

Personal Protective Equipment

Personal protective equipment (PPE) as outlined in this section shall be required. PPE shall be inspected prior to use on each work shift to ensure it is in serviceable condition.

1. Clothing should be well-fitted to prevent any entanglement with the chain saw.
2. Most chainsaw accidents involve injuries to the legs and knees. The use of leg protection clothing, or "chaps," is mandatory. Chaps will conform to the applicable provisions of the standard specification for leg protection for chainsaw users.
3. Heavy leather gloves or mitts are required.
4. Head protection shall be worn by workers engaged in chainsaw operations. Head protection shall conform to the applicable provisions of American National Standard (ANS) requirements for protective headwear for industrial workers.

5. Respiratory protection shall be worn as required and shall conform to the applicable provisions of ANS when cutting trees and limbs.
6. Eye and face protection shall be worn as required and shall conform to the applicable provisions of ANS practice for occupational and educational eye and face protection. This includes both approved safety glasses with side panels and face shield. Safety glasses with side shields, and face shields shall be approved by the ANS.
7. As chainsaws create noise levels of up to 95 to 115 dBA, appropriate hearing protection is required.

Pre-use Inspection

1. Check chain tension (about thickness of a nickel).
2. Inspect saw for the following: loose fittings, proper chain sharpness and tension, loose spark plugs, dirty air filter, defective muffler, worn starting cord.
3. Check the air filter and see if it is clean. Clean the filter, if required.
4. Fill the chain oil reservoir.
5. Make sure the chain brake functions and adequately stops the chain. The stopping power of a chain brake can be greatly reduced by wear, or by oil, dirt or sawdust in the brake parts.
6. Do not attempt to operate a faulty saw. If you cannot repair the saw, report it to your supervisor.

Refueling

For proper oil/gas fuel mixture, consult the operator's manual. Smoking is strictly prohibited when fueling or refueling a chainsaw. Be sure the chainsaw engine is cool. Do not refuel it when hot. Fill the gas tank with the proper fuel mixture. The gas can shall be properly labeled. A gooseneck can or metal funnel should be used as needed to reduce spillage. After fueling/refueling, excess fuel or oil should be wiped off the chainsaw before it is started. Always have a fire extinguisher in the refueling area.

Carrying

When carrying the chainsaw any distance, stop the motor and carry it by the handle with the guide bar to the rear in such a way that you can throw it clear in case you stumble or fall. Never climb a tree with the chainsaw in your hand; always have it raised or lowered on a rope. When moving about, make sure your fingers are not on or near the trigger in case you slip or fall. Carry the chain with the bar pointed behind you. Ensure the scabbard is on and the muffler is always away from the body.

Planning the Job

Although tree cutting may not be the only job where a chainsaw is used in parish work, it is the area where chainsaws are most often used so consider the following information.

1. Keep bystanders a safe distance from the cutting area. Safe distance for spacing workers is twice the height of the tallest trees.
2. If tree cutting work takes place on or near a street or highway, properly barricade the work area as to conform to applicable traffic control guidelines for the work area. Barricades shall be placed around work area. Before deciding which direction the tree is to fall, the area shall be thoroughly inspected. Check terrain, trees, wind direction, obstacles. Fences in the way shall be taken down if permission can be obtained.
3. Before any work is to begin on a tree, the tree shall be inspected for poisonous plants (poison ivy, oak, etc.) and stinging insects. If any are found, employees shall make every effort to avoid contact with them. Trees shall be inspected for rotting branches. These branches are to be marked or pointed out. Never work on a tree that is close to power lines.
4. If the tree falling area is a lawn, all branch stubs which might dig into the lawn shall be removed. A blanket of brush and logs shall be placed on the lawn to cushion the fall of the tree.
5. All trees that would strike a line (electric line, telephone line, etc.) when falling or that would cause damage to property shall be properly roped, guyed and anchored to prevent damage.
6. All felling cuts shall be properly made and adequate holding wood shall be left to hinge the tree.
7. Workers shall have an escape route to one side of and away from the direction of the fall.
8. Hold chainsaw with both hands. Keep feet apart, weight evenly
9. Anywhere work on trees will take place the work areas shall be barricaded. Keep bystanders and animals out of the work area.
10. Guide saw, never force it. Run engine at full throttle when cutting.

