HSE Program

ASSIGNMENT OF RESPONSIBILITY

In accordance with OSHA regulations,

Bannister Electric LLC of West Monroe

has assigned responsibility and accountability for the administration of our "HSE Program" to:

Dolphus Bannister

Depending on your location, this HSE Program may also be referred to as SHE or EHS Program.

The Federal OSHA designation is "HSE;" however, you will notice that all terms are used.

A copy of the HSE Program is available upon request for our employees' review. Questions should be directed to supervision or management.

BANNISTER ENERGY SOLUTIONS
3966 Hwy 15
Calhoun, LA 71225
318-410-8908
bannisterenergy.com

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RESPONSIBILITIES

Dolphus Bannister is the designated Company Safety Coordinator.

POLICY

The Occupational Safety and Health Act of 1970 clearly defines the requirement to provide safe and healthful working conditions for all employees. Therefore, the safety and health of our employees is the first consideration in operating this business.

Safety and health in our business must be part of every operation. Without question, it is every employee's responsibility at all levels.

It is the intent of Bannister Electric LLC of West Monroe to comply with all laws. To do this, we must constantly be aware of conditions in all work areas that can produce injuries. No employees will be required to work at a job they know is not safe or healthful. Your cooperation in detecting hazards and, in turn, controlling them, is a condition of your employment. Inform your supervisor immediately of any situation beyond your ability or authority to correct.

The personal safety and health of each employee of Bannister Electric LLC of West Monroe is of primary importance. Prevention of occupationally induced injuries and illnesses is of such consequence that it will be given precedence over operating productivity, whenever necessary. To the greatest degree possible, management will provide all mechanical and physical activities required for personal safety and health, in keeping with the highest standards.

We will maintain an occupational safety and health program conforming to the best practices of organizations of this type. To be successful, such a program must embody proper attitudes towards injury and illness prevention on the part of supervisors and employees. It also requires cooperation in all safety and health matters, not only between supervisor and employee, but also between each employee and their co-workers. Only through such a cooperative effort, can a safety and health program, in the best interest of all, be established and preserved.

Our objective is a safety and health program that will reduce the number of injuries and illnesses to an absolute minimum, not merely in keeping with, but surpassing, the best experience of operations similar to ours. Our goal is zero accidents and injuries.

Our safety and health program includes:

- Providing mechanical and physical safeguards to the maximum extent possible
- Conducting a program of safety and health inspections to find and eliminate unsafe working conditions or practices, to control health hazards, and to fully comply with OSHA safety and health standards for every job
- Training all employees in good safety and health practices
- Providing necessary personal protective equipment, and instructions for proper use and care
- Developing and enforcing safety and health rules, and requiring that employees cooperate with these rules as a condition of employment
- Investigating, promptly and thoroughly, every accident to find out what caused it, and correct the problem so it will not happen again

We recognize that responsibilities for occupational safety and health are shared:

- This employer accepts responsibility for leadership of the safety and health program, for its effectiveness and improvement, and for providing the safeguards required to ensure safe work conditions
- Supervisors are responsible for developing proper attitudes toward safety and health in themselves and in those they supervise, and for ensuring that all operations are performed with the utmost regard for the safety and health of all personnel involved, including themselves
- Employees are responsible for wholehearted, genuine operations of all aspects of the safety and health program – including compliance with the rules and regulations – and for continuously practicing safety and health while performing their duties

Dolphus Bannister will ensure that all employees are properly instructed and supervised in the safe operation of any machinery, tools, equipment, process, or practice that they are authorized to use or apply while at work.

Production is never so urgent that we cannot take the time to do our work safely.

Program Goals

Why have a workplace “Safety and Health Plan”? Taking risks is part of running a business, particularly for small business owners. You take risks in product development, marketing, and advertising in order to stay competitive. However, some risks should never be taken. One of these is risking the safety and health of workers. Safety begins at the top and goes downward throughout The Company. The primary goal of Bannister Electric LLC of West Monroe is to continue operating a profitable business while protecting employees from injuries or illness. This can be achieved by delegating responsibility and accountability to all involved in Bannister Electric LLC of West Monroe’s operation.

Responsibility: Having to answer for activities and results

- Accountability: The actions taken by management to ensure the performance of responsibilities

In other words, to reach our goal of a safe workplace, everyone needs to take responsibility and be held accountable.

Benefits of achieving our goals are:

- Minimizing of injuries and accidents
- Minimizing the loss of property and equipment
- Elimination of potential fatalities
- Elimination of potential permanent disabilities
- Elimination of potential OSHA fines
- Reductions in Workers’ Compensation costs
- Reductions in operating costs
- Having the best “Safety and Health” conditions possible in the workplace

Management Commitment

Bannister Electric LLC of West Monroe is committed to building an effective injury and illness prevention plan, putting it in writing, and integrating it into the entire operation.

The management of Bannister Electric LLC of West Monroe is committed this safety policy, and to provide direction and motivation by:

- Appointing Safety Coordinator(s) and/or Safety Committee Chairmen
- Establishing Company safety goals and objectives
- Developing and implementing this written Safety and Health program
- Ensuring total commitment to the Safety and Health program
- Facilitating employees' safety training
- Establishing responsibilities for management and employees to follow
- Ensuring that management and employees are held accountable for performance of their safety responsibilities
- Establishing and enforcing disciplinary procedures for employees
- Reviewing the Safety and Health program annually, and revising or updating as needed

Labor and Management Accountability

All employees, both labor and management, need to understand their responsibilities under OSHA rules and be held accountable for complying with the rules as well as the Company's related policies.

It is the responsibility of Bannister Electric LLC of West Monroe to provide a safe and healthful work environment for their employees. However, holding everyone accountable for their part in workplace safety and health is critical for a successful injury and illness prevention plan.

Assignment of Responsibility

The Safety Coordinator(s) and/or Safety Committee Members Bannister Electric LLC of West Monroe has designated:

Safety Coordinator	Dolphus Bannister
Safety Coordinator	
Safety Committee Chair	
Safety Committee Vice-chairman	
Safety Committee Alternate Chair/Vice-chair	

Their cell phone and office phone numbers are:

Safety Person's Name	Office Phone #	Cell Phone #

Dolphus Bannister will assist managers in initiating, educating, and executing the safety program with:

- Introducing the safety program to new employees
- Following up on recommendations, suggestions, etc., made at the "Weekly" safety meetings. All topics of safety concerns must be documented accordingly
- Assisting the personnel in the execution of standard policies
- Conducting safety inspections on a periodic basis
- Addressing all hazards or potential hazards as needed
- Preparing monthly accident reports and investigations
- Maintaining adequate and available first aid supplies and safety equipment
- Ensuring an adequate number of qualified "First Aid Certified" people on the work site
- Becoming thoroughly familiar with OSHA regulations and local and state safety codes
- Defining the responsibilities for safety and health of all subordinates and holding each person accountable for their results through the formal appraisal system and where necessary, disciplinary procedures
- Emphasizing the unnecessary personal and financial losses of all accidents

Employee Involvement

Employees are required to work in compliance with the safety rules, report all accidents and near misses, and report all unsafe conditions or unsafe practices. To demonstrate Bannister Electric LLC of West Monroe's commitment to support the employees in these responsibilities, Bannister Electric LLC of West Monroe will do the following:

Communication System:

- Encourage employees to inform Bannister Electric LLC of West Monroe about workplace hazards without fear of reprisal
- Establish and maintain a centrally located "Safety Bulletin Board" where current, relevant information may be easily reviewed by employees
- Schedule general employee meetings where safety is freely and openly discussed by those present. These meetings will be regular, scheduled, and announced to all employees and managers to achieve maximum attendance. The purpose of these meetings is safety, and the concentration will be on:
  - Occupational accident and injury history at our work sites, with possible comparison to other locations within The Company
  - Feedback from the Safety Committee
  - Guest speakers concerned with workplace safety and health
  - When possible, brief audio-visual materials that relate to our business
- Conduct training programs for communicating with employees
- Provide a safety suggestion box so that employees, anonymously if desired, can communicate their concerns with management
- Document all communication efforts to demonstrate that an effective communication system is in place

Hazard Identification and Control

Periodic inspections and procedures for correction provide methods of identifying existing or potential hazards in the workplace, and eliminating or controlling them. Hazard control is essential to an effective injury and illness plan. We will be sure to look at safe work practices and ensure that they are being followed, and that unsafe conditions or procedures are identified and corrected properly and promptly.

Employees are encouraged to report possible hazardous situations, knowing their reports will be given prompt and serious attention. Workplace equipment and personal protective equipment will be maintained in good, safe working condition.

Hazards, where possible, will be corrected as soon as they are identified. For those that cannot be immediately corrected, a target date for correction will be set. Bannister Electric LLC of West Monroe will provide interim protection for workers while hazards are being corrected. A written tracking system will be established to help monitor the progress of the hazard correction process.

Accident/Incident Investigation

Employers and safety committees are required to investigate or assign responsibility for investigating accidents. Trained individuals, with the primary focus of understanding why the accident or incident occurred, will investigate accidents/incidents and what actions can be taken to preclude recurrence. The focus will be on solutions and never on blame. They will be in writing, and adequately identify the causes of the accident or near miss occurrence.

Worker Training

Training is another essential element of any injury and illness prevention plan. OSHA rules require each employer to train workers for any job or task they are assigned.

Our plan includes training and instruction:

- For all employees when they are first hired
- For all new employees for each specific task
- For all employees given new job assignments for which training has not already been received
- Whenever new substances, processes, procedures, or equipment are introduced into the workplace and present a new hazard
- Whenever new personal protective equipment or different work practices are used on existing hazards
- Whenever Bannister Electric LLC of West Monroe is made aware of a new or previously unrecognized hazard
- For all supervisors to ensure they are familiar with the safety and health hazards to which employees under their immediate direction and control may be exposed

An effective safety and health plan requires proper job performance by everyone in the workplace.

It is the determination of Bannister Electric LLC of West Monroe to ensure that all employees are knowledgeable about the materials and equipment with which they work, what known hazards are present, and how they are controlled.

Program Evaluation

Regular reviews will be held to look at the components of our safety and health plan, to determine what is working well and what changes, if any, are needed. All employees are encouraged to participate by keeping Bannister Electric LLC of West Monroe informed of their concerns regarding the elements of this safety and health plan.

The success of this safety and health plan is dependent upon two things: First, Bannister Electric LLC of West Monroe must provide a safe and healthful environment in which the employee has the opportunity to work safe, and second, the employee must choose to work safe.

Supervisor/Foreman

The Supervisors and/or Foremen will establish an operating atmosphere to ensure that safety and health is managed in the same manner and with the same emphasis as production, cost, and quality control. This will be accomplished by:

- Regularly emphasizing that accident and health hazard exposure prevention are not only moral responsibilities, but also a condition of employment
- Identifying operational oversights that could contribute to accidents which often result in injuries and property damage
- Participating in safety and health related activities, (e.g. safety meetings, facility reviews, and correcting dangerous employee behavior)
- Explaining the safety policies and the hazards of each person's particular work
- Ensuring that initial orientation of "new hires" is properly carried out
- Making sure that if a "Competent Person" is required, that one is present to oversee, and instruct employees when necessary
- Never short-cutting safety for expediency, nor allowing workers to do so
- Consistently enforce safety rules and enforce discipline
- Conducting daily job-site inspections and correcting noted safety violations

Employees

It is the duty of all employees to know the safety rules, and conduct their work in compliance with these rules. Disregard of the safety and health rules shall be grounds for disciplinary action up to and including termination. It is also the duty of each employee to make full use of the safeguards provided for their protection. Every employee will receive an orientation when hired and receive a copy of any Company Safety and Health Programs. Employee responsibilities include the following:

- Reading, understanding and following safety and health rules and procedures
- Signing the Code of Safe Practices and any other policy acknowledgements
- Wearing Personal Protective Equipment (PPE) at all times when working in areas where there is a possible danger of injury
- Wearing suitable work clothes as determined by the supervisor/foreman
- Performing all tasks safely as directed by their supervisor/foreman
- Reporting ALL injuries, no matter how slight, to their supervisor/foreman immediately and seeking treatment promptly
- Knowing the location of first aid, firefighting equipment, and safety devices
- Attending any and all required safety and health meetings
- Not performing potentially hazardous tasks, or using any hazardous material until properly trained, and following all safety procedures for those tasks
- Stop and ask questions when unsure about how to safely do the work

MEDICAL FACILITIES

Each worksite will identify and contact an appropriate hospital or clinic to ensure they can handle possible emergencies and injuries in a timely manner. The location and contact information for the medical facility will be provided to all employees and posted at the worksite in a place all employees gather.

POSTING REQUIREMENTS

All Federal, State, and Local posting requirements will be posted at the worksite in a place all employees gather. Particularly the OSHA Job Safety and Health poster, state labor law postings, required insurance postings, and emergency contact numbers.

HSE SUPERVISOR

At least one supervisor will be at the worksite at all times who is designated the Health, Safety, and Environomental Supervisor. Ths person will have at least appropriate OSHA 10 Hour Outreach Training and meet OSHA's definition for Competent or Qualified Person for the task at hand.

EVALUATING SAFETY PROGRAM PERFORMANCE

The effectiveness of this safety plan will be evaluated at least annually using leading and lagging indicators compared year after year to measure the effectiveness of the safety policy and established safe work procedures.

Lagging indicators compared will include the Experience Modification Rate (EMR) and other recorded injuries and incidents such as TRIR, DART, and fatalities.

Leading indicators compared include: documented near miss investigations, employee training records, recorded hazardous conditions investigations, safe work permits (e.g. confined spaces, hot work), and maintenance checklists.

The safety professional will complete an annnual report of these safety program performance metric measuremens with suggested changes to the safety policy and safe work procedures.

CODE OF CONDUCT

All Bannister Electric LLC of West Monroe employees will abide by our company Code of Conduct when performing any company business activities. Bannister Electric LLC of West Monroe will further ensure that company employees adhere to all client requirements and safe practices when performing work at the client site.
Bannister Electric LLC of West Monroe employees will not:

- Engage in any unlawful or unethical activities
- Divulge any company or client confidential or proprietary information to unauthorized personnel
- Use or tolerate the use of, drugs or alcohol at the workplace
- Engage in any actions that constitute sexual harassment or workplace violence

Reporting Violations

Employees will be required to report any safety, health or ethical violations to the company as soon as possible.

The company will establish a method that allows employees to report any Code of Conduct violations anonymously and without fear of reprisal.

Communication

This Code of Conduct will communicated to all employees at their times of hire, and will be reviewed at least annually, or when any changes are made.

Disciplinary Actions

The company will investigate all reports of violations, and any employees found to have violated our Code of Conduct will be subject to progressive disciplinary action according to our disciplinary policy, up to and including termination.

Any violations of our Code of Conduct deemed to illegal or unlawful will be reported to the appropriate authorities.

Commitment

The goal of Bannister Electric LLC of West Monroe is to operate a profitable business with the highest possible standards of integrity. This can be achieved by ensuring that all employees abide by our Code of Conduct. We are committed to operating in a professional and courteous manner in all of our business practices.

Owner Name	**Owner Signature**	**Date**

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

POLICY

Bannister Electric LLC of West Monroe is committed to accident prevention in order to protect the safety and health of all our employees. Injury and illness losses due to hazards are needless, costly, and preventable. To prevent these losses, a joint management/worker safety committee will be established. Employee involvement in accident prevention and support of safety committee members and activities is necessary to ensure a safe and healthful workplace for all employees.

RESPONSIBILITIES

Bannister Electric LLC of West Monroe Safety Committee members are:

Dolphus Bannister and As designated

The Safety Committee will meet a minimum of four times per year.

Committee Goal

Our Company will strive to meet the following goals:

- Minimize injury and illness in the workplace
- Open up the lines of communication between management and employees concerning safety at every level of The Company
- Improve safety of facilities(s) and equipment for a better work environment

Mission Statement

It is our Company and committee's goal to create clear avenues of communication among management and staff to create a safe working environment.

Company Commitment

Bannister Electric LLC of West Monroe is committed to excelling at safety, and will support the safety committee's purpose and recommendations.

Communication of Safety Matters

The committee will handle all safety issues with diligence. We hope to encourage an atmosphere where all employees report safety violations or concerns, ask questions, seek training, or come to us with any safety issues.

Purpose

The purpose of our safety committee is to bring workers and management together in a non-adversarial, cooperative effort to promote safety and health in the workplace. The safety committee will assist management and make recommendations for change.

Organization

There will be, in most cases, an equal number of employee and employer representatives. However, there may be more employee representatives than employer representatives, if both groups agree. Employee representatives shall be volunteers or elected by their peers. If no employees volunteer or are elected, then they may be appointed by management. Employer representatives will be appointed. Safety committee members will serve a continuous term of at least one year.

Committee membership terms will be staggered so that at least one experienced member is always on the committee.

Extent of Authority

It must be clearly understood that the safety committee advises management on issues that will promote safety and health in the workplace. Written recommendations are expected from the safety committee and they will be submitted to management. In turn, management will give serious consideration to the recommendations submitted and will respond in writing to the committee within a reasonable time.

Functions

- Committee meetings and employee involvement
- Hazard assessment and control
- Safety and health planning
- Evaluation of accountability system
- Evaluation of management commitment to workplace safety and health
- Evaluation of accident and incident investigation program
- Safety and health training

Recommendations

All recommendations submitted to management must be written and should be clear and concise; provide reasons for implementation; give recommended options; show implementation costs and recommended completion dates; list benefits to be gained.

Procedures

The committee's plan of action requires procedures by which the committee may successfully fulfill its role. Procedures developed should include but not be limited to:

- Meeting date, time, and location (Safety Committee Meeting Agenda)
- Election of chairperson and secretary
- Order of business
- Records (Safety Committee Meeting Minutes)

Duties of each member must include, but not be limited to:

- Reporting unsafe conditions and practices
- Attending all safety and health meetings
- Reviewing all accidents and near-misses
- Recommending ideas for improving safety and health
- Working in a safe and healthful manner
- Observing how safety and health is enforced in the workplace
- Completing assignments given to them by the chairperson
- Acting as a work area representative in matters of health and safety
- Others as determined by Company safety and health needs

The Safety Coordinator(s) and/or Safety Committee Members

Bannister Electric LLC of West Monroe has designated:

Safety Coordinator	Dolphus Bannister
Safety Coordinator	
Safety Committee Chair	
Safety Committee Vice-chairman	
Safety Committee Alternate Chair/Vice-chair	

Their cell phone and office phone numbers are:

Safety Person's Name	Office Phone #	Cell Phone #

It is the duty of Dolphus Bannister, the Safety Coordinator, to assist the Supervisor/Foreman and all other levels of Management in the initiation, education, and execution of an effective safety program.

PROCEDURES

The purpose of a safety committee is to bring workers and managers together to achieve and maintain a safe, healthful workplace. It is easy to start a safety committee, but developing an effective one – one that achieves and maintains a safe, healthful workplace – requires workers and managers who are committed to achieving that goal. Effective safety committees find solutions to problems that cause workplace accidents, illnesses, and injuries. Fewer accidents, injuries, and illnesses mean lower Workers' Compensation claims costs and insurance rates.

Understand a Safety Committee's Seven Essential Activities

Anyone can start a safety committee, but, to make it effective, the committee must be built on a foundation of management commitment and must be accountable for achieving its goals. The committee must do the following:

- Involve employees in achieving the committee's goals
- Identify workplace hazards
- Review reports of accidents and near misses
- Keep accurate records of committee activities
- Evaluate its strengths and weaknesses

Commitment

The committee will not survive without management support. Management demonstrates support by encouraging employees to get involved in achieving a safe, healthful workplace and by acting on the committee's recommendations. Representatives demonstrate commitment by attending committee meetings, following through on their assigned tasks, and encouraging other employees to get involved in identifying hazards.

Accountability

Representatives should understand that the committee expects them to contribute; each representative shares responsibility for accomplishing safety committee goals, which benefit everyone who works for The Company.

The safety committee is also responsible for monitoring how management holds employees accountable for working safely and for recommending ways to strengthen accountability.

Employee Involvement

To become effective, a safety committee needs help from everyone in The Company. The safety committee must have a method for employees to report hazards and to offer safety suggestions.

Ways the safety committee can encourage employees to get involved:

- Encourage employees to report hazards and unsafe work practices to a safety-committee representative
- Act on employee suggestions and recognize their contributions to a safer workplace
- Promote the committee's activities and accomplishments

Make sure employees know that you are starting a safety committee. Tell them why you are starting the committee, describe its role in The Company's safety-and-health program, and explain management's commitment to the committee.

You can inform employees in a memo or a newsletter, by e-mail, or – better yet – meet with them to promote the committee and to answer questions.

Hazard Identification

The safety committee plays an important role in keeping the workplace hazard-free:

- Ensure that representatives know how to recognize hazards and understand basic principles for controlling them
- Focus on identifying hazards and unsafe work practices that are likely to cause serious injuries
- Conduct thorough workplace inspections at least quarterly
- Document hazards during quarterly inspections and discuss how to control them at regular safety-committee meetings
- Include employer and employee representatives on the inspection team

Accident Investigation

The committee must have a procedure for investigating all workplace accidents, illness, and deaths. It is not necessary for the committee to conduct accident investigations or to participate in investigations; however, the committee should ensure that management does so. The committee should also carefully review accident reports to help management identify accident causes and determine how to control them.

Recordkeeping

You may not think of record keeping as an essential activity, but accurate, well-organized records document the committee's accomplishments and can inform the committee what it needs to do to improve.

The following documents are required for the safety committee's file:

- Accurate minutes of each safety committee meeting
- Committee reports, evaluations, and recommendations
- Management's response to committee recommendations
- Employee safety suggestions and hazard concerns

Evaluation

Evaluation answers the question "Are we effective?" Effective safety committees periodically evaluate their strengths and weaknesses, and the evaluation helps them set new goals.

At least once a year, schedule a half-day safety-committee meeting to accomplish the following: identify the committee's achievements over the past 12 months, review essential activities, and set goals for the next 12 months.

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

POLICY

Bannister Electric LLC of West Monroe will maintain a “Safety and Health Program” conforming to the best practices of organizations of this type. To be successful, such a program must embody the proper attitudes toward injury and illness prevention on the part of supervisors and employees. It also requires cooperation in all safety and health matters, not only between supervisor and employee, but also between each employee and his or her co-workers. Only through such a cooperative effort, can a safety program in the best interest of all be established and preserved. Safety and health in our business must be a part of every operation.

Dolphus Bannister is responsible for the implementation and enforcement of the following safety rules. Disciplinary procedures will be enforced.

THE COMPANY SAFETY AND HEALTH PROGRAM INCLUDES:

- Providing mechanical and physical safeguards to the maximum extent possible
- Conducting a program of safety and health inspections to find and eliminate unsafe working conditions or practices, to control health hazards, and to comply fully with the safety and health standards for every job
- Training all employees in good safety and health practices
- Providing necessary personal protective equipment and instructions for its use and care
- Developing and enforcing safety and health rules and requiring that employees cooperate with these rules as a condition of employment
- Investigating, promptly and thoroughly, every accident to find out what caused it and to correct the problem so that it will not happen again
- Setting up a system of recognition and awards for outstanding safety service or performance

RESPONSIBILITIES

We recognize that the responsibilities for safety and health are shared:

- Bannister Electric LLC of West Monroe accepts the responsibility for leadership of the safety and health program, for its effectiveness and improvement, and for providing the safeguards required to ensure safe conditions
- Supervisors are responsible for developing the proper attitudes toward safety and health in themselves and in those they supervise, and for ensuring that all operations are performed with the utmost regard for the safety and health of all personnel involved, including themselves
- Employees are responsible for wholehearted, genuine operation with all aspects of the Safety and Health Program including compliance with all rules and regulations – and for continuously practicing safety while performing their duties

GENERAL SAFETY RULES

Bannister Electric LLC of West Monroe employees shall follow these safe practice rules, render every possible aid to safe operations, and report all unsafe conditions or practices to their supervisor.

- Failure to abide by the Code of Safe Practices may result in disciplinary action up to and including termination
- Supervisors shall insist that employees observe and obey every rule, regulation, and order necessary to the safe conduct of the work, and shall take such action necessary to obtain compliance.
- If you are unsure of the safe method to do your job, STOP and ask your supervisor. Ignorance is no excuse for a safety violation
- All employees shall be given frequent accident prevention instructions. Instructions, practice drills, or articles concerning workplace safety and health shall be given at least once every 5 working days
- No one shall knowingly be permitted to work while the employee's ability or alertness is impaired by fatigue, illness, and prescription or over the counter drugs. Employees who are suspected of being under the influence of illegal or intoxicating substances, impaired by fatigue or an illness, shall be prohibited from working
- Employees should be alert to see that all guards and other protective devices are in proper places and adjusted, and shall report deficiencies. Approved protective equipment shall be worn in specified work areas
- Horseplay, scuffling, fighting and other acts are prohibited
- Work shall be well-planned and supervised to prevent injuries when working with equipment and handling heavy materials
- Workers shall not handle or tamper with any electrical equipment, machinery, or air or water lines in a manner not within the scope of their duties, unless they have received instructions from their supervisor. Do not attempt operate equipment until you are fully trained and authorized
- Keep your work area clean, free of debris, electrical cords, and other hazards. Immediately clean up spilled liquids
- Always notify all other individuals in your area who might be endangered by the work you are doing
- A red tag system identifies equipment that is NOT to be operated, energized, or used. All lock-out/tag-out notices and procedures must be observed and obeyed
- Do not block exits, fire doors, aisles, fire extinguishers, first aid kits, emergency equipment, electrical panels, or traffic lanes
- Do not leave tools, materials, or other objects on the floor that might cause others to trip and fall.
- Do not distract others while working. If conversation is necessary, make sure eye contact is made prior to communicating
- Employees shall not enter manholes, underground vaults, chambers, tanks, silos, or other similar places that receive little ventilation, unless it has been determined that it is safe to enter. Confined space protocols will be followed
- Materials, tools, or other objects shall not be thrown from buildings or structures until proper precautions are taken to protect others from the falling objects
- Employees shall cleanse thoroughly after handling hazardous substances, and follow special instructions from authorized sources

- Gasoline or other flammable liquids shall not be used for cleaning purposes
- No burning, welding, or other source of ignition shall be applied to any enclosed tank or vessel, even if there are some openings, until it has first been determined that no possibility of explosion exists, and authority for the work is obtained from the foreman or superintendent
- Any damage to scaffolds, falsework, or other supporting structures shall be immediately reported to the foreman and repaired before use
- Possession of firearms, weapons, illegal drugs or alcoholic beverages on Company or customer property or the job site is strictly prohibited
- All injuries shall be reported promptly to your supervisor so that arrangements can be made for medical and/or first-aid treatment

ENFORCEMENT OF SAFETY POLICIES

The compliance of all employees with Bannister Electric LLC of West Monroe Safety and Health Program is mandatory and shall be considered a condition of employment. All safety rules, procedures, and plans in effect are to be followed as specified in the safety program. Employees found to be in violation of Company safety policy may be subject to penalty.

Dolphus Bannister is the supervisor for disciplinary actions and any employee in a position of management or supervisory capacity may initiate disciplinary action against any employee found to be in violation of Company policy. Not following verbal or written safety procedures, guidelines, rules, horseplay, failure to wear selected Personal Protective Equipment (PPE), and/or abuse of selected PPE, constitutes a safety violation.

The following outlines the disciplinary measures that will be taken against employees found to be in violation:

Periodic safety inspections of the workplace and equipment will be undertaken to ensure that all personnel, including supervisory positions, are demonstrating the required commitment to safety. A general neglect of safe work procedures, practices, and requirements in the workplace, or neglect of equipment safety, will be viewed as a lack of supervisory enforcement of safety policy and the appropriate supervisor/management personnel will be subject to the same disciplinary procedures described below.

The following programs will be utilized to ensure employee compliance with the safety program and all safety rules: training programs, retraining, optional safety incentive programs, disciplinary action.

Training Programs

The importance of safe work practices and the consequences of failing to abide by safety rules will be covered in the New Employee Safety Orientation and at Tailgate/Toolbox Safety Training. This will help ensure that all employees understand and abide by The Company's safety policies.

Retraining

Employees that are observed performing unsafe acts or not following proper procedures or rules will be retrained by their foreman or supervisor. A Safety Contact Report may be completed by the supervisor to document the training. If multiple employees are involved, additional safety meetings will be held.

SAFETY INCENTIVE PROGRAMS

Although strict adherence to safety policies and procedures is required of all employees, The Company may choose to periodically provide recognition of safety-conscious employees and jobsites without accidents through a safety incentive program.

DISCIPLINARY ACTION

The failure of an employee to adhere to safety policies and procedures established by Bannister Electric LLC of West Monroe can have a serious impact on everyone concerned. An unsafe act can threaten not only the health and well-being of the employee committing the unsafe act but can also affect the safety of his/her coworkers and/or customers. Accordingly, any employee who violates any of The Company's safety policies will be subject to disciplinary action.

When a “Safety Violation Notice” is issued, appropriate supervisory personnel will meet with employee(s) to discuss the infraction and inform individual(s) of the rule or procedure that was violated and the corrective action to be taken.

Note: Failure to promptly report any on-the-job accident or injury, on the same day as occurrence, is considered a serious violation of The Company’s Code of Safe Practices. Any employee who fails to immediately report a work-related accident or injury, no matter how minor will be subject to disciplinary action.

Employees will be disciplined for infractions of safety rules and unsafe work practices that are observed, not just those that result in an injury. Often, when an injury occurs, the accident investigation will reveal that the injury was caused because the employee violated an established safety rule and/or safe work practice(s).

In any disciplinary action, the foreman should be cautious that discipline is given to the employee for safety violations, and not simply because the employee was injured on the job or filed a Workers’ Compensation claim.

Violations of safety rules and the Code of Safe Practices are to be considered equal to violations of other Company policy. Discipline for safety violations will be administered in a manner that is consistent with The Company’s system of progressive discipline. If, after training, violations occur, disciplinary action will be taken as follows:

1. Oral warning. Documented, including date and facts on the “Safety Warning Report” form. Add any pertinent witness statements. Restate the policy and correct practice(s)
2. Written warning. Retrain as to correct procedure/practice
3. Written warning with suspension
4. Termination

As in all disciplinary actions, each situation is to be carefully evaluated and investigated. The particular step taken in the disciplinary process will depend on the severity of the violation, employee history, and regard to safety. Foremen and superintendents should consult with the office if there is any question about whether or not disciplinary action is justified. Employees may be terminated immediately for willful or extremely serious violations. Union employees are entitled to the grievance process specified by their contract.

Note: Consistency in the enforcement of safety rules will be exercised at all times.

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

POLICY

Bannister Electric LLC of West Monroe is committed to appropriately investigating all near misses, accidents, and incidents according to their severity to find the root cause and make changes that prevent it from happening again.

RESPONSIBILITIES

Accident investigation and reporting is a responsibility shared between the Company and its employees. Dolphus Bannister is responsible for establishing the Incident Investigation and Reporting policy before there is an incident.

Employer Responsibilities

- Ensuring appropriate staff receive suitable training to carry out their role in hazard and incident reporting, investigation and recording
- Completing training for Incident Investigation
- Promptly investigating incidents
- Implementing identified risk control measures to prevent recurrence of incidents
- Consulting with staff in relation to the measures to be taken to prevent recurrence of incidents
- Reviewing hazard/incident reports to ensure that all recommendations are implemented
- Ensuring, as far as is reasonably practicable, that adequate financial provision and other resources are made available to institute the recommended actions

Safety Committee Responsibilities

Safety committee members are encouraged to participate in investigations of incidents and assist with the development of measures to prevent their recurrence.

- Personnel must be trained in their roles and responsibilities for incident response and incident investigation techniques
- Training requirements relative to incident investigation and reporting (Awareness, First Responder, investigation, and training frequency) should be identified in this program

Employee Responsibilities

- Not placing themselves or others at risk of injury
- Reporting incidents to their supervisor or manager, and health and safety representative (if applicable), as soon as possible after the event
- Participating in the development of appropriate risk control measures to prevent recurrence of similar incidents
- Using risk control measures as required and any other action taken, which is designed to protect health and safety

TRAINING

All personnel will receive, as part of their training in avoiding and preventing accidents and injuries, instruction concerning their roles and responsibilities in the event of an accident or incident. This training should include:

- What qualifies as reportable accidents or incidents (and near-misses)
- Who should be contacted in the event of a reportable incident
- An explanation of the accident/incident investigation plan
- Incident investigation techniques and employee responsibilities during and after an incident/accident

PROCEDURES

Bannister Electric LLC of West Monroe will investigate all lost-time injuries. Fatalities and catastrophes must be reported to OSHA within 8 hours. Serious accidents must be reported to OSHA within 24 hours. OSHA requires reporting of work related incidents resulting in the death of an employee or the hospitalization of one or more employees. Owner clients require all incidents to be reported including, but not limited to, injuries, spills, property damage, fires, explosions, and vehicle damage.

Accidents and near miss incidents that result in personal injury, property damage, chemical spill, or other emergencies will be immediately reported to the assigned supervisor at the time of the event and Emergency Medical Service, Fire Department, or Hazmat Services will be immediately summoned. Such events will be investigated and documented on the appropriate Company form. All forms will be fully completed and submitted to Dolphus Bannister for review and for discussion at the next scheduled Safety Committee meeting. These investigations demonstrate the company's commitment to providing a safe and healthful work environment. Disciplinary Policy will be enforced.

To ensure accidents will be reported, employees must be encouraged to participate in the "fact-finding" process. The point emphasized must be that "hazardous conditions" and "unsafe practices" are an indication of a much bigger problem with a breakdown in the safety and health policy. The purpose of the accident investigation then becomes one that will uncover these system problems and provide solutions that will result in long-term corrective action.

It is important to gather facts and interview witnesses as soon as possible after an accident to ensure the most accurate information is being recorded. The efficiency of the corrective measures is determined by the accuracy of the information gathered. The best place to conduct an interview is wherever the employee being interviewed feels most comfortable. The most important interviewing technique you can use to ensure accuracy is to "listen".

Note: Consider the event a "serious accident" if an employee is admitted to a hospital for treatment or observation because of injuries suffered from a workplace accident.

Bannister Electric LLC of West Monroe will report severe injuries and/or fatalities using one of the following methods:

- By telephone or in person to the OSHA Area Office that is nearest to the site of the incident,
- By telephone to the OSHA central telephone number, 1-800-321-OSHA (1-800-321-6742),
- By using the reporting application located on OSHA's web site at www.osha.gov.

On site first response

Employees who could be first responders should be trained and qualified in first aid techniques to control the degree of loss during the immediate post-incident phase.

Prevent further loss

After an immediate rescue, Bannister Electric LLC of West Monroe will take actions to prevent further loss. For example:

Maintenance personnel should be summoned to assess integrity of building and equipment, engineering personnel to evaluate the need for bracing of structures, and special equipment/response requirements such as safe rendering of hazardous materials or explosives employed.

Secure the Accident/Incident Scene

For a serious accident, the first action the accident team needs to take is to secure the accident scene so material evidence is not moved or removed. Material evidence has a tendency to walk off after an accident. If the accident is quite serious, OSHA may inspect and require that all material evidence be marked and remain at the scene of the accident

Reporting Requirements

Local reporting sequence of events

Injuries

If a fatal injury, illness, or hospitalization of one (1) or more employees occurs, the plant manager will immediately notify the following persons and agency:

- Corporate Environmental Health and Safety (EHS) Director
- Division Manager (or any superior in this level)
- Group Manager or Team Leader (or any superior in this level)
- The area OSHA office (must be notified within 8 hours)

Involving the Environment

If an environmental incident occurs that must be reported to local, state, and/or federal agencies, the following persons should be notified:

- Corporate EHS Director
- Division Manager (or any superior in this level)
- Group Manager or Team Leader (or any superior in this level)
- Appropriate local, state and/or federal agency

Time elements of when incident should be reported

Bannister Electric LLC of West Monroe is required to verbally report incidents to OSHA within 8 hours of discovery. Incidents must be reported to owner client as soon as possible (or within 24 hours).

Reportable Incidents

- injury, illness, death, hospitalization of employees
- spills, property damage, fires, explosions, vehicle damage

ACCIDENT/INCIDENT CAUSES

Accidents occur when hazards escape detection during preventive measures, such as a job or process safety assessment, when hazards are not obvious, or as the result of combinations of circumstances that were difficult to foresee. A thorough accident investigation may identify previously overlooked physical, environmental, or process hazards, the need for new or more extensive safety training, or unsafe work practices.

The primary focus of any accident investigation should be the determination of the facts surrounding the incident and the lessons that can be learned to prevent future similar occurrences. The focus of the investigation should NEVER be to place blame. The process should be positive and thought of as an opportunity for improvement.