Starting the Saw

1. Always start the saw on the ground (never on knee or in the air).
2. Hold saw down with one hand on front handle and one foot on handle brace.
3. Make certain that the chain brake is engaged.
4. Depress the decompression button.
5. Prime the engine.
6. Position the choke full in. With other hand, pull starting cord with a short, sharp pull.

Using the Saw

1. Cuts shall never be made by overreaching or cutting above shoulder height. Proper control cannot be maintained in these positions.
2. Shut off or release throttle and engage the chain brake prior to retreating.
3. Engage the chain brake whenever the saw is idle.
4. Run engine at full throttle when cutting. Never run the engine at full throttle unless cutting wood.

5. Remove unwanted branches.
6. Partially sawed limbs shall not be left unattended.
7. All tools shall be removed from the tree at the end of each day or when work is completed.
8. Speed up engine before making wood contact. Do all cutting at full throttle so as not to slip the clutch. Be prepared to throttle down so as not to over speed the engine when it becomes load-free.
9. Allow no employee to use a chainsaw if they have not read the Owner's Manual or received adequate instructions for the safe and proper use of chainsaw.
10. Stand on uphill side when cutting because log may roll.
11. Cutting aloft or from ladders is extremely dangerous.
12. Do not go near downed power lines. Call the Power Company to notify of downed power lines. Standby to warn others to keep clear.
13. Slender material may catch the saw chain and whip the material toward the operator or pull the operator off balance, so extreme caution shall be used when cutting small size brush and saplings.
14. Keep within calling distance of others in case help is needed.
15. At the end of each day of cutting, clean the sawdust from the guide bar mounting pad, the clutch area and the clutch cover. Clean out sawdust from the chain groove in the guide bar.

Kick Back

Kickback is the most common cause of chainsaw accidents. Kickback accidents are usually severe. Kickbacks may be caused in many different ways, including use of a dull, loose chain, running the engine too slowly, hitting knots, gripping, please adhere to the following:

1. Chainsaw operator shall keep his/her body clear of the line of the cut.
2. Chainsaw shall be brought up to speed before the chain touches the wood. Once wood contact is made, cutting should be kept at a steady speed. A chainsaw operator may be pulled off balance by slowing down then speeding up the saw.
3. Kickback may occur when the nose or tip of the guide bar touches an object. Tip contact, in some cases, may cause a lightning-fast reverse reaction, kicking the guide bar up and back toward the operator. Kickback may cause loss of control of the saw and could result in serious personal injury because the chainsaw may kick into the face, shoulder or upper torso.
4. Get a basic understanding of kickback to reduce or eliminate the element of surprise. Surprise may contribute to accidents. Keep an anti-kickback device properly mounted on the guide bard. Keep a firm grip on the saw with both hands when the engine is running. A firm grip will help maintain control of the saw if kickback occurs. Don't let go.
5. Workers are not allowed to go directly opposite the direction of the fall as kickback may create a hazard.
6. Follow the chainsaw manufacturer's sharpening and maintenance instructions. Improper maintenance may defeat the safety features designed into a saw.
7. Use only bars and chains specified by the chainsaw manufacturer. Other bars and chains may have greater kickback potential.
8. Be sure the chainsaw stops moving when the throttle control trigger is released.

9. Avoid use of the nose section of the saw for cutting.
10. Make cut well back on the straight section of the bar.

SECTION 30: SUPERVISORY ACCIDENT INVESTIGATION

The primary safety goal of the parish is to significantly reduce or eliminate accidents. This reduction or elimination of accidents will be accomplished through engineering and controlling actions that are the result of an effective investigative program. It is essential that the Safety Division of the Department of Human Resource Management play an integral part in the accident investigation and lessons learned portion of the process. Accident investigations should be conducted with the primary focus of understanding why the accident occurred and what actions can be taken to prevent recurrence. If an accident was the result of previously unknown or unforeseen hazardous conditions, then a system safety revaluation is necessary to preclude the possibility of future similar events and to ensure optimum control of system operations.