WHEN ACCIDENT/INCIDENT INVESTIGATIONS ARE REQUIRED

As a rule, investigations should be conducted for:

- All injuries (even the very minor ones)
- All accidents with potential for injury
- Fires, explosions, SpillsProperty and/or product damage situations
- All “Near Misses” where there was potential for serious injury

Near-miss and incident reporting and investigation allow you to identify and control hazards before they cause a more serious incident. Accident/incident investigations are a tool for uncovering hazards that either were missed earlier or hazards where controls were defeated. However, it is important to remember that the investigation is only useful when its objective is to identify root causes. In other words, every contributing factor to the incident must be uncovered and recommendations made to prevent recurrence.

Accident/Incident Investigation Plan

When a serious accident occurs in the workplace, everyone will be too busy dealing with the emergency at hand to worry about putting together an investigation plan, so the best time to develop effective accident investigation procedures is before the accident occurs. Part of an effective Accident and Incident Investigation Plan is to assign responsibilities

The plan should include procedures that determine:

- Who should be notified of accident?
- Who is authorized to notify outside agencies? (fire, police, etc.)
- Who is assigned to conduct investigations? Training required for accident investigators:
- Who receives and acts on investigation reports?
- Timetables for conducting hazard correction.

GATHER INFORMATION

The next step is to gather useful information about what directly and indirectly contributed to the accident.

The proper equipment will be available to assist in conducting an investigation, writing equipment such as paper, pens, pens, measuring equipment, cameras, small tools, audio recorder, Personal Protective Equipment (PPE), marking devices such as flags, equipment manuals, etc.

The following tools should be used to gather as much information as possible:

- Locate witnesses, ensuring unbiased testimony, and obtain appropriate interviewing location
- To ensure detailed interviews, interviewers must be trained
- Interview eyewitnesses as soon as possible after the accident. Interview witnesses separately, never as a group. Statements must be collected
- Interview other interested persons such as supervisors, co-workers, etc.
- Follow-up interviews with all witnesses
- Review related records such as: training records, disciplinary records, medical records, maintenance records, OSHA 300 log, safety committee records

Document the scene with photographs, videotape, or sketches AND appropriate measurements.

Evidence

Initial Identification of evidence immediately following the incident will include a listing of People, equipment, and materials involved and a recording of factors such as weather, illumination temperature, noise, ventilation, Etc.

Bannister Electric LLC of West Monroe must keep a collection of evidence, and ensure that it is preserved and secure. Evidence such as people, positions of equipment, parts, and papers must be preserved, secured, and collected through, notes, photographs, witness statements, flagging, and impounding of documents and equipment.

Develop a Sequence of Events

Use the information gathered to develop a detailed description of the accident. Make sure the accident is documented in enough detail to enable an individual unfamiliar with the situation to envision the sequence of events. Do not just describe the accident itself; include a description of events that led up to the accident.

Analyze the Accident/Incident

The next step is to determine the cause(s) of the accident. This is the most difficult step because first, the events must be analyzed to discover surface cause(s) for the accident, and then, by asking “why” a number of times, the related root causes are uncovered. Remember, surface causes are usually obvious and not too difficult to determine. However, it may take a great deal more time to accurately determine the weaknesses in the management system, or root causes, that contributed to the conditions and practices associated with the accident.

SURFACE CAUSES

The surface causes of accidents are those hazardous conditions and individual unsafe employee/manager behaviors that have directly caused or contributed in some way to the accident.

Hazardous conditions may exist in any of the following categories:

- Materials
- Machinery
- Equipment
- Tools
- Chemicals
- Environment
- Workstations
- Facilities
- People
- Workload

It is important to know that most hazardous conditions in the workplace are the result of unsafe behaviors that produced them. Individual unsafe behaviors may occur at any level of the organization.

Some example of unsafe employee/manager behaviors include:

- Failing to comply with rules
- Using unsafe methods
- Taking shortcuts
- Horseplay
- Failing to report injuries
- Failing to report hazards
- Allowing unsafe behaviors
- Failing to train
- Failing to supervise
- Failing to correct
- Scheduling too much work
- Ignoring worker stress

ROOT CAUSES

The root causes for accidents are the underlying system weaknesses that have somehow contributed to the existence of hazardous conditions and unsafe behaviors that represent surfaces causes of accidents. Root causes always pre-exist surface causes. Inadequately designed system components have the potential to feed and nurture hazardous conditions and unsafe behaviors. If root causes are left unchecked, surface causes will flourish! Root causes may be separated into two categories:

System design weaknesses

Missing or inadequately designed policies, programs, plans, processes, and procedures will affect conditions and practices generally throughout the workplace. Defects in system design represent hazardous system conditions.

System implementation weaknesses

Failures to initiate, carry out, or accomplish safety policies, programs, plans, processes, and procedures. Defects in implementation represent ineffective management behavior.

System design weaknesses: missing or inadequate safety policies/rules; training program not in place; poorly written plans; inadequate process; no procedures in place; develop preventive actions.

System implementation weaknesses: safety policies/rules are not being enforced; safety training is not being conducted; adequate supervision is not conducted; incident/accident analysis is inconsistent; lockout/tagout procedures are not reviewed annually.

Corrective Actions

All of the work done to this point culminates with recommendations to prevent similar accidents from happening in the future. Recommendations should relate directly to the surface and root causes of the accident. These recommendations should include recommended actions such as:

- Assigned responsibilities relative to the corrective actions
- Actions should be tracked to closure
- Engineering controls (for example, local exhaust ventilation or use of a lift assisting device)
- Work practice controls (for example, pre-plan work, and remove jewelry and loose fitting clothing before operating machinery)
- Administrative controls (e.g., standard operating procedures or worker rotation)
- Personal protective equipment (for example, safety glasses or respirators)

It is crucial that, after making recommendations to eliminate or reduce the surface causes, that the same procedure is used to recommend actions to correct the root causes. If root causes are not corrected, it is only a matter of time before a similar accident occurs.

Written Incident report

Written incident reports should be prepared and include an incident report form and a detailed narrative statement concerning the event. The format of the narrative may include an introduction, methodology, summary of the incident, investigation board members names, narrative of the event, findings, and recommendations. Photographs, witness statements, drawings, etc. should be included

Documentation and Communications of lessons learned

Lessons learned should be reviewed and communicated. Changes to processes must be placed into effect to prevent reoccurrences or similar events.

SUMMARY

A successful accident investigation determines not only what happened, but determines how and why the accident occurred. Investigations are crucial as an effort to prevent a similar or perhaps more disastrous sequence of events.

Research has shown that a typical accident is the result of many related and unrelated factors that somehow all come together at the same time. Usually ten or more factors contribute to a serious accident. Although, this combination of factors normally makes an investigation very time consuming and resource intensive, the good news is that the accident can normally be prevented by removing only a few of the contributing factors.

EMPLOYEE INCIDENT REPORT

Work site:_____

Manager/Supervisor:_____

Employee name:_____ Date: _____

Job title: _____

Incident:

_____

_____

_____

_____

_____

Action taken:

_____

_____

_____

_____

CODE OF CONDUCT:

- Proactive management includes Supervisory leadership and control to change unproductive activities. Conformance with safety policies, rules, and regulations is a necessary component of our Safety Program.
- Employee safety responsibilities are communicated during initial orientation. Safety rules and regulations are reviewed with employees by their supervisors and are part of the documented Employee Safety Training Process.
- Supervisors understand and enforce safety rules as a part of their job. This process may involve coaching, counseling, verbal, or written reprimands, and discipline in the form of suspension and/or termination. When appropriate, documented verbal warnings and reprimands are issued and carried out by supervisors.
- Failure to adhere to any of the Safety Rules and Safe Work Practices will result in disciplinary action. All discipline will be documented in the employee's folder. Discipline may be more severe depending on the offense.

Employee Signature: _____ Date: _____

Supervisor Signature: _____ Date: _____

Accident / Incident Report

Accident & Incident Report — **PAGE 1**

Date of Accident	Time	Day of Week □ S □ M □ T □ W □ T □ F □ S	Shift □ 1 □ 2 □ 3	Department

INJURED PERSON

Name:		**Address:**
Age:	**Phone:**	
Job Title:		**Supervisor Name:**
Length of Employment at Company:		Length of Employment at Job:

Employee Classification: □ Full Time □ Part Time □ Contract □ Temporary

Nature of Injury:	□ Bruising	□ Dislocation	□ Other (specify)	Injured Body Part :
□ Strain/Sprain	□ Scratch/Abrasion	□ Internal		
□ Fracture	□ Amputation	□ Foreign Body	Remarks:	
□ Laceration/Cut	□ Burn/Scald	□ Chemical Reaction		

Treatment:	**Name and Address of Treating Physician or Facility:**
□ First Aid	
□ Emergency Room	
□ Dr.'s Office	
□ Hospitalization	

DAMAGED PROPERTY

Property, Equipment, or Material Damaged:	**Describe Damage:**
Object or Substance Inflicting Damage:	

INCIDENT DESCRIPTION

Describe what happened: (attach photographs or diagrams if necessary)

ROOT CAUSE ANALYSIS (Check All that Apply)

Unsafe Acts	**Unsafe Conditions**	**Management Deficiencies**
□ Improper work technique	□ Poor workstation design/layout	□ Lack of written policies &procedures
□ Safety rule violation	□ Congested work area	□ Safety rules not enforced
□ Improper PPE or PPE not used	□ Hazardous substances	□ Hazards not identified
□ Operating without authority	□ Fire or explosion hazard	□ PPE unavailable
□ Failure to warn or secure	□ Inadequate ventilation	□ Insufficient worker training
□ Operating at improper speeds	□ Improper material storage	□ Insufficient supervisor training
□ By-passing safety devices	□ Improper tool or equipment	□ Improper maintenance
□ Guards not used	□ Insufficient knowledge of job	□ Inadequate supervision
□ Improper loading or placement	□ Slippery conditions	□ Inadequate job planning
□ Improper lifting	□ Poor housekeeping	□ Inadequate hiring practices
□ Servicing machinery in motion	□ Excessive noise	□ Inadequate workplace inspection
□ Horseplay	□ Inadequate hazards guarding	□ Inadequate equipment
□ Drug or alcohol use	□ Defective tools/equipment	□ Unsafe design or construction
□ Unnecessary haste	□ Insufficient lighting	□ Unrealistic scheduling
□ Unsafe act of others	□ Inadequate fall protection	□ Poor process design
□ Other:	□ Other:	□ Other:

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Accident & Incident Report

PAGE 2

ACCIDENT/INCIDENT ANALYSIS

Using the root cause analysis list on the previous page, explain the cause(s) of the incident in as much detail as possible.

Make sketches or illustrations to help describe incident:

How bad could the accident have been?	What is the chance of the accident happening again?
□ Very Serious □ Serious □ Minor	□ Frequent □ Occasional □ Rare

PREVENTIVE ACTIONS

Describe actions that will be taken to prevent recurrence:	Deadline	By Whom	Complete

INVESTIGATION TEAM

Name:	Signature:	Position:

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

POLICY

Bannister Electric LLC of West Monroe has adopted this Behavior-based Safety Program for the safety of our employees and help prevent occupational injuries and illness.

The elements of our program consist of:

- Common Goals - Employee and Managerial commitment to the process
- Creating a systematic, ongoing process that defines a set of behaviors that reduce the risk of work-related injury, derived from safety assessments
- Training personnel in the Observation Process
- Observation and data collection on the frequency of critical safety practices
- Feedback and reinforcement to encourage and support positive safety practices
- Action Plan - Team meetings to decide on how to proceed, based on the data
- Review - Monitoring the progress of the Action Plan on a regular basis

OBSERVATION

A critical element in our Behavior-based Safety (BBS) Program depends on site observation. Site observation includes direct and open communication with the employees involved. The observer will:

- Meet with the worker at the site and introduce himself and the job being done
- Observe and monitor the worker, noting his safe behaviors
- Monitor the At-risk behaviors the worker is putting himself in

Observation Process Training

Training in the observation process will be established and implemented to the proper personnel. These individuals will be experienced employees of the Company. Training will consist of either classroom or on the job training.

Elements of the Training Program include:

- Who is to be trained
- Ensuring employees know the basic elements of the Behavior-based Program
- Ensuring that all employees involved in the process are trained in the classroom or on the job

The types of training that will be provided are:

- Management training: to ensure the common goals and process of the program are being met
- New employee training: effectively communicating the program to all employees
- Refresher training: to be performed as needed or when changes are made to the policy or procedure of the program

This training will include:

- Program objectives and incident report reviews
- How to conduct the site observations
- The observer's knowledge of the job procedures they observe
- Knowledge of the correct work and safety procedures involved
- How to complete the observation form
- How to determine and analyze At-risk behaviors
- Feedback training and role play (mentoring and coaching)- Employees should be aware they may be observed at any time

This training process will be documented in order to keep on record those qualified to observe on site behaviors and effectively implement the program's elements.

FEEDBACK

Communication is a crucial element in a successful Behavior-based Safety Program. To effectively accomplish this, feedback is of key importance.

The observer will start by commending the safe behavior the worker was doing during his work. You then want to explain, one by one, the At-risk behaviors the worker was doing. Then the observer asks the worker why he was putting himself at risk. For example, if the worker is welding a piece of metal and the sparks are flying in the workers direction. The observer would then ask the worker why he was not wearing protective clothing, like flame-retardant apron.

At this time the observer and worker will discuss the at-risk behaviors until the worker agrees to try the suggested recommendation made by the observer. The worker might be aware of his at-risk behavior or maybe not. The worker may be doing the at-risk behavior for a long time.

The Observer's job here is to highlight this behavior, then explain the associated negative consequences with this behavior. The above discussion and agreement is the individual feedback which helps the worker to change his behavior. This feedback is considered as a form of reward since:

- The worker got commendable comments on his safe behavior.
- The worker understood his at-risk behavior without being reprimanded at site or reported to his superiors for further penalties.

Key elements for the observer to remember during the feedback process are:

- Reviewing the observation with the employee
- Start with positive comments on behavior and procedure
- Reinforce these behaviors
- Describe and discuss the unsafe portions observed
- Determine the reasons for the unsafe actions with open-ended questions to the worker.

Re-emphasize that there are no negative consequences at this stage, so long as the observer and worker agree on the change of behavior.

DATA COLLECTION

At the end of the observation, the Observer will:

- Fill out an Observation Form with the safe and at-risk behaviors he noticed
- Record the date, time and location of the observations
- Note the workers comments and reasons for the at-risk behavior
- Record recommended safe behavior

The worker's name or identification number are not noted in the Observation Form.

- These Company forms will be used by Bannister Electric LLC of West Monroe to summarize the observation process. Recording this interaction is important for later detailed analysis by the committee in charge of the program
- Data gathering and the Observation Form will be gathered and entered into an electronic database. Reports will be generated for the committee to analyze at risk behavior trends
- Information taken from the observation and feedback phase of the program will be compiled in useful data and implemented in the action plan

ELEMENTS OF THE ACTION PLAN

In order to address unsafe behaviors Bannister Electric LLC of West Monroe will construct its Action Plan based on Observation Reports, trend analysis and recommendations from the Observers and employees. Dolphus Bannister is responsible for the procedures of the Action Plan.

Action planning will include:

- Regularly scheduled meetings to analyze Behavior-based report findings
- Evaluating unsafe behaviors
- Designating responsible parties and time frames to complete the Action Plan
- Ensuring support of management

The committee will:

- Produce a set of recommendations to correct workers' behavior
- Recommendations may be as simple as providing Personal Protective Equipment (PPE) to workers in certain location, or increase work force in another location
- Some of the recommendations require site modification or costly machinery. Such recommendations are sent to top management for necessary approvals

The committee's responsibility is to ensure that recommendations will:

- Change the at-risk behaviors at the targeted location
- Eliminate hazards and risks caused by hardware or wrong design

FOLLOW-UP

Any Action Plans set out by Bannister Electric LLC of West Monroe at the direction of Dolphus Bannister will be completed in a time frame agreed upon by the entire committee.

Regularly scheduled meetings will be held to:

- Assign responsibility for the completion of the Action Plan
- Ensure that the guidelines of the Action Plan are being carried out
- To document the Action Plan and its progress

Behavior-Based Safety Program Employee Training Form

I, _____, have read or been informed of the Behavior-Based Safety Program and its elements.

- ☐ I am aware of the companies Safe Work procedures including the Company's Code of Safe Practices.
- ☐ I understand I may be observed in my job performance or assigned task by a designated Observer and this person will inform me that I am being observed.
- ☐ I understand that the Observer will communicate to me the positive and At-risk behaviors I may display on completion of his/her observation.
- ☐ I agree to do my utmost to implement any of the Observers' recommendations they make in order to improve my performance and safety.
- ☐ I understand my cooperation and communication is key to the success of the Behavior-based program.
- ☐ I understand that the Observations of my job performance will not include my name or identifying mark and is used only for statistical information in the program.
- ☐ I agree to follow the procedures of any Action Plan as set out by the Company.

Employee Signature:_____

Date:_____

BBS Training Form

Company Name:		
Date of Training:		
Trainer's Name:		
Trainee:	☐ Initial Training	☐ Refresher Training

The trainee (observer) named above has been trained to observe the following jobs:		
Work Type/Job	Trained	Not Trained
	☐	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐
	☐	☐

I, _____, understand that my training in the above listed jobs qualifies me to observe employees while doing their job(s), conduct feedback with employee(s) and implement the established goals of the Behavior-based Safety Program. I have also displayed the required knowledge in the following areas:

- Knowing the BBS Program objectives
- How to conduct observations
- Knowledge of the jobs being observed
- The correct safety procedures of these jobs
- Filling out the Observation Form
- How to identify At-risk behaviors

Signature:_____ Date:_____

Observation Form

Observer Name:		Date:
Job being observed:		
Job Step	**Procedure Comments**	
	Positive Behaviors:	**At-risk Behaviors**
1		

Recommendations:

	Positive Behaviors:	At-risk Behaviors
2		

Recommendations:

	Positive Behaviors:	At-risk Behaviors
3		

Recommendations:

	Positive Behaviors:	At-risk Behaviors
4		

Recommendations:

Employee Comments:

Observer's Signature_____ Date:_____

POLICY

Bannister Electric LLC of West Monroe has adopted the following program to ensure that short service employees are identified, appropriately supervised, trained, mentored, and managed. This program is adopted in order to prevent accidents such as personal injury, injury to others, environmental damage, and/or property damage by the short service employee.