For accident investigation purposes, the definition of an accident has been broadened to include near misses and close calls. This is done to prevent a near miss or close call from becoming a real accident. Investigating an accident is a research activity and not a trial. The investigator is not trying to find who is at fault, but is trying to see what went wrong so that it can be corrected instead of repeated. In fact, there are usually several things that contribute to an accident. Done properly, accident investigation uncovers causes and suggests procedures that prevent future mishaps. The Departmental Accident Review Committees will be responsible for determining culpability. Once culpability is assessed, at a minimum the departmental director and Human Resource Management, Safety Division will determine appropriate fines and penalties.

All accidents are to be investigated to an appropriate degree. As a result, we have two types of investigations:

1. Those with injuries - accidents involving injuries may be further subdivided by medical emergency and medical non-emergency; and
2. those without.

All accidents involving injuries are to be investigated in accordance with the ART Form instructions for medical emergency and medical non-emergencies. All accident scenes should be photographed. Accident scene pictures should include a complete, thorough set of pictures including damaged and undamaged property.

Investigations not involving medical injuries are conducted based on a monetary value of the costs of the property damage. Every incident and accident where the damage to parish property exceeds $500 is to be investigated formally using the Incident Report form and all available investigative techniques including photography. Those incidents where the damage to parish property is less than $500 are to be investigated informally using fewer investigative techniques. This investigation should include near misses and close calls. This informal investigation should be accompanied with photographs.

If it has been determined that the accident requires a formal investigation, a site visit is required. The scene should be photographed. Information and evidence are to be gathered from the scene

during the visit. A list of people to be interviewed should be completed along with the names, phone numbers, and addresses of any witnesses including employees and their location at the time of the accident along with a written statement.

Over time, people tend to forget things. Conduct interviews as soon as possible. Interview people separately regarding the accident. Find a quiet private place to conduct the interview. Let the witnesses tell what they saw or heard. Prepare for the upcoming interview. Know what questions you want to ask. Be reassuring and non-threatening. Take notes or use a recorder. Ask open-ended questions. Ask for details and facts regarding the cause of the accident or near miss. Ask how the accident could have been avoided and solicit suggestions.

In addition to the Safety Division of the Department of Human Resource Management, the immediate supervisor should be the primary accident investigator. All of the investigation including the lessons learned portion of the process, both formal and informal, with or without injury should be conducted with the immediate supervisor. The supervisor has been charged with preventing accidents in his area and should do follow-up investigative work to prevent reoccurrence. The supervisor must take immediate corrective action as required.

The investigative process should follow an agenda which serves to ensure that all possible causes are uncovered. Generally, the following agenda outline should be followed:

1. Complete a post-accident Job Safety Analysis (JSA). This JSA should be based on established procedures and a consideration of the sequence of events that preceded the accident.
2. Determine the root cause of the accident.
3. Develop an action plan to prevent future occurrence. Action plan is to include
   What action is to be taken?, Who is responsible?, When will each step be completed?

Follow-up to ensure that the action plan has been implemented.

Corrective action should be identified in terms of not only how it will prevent a recurrence of the accident or near miss, but also how it will improve the overall operation. This will assist the investigator in presenting a complete solution to management. The solution should be a means of achieving not only accident control, but also total operation control.

The last and most important step in the investigation process is completing the accident report. Use the appropriate approved forms. All report forms can be obtained from the Jefferson Parish Intranet Portal under the Risk Management Department. The report should be completed by the department supervisor, and the Safety Division. Additionally, the Department Directors should be consulted for guidance and approval. As always, the report should be accompanied with an abundance of photographs including photos taken with a cell phone. These report forms include:

1. Accident Reporting and Treatment Form (ART Form)
2. Employee Report of Injury/Illness
3. Automobile Accident Report
4. General Liability Report
5. Property Loss Report
6. Department Incident Report

Note: Photographs should be taken with camera that reflects date and time on each picture produced.

SECTION 31: BLOOD BORNE PATHOGENS

This section is reserved for later use.

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