RESPONSIBILITIES

We recognize that the responsibilities for safety and health are shared:

- Bannister Electric LLC of West Monroe accepts the responsibility for leadership of the safety and health program, for its effectiveness and improvement, and for providing the safeguards required to ensure safe conditions.
- Supervisors are responsible for developing the proper attitudes toward safety and health in themselves and in those they supervise, and for ensuring that all operations are performed with the utmost regard for the safety and health of all personnel involved, including themselves.
- Employees are responsible for wholehearted, genuine operation with all aspects of the Safety and Health Program including compliance with all rules and regulations – and for continuously practicing safety while performing their duties.

DEFINITION

Bannister Electric LLC of West Monroe defines a short service employee (SSE) as any person or personnel with less than six (6) months experience in his/her current position or with one's current employer. A person or persons can also be classified as an SSE if they change jobs within the company they are working for or as a new hire for the same type of position for another company.

WORK CREW ASSIGNMENTS AND RESTRICTIONS

- A SSE may not work alone
- When crew/group sizes of less than five (5) are assembled, no more than one (1) SSE per group/crew is allowed
- When working with crew/group sizes larger than five (5) members, the SSE's will not exceed 20% of the crew/group make up. When the crew/groups exceed the twenty percent (20%) make up of SSE's, this will only be permitted with a written variance form, which will serve as the mitigation plan; approved by the Supervisor and/or Manager in charge of the project.

COMMUNICATION AND NOTIFICATION

The following procedure will be followed to ensure the host facility knows when a SSE is working at their site. The processes for the proposed crew/group, when using an SSE, are outlined in the Short Service Employee Form. Prior to beginning the job assignment the Supervisor/Manager in charge will submit to the projects coordinator, on-site supervisor, or contractor; the completed SSE form for all the jobs that will contain SSE personnel. The work owner or supervisor/person in charge will decide SSE approval status and will keep the original completed form in the project files.

IDENTIFICATION

All SSE personnel will be visibly identified. This will be done by employing one of the following methods:

- Wearing a uniquely colored high-visibility Hard Hat or
- Wearing a uniquely colored high-visibility Vest
- Any method which clearly identifies the employee as an SSE to anyone onsite

MONITORING SSE

The supervisor will monitor their employees, which includes the SSE personnel for Health, Environment and Safety (HES) awareness.

The identifier marking the SSE may be removed from the SSE Program at the discretion of the supervisor at the end of the required six-month period if he/she has:

- Worked safely
- Adhered to all HES policies
- Had no recordable incidents attributed to him/her

The supervisor shall require the employee that fails to complete the six-month period free of recordable incidents, to get the operator to approve in writing prior to allowing the person to return to the operator's property.

MENTORING PROCESS

This will be done by assigning all SSE's a mentor for the first six (6) months of employment. A mentor's responsibility is to provide guidance and develop the SSE personnel. A mentor may only be assigned one (1) SSE per crew/group. The mentor must be onsite with the SSE to monitor the SSE at all times.

The mentor must meet the following requirements:

- Be familiar with the SSE's job, have the oversight responsibilities required, and all hazards accompanied with the job
- Have up to date orientation training
- Be familiar with all site policies, procedures, and any required specialized actions with the work to be done
- Show the ability to recognize any hazards and/or unsafe acts
- Are able and willing to challenge their personnel on the job if they do not meet site procedures, policies, or other requirements and will see that the stop work authority is enforced
- Participate actively in the behavior-based safety process

Note: A mentor must keep a helpful eye on new hire's in your crew. Take time to describe the layout of the project, the best method to access the work, or how to work a tool they have never used before.

SUBCONTRACTOR MANAGEMENT

Subcontractors working on site will have assigned mentors that monitor their employees only. Mentoring of outside employees will be done on an individual basis, and as required. They will also be managed following this policy.

HIGH HAZARD AREAS

SSE's may in certain situations be prohibited from entering into and working in high hazard areas, these may include:

- Naturally occurring radioactive material (NORM)
- H_2S areas
- Confined spaces
- High Voltage environments, etc

PROCEDURES

Bannister Electric LLC of West Monroe has set forth these procedures to verify all work is being carried out under the guidelines of this chapter by having:

- The supervisors communicate the SSE policy and procedure at all pre-job meetings
- The supervisor submits the crew/group makeup and all SSE form(s) to the on-site representative of the work owner for approval
- The supervisor will have the on-site representative validate the crew/group makeup and experience level
- The supervisor will see that the on-site representative approves the SSE variance form
- The supervisor will make sure the on-site representative posts the forms to the appropriate database, if required

PROGRAM REVIEW

Bannister Electric LLC of West Monroe's Short Service Employee Program will ensure the following practices are kept up to date on a regular basis when using and working with SSE's:

- Continuous monitoring of the SSE
- Ensuring all changes/updates to the forms are submitted prior to beginning work and whenever a change may occur thereafter

Contractor Short-Service Employee Form & Variance

Supervisor must complete and submit this form to work owner supervision for approval prior to arrival on location. The work owner supervision must approve the individual SSE before he/she arrives on location.

SSE Information			
Contractor Company name:			
Request Date:			
SSE Name:			
Date of Employment:	Current Job Title:		
Years Related Experience:	Experience in Current Position:	Yrs	Months
Is this employee in compliance with your Substance Abuse Policy?		☐ Yes	☐ No
Have site owner, contractor and HES policies (including Stop Work Authority) been reviewed with SSE?		☐ Yes	☐ No
Who has been assigned as the SSE's mentor?			
Mentor's Experience: Yrs Months			

List all training provided to the SSE:	List any previous special training:

SSE(s) identified by: ☐ **Hard Hat**-High Visibility ☐ **Vest**-High Visibility

☐ Other:_____ Color:_____

Contractor Short-Service Employee Form & Variance Page 2

II. SSE Crew Composition Requirements	
Choose one of the crew types below. If any of the stated limitations are exceeded, proceed to the variance form on next page.	
☐ Single person crew-cannot be an SSE (Variance Required)	
☐ 2-4 person crew-no more than one SSE	
☐ 5 or more person crew-no more than 20% SSE(s) per crew	
☐ Exceeding 20% SSE per crew (Variance Required)	
III. SSE Review and Approval	
☐ Contractor Supervising Manager:	Date:
☐ CPL Work Location Supervisor:	Date:
☐ Work Owner:	Date:
IV. Contractor SSE Form Repository	
☐ CSM Data Base:	Date:
☐ CPL Work location	Date:
☐ Work Owner file:	Date:

Contractor Short-Service Employee Form & Variance Page 3

This form is to be filled out whenever the conditions on this form or any other element of the Short Service Employee Policy cannot be met.

IV. Variance Information	
Variance Justification (What are the current circumstances and what will be done to ensure an acceptable level of risk?)	
Alternatives to Variance (If the variance is denied, what are the alternatives to completing the scope of the work? Briefly detail the cost and operational impact of the alternatives.)	

List the steps to be taken to manage/mitigate the SSE risk to an acceptable level:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

V. Variance Review and Approvals

Variance Expiration Date:

Contractor Manager/Supervisor ☐ Approves ☐ Denies

Signed: _____ Date: _____

Work Owner's Onsite Representative ☐ Approves ☐ Denies

Signed: _____ Date: _____

Note: For large jobs, please use a separate sheet to list all SSEs on the crew by name and job title.

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

POLICY

Bannister Electric LLC of West Monroe has adopted this program for employee safety on or around "Vehicle Mounted Elevating and Rotating Work Platforms" also known as Elevating Work Platforms (EWP).

REFERENCES

- §1910.67 – Vehicle-Mounted Elevating and Rotating Work Platforms
- §1926.453 – Aerial Lifts
- §1926.952 – Aerial Devices Working Near Energized Lines or Equipment

RESPONSIBILITIES

Bannister Electric LLC of West Monroe has implemented and enforces these work practices and procedures to assure that no employee will be exposed to hazards during aerial lifting operations.

Dolphus Bannister is designated by Bannister Electric LLC of West Monroe as the Competent Person in authority over all aerial device work procedures. Dolphus Bannister will ensure that all safety measures and systems are in place and correctly installed, all safety procedures are adhered to, and ensure regular inspections of the operational site and aerial equipment are made. Only authorized personnel are permitted to operate an aerial lift.

Responsibilities during Elevating Work Platform Operations

Because elevating work platforms are often rented from an equipment supplier, there is confusion as to the responsibilities of the parties involved.

The owner or supplier must ensure that the machine:

- Is maintained in good operating condition
- Conforms to appropriate regulations and standards
- Includes the operator's manual and correct load rating charts

Bannister Electric LLC of West Monroe and supervisors on the project must:

- Ensure that the operator is trained and competent to operate his equipment
- Ensure that the machine has the correct load rating capacity for the job
- Maintain the equipment and all its protective devices
- Maintain a daily inspection log for each platform
- Ensure that workers use appropriate personal protective equipment
- Keep the manufacturer's operating manual with the equipment
- Train workers on each type of equipment that they will be using
- Use watchmen or cones to direct traffic(away from the equipment when in use)

The operators and workers using the equipment must:

- Receive adequate training to be fully competent
- Only operate the machine when competent
- Operate the machine in a safe manner as prescribed by the manufacturer and according to Company safety and health policies
- Inspect the equipment each day or each shift before use
- Perform function tests before use
- Report any defects to the supervisor
- Read, understand, and obey the manufacturer's safety rules, including the operating manual and warning decals. When a defect is reported to the supervisor, the equipment must be taken out of service until the repairs are completed and the equipment is inspected and approved for use

TRAINING

Dolphus Bannister will verify that all employees are trained in and familiar with required work practices and procedures in the use of any equipment required, proper Personal Protective Equipment (PPE), and safety procedures which must be followed to safeguard personnel involved in aerial lifting operations or who work in the vicinity of aerial lifting operations.

DEFINITIONS

Aerial Device or Aerial Work Platform – means any vehicle-mounted device, telescoping or articulating or both, that is designed and manufactured to raise personnel to an elevated work position on a platform supported by scissors, masts, or booms.

Aerial Ladder – means an aerial device that consists of a single- or multiple-section rung ladder.

Articulating Boom Platform – means an aerial device that has two or more hinged boom sections.

Authorized Person – means a person who is approved and assigned to perform specific types of duties by the employer and who is qualified to perform those duties because of his or her training or experience.

Boom – An elevating member, the lower end of which is so attached to a rotating or non-rotating base that permits elevation of the free or outer end in vertical plane.

Commercial Chassis – means a vehicle that is built for over-the-road (roadway) travel.

Elevating Work Platform – A device designed to elevate a platform in a substantially vertical axis (Vertical Tower, Scissor Lift).

Insulated Aerial Device – means an aerial work platform that is designed with dielectric components to meet specific electrical insulating ratings for work on or near energized lines and apparatus.

Platform – means the portion of an aerial work platform, such as a bucket, basket, stand, cage, or the equivalent, that is designed to be occupied by personnel and is a component of an aerial device.

Qualified Person – means a person who possesses a recognized degree, certificate, professional standing, or skill and who, by knowledge, training, and experience, has demonstrated the ability to deal with problems relating to the subject matter, the work, or the project.

Qualified Line Clearance Tree Trimmer – means an employee trained to work in proximity of energized power transmission and distribution lines. An employee in a training program is included in this definition.

SAFE PRACTICES

- Aerial lifts must be designed and constructed in conformance with the applicable requirements of the American National Standards for "Vehicle Mounted Elevating and Rotating Work Platforms", ANSI A92.2.
- Each work platform will be inspected, maintained, repaired, and kept in proper working order in accordance with the manufacturer's maintenance and repair manuals

On a daily basis, before the work platform is used, it must be given a thorough inspection, which will include:

- Inspection for defects such as cracked welds, hydraulic leaks, damaged control cable, loose wire connections, and tire damage
- Inspection of functional controls for proper operation
- Lift controls will be tested each day prior to use to determine that such controls are in safe working condition
- Tests will be made at the beginning of each shift during which the equipment is to be used to determine that the brakes and operating systems are in proper working condition
- Critical safety components of mechanical elevating and rotating equipment whose failure would result in a free fall or free rotation of the boom will receive a thorough visual inspection before use on each shift
- Vehicles will have a reverse signal alarm audible above the surrounding noise level or the vehicle will be backed up only when an observer signals that it is safe to do so
- For power lines rated 50 kV. or below, minimum clearance between the lines and any part of the crane or load will be 10 feet
- Any suspect items discovered through inspection must be carefully examined and a determination made by a qualified service person as to whether they constitute a safety hazard. All unsafe items must be corrected before further use of the work platform
- Any work platform not in safe operating condition will be removed from service until it is repaired. All repairs will be made by a qualified service person in conformance with the manufacturer's operating, maintenance, and repair manuals
- Aerial lifts may be "field modified" for uses other than those intended by the manufacturer provided the modification has been certified in writing by the manufacturer or by any equivalent entity
- Manufacturer's boom, basket, and platform load limits will not be exceeded
- Each work platform will be equipped with a mechanical parking brake, which will hold the unit on any slope it is capable of climbing. When possible, wheel chocks will be installed before using an aerial lift on an incline
- Employees will always stand firmly on the floor of the basket, and will not sit or climb on the edge of the basket or use planks, ladders, or other devices for a work position.

- Approved fall protection will be worn and a lanyard attached to the boom or basket when working from an aerial lift.
- No aerial vehicular equipment having an obstructed view to the rear may be operated on off-highway jobsites where any employee is exposed to the hazards created by the moving the vehicle, unless the vehicle has a reverse signal alarm audible above the surrounding noise level or the vehicle is backed up only when a designated employee signals that it is safe to do so
- Aerial vehicular equipment provided with outriggers will be operated with the outriggers extended and firmly set as necessary for the stability of the specific configuration of the equipment. Outriggers may not be extended or retracted outside of clear view of the operator unless all employees are outside the range of possible equipment motion
- When the work area or the terrain prevents the use of outriggers, the equipment may be operated only within its maximum load ratings for the particular configuration of the equipment without outriggers
- Mechanical elevating and rotating equipment used to lift or move material will be used within its maximum load rating and other design limitations for the conditions under which the work is being performed
- A designated employee other than the equipment operator will observe the approach distance to exposed lines and equipment and give timely warnings before the minimum approach distance is reached

The following clearances will be maintained when operating aerial work platforms or other equipment under, over, by, or near energized electric power lines:

Before using the work platform, the operator will:

- Read and understand the manufacturer's operating instructions and safety rules, and be trained on them by a qualified person
- Read and understand all decals, warnings, and instructions on the work platform
- Before the work platform is used, the operator will survey the area for hazards such as: untamped earth fills; ditches; drop-offs or holes; bumps and floor obstructions; debris; overhead obstructions and high voltage conductors; other possible hazardous conditions

Before each elevation of the work platform, the operator will:

- Check for overhead obstructions and high-voltage conductors. A minimum distance of ten feet from energized high-voltage conductors must be maintained at all times between the conductors and the operator and platform equipment
- Ensure that the load and its distribution on the platform are in accordance with the manufacturer's rated capacity. The manufacturer's recommended load limits must never be exceeded
- Ensure outriggers and stabilizers are used according manufacturer's instructions
- Ensure that guardrails are properly installed and gates are closed

Before and during driving while the platform is elevated, the operator will:

- Be required to look in the direction of, and keep a clear view of, the path of travel and assure that the path of travel is firm and level
- Maintain a safe distance from obstacles, debris, drop-offs, holes, depressions, ramps, or other hazards to safe elevated travel
- Maintain a safe distance from overhead obstacles

- The operator will limit travel speed according to conditions. Conditions to be observed are: Ground surface, congestion, slope, location of personnel, and other factors that may create a hazard of collision or injury to personnel
- Personnel will maintain a firm footing on the platform while working thereon unless they are secured by safety harness and lanyard devices fixed to manufacturer-approved anchor points. Use of railings or planks, ladders or any other device on the work platform for achieving additional height is prohibited
- The operator will immediately report defects or malfunctions which become evident during operation and must stop use of the work platform until correction has been made
- Altering or disabling of safety devices or interlocks is prohibited
- Stunt driving and horseplay is prohibited
- An aerial device that does not meet the requirements will not be used unless it has been inspected and modified as required to conform to the essential stability, structural, electrical insulation, and operational requirements of ANSI A92.2

Each aerial device placed in service will have a conspicuously displayed legible plate or other legible marking verifying the aerial device is designed and manufactured in accordance with the following applicable specifications:

- ANSI Standard A92.2, "Vehicle-Mounted Elevating Work Platforms", which applies to vehicle-mounted devices installed on commercial chassis and covers the following type of units:
- Extensible boom aerial devices
- Aerial ladders
- Articulating boom aerial devices
- Vertical towers
- A combination of any of the equipment specified
- ANSI Standard A92.3, "Manually Propelled Elevating Work Platforms", which applies to work platforms which are manually propelled, which are vertically adjustable by manual or powered means, and which may be towed or manually moved horizontally on wheels or casters that are an integral part of the work platform base
- ANSI Standard A92.5, "Boom-Supported Elevating Work Platforms", which applies to all integral frame, boom-supported elevating work platforms which telescope, articulate, rotate, or extend beyond the base dimensions
- ANSI Standard A92.6, "Self-Propelled Elevating Work Platforms", which applies to self-propelled vertically adjustable integral chassis work platforms. Such work platforms are power operated with primary controls for all movement operated from the platform

The following information will be displayed on all work platforms in a clearly visible, accessible area and in as permanent a manner as possible:

- Warnings, cautions, or restrictions for safe operation in accordance with ANSI requirements
- The rated work load will be clearly displayed at each entrance to the platform

VEHICLE MOUNTED ELEVATING AND ROTATING WORK PLATFORMS

There are two basic types of elevating work platforms – boom and scissor. Both types come in:

1. "On-Slab" models for use on smooth hard surfaces such as concrete or pavement.
2. Rough-Terrain models used on firm level surfaces: graded and compacted soil or gravel.

Both types share three major components: base, lifting mechanism, and platform assembly.

SCISSOR-TYPE MACHINES

These are raised and lowered by hydraulic pistons and an expanding scissor mechanism. Platforms are available in various configurations with different capabilities for extension and movement. Some have extendable platforms or platforms that can rotate. Extendable platforms should be retracted before raising or lowering the device.

On-Slab Units

- Not designed for uneven or sloping ground
- Normally have solid rubber tires
- Generally powered by rechargeable DC battery
- Some are powered by internal combustion engine, either gasoline or propane
- Most have "pothole protection" – a metal plate lowered close to the ground to afford some protection against inadvertent movement into depressions or debris

Rough-Terrain Units

- Similar in design to on-slab machines
- Built to handle rigorous off-slab challenges
- Normally have wider wheel bases, larger wheels, and pneumatic tires
- Some fitted with outriggers for extra stability
- Usually powered by internal combustion engines: gasoline, diesel, or propane
- DC Battery powered units are also available, but are not common
- Lifting mechanism is hydraulic

Scissor-lifts range in capacity from 500 to several thousand pounds. They are available with platform heights often reaching 50 feet or more. Scissor-lifts must be set up on stable, level ground, even with outriggers deployed. A slight imbalance or instability is amplified when the machine is raised.

Although fixed to the platform, the controls are moveable from one side of the platform to the other. This enables the operator to see the path of travel. The controls must be oriented correctly so that the operator does not inadvertently move the machine in the wrong direction. Many machines have color-coded directional arrows on the chassis to aid the operator in moving the machine.

SELF-PROPELLED BOOM-SUPPORTED PLATFORMS

- Normally fitted with rough-terrain undercarriages
- Some smaller on-slab units
- Platforms have lifting capacity of about 500 pounds or two workers
- Lack capacity of scissor-type machines; not intended for lifting materials
- Usually powered by an internal combustion engine: gasoline, diesel, or propane

Booms

- Telescopic, articulating, or combination of both
- Raised and extended by hydraulic cylinders
- Can reach up to 150 feet
- Can extend well beyond the wheelbase

As with mobile cranes, stability decreases with length of boom and boom angle as the center of gravity moves in relation to the platform position. The machine will overturn if the center of gravity moves outside the machine's base.

Machines come with load charts that show safe operating configurations. Machines with booms long enough to cause overturning at low boom angles are required to have radius-limiting interlocks to prevent operation in unstable configurations. The reach chart indicates the safe operating configurations for a machine operating on a level surface. The reach diagram shows the safe operating envelope. The machine does not achieve its maximum height directly overhead, nor does it achieve its maximum reach at ground level.

Users must be familiar with the operating range of the individual make and model of the equipment they are using. This knowledge is essential in order to position the machine correctly and reach the work location safely.

NON-SELF-PROPELLED OR PUSH-AROUNDS

These units are not self-propelled and must be transported from one location to another with an independent power source or manually in the case of the smaller devices. The machines are intended primarily for use on smooth, level, hard surfaces or on-slab conditions. Some trailer-mounted units are available. Some can fold up to pass through a standard door, and can be transported by pick-up truck. As a result, they are suitable for maintenance or renovation work.

PUSH-AROUNDS

- Raising mechanism normally powered by gasoline, propane or electric motors
- Normally raised and lowered by hydraulic cylinders
- Platform capacities vary from 300 to 1000 pounds or more
- Devices with capacity less than 500 pounds are Not Recommended for construction – this type is better suited to maintenance activities
- Platforms usually do not exceed 36 feet in height
- As platform is raised, risk of overturning increases
- Extra care required when operating at maximum height

EQUIPMENT SELECTION

Elevating work platforms are designed for different uses. It is essential to select the appropriate equipment for the job.

Typical Mistakes

- Using an on-slab machine on rough terrain
- Using a unit undersized with respect to height, reach, and lifting capacity
- Lifting large materials that overhang the platform
- Using a scissor lift where the reach of a boom-type machine is needed
- Extending the platform with planks, ladders, or other devices because the machine cannot reach the required height

Factors to Consider

- Capacity – Does the machine have the lifting capacity, the reach, and the height to complete the task?
- Surface Conditions – Are the surface conditions hard or soft, sloped or level? Will the ground have an effect on the type of machine selected?
- Platform Size and Configuration – Do you need a regular or extendable platform? Is rotation required? Are there space restrictions to consider?
- Mobility – Is a boom type better suited than a scissor lift to the task?
- Material to be Lifted – Will the machine be able to lift the size and weight of material required for the job?
- Access – Will the machine be able to travel around the workplace safely? Are there obstructions or depressions that will restrict the use of certain machines?
- Operator Skill or Training – Are the people on site competent to operate the machine? If a propane-powered engine is used, has the operator received propane training?
- Work Environment – If the work is to be done indoors, or in a poorly ventilated area, will an electrically powered machine be required?

FUNDAMENTAL ELEVATING WORK PLATFORM HAZARDS

- Machine Tipping or Overturning – Many factors cause instability – sudden stops, depressions, drop-offs, overreaching, overloading, etc. Overturning and tipping result in many fatalities and injuries
- Overriding Safety Features – Disarming features such as the tilt or level warning and the deadman switch can prevent operators from knowing they are in danger
- Overhead Power line Contact – Contacting overhead wires can cause electrocution
- Falls from Elevated Platforms – Many falls occur because workers get in a hurry and fail to observe standard fall protection procedures. Many such falls cause serious injury or even fatalities
- Makeshift Extensions – When the machine cannot reach the working height desired, do not compensate by using scaffold planks, ladders, blocks of wood, or other makeshift arrangements. Such practices lead to falls and machine instability
- Overloading the Platform – Elevating work platforms overloaded or loaded unevenly can become unstable and fail. Boom-type machines are especially sensitive to overloading. Always stay within the operating range specified by the manufacturer
- Failure to Cordon Off –
    - Elevating work platforms have been struck by other construction equipment or oncoming traffic when the work area is not properly marked or cordoned off
    - Workers have been injured when they inadvertently entered an unmarked area and were struck by falling material, tools, or debris
    - In unmarked areas, workers have also been injured by swinging booms and pinched by scissor mechanisms
- Accidental Contact – Many elevating work platforms have blind spots. Moving the machine or platform may cause contact with workers or with obstacles. Use a designated signaler on the ground to guide the operator when the path of travel is not clear or access is tight
- Improper Maintenance or Modifications – Elevating work platforms should be maintained by competent workers in accordance with manufacturer’s instructions. No modifications should be made to the machine without the manufacturer’s approval
- Improper Blocking During Maintenance – Failing to block, or improperly blocking the machine, boom, or platform can cause serious crushing injuries and property damage.
- Improper Access – Do not enter or leave the platform by climbing the scissors or the boom. Do not use extension ladders to gain access. Ladders exert lateral loads on the platform that can cause overturning. For the safest access, lower the machine completely
- Moving with the Platform Raised – Lower the platform before moving the machine unless: The machine is designed to move with the platform raised, or the supporting surface is smooth and level. Slight dips and drops are amplified when the platform is raised and can cause the machine to overturn
- Improper Refueling – Take care when refueling. Gasoline, for instance, should be kept in approved containers and dispensed to prevent spills and sparking
- Pinch Points – Clothing, fingers, and hands can get caught in scissor mechanisms. As platforms are raised, machines may sway. Workers can be pinched between guardrails and the structure. Position the platform so that work takes place above guardrail height

STABILITY AND TIPPING

In general, elevating work platforms are well manufactured and are safe to use within their specific limitations. However, as with any equipment or tool, there are do's and don'ts to follow.

One of the most dangerous hazards in operating elevating work platforms is tipping over. This can be caused by one or more of the following factors:

- Sudden movement of the unit or parts of the unit when elevated
- Making sudden stops while in motion with platform elevated
- Uneven or overloading of the platform
- Traveling or operating on a slope or uneven terrain
- Changing the weight distribution of the machine by replacing parts with others of a different weight or adding attachments not approved by the manufacturer
- Holes or drop-offs in the floor surface causing one wheel to drop suddenly
- Operating the equipment in windy conditions (refer to the operator's manual for safe operating conditions)

It is important that users understand what makes a platform stable and what causes it to overturn. To understand stability, one must understand the concept of center of gravity, tipping axis (or tipping point), and forces that shift the center of gravity.

Stability is resistance against tipping over. Stability depends on the location of the center of gravity in relation to the tipping axis.

CENTER OF GRAVITY

Every object has a center of gravity. It is the point where the object's weight would be evenly distributed or balanced. If a support were placed under that point, the object would be perfectly balanced.

The center of gravity is usually located where the mass is mostly concentrated. However, the location does not always remain the same.

Any action that changes the machine's configuration – such as raising the platform, extending the boom, or traveling on a slope – can change the location of the center of gravity.

Tipping Axis and Area of Stability

When an EWP turns over, it tips around an axis or point. This is called the tipping axis or tipping point. EWPs typically have four tipping axes – front, back, left, and right.

Each EWP has its own area of stability. This varies from platform to platform and from model to model. In most cases, the area of stability is bound by the four tipping axes (or the four tires or outriggers). The platform is stable as long as the center of gravity remains inside the area of stability. This is the key to safe operation.

When the center of gravity shifts beyond the area of stability, the machine will tip over. Some factors that can cause a shift beyond the stability area are overloading, moving on excessively sloped ground, a sudden drop of one wheel, and shock loading.

Raising the platform also raises the EWP's center of gravity. When a scissor lift is situated on a slope, and the platform is raised, the platform's center of gravity will move toward the tipping axis. If the center of gravity moves beyond the tipping axis, the platform will overturn.

Boom-supported aerial devices work in the same way. When the boom is extended outward, the center of gravity moves outwards towards the tipping axis. The aerial device will overturn if the boom is extended such that the center of gravity moves beyond the axis. Boom-type machines have an interlocking system that prevents the machine from moving into an unstable configuration.

FACTORS AFFECTING STABILITY

Dynamic Forces

Dynamic forces are forces generated by movement or change of movement. For example, applying the brakes suddenly or traveling too fast around corners can cause instability – as in a car or van. Sudden stops while raising or lowering the platform can also cause instability.

Traveling

Traveling the platform over rough or uneven ground can also cause instability. Lower the platform fully or retract telescoping sections while traveling, particularly on uneven surfaces.

EQUIPMENT INSPECTION

All components that bear directly on the safe operation of the EWP and can change from day to day must be inspected daily. Inspection is mostly visual – done in a quick but thorough manner.

Check the operator's manual for a complete list of pre-operational checks. See the end of this section for Daily Inspection Checklists for Elevating Work Platforms and Aerial Devices.

MINIMUM REQUIREMENTS

Before climbing onto the platform, check:

- Tires for proper pressure and wheels for loose or missing lug nuts
- Steer cylinder, linkage, and tie rods for loose or missing parts, damage, and leaks
- Hydraulic oil for leaks and fluid level. Hydraulic hoses, lift cylinder(s), and connections for leaks or loose connections
- Fuel supply – adequate fuel, filler cap in place, no damage, leaks, or spills
- Battery for fluid level and state of charge
- Proper connection of all quick-disconnect hoses
- Structural components for damage, broken parts, cracks in welds, including scissor arms, outrigger arms, and pads
- Ladder or steps for damage and debris (ladder must be firmly secured to the platform and relatively free of grease, mud, and dirt)
- Beacon and warning lights for missing and defective lenses or caps
- Ground controls (manual and powered) – including emergency stop switch and platform lower/lift switch – for proper function and damaged and missing control sticks/switches
- Decals and warning signs to make sure they are clean, legible, and conspicuous

After mounting the platform, check:

- Platform assembly for missing or loose parts, missing or loose lock pins and bolts
- Platform floor for structural damage, holes, or cracked welds and any dirt, grease, or oil
- Operator's manual to make sure it is in place
- Extendable platform deck for ease of extension/retraction and proper function of locking position of platform
- Guardrails to make sure they are in place and secure
- Access gate for ease of movement, missing parts, latch, and locking capabilities
- All fall protection anchorage points
- All control mechanisms for broken or missing parts
- All emergency controls for proper function – stopping, descending, master OFF switch
- All safety devices such as tilt and motion alarms for malfunction
- Swivels for freedom of rotation
- Scissors for smooth movement up and down
- Brakes for stopping capabilities
- Horn for proper function

MANUALS, SIGNS, AND DECALS

Signs clearly visible to the operator at the controls must indicate:

- The equipment's rated working load
- All limiting operating conditions, including the use of outriggers, stabilizers, and extendable axles
- The specific firm, level surface conditions required for use in elevated position
- Such warnings as may be specified by the manufacturer
- Other than for a boom-type elevating work platform, the direction of machine movement for each operating control
- The name/number of the ANSI standard to which the platform was designed
- The name and address of the owner

In addition to the above, ANSI standards require the following signs:

- The make, model, serial number, and manufacturer's name and address
- The maximum platform height
- The maximum travel height, if not equal to the maximum platform height
- The nominal voltage rating of the batteries, if battery-powered
- A warning to study the operating manual before using the equipment
- A statement as to whether or not the platform is insulated
- A notice outlining the required inspections
- The capacity in each configuration
- Diagrams/description of various configurations in which the platform can be used
- Warnings against replacing, without the manufacturer's consent, components critical to the machine's stability – for example, batteries or ballasted tires with lighter weight components (the minimum weights of such components must be specified)

Many of these signs are vital to the operation of the machine and the protection of workers. All signs and decals must be kept clear of dust and grease so they can be easily read. Torn or damaged signs must be replaced.

Standards require the manufacturer provide a manual that contains:

- Description, specifications, and capacities of the platform
- The operating pressure of the hydraulic or pneumatic system that is part of the work platform
- Instructions regarding operation and maintenance, including recommended daily, weekly, and monthly inspection checklists
- Information on replacement parts
- The manual must be stored on the equipment in a weatherproof storage container

SAFE PRACTICES

Operators must be familiar with the requirements for the specific machine they will use:

- The manufacturer's operating manual
- The manufacturer's warning and caution signs on the machine
- The location of all emergency controls and emergency procedures
- The daily maintenance checks to perform

General Safety Guidelines for EWPs and Aerial Devices

- Always check for overhead power lines before moving the machine or operating the platform. The limits of approach from overhead power lines must be observed. If work must be done within these limits, make arrangements with the owner of the utility to have the power line de-energized. Allow for movement or sway of the lines as well as the platform. Be aware of overhanging tools or equipment
- Wear a full body harness and tie off to a designated tie-off point while the machine is moving
- Do not leave the machine unattended without locking it or otherwise preventing unauthorized use
- Do not load the platform above its Rated Working Load (RWL). Wherever possible, keep the load below 2⁄3 of the RWL
- Make sure that all controls are clearly labeled with action and direction
- Keep guardrails in good condition and ensure that gate is securely closed before moving the platform. Do not remove guardrails while the platform is raised
- Shut off power and insert the required blocking before maintenance or servicing
- Deploy stabilizers or outriggers according to the manufacturer's instructions
- Position the boom in the direction of travel where possible
- Keep ground personnel away from the machine and out from under platform
- Do not access the platform by walking on the boom
- Do not try to push or move the machine by telescoping the boom
- Do not use the machine as a ground for welding
- Do not use a boom-supported platform as a crane
- Do not operate the equipment in windy conditions. For safe wind speeds, refer to the operator's manual
- Do not place the boom or platform against any structure to steady either the platform or the structure
- Secure loads and tools on the platform so that machine movement will not dislodge them

- Make sure that extension cords are long enough for the full platform height and will not be pinched or severed by the scissor mechanism
- Use three-point contact and proper climbing techniques when mounting or dismounting from the machine

Important Note: Never operate equipment on which you have not been trained or which you are not comfortable operating. Your safety and that of others on site depends on competent, knowledgeable operation of the equipment.

Work Area Inspection

Before operating elevating work platforms and aerial devices, check the work area for:

- Drop offs or holes in the ground
- Slopes, bumps or floor obstructions
- Debris
- Overhead obstructions
- Overhead wires power lines or other electrical conductors
- Hazardous atmospheres
- Adequate operating surface (ground or floor)
- Sufficient ground or floor support to withstand all forces imposed by the platform in every operating condition, wind and weather conditions

FALL PROTECTION

The fall protection required for persons who work on aerial lifts depends on the type of aerial lift used. The table below shows acceptable fall protection.	
Type of Lift	**Fall Protection Required**
Vehicle-Mounted Elevating and Rotating Work Platforms (ANSI A92.2 devices)	Platforms other than buckets or baskets must include guardrail systems – guardrails, a midrail, and toeboards. Each person who works on a boom-supported platform must wear a body harness and lanyard attached to the boom or basket.
Manually Propelled Elevating Aerial Platforms (ANSI A92.3 devices)	The platform must have a guardrail at least 42 inches ±3 inches above the floor, a midrail, and toeboards at least 4 inches high.
Boom-Supported Elevating Work Platforms (ANSI A92.5 devices)	The platform must have a guardrail at least 42 inches ±3 inches above the floor, a midrail, and toeboards at least 4 inches high. Each worker on the platform must wear a body harness and lanyard attached to the boom or platform.
Self-Propelled Elevating Work Platforms (ANSI A92.6 devices)	The platform must have a guardrail 42 inches ±3 inches above the floor, a midrail, and toeboards at least 4 inches high.

Fall Protection for Elevating Work Platforms

- Personnel will maintain firm footing on the platform while working on the platform. The use of railings, planks, ladders, or any other devices on the platform for achieving additional height is prohibited
- A safety harness that has a lanyard which complies with construction safety standard "Fall Protection" and which is affixed to attachment points provided and approved by the manufacturer will be provided by Bannister Electric LLC of West Monroe and used by any occupant of an aerial work platform described in this section. A fall arrest system will only be used where the aerial lift is designed to withstand the vertical and lateral loads caused by an arrested fall
- A body belt may be used with a restraint device with the lanyard and the anchor arranged so that the employee is not exposed to any fall distance. A restraint device is required where the aerial lift cannot withstand the vertical and lateral loads imposed by an arrested fall
- Belting off to an adjacent pole, structure, or equipment while working from an aerial work platform is prohibited
- An employer will not allow employees to exit an elevated aerial work platform, except where elevated work areas are inaccessible or hazardous to reach. Employees may exit the platform with the knowledge and consent of Bannister Electric LLC of West Monroe. When employees exit to unguarded work areas, fall protection will be provided and used as required

Fall Protection for Aerial Devices

- Employees will always stand firmly on the floor of the basket, and will not sit or climb on the edge of the basket or use planks, ladders, or other devices for a work position
- Boom and basket load limits specified by the manufacturer will not be exceeded
- A safety belt or harness will be used with a lanyard attached to the boom or basket when working from an aerial lift. The safety belt, harness, and lanyard will be provided by Bannister Electric LLC of West Monroe. An in-plant, industrial-type aerial device used on a level surface and equipped with a platform with approved railings is exempt from this rule
- Body belts are not acceptable as part of a personal fall arrest system. The use of a body belt in a tethering system or in a restraint system is acceptable
- A boom platform will be provided with a rail or other structure around its upper periphery that will be not less than 38 inches above the floor of the platform and with a toeboard not less than 4 inches high. A basket of a cherry picker will be considered to meet this requirement. A platform may have the guardrail removed from the working side if a safety belt and lanyard is worn by the employee on the platform
- Belting off to an adjacent pole, structure, or equipment while working from an aerial device will not be permitted
- Climbers will not be worn while on an aerial device unless gaff guards are provided

OSHA REGULATIONS AND RESPONSIBILITIES

OSHA regulations include the following requirements:

- Elevating work platforms must be engineered and tested to meet the relevant standard for that equipment
- Aerial devices must be checked each day before use by a trained worker
- The owner or supplier must keep a log of all inspections, tests, repairs, modifications, and maintenance
- The log must be kept up to date and include names and signatures of persons who performed inspections and other work
- Workers must be given oral and written instruction before using the platform for the first time. Instruction must include items to be checked daily before use

Vehicle Mounted Elevating and Rotating Work Platforms and Aerial Devices

This section provides for the safe operation and maintenance by Bannister Electric LLC of West Monroe and the safe use by the employee of vehicle mounted elevating and rotating work platforms in, around, and about a place of employment. Firefighting equipment and powered industrial trucks are not included in these rules.

Employer Responsibility

An employer will provide each employee who will operate the aerial work platform with instruction and training regarding the equipment that will be used. Such instruction and training will ensure that each operator complies with the minimum following provisions:

- Is instructed by a qualified person in of the purpose and function of each control
- Is trained by a qualified person or reads and understands the manufacturer's operating instructions and safety rules
- Understands by reading or by having a qualified person explain, all decals, warnings, and instructions displayed on the aerial work platform
- Reads and understands the provisions of these rules or be trained by a qualified person on their content

The manufacturer's operating instructions and safety rules will be provided and maintained in a legible manner on each unit by Bannister Electric LLC of West Monroe

Maintain an aerial device free of defects and hazards that could cause an injury.

Employee Responsibility

- Operate an aerial device only after being trained and authorized by Bannister Electric LLC of West Monroe
- Report known defects and hazards concerning an aerial device to the supervisor

EQUIPMENT INSTRUCTIONS AND MARKING

Each unit will have a manual containing instructions for maintenance and operations. If a unit can be operated in different configurations, then these will be clearly described, including the rated capacity in each configuration.

Each aerial device placed in service will have a conspicuously displayed legible plate or other legible marking verifying the aerial device is designed and manufactured in accordance with the following applicable specifications:

- ANSI A92.2 – Vehicle Mounted Elevating and Rotating Aerial Devices
- ANSI A92.3 – Manually Propelled Elevating Work Platforms
- ANSI A92.5 – Boom Supported Elevating Work Platforms
- ANSI A92.6 – Self-Propelled Elevating Work Platforms

The above plates will contain the following data, when applicable:

- Make, model, and manufacturer's serial number
- Rated capacity
- Maximum capacity at the maximum platform height
- Platform height
- Maximum travel height
- Maximum recommended operating pressure of hydraulic or pneumatic system(s) or both
- Caution or restrictions of operation or both
- Operating instructions
- Manufacturer's rated line voltage (dielectric capability)

Alternative configurations will require in addition to the above:

- Charts, schematics, or scales of capacities in operating positions
- Cautions, restrictions, of operation of all alternate or combinations
- Employees will be instructed in the proper use of the platform

All aerial devices and elevating work platforms will be assembled and erected in accordance with these rules and will be maintained in safe operating condition.

All electrical tests will conform to the requirements of the applicable the National Fire Protection Association NFPA 70 Standard or equivalent DC voltage test approved by the equipment manufacturer or equivalent entity.

FACTORS OF SAFETY IN DESIGN OF WORK PLATFORM ASSEMBLY

- Where the platform is supporting its rated workload by a system of wire ropes or lift chains, or both, the safety factor of the wire or chain will not be less than 6 to 1
- All critical components of a hydraulic or pneumatic system used in a work platform will have a bursting strength that exceeds the pressure attained when the system is subjected to the equivalent of four times the rated workload. Critical components are those in which a failure would result in a free fall or free rotation of the boom. All noncritical hydraulic components will have a bursting safety factor of at least 2 to 1
- Automatic safety devices or systems will be provided to prevent free fall of the work platform should a failure of the power supply or elevating system occur

CONSTRUCTION, MODIFICATION, REMOUNTING, TESTING, AND USE

- An aerial device purchased, modified, or remounted must meet the requirements of ANSI A92.2
- A permanent label or tag will be affixed to an aerial device purchased, modified, or remounted certifying compliance
- An employer modifying the basic design of an aerial device will secure approval of the modification in writing from the manufacturer of the aerial device, a firm offering an equivalent service, or a qualified engineer knowledgeable in the aerial device operations. The results of the modification will be at least as safe as the original design
- An aerial device will bear a permanent plate stating the designed rating capacity
- An aerial device will be mounted on a vehicle capable of sustaining, or reinforced to sustain, the imposed load. The vehicle will be a stable support for the aerial device
- The lifting and outrigger system of an aerial device will be equipped with a means, such as but not limited to, a pilot operated check valve to ensure that the system will not permit the work platform to drop in a free fall in event of a power or hydraulic line failure
- An aerial device that does not meet the requirements ANSI A92.2 will not be used unless it has been inspected and modified as required to conform to the essential stability, structural, electrical insulation, and operational requirements
- In addition to the welding requirements prescribed in ANSI A92.2, an aerial device will conform to the AWS D2.0-69

MAINTENANCE AND REPAIRS

- The materials used in the repair of aerial devices and elevating work platforms will conform to standard specifications of strength, dimensions, and weights, and will be selected to safely support the rated workload
- Electrical wiring and equipment will meet National Fire Protection Association (NFPA) 70 provisions
- All exposed surfaces will be free from sharp edges, burrs, or hazardous projections

Electrical Ratings

- The rating plate required will include a statement as to whether the aerial device is insulated or is non-insulated and, if insulated, the rated line voltage for which the aerial device was designed and tested
- The insulating portion of an aerial device will not be altered in any manner that might reduce its insulating value

SAFETY FACTORS AND YIELD POINTS

- The design of the basic structural elements of the aerial device including the platform and its component parts will have a yield point of not less than 3 times the rated load. Structural materials not having a clearly defined yield or break point will have a designed safety factor of not less than 5
- The designed safety factor of not less than 4 will apply to hydraulic and pneumatic parts which would, on failure, permit a free fall, free rotation of the boom, or loss of stability
- Noncritical components will have a bursting safety factor of not less than 2

Controls

- The controls for the operation of an aerial device will be permanently labeled as to their function
- Controls for an aerial device will be designed or guarded to prevent inadvertent start
- Articulating, extensible boom platforms, or both, primarily designed as personnel carriers, will be equipped with both upper and lower controls. functions
- Upper controls will be located within reach of the operator
- Lower controls will be capable of overriding the upper controls. Except in case of an emergency, the lower controls will not be operated unless permission has been obtained from the employee in the basket or on the work platform

Stability Requirements for New or Modified Aerial Devices

Each new or modified aerial device will be inspected and tested before initial use to assure compliance with all of the following requirements.

- An aerial device, mounted on an approved vehicle, when used in a specific configuration, will be capable of sustaining a static load 1 ½ times its rated load capacity in every position that the load can be placed in when the vehicle is on a firm and level surface. If having the outriggers extend to a firm footing is part of the definition of the configuration, they will be extended to provide leveling for the purpose of determining whether the mobile unit meets the stability requirements
- An aerial device, mounted on an approved vehicle, when used in a specific configuration, will be capable of sustaining a static load 1 1/3 times its rated load capacity in every position that the load can be placed in the when the vehicle is on a slope of 5 degrees downward in the direction most likely to cause overturning. If having the outriggers extended to a firm footing is part of the definition of the configuration, they will be extended to provide leveling for the purpose of determining whether the mobile unit meets the stability requirements
- If other facilities, such as a means of turntable leveling, are provided to minimize the effect of the sloping surface, then those facilities will be utilized when determining if the mobile unit meets the stability requirements
- Vertical towers designed specifically for operation only on a level surface will be excluded from this requirement
- None of the stability tests described will produce instability of the mobile unit, or cause permanent deformation of any component. The lifting of a tire or outrigger on the opposite side of the load does not necessarily indicate a condition of instability
- Verification by the manufacturer or an equivalent entity that the stability of an aerial device meets the requirements may be used to demonstrate compliance

Inspection and Tests

- An aerial device will be inspected and tested at least annually for permanent deformation and cracks by using 1 ½ times the rated load and for defects by visual inspection during and following the load test
- An annual electrical test of insulated aerial devices will be made. An equivalent DC voltage test may be used in place of the prescribed AC voltage
- Field inspection and tests will be performed only by an authorized and trained employee or outside service
- Lift controls will be tested each day before use to determine that the controls are in safe working condition. An aerial device with defective controls will not be used until repaired

Use

- Any overhead line will be considered energized until the owner, owner representative, or utility indicates otherwise and the line has been visibly grounded, and the owner, owner representative, or utility will be notified and provided with all pertinent information of the job before the commencement of operations near electrical lines
- Except as prescribed or where insulating barriers not a part of or an attachment to the aerial device have been erected to prevent physical contact with the lines, an aerial device will maintain the distances from energized distribution and transmission power lines and equipment prescribed in table 1
- A qualified lineman or a qualified line clearance tree trimmer performing work on or near an exposed power transmission or distribution line from an aerial lift will maintain distances prescribed in table 2, unless the employee is insulated or guarded from the energized part by gloves or gloves and sleeves, or insulated, isolated, or guarded from any other conductive part or the energized part is insulated from the employee
- A qualified telecommunications employee will maintain the distances prescribed in table 3 when working from an aerial lift, unless the employee is insulated, isolated, or guarded from any other conductive part or the energized part is insulated from the employee
- The insulated bucket, gloves, and sleeves used to comply will be rated at more than the voltage to be worked on or that with which they might come into contact
- An in-plant, industrial-type aerial lift designed to be used on level surfaces will not be used on slopes, unless the aerial lift is adjusted to a firm, level plane
- A safety belt or harness will be used with a lanyard attached to the boom or basket when working from an aerial lift. The safety belt, harness, and lanyard will be provided by Bannister Electric LLC of West Monroe. An in-plant, industrial-type aerial device used on a level surface and equipped with a platform with approved railings is exempt from this rule
- A boom platform will be provided with a rail or other structure around its upper periphery that will be not less than 38 inches above the floor of the platform and with a toeboard not less than 4 inches high. A basket of a cherry picker will be considered to meet this requirement. A platform may have the guardrail removed from the working side if a safety belt and lanyard is worn by the employee on the platform
- The designed rated capacity for a given altitude will not be exceeded
- A proximity warning device may be used, but not in place of meeting the requirements of this rule

TABLE 1

Minimum Clearance Distances for Equipment		
Voltage	**Clearance with Boom Raised**	**Clearance Boom Lowered and No Load in Transit**
To 50 kV	10 feet	4 feet
Over 50 kV	10 feet + .4 inch per each 1 kV over 50 kV	10 feet
50 to 345 kV		10 feet
346 to 750 kV		15 feet

TABLE 2

Minimum Working Distances for Qualified Line Clearance Tree Trimmers and Qualified Linemen	
Voltage Range Phase to Phase (KV)	**Minimum Working Distance**
2.1 to 15.0	2´0˝
15.1 to 35.0	2´4˝
35.1 to 46.0	2´6˝
46.1 to 72.5	3´0˝
72.6 to 121.0	3´4˝
138.0 to 145.0	3´6˝
161.0 to 169.0	3´8˝
230.0 to 242.0	5´0˝
345.0 to 362.0	*7´0˝
550.0 to 552.0	*11´0˝
700.0 to 765.0	*15´0˝
*NOTE: For 345 — 362 kV., 500 — 552 kV., and 700 — 765 kV., the minimum working distance and the minimum clear hot stick distance may be reduced that such distances are not less than the shortest distance between the energized part and a grounded surface.	

TABLE 3

Minimum Approach Distances for Qualified Telecommunications Employees	
Voltage Range (Nominal Phase to Phase)	**Minimum Approach Distances**
300 V and less	12˝
Over 300 V, not over 750 V	18˝
Over 750 V, not over 2 kV	24˝
Over 2 kV, not over 15 kV	36˝
Over 15 kV, not over 37 kV	42˝
Over 37 kV, not over 87.5 kV	48˝
Over 87.5 kV, not over 121 kV	54˝
Over 121 kV, not over 140 kV	--

Vehicles

- Before a vehicle supporting an aerial ladder is moved for highway travel, the ladders will be secured in the lower position, and the manually operated device at the base of the ladder, or other effective means, will be used to prevent elevation or rotation of the ladder
- Before a vehicle supporting an aerial lift is moved for travel, the boom will be inspected to insure that it is properly cradled and the outriggers are in the stowed position
- A vehicle supporting an aerial device will not be moved when the boom is elevated with employees in working position, unless the equipment is specifically designed for this type of operation and meets the requirements
- Brakes will be set and outriggers, when used, will be positioned on pads or a solid surface
- Wheel chocks will be installed before using an aerial device on an incline

ELEVATING WORK PLATFORMS

These rules apply to equipment that has a primary function of elevating personnel, together with their tools and necessary materials, on a platform that is mechanically positioned. The following American National Standard Institute (ANSI) units are covered:

- ANSI Standard A92.2, "Vehicle-Mounted Elevating Work Platforms"
- ANSI Standard A92.3, "Manually Propelled Elevating Work Platforms"
- ANSI Standard A92.5, "Boom-Supported Elevating Work Platforms"
- ANSI Standard A92.6, "Self-Propelled Elevating Work Platforms"

Equipment not Covered

- Equipment that has a primary function other than elevating personnel, such as fork trucks or cranes that are adapted to elevating personnel, is not covered by these rules
- Firefighting equipment

Construction

- Aerial work platforms will be designed, constructed, and tested so as to be in compliance with the requirements of ANSI standards A92.2, A92.3, A92.5, and A92.6
- Aerial work platforms will not be field-modified for uses other than those intended by the manufacturer, unless the modification has been certified in writing by the manufacturer or by any other equivalent entity, such as a nationally recognized testing laboratory, to be in compliance with the applicable ANSI standard and this rule, and to be at least as safe as the equipment was before modification

Directional controls will be in compliance with all of the following provisions:

- Be of the type that will automatically return to the off or neutral position when released
- Be protected against inadvertent operation
- Be clearly marked as to their intended function
- An overriding control will be provided in the platform which must be continuously activated for platform directional controls to be operational and which automatically returns to the off position when released
- Aerial work platforms will be equipped with emergency controls at ground level
- Emergency ground level controls will be clearly marked as to their intended function and be capable of overriding the platform controls

All of the following information will be clearly marked in a permanent manner on each aerial:

- Special workings, cautions, or restrictions necessary for operation
- Rated workload
- A clear statement of whether or not the aerial work platform is electrically insulated
- Rotating shafts, gears, and other moving parts that are exposed to contact will be guarded as required
- Attachment points will be provided for fall protection devices for personnel who occupy the platform on aerial work platforms

Inspection, Maintenance, and Testing

An employer will comply with all of the following requirements:

- Each aerial work platform will be inspected, maintained, repaired, and kept in proper working condition in accordance with the manufacturer's operating, maintenance, and repair manuals
- Any aerial work platform found not to be in a safe operating condition will be removed from service until repaired. All repairs will be made by an authorized person in accordance with the manufacturer's operating, maintenance, and repair manuals
- If the aerial work platform is rated and used as an insulated aerial device, the electrical insulating components will be tested for compliance with the rating of the aerial platform in accordance with ANSI standard A92.2, Section 6

Such testing will comply with all of the following provisions:

- The test will be performed not less than annually
- Written, dated, and signed test reports will be made available by Bannister Electric LLC of West Monroe for examination by OSHA
- The insulated portion of an aerial device will not be altered in any manner that might reduce its insulating value
- All danger, caution, and control markings and operational plates will be legible and not obscured

Preoperation Procedures

Before use on each work shift, an aerial work platform will be given a visual inspection by the operator for defects that would affect its safe operation and use. The inspection will consist of not less than both of the following procedures:

- Visual inspection for all of the following: cracked welds, bent or broken structural members, hydraulic or fuel leaks, damaged controls and cables, loose wire, tire condition, fuel and hydraulic fluid levels, slippery conditions on the platform
- Operate all platform and ground controls to ensure that they perform their intended function
- Before the aerial work platform is used, and during use on the job site, the operator will inspect the operational area for all of the following: ditches, drop-offs, holes, debris, bumps and floor obstructions, overhead obstructions, power lines
- The area around the aerial work platform will also be inspected to assure clearance for the platform and other parts of the unit

- All unsafe items found as a result of the inspection of the aerial work platform or work area will be corrected before further use of the aerial work platform
- When the specified clearances cannot be maintained, the owner of electrical lines or the authorized representative will be notified and provided with all pertinent information before the commencement of operations near electrical lines
- Any overhead wire will be considered to be an energized line until the owner of the line or the authorized representative states that it is de-energized

OPERATING PROCEDURES

- The aerial work platform will be used only in accordance with the manufacturer's operating instructions and safety rules.
- The following clearances will be maintained when operating aerial work platforms or other equipment under, over, by, or near energized electric power lines:

VOLTAGE	MINIMUM CLEARANCE
0 to 50 kV	10 feet
More than 50 kV	10 feet + .4 inch per kV

The clearance requirements of this rule do not apply to the following situations:

- Where work is performed from an insulated aerial device that is insulated for the work and the work is performed in accordance with the provisions of construction safety standard "Power Transmission and Distribution" and "Telecommunications"
- Where the electric power transmission or distribution lines have been de-energized and visibly grounded at the point of work or where insulating barriers that are not a part of an attachment to the aerial work platform have been erected to prevent physical contact with the line
- Where work is being performed by journeymen electricians on equipment up to .5kV.
- Two journeymen electricians will be required for work within the minimum clearance on equipment over .5kV
- Proximity warning devices may be used, but will not be used instead of meeting the requirements of this rule
- The manufacturer's rated load capacity will not be exceeded. Bannister Electric LLC of West Monroe will ensure that the load and its distribution on the platform are in accordance with the manufacturer's specifications. The aerial work platform rated load capacity will not be exceeded when loads are transferred to the platform at elevated heights
- Only personnel, their tools, and necessary materials will be on or in the platform
- The guardrail system of the platform will not be used to support any of the following: materials, other work platforms, employees
- Personnel will maintain firm footing on the platform while working on the platform. Using railings, planks, ladders, or anything on the platform for more height is prohibited
- Fuel gas cylinders will not be carried on platforms that would allow gas accumulation
- A safety harness that has a lanyard which is in compliance with construction safety standard "Fall Protection" and which is affixed to attachment points provided and approved by the manufacturer will be provided by Bannister Electric LLC of West Monroe and used by any occupant of an aerial work platform described in these rules. A fall arrest system will only be used where the aerial lift is designed to withstand the vertical and lateral loads caused by an arrested fall

- A body belt may be used with a restraint device with the lanyard and the anchor arranged so that the employee can't fall. A restraint device is required where the aerial lift cannot withstand the vertical and lateral loads imposed by an arrested fall
- Don't belt off to adjacent pole, structure, or equipment while on an aerial work platform
- An employer will not allow employees to exit an elevated aerial work platform, except where elevated work areas are inaccessible or hazardous to reach. Employees may exit the platform with the knowledge and consent of Bannister Electric LLC of West Monroe. When employees exit to unguarded work areas, fall protection will be provided and used as required
- Only aerial work platforms that are equipped with a manufacturer's installed platform controls for horizontal movement will be moved while in the elevated position
- Before and during driving while elevated, an operator of a platform will:
- Look in the direction of, and keep a clear view of, the path of travel and make sure that the path is firm and level.
- Maintain a safe distance from: obstacles, debris, drop-offs, holes, depressions, ramps, overhead obstructions, overhead electrical lines, other hazards to safe elevated travel.
- Outriggers or stabilizers, are to be used in accordance with the manufacturer's instruction. Outriggers and stabilizers will be positioned on pads or a solid surface
- Aerial work platforms will be elevated only when on a firm and level surface or within the slope limits allowed by the manufacturer's instructions
- A vehicle-mounted aerial work platform will have its brakes set before elevating
- A vehicle-mounted work platform will have wheels chocked before using on an incline
- Climbers will not be worn while performing work from an aerial work platform
- Platform gates will be closed while the platform is in an elevated position
- Stunt driving and horseplay are prohibited
- Altering, modifying, or disabling safety devices or interlocks is prohibited
- Bannister Electric LLC of West Monroe will prevent ropes, cords, and hoses from entangling in the aerial work platform
- A platform operator will ensure that the area surrounding the aerial work platform is clear of personnel and equipment before lowering the platform
- Before and during travel, except as provided for horizontal movement, an operator will do all of the following: inspect to see that booms, platforms, aerial ladders, or towers are properly cradled or secured; ensure that outriggers are in a stored position; limit travel speed according to the following factors; condition of the surface; congestion; slope; location of personnel; other hazards
- The aerial work platform will not be positioned against another object to steady the platform
- The aerial work platform will not be operated from a position on a truck, trailer, railway car, floating vessel, scaffold, or similar equipment
- The boom and platform of the aerial work platform will not be used to move or jack the wheels off the ground unless the machine is designed for that purpose by the manufacturer
- If the platform or elevating assembly becomes caught, snagged, or otherwise prevented from normal motion by adjacent structures or other obstacles so that control reversal does not free the platform, all personnel will be removed from the platform before attempts are made to free the platform

Elevating Work Platform Equipment

- The platform deck will be equipped with a guardrail or other structure around its upper periphery that will be 42 inches high, plus or minus 3 inches, with a midrail. (Chains or the equivalent may be substituted where they give equivalent protection.) Where the guardrail is less than 39 inches high, an approved personal fall protection system will be used
- The configuration of an elevating work platform may include a ladder for personnel to use in reaching the platform deck. Any ladder device used in this way will have rungs located on uniform centers not to exceed 12 inches
- Any elevating work platform equipped with a powered elevating assembly and having a platform height exceeding 60 inches will be supplied with safe emergency lowering means compatible with the specific elevating assembly employed
- Any powered elevating work platform will have both upper and lower control devices. Controls will be plainly marked as to their function and guarded to prevent accidental operation. The upper control device will be in or beside the platform, within easy reach of the operator. The lower control device will have the capability to lower the platform where the operator's safety is in jeopardy
- An emergency stopping device will be provided at the upper controls of elevating work platforms
- Elevating Work Platforms will include: toeboards at sides and ends which will not be less than 4 inches high; EXCEPTION: Toeboards may be omitted at the access openings; a hinged trap access door, if applicable; a platform whose minimum width will not be less than 16 inches

Guarding of Moving Parts

All rotating shafts, gearing, and other moving parts will be guarded.

Stability on Inclined Surfaces

Unless recommended for such use by the manufacturer, no elevating work platform will be used on an inclined surface. Procedures for maintaining stability must be clearly outlined in the special warnings section of user’s manual. The user will not deviate from the manufacturer's instructions.

Operating Instructions (Elevating Work Platforms)

- No employee will ride, nor tools, materials, or equipment be allowed on a traveling elevated platform unless the following conditions are met: the travel speed at Maximum Travel Height does not exceed 3 feet per second; self-propelled units will be equipped with electrical or other interlock means that will prevent driving them with the platform height greater than the Maximum Travel Height or at speeds greater than permitted at Maximum Travel Height; the surface upon which the unit is being operated is level with no hazardous irregularities or accumulation of debris that might cause a moving platform to overturn
- Units will be assembled, used, and disassembled in accordance with the manufacturer's instructions
- Units will be assembled, and used only by personnel who have been trained in their use. Units will be inspected for damaged and defective parts before use
- Units will not be loaded in excess of the design working load and will be taken out of service when damaged or weakened from any cause. They will not be used until repairs are completed
- Employees will not sit, stand, or climb on the guardrails of an elevating work platform or use planks, ladders, or other devices to gain greater working height or reach

- Employees will not work on units when exposed to high winds, storms, or when they are covered with ice or snow (unless provisions have been made to ensure the safety of the employees)
- Employees climbing or descending vertical ladders will have both hands free for climbing

NOTE: Remove foreign substances from your shoes (e.g. mud, grease).

- Where moving vehicles are present, the work area will be marked with warnings such as flags, roped off areas or other effective means of traffic control will be provided
- Unstable objects such as barrels, boxes, loose brick, tools, debris, will not be allowed to accumulate on the work level
- In operations involving production of small debris, chips, etc., and the use of small tools and materials, and where persons are required to work or pass under the equipment, screens will be required between toeboards and guardrails. The screen will extend along the entire opening, will equal No. 18 gage U.S. Standard Wire ½-inch mesh

PIN-ON PLATFORMS

- Pin-on platforms will be securely pinned to the boom or boom extension
- Employees on the elevated pin-on platform will be secured to the boom by a safety belt and lanyard or a body belt and safety strap
- Aerial baskets or platforms will not be supported by adjacent structure(s) when workers are on the platform or in the basket while in an elevated position
- Lift controls will be tested in accordance with the manufacturer's recommendations or instructions prior to use to determine that such controls are in safe working condition.
- Only authorized persons will operate an aerial device
- Belting off to an adjacent pole, structure, or equipment while working from an aerial device will not be permitted
- Employees will not sit or climb on the edge of the basket or use planks, ladders or other devices to gain greater working height
- Boom and basket and platform load limits specified by the manufacturer will not be exceeded
- When elevating personnel with the vehicle stationary the braking systems will be set
- Provided they can be safely installed, wheel chocks will be installed before using an aerial device on an incline
- When used, outriggers will be positioned on pads or a solid surface. All outriggers will be equipped with hydraulic holding valves or mechanical locks at the outriggers
- Climbers will not be worn while performing work from an aerial device
- When an insulated aerial device is required, the aerial device will not be altered in any manner that might reduce its insulating value
- An aerial device truck will not be moved when the boom is elevated in a working position with employees in the basket or platform except when all of the following are complied with:
- The equipment is specifically designed for this type of operation.
- All controls and signaling devices are tested and are in good operating condition.
- An effective communication system will be maintained at all times between the basket or platform operator and where applicable, the vehicle operator.
- The route to be traveled is surveyed immediately prior to the work trip, checking for overhead obstructions, traffic, holes in the pavement, ground or shoulder, ditches, slopes, etc., for areas other than paved, a survey should be made on foot.
- The speed of the vehicle does not exceed three (3) miles per hour.

- Only one employee is in the basket.
- Both the driver and/or the elevated employee have been specifically trained for this type of work (towering) in accordance with the manufacturer's recommendations.
- Lower level controls will not be operated unless permission has been obtained from the employee in the device, except in case of emergency
- Before moving an aerial device for travel, the boom(s) will be inspected to see that it is properly cradled and outriggers are in stowed position
- An employee, while in an elevated aerial device, will be secured to the boom, basket or tub of an aerial device through the use of a safety belt, body belt, or body harness equipped with safety strap or lanyard.
- Safety belts/body belts are prohibited for use in personal fall arrest systems, but may be used as part of a fall restraint or positioning device system.
- Safety belts/body belts used as part of a positioning device system will be rigged such that an employee cannot free fall more than 2 feet.
- A body harness may be used in a personal fall restraint, positioning or fall arrest system. When a body harness is used in a fall arrest system, the lanyard will be rigged with a deceleration device to limit maximum arresting force on an employee to 1,800 pounds and prevent the employee from hitting any levels or objects below the basket or platform, and will limit free fall to a maximum of 6 feet.

ATTACHMENTS

- Aerial Lift Equipment Daily Inspection/Checklist
- Scissor Lift Operator Daily Inspection/Checklist

AERIAL LIFT EQUIPMENT DAILY INSPECTION/CHECKLIST (PAGE 1 OF 4)

Use only equipment which is in safe working condition. DO NOT operate equipment that needs repair.			
Company:	Location of Use:	Time:	Date:
Operator's Name:		Supervisor's Name:	
Inspector(s) Name:		Hour Meter Reading:	
Equipment Type:	Equipment ID Numbers:		Manufacturer:

GENERAL SITE INFORMATION			
OK REPAIR N/A		OK REPAIR N/A	
☐ ☐ ☐	Hazard assessment of work area?	☐ ☐ ☐	Operator's manual on lift?
☐ ☐ ☐	Controls in place for identified hazards?	☐ ☐ ☐	Ground man available for emergency descent who is knowledgeable of descent valve operation?
☐ ☐ ☐	Work areas properly signed and barricaded?	☐ ☐ ☐	Test controls – including emergency descent valve?

CARRIER VEHICLE			
OK REPAIR N/A		OK REPAIR N/A	
☐ ☐ ☐	Motor	☐ ☐ ☐	Cab
☐ ☐ ☐	Crank case oil is clean and full	☐ ☐ ☐	Steering
☐ ☐ ☐	Engine coolant is about 2" below cap	☐ ☐ ☐	Lights
☐ ☐ ☐	Clutch /Converter	☐ ☐ ☐	Tires properly inflated
☐ ☐ ☐	Drive Line	☐ ☐ ☐	Cuts or bulges in the tires
☐ ☐ ☐	Transmission fluid at proper level	☐ ☐ ☐	Wheels and Lug Nuts secure
☐ ☐ ☐	Frame	☐ ☐ ☐	Fire Extinguisher
☐ ☐ ☐	Brakes	☐ ☐ ☐	Cab Glass
☐ ☐ ☐	Differentials	☐ ☐ ☐	Warning Lights and Alarm
☐ ☐ ☐	Outriggers	☐ ☐ ☐	Access

AERIAL LIFT EQUIPMENT DAILY INSPECTION/CHECKLIST (PAGE 2 OF 4)

Use only equipment which is in safe working condition. DO NOT operate equipment that needs repair.			
HYDRAULICS			
OK REPAIR N/A		OK REPAIR N/A	
☐ ☐ ☐	Relief Valve(s)	☐ ☐ ☐	Pumps
☐ ☐ ☐	Restrictor Valves	☐ ☐ ☐	Bearings
☐ ☐ ☐	Pipe Lines	☐ ☐ ☐	Check hydraulic oil level
☐ ☐ ☐	Hose Lines	☐ ☐ ☐	Mounting Bolts
☐ ☐ ☐	Outrigger Cylinders	☐ ☐ ☐	Swing Gear
☐ ☐ ☐	Boom Crowd Cylinders	☐ ☐ ☐	Swing Pinion
☐ ☐ ☐	Control Valves	☐ ☐ ☐	Seals—Hydraulic
☐ ☐ ☐	Swing Motor	☐ ☐ ☐	Leaks
BOOM			
OK REPAIR N/A		OK REPAIR N/A	
☐ ☐ ☐	Shipper Welds	☐ ☐ ☐	Support Roller
☐ ☐ ☐	Boom Welds	☐ ☐ ☐	Boom Pins
☐ ☐ ☐	Pins—Boom Pivot	☐ ☐ ☐	Boom Main Section

AERIAL LIFT EQUIPMENT DAILY INSPECTION/CHECKLIST (PAGE 3 OF 4)

Use only equipment which is in safe working condition. DO NOT operate equipment that needs repair.			
OPERATIONAL CHECKS			
OK REPAIR N/A		OK REPAIR N/A	
☐ ☐ ☐	Operators familiar with load charts?	☐ ☐ ☐	Vehicle is leveled, working properly?
☐ ☐ ☐	Test emergency descent valve?	☐ ☐ ☐	Brakes and brake systems check out?
☐ ☐ ☐	Outrigger pads not cracked?	☐ ☐ ☐	Safety pressure relief valves check out?
☐ ☐ ☐	Hydraulic hoses in good condition?	☐ ☐ ☐	Back-up alarm is working?
☐ ☐ ☐	Does boom swing break work properly?	☐ ☐ ☐	Does the horn work?
☐ ☐ ☐	Outriggers fully extended, working properly, and swing radius barricades in place?		
☐ ☐ ☐	Boom angle indicator is available and working?		
☐ ☐ ☐	Swing through 360 degrees, does boom angle indicator stay the same throughout rotation?		
☐ ☐ ☐	Engine is started and gauges are checked and working properly?		
☐ ☐ ☐	Extend out the boom, are all sections extending evenly?		
Comments:			
Signature (person(s) performing inspection/evaluation):		Date:	

AERIAL LIFT EQUIPMENT DAILY INSPECTION/CHECKLIST (PAGE 4 OF 4)

Items to check during the daily inspection:

- Check all welds between cylinders and booms for cracks or wear
- Inspect all pivot pins for security of their locking devices
- Check exposed cables, sheaves, and leveling devices for wear and secure attachment
- Inspect hydraulic system for frayed hoses and leaks
- Check lubrication and fluid levels
- Inspect boom and basket for cracks or abrasions
- Check for the load capacity posting
- Operate boom from ground controls through one complete cycle

Prestart Checks:

- Ensure that there are no obstacles around the work platform and in the path of travel such as holes, drop offs, ditches, soft fill, or debris
- Check overhead clearances
- Make sure the batteries are fully charged. Disconnect the AC charger cord from the external power source
- Make sure that the Free-Wheeling Valve is fully closed
- Make sure all guardrails and lock-pins are in place and locked in position
- Make sure both side battery and hydraulic trays are closed and locked

What to do when using a bucket or other aerial device:

- Wear a safety harness connected to the boom. Do not attach safety harness to adjacent pole or structure
- Ensure that no one is in the area before lowering stabilizers, outriggers, or the boom
- Ensure that each axle is horizontal when vehicle is parked on a hill. Work with the boom pointed uphill beyond the vehicle center
- Protect a roadway job site with traffic warning signs, lights, and barricades. Determine if extended boom movements will interfere with traffic
- Secure all tools when not in use
- Maintain the recommended distance from electrical wires unless you and the bucket are certified for electrical work
- Face the direction of travel
- Operate hydraulic controls slowly for smooth platform motion

What not to do:

- Do not stand on top of a bucket or use planks or ladders to gain extra height
- Do not exceed the rated load limit
- Do not ride from one job to another in the bucket
- Don’t climb from bucket to another position without being secured to new position
- Do not work above other workers. Clear the area below
- Do not throw tools to or from an elevated bucket
- Do not attempt to slow any air or hydraulic leak by using your hand or body

SCISSOR LIFT OPERATOR DAILY INSPECTION/CHECKLIST (PAGE 1 OF 4)

Company:		Time:	Date:
Site Location:		Job Foreman/ Supervisor:	
Person(s) Making Inspection:			
Equipment Type:	Equipment ID Numbers:		Manufacturer:

MECHANICAL	
OK REPAIR N/A	
☐ ☐ ☐	Structural damage or cracked welds—Visual walk-around inspection.
☐ ☐ ☐	Parking brake—Check operation.
☐ ☐ ☐	Tires/wheels and fasteners—Visually inspect, check operation and tightness.
☐ ☐ ☐	Guides/rollers and slider pads—Visually inspect, check operation, and ensure there is no metal to metal contact with slider, slider side, or running surface. Check for free movement of surface. Also check for free movement of the slider pin through the slider.
☐ ☐ ☐	Railings and railing lock pins—Visually inspect and check tightness.
☐ ☐ ☐	Entry chains or gates—Check operation and tightness.
☐ ☐ ☐	Bolts and fasteners—Check tightness.
☐ ☐ ☐	Safety Bar—Check operation.
☐ ☐ ☐	Wheel Bearings and King pins—Visually inspect, check operation and lubricate.
☐ ☐ ☐	Pothole Protection—Visually inspect and check operation.
☐ ☐ ☐	Steering cylinder and tie rod—Visually inspect, check operation and lubricate.

SCISSOR LIFT OPERATOR DAILY INSPECTION/CHECKLIST (PAGE 2 OF 4)

ELECTRICAL	
OK REPAIR N/A	
☐ ☐ ☐	Battery fluid level—Visually inspect.
☐ ☐ ☐	Control switches—Visually inspect and check operation.
☐ ☐ ☐	Cables and wiring harnesses—Visually inspect.
☐ ☐ ☐	Battery Terminals—Visually inspect and check tightness.
☐ ☐ ☐	Terminals and Plugs—Check tightness.
☐ ☐ ☐	Generator/receptacle—Visually inspect and check operation.
☐ ☐ ☐	Limit switches—Check operation.
HYDRAULIC	
OK REPAIR N/A	
☐ ☐ ☐	Hydraulic oil reservoir level—Check oil level.
☐ ☐ ☐	Hydraulic Hoses/Fittings—Visually inspect and check for leaks.
☐ ☐ ☐	Lift/lowering time—Check operation and refer to specification tables.
☐ ☐ ☐	Cylinders—Visually inspect and check operation.
☐ ☐ ☐	Emergency lowering—Check operation.
☐ ☐ ☐	Lift capacity—Check relief valve setting and refer to specification tables.

SCISSOR LIFT OPERATOR DAILY INSPECTION/CHECKLIST (PAGE 3 OF 4)

MISCELLANEOUS	
OK REPAIR N/A	
☐ ☐ ☐	Manual—Visually check that proper manual is in box.
☐ ☐ ☐	Placards, ID plates, warnings and control labels—Replace if missing/illegible.
PRESTART CHECKS	
OK REPAIR N/A	
☐ ☐ ☐	Ensure that there are no obstacles around the work platform and in the path of travel such as holes, drop offs, ditches, soft fill, or debris.
☐ ☐ ☐	Check overhead clearances.
☐ ☐ ☐	Make sure the batteries are fully charged. Disconnect the AC charger cord from the external power source.
☐ ☐ ☐	Make sure that the Free-Wheeling Valve is fully closed.
☐ ☐ ☐	Make sure all guardrails and lock-pins are in place and locked in position
☐ ☐ ☐	Make sure both side battery and hydraulic trays are closed and locked.
NOTE: At any point during this inspection there are any deficiencies, do not operate lift any further. Notify the proper personnel or repair unit as needed. Do not operate equipment without proper authorization and training.	
Signature (person(s) performing inspection/evaluation):	Date:

SCISSOR LIFT OPERATOR DAILY INSPECTION/CHECKLIST (PAGE 4 OF 4)

Items to check during the daily inspection:

- Tires for proper pressure and wheels for loose or missing lug nuts
- Steer cylinder, linkage, and tie rods for loose or missing parts, damage, and leaks
- Hydraulic oil for leaks and fluid level. Hydraulic hoses, lift cylinder(s), and connections for leaks or loose connections
- Fuel supply – adequate fuel, filler cap in place, no damage, leaks, or spills
- Battery for fluid level and state of charge
- Proper connection of all quick-disconnect hoses
- Structural components for damage, broken parts, cracks in welds, including scissor arms, outrigger arms, and pads
- Ladder or steps for damage and debris (ladder must be firmly secured to the platform and relatively free of grease, mud and dirt)
- Beacon and warning lights for missing and defective lenses or caps
- Ground controls (manual and powered) – including emergency stop switch and platform lower/lift switch – for proper function and damaged and missing control sticks/switches
- Decals and warning signs to make sure they are clean, legible, and conspicuous

After mounting the platform, check:

- Platform assembly for missing or loose parts, missing or loose lock pins and bolts
- Platform floor for structural damage, holes, or cracked welds and any dirt, grease, or oil that can create a hazard
- Operator’s manual to make sure it is in place
- Extendable platform deck for ease of extension/retraction and proper function of locking position of platform
- Guardrails to make sure they are in place and secure
- Access gate for ease of movement, missing parts, latch, and locking capabilities
- All fall protection anchorage points
- All control mechanisms for broken or missing parts
- All emergency controls for proper function – stopping, descending, master OFF switch
- All safety devices such as tilt and motion alarms for malfunction
- Swivels for freedom of rotation
- Scissors for smooth movement up and down
- Brakes for stopping capabilities
- Horn for proper function

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

POLICY

Bannister Electric LLC of West Monroe will use Ground Fault Circuit Interrupters (GFCI) on all jobsites when possible. When GFCI equipment is infeasible, the Assured Equipment Grounding Conductor Program (AEGCP) with the following guidelines, procedures, engineering controls, and work practices will be enforced to eliminate injuries from malfunctions, improper grounding and defective electrical tools and systems

RESPONSIBILITIES

Dolphus Bannister is the Competent Person in charge of the AEGCP.

TRAINING

Dolphus Bannister will provide training to ensure that the grounding requirements, purpose, function, and proper use of tools to be used in the normal function of their jobs is understood by employees and that the knowledge and skills required for the safe application, and usage is acquired by employees.

PROCEDURES

- A written description of this program, are available on the jobsite for inspection or copying by OSHA and any affected employee from Dolphus Bannister upon request.
- This AEGCP applies to all Bannister Electric LLC of West Monroe sites, covering all cord sets and receptacles that are not part of the building or structure, and equipment connected by cord and plug which are available for use or used by employees.
- Bannister Electric LLC of West Monroe will not provide or allow employees to use equipment that does not meet the AEGCP requirements.

Installation

Equipment grounding conductors shall be installed as follows:

All 120-volt, single-phase, 15- and 20-ampere receptacles shall be of the grounding type and their contacts shall be grounded by connection to the equipment-grounding conductor of the circuit supplying the receptacles in accordance with the applicable requirements of the National Electrical Code.

All 120-volt cord sets (extension cords) shall have an equipment-grounding conductor that shall be connected to the grounding contacts of the connector on each end of the cord.

The exposed noncurrent-carrying metal parts of 120 volt cord and plug connected tools and equipment that are likely to become energized shall be grounded in accordance with the applicable requirements of the National Electrical Code.

Inspections and Tests

Each day, before use, employees are required to visually inspect each extension cord, or other device, and any equipment connected by cord and plug, for external defects, such as deformed or missing pins or insulation damage, and for signs of possible internal damage. Cord sets, devices, and receptacles that are fixed and not exposed to damage are exempt from this inspection. Employees are prohibited from using damaged or defective equipment. Any equipment found to be damaged or defective will be immediately tagged “DO NOT USE” and removed from service.

Inspections and tests performed as required by this program will be recorded as to the identity of each receptacle, cord set, and cord and plug connected equipment that passed the test and will indicate the last date tested or interval for which is was tested. This record will be kept by means of logs, color-coding, or other effective means and will be maintained until replaced by a more current record. These records will be made available at the jobsite for inspection by OSHA and any affected employees.

Testing Schedule

All required tests must be performed by a competent person:

- Before first use
- Before equipment is returned to service following any repairs
- Before equipment is used after any incident which can be reasonably suspected to have caused damage (for example, when a cord set is run over)
- At intervals not to exceed 3 months, except that cord sets and receptacles which are fixed and not exposed to damage shall be tested at intervals not exceeding six months

Test Records

- A log will be kept on the job-site of all tests performed. These records will be kept until replaced by a newer record. The log will include:
  - Pass/Fail record of each receptacle, cord set, and cord- and plug-connected equipment that was tested
  - Date of testing or test intervals
  - The equipment will be marked with the test date or a color-coded tape will delineate the most recent test, for example

WINTER	White
SPRING	Green
SUMMER	Red
FALL	Orange

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

POLICY

Bannister Electric LLC of West Monroe has implemented this plan to ensure no employee is exposed to Cold Stress Illnesses in the workplace and will evaluate if coldness could be a problem on a particular day based on temperature levels, and then implement adequate controls, methods, or procedures to reduce the risk of cold stress.

RESPONSIBILITIES

Employers

- Adjust work practices as necessary when labor complain of cold stress
- Make controlling exposures through engineering controls the primary means of control wherever possible
- Oversee cold stress training and acclimatization for new labor and for labor who have been off the job for a while
- Provide worker education and training, including periodic safety meetings on cold stress during cold weather or during work in cold environments
- Monitor the workplace to determine when cold conditions arise
- Determine whether labor are drinking enough water
- Determine a proper work/rest regimen for labor
- Arrange first aid training for labor
- When working in a refrigerated workplace for instance, a contractor may wish to adopt the plant's protective clothing program if one exists
- Ensure that the program and procedures are documented and available to all labor

Safety Committee Responsibilities

- Assist in ensuring cold stress management is followed when necessary
- Assist in training employees to recognize and control workplace hazards
- Monitor the workplace for hazards
- Encourage employees to report hazards
- Implement appropriate controls
- Ensure corrective action is taken promptly

Employees

- Follow instructions and training for controlling cold stress
- Be alert to symptoms in yourself and others
- Get adequate rest and sleep

TRAINING

It is the determination of Bannister Electric LLC of West Monroe to ensure employees who are required to work in cold weather conditions are trained annually in the health effects cold stress can have on the body. The training shall include but not limited to:

- Proper rewarming procedures and appropriate first aid treatment
- How to dress for the cold
- Recognition of frostnip and frostbite
- Recognition of the signs and symptoms of impending hypothermia
- Additional special training for those workers working in remote locations

HAZARD ASSESSMENT

It is the determination of Bannister Electric LLC of West Monroe to ensure a hazard assessment is conducted prior to each job to identify the potential risk for cold exposure.

Cold stress applies to work environments where workers may be exposed to either artificial or natural cold.

- Artificially cold workplaces include cold storage rooms, freezers, and refrigerated transportation units
- Industries where workers may be exposed to natural cold include fishing, forestry, construction, and the petroleum industry
- Exposure in this document is exposure to cold air or water either as part of routine work procedures or as a result of accidental or an unplanned event
- Accidental or unplanned events include a worker falling into water such as from a boat or breaking through ice (cold water immersion) or a worker becoming stranded outdoors in the cold

Signs and Symptoms

It is the determination of Bannister Electric LLC of West Monroe to ensure employees are made aware and familiar with the signs and symptoms of cold weather induced health problems.

- Non-freezing cold injuries include: chilblain, immersion foot, trenchfoot.
- Freezing injuries include: frostnip, frostbite

Areas that do not have major muscles to produce heat are at the greatest risk

- The toes, fingers, ears and nose fall into this category
- The body preserves heat by favoring the internal organs. This reduces the flow of blood to the extremities under cold conditions

Hands and feet tend to get cold more quickly than the torso because:

- They lose heat more rapidly, since they have a higher surface area-to-volume ratio
- They are more likely to be in contact with colder surfaces than other parts of the body
- The eyes should be protected with goggles in high wind chill conditions. If left unprotected the corneas of the eyes may freeze
- The most severe cold injury is hypothermia. Hypothermia is the excessive loss of body heat and the resulting lowering of the inner core temperature (internal temperature of the body). Hypothermia can be fatal

Non-freezing Injuries

Chilblains are a mild cold injury caused by prolonged and repeated exposure for several hours to air temperatures from above freezing (32°F) to as high as 61°F.

- In the affected skin area, there will be redness, swelling, tingling and pain
- Immersion foot occurs in individuals whose feet have been wet but not freezing cold for days or weeks. It can occur at temperatures up to 50°F. The primary injury is to nerves and muscle tissue
- Symptoms include tingling and numbness; itching, pain, swelling of the legs, feet or hands; or blisters. The skin may be red initially and turn to blue or purple as the injury progresses. In severe cases, gangrene may develop
- A similar condition of the hands can occur if a person wears wet gloves for a prolonged period under cold conditions. Symptoms are similar to immersion foot

Trenchfoot results from prolonged exposure to a damp or wet environment from above the freezing point to about 50°F

- Depending on the temperature, the onset of symptoms may range from several hours to many days, but the average is three days

Trenchfoot is more likely to occur at lower temperatures while immersion foot is more likely to occur at higher temperatures and longer exposure times.

Freezing Injuries

Frostnip is the mildest form of freezing cold injury. It occurs when ear lobes, nose, cheeks, fingers or toes are exposed to the cold and the top layers of skin freeze. The skin of the affected area turns white and it may feel numb. The top layer of skin feels hard but the deeper tissue still feels normal (soft).

- Prevention of frostnip1 can be achieved by wearing warm clothing and footwear. Frostnip is treated by gentle rewarming; e.g., holding the affected tissue next to unaffected skin of the victim or of another person
- As for all cold-induced injuries, never rub the affected parts. Ice crystals in the tissue could cause damage if the skin is rubbed. Do not use very hot objects, such as hot water bottles, to rewarm the area or person

Frostbite is a common injury caused by exposure to extreme cold or by contact with extremely cold objects, especially those made of metal. It may also occur at normal temperatures from contact with cooled or compressed gases.

- Frostbite occurs when tissue temperature falls below the freezing point (32°F) or when blood flow is obstructed

- Blood vessels may be severely and permanently damaged and blood circulation may stop in the affected tissue
- In mild cases, the symptoms include inflammation of the skin in patches accompanied by slight pain
- In severe cases, there can be tissue damage, without pain, or there could be burning or prickling sensations and blisters
- Frostbitten skin is highly susceptible to infection and gangrene may develop

First aid for frostbite, immersion foot, and trench foot

- Seek medical attention
- Move the victim to a warm area, if possible
- Gently loosen or remove constricting clothing or jewelry that may restrict circulation
- Loosely cover the affected area with a sterile dressing
- Quickly transport the victim to an emergency care facility
- DO NOT attempt to rewarm the affected area on site but do try to stop the area from becoming any colder. Without the proper facilities, tissue that has been warmed may refreeze and cause more damage
- DO NOT rub the area or apply dry heat
- DO NOT allow the victim to drink alcohol or to smoke

Hypothermia

In moderately cold environments, the body's core temperature does not usually fall more than 34°F to 36°F below normal because of the body's ability to adapt.

- However, in intense cold, without adequate clothing, the body is unable to compensate for the heat loss and the body's core temperature starts to fall
- The sensation of cold followed by pain in exposed parts of the body is the first sign of mild hypothermia
- As the temperature continues to drop, or as the exposure time increases, the feeling of cold and pain starts to diminish because of increasing loss of sensation
- If no pain can be felt, serious injury can occur without the victim noticing it

Next, muscular weakness and drowsiness are experienced.

- They usually occur when body temperature falls below 91°F
- Additional symptoms of hypothermia include interruption of shivering, diminished consciousness and dilated pupils
- When body temperature reaches 81°F, coma sets in. Heart activity stops around 20°C and the brain stops functioning at around 63°F

It is the determination of Bannister Electric LLC of West Monroe to ensure that employees are knowledgeable on how to administer first aid on cold induced injuries or illnesses. Therefore the following procedures must be followed.

First Aid for Hypothermia

- Hypothermia is a medical emergency. At the first sign, find medical help immediately
- The survival of victims depends on their co-workers' ability to recognize the symptoms of hypothermia
- The victim is generally not able to notice his or her own condition

First aid for hypothermia includes the following steps:

- Seek medical help
- Ensure that wet clothing is removed
- Place the victim between blankets so the body temperature can rise gradually. (Body to body contact can help warm the victim's temperature slowly)
- Give warm, sweet (caffeine-free, non-alcoholic) drinks, unless the victim is rapidly losing consciousness, unconscious or convulsing
- Quickly transport the victim to an emergency medical facility
- Do NOT apply direct heat; i.e., hot water bottles

Factors that influence your response to cold

A cold environment challenges the worker in three ways: air temperature, air movement (i.e., wind speed), humidity (i.e., wetness).

- To work safely, these challenges have to be counterbalanced by proper insulation, such as layered protective clothing, physical activity and by controlling exposure; e.g., work/rest schedule

Air Temperature: Air temperature is measured by an ordinary thermometer in degrees Fahrenheit (°F) or degrees Celsius (°C).

Wind Speed: Various types of commercially-available anemometers are used to measure wind speed or air movement.

Humidity: Water conducts heat away from the body 25 times faster than dry air.

Physical Activity: The production of body heat by physical activity is difficult to measure. However, tables are available in literature, which shows metabolic rates for a variety of activities. Metabolic heat production is measured in kilo calories (kcal) per hour. One kilocalorie is the amount of heat needed to raise the temperature of one kilogram of water by 24°F.

Work/rest Schedule: Regular rest breaks in a heated area are recommended for anyone working in the cold. The frequency of breaks depends on the air temperature and wind speed, as well as the degree of physical activity.

Protective Clothing: To be protected from the cold, workers should dress in layers.

The inner layers should trap moisture and wick it away from the body; the middle layers provide insulation; the outer layers protect against the wind and weather.

- As work activity and environmental conditions change, workers should be able to easily add or remove layers

Wind Chill

At any temperature, you feel colder as the wind speed increases. The combined effect of cold air and wind speed is expressed as equivalent chill temperature (ECT) or simply wind chill temperature in degrees Fahrenheit or Celsius.

- It is essentially the air temperature that would feel the same on exposed human flesh as the given combination of air temperature and wind speed
- It can be used as a general guideline for deciding clothing requirements and the possible health effects of cold
- In some parts of the United States, the term wind chill factor is used. This is a measurement of a heat loss rate caused by exposure to wind and it is expressed as the rate of energy loss per unit area of exposed skin per second (e.g., joules/[second-metre^2] or watts/metre^2, W/m^2)
- The American Conference of Governmental Industrial Hygienists (ACGIH) has adopted the work warm-up schedule (see table 1), developed by the Saskatchewan Department of Labour as Threshold Limit Values (TLVs) for cold stress

CONTROLLING COLD STRESS

Environmental Measures

- Temperature and wind conditions should be known; e.g., weather report on the radio, current weather office information
- Steps should be taken to protect workers from wind (or indoors from drafts or forced air from air handling units). The combination of low temperatures and even moderate winds can quickly create dangerous working conditions
- Ensure that heated rest areas, such as a truck cab, tent or hut, are available

Equipment Design

For work below the freezing point, metal handles and bars should be covered by thermal insulating material. Also, machines and tools should be designed so that they can be operated without a person having to remove mittens or gloves.

Work Practices

A schedule of regular rest breaks should be established to allow workers to warm up. These breaks should be not less than 10 minutes in length and should be taken in a heated area.

- Heated warming shelters; e.g., tents, cabins, rest rooms, should be provided
- When entering the heated shelter, outer and middle clothing layers (as necessary) should be removed to prevent overheating and to allow dampness to evaporate. A change of dry clothing may be necessary since returning to cold work while damp or sweaty may result in rapid chilling
- Warm fluids should be consumed at the work site to provide energy and warmth and to replace fluids lost during work
- Recognize the symptoms of cold stress. The onset of severe shivering, the feeling of excessive fatigue, drowsiness, irritability or euphoria is indications to immediately return to the shelter

The following additional precautions apply at colder temperatures:

- Workers should be under constant protective observation by a buddy or supervisor
- Work rate should not be high enough to cause sweating. If heavy work must be performed, rest periods in heated shelters and the opportunity to change into dry clothing should be provided
- New employees should not be required to work full-time in the cold during the first days of employment until they become accustomed to the working conditions and required protective clothing
- Weight and bulkiness of clothing should be included in estimating required work performance
- Work should be arranged to minimize periods of standing or sitting still
- Workers should be appropriately trained

Personal Measures

Diet - Workers have increased energy requirements when working in the cold. Consider adding additional wholesome foods to the diet, such as pasta, potatoes, rice, dairy products, nuts, meat, herring and salmon. Light snacks and warm fluids should be taken during rest breaks. Alcohol must not be consumed when working in the cold. Alcohol produces a deceptive feeling of warmth but may contribute to dehydration and impair judgment.

Dressing for the Cold - Clothes must be layered to manage moisture and keep dry. Insulating layers must trap air for warmth, and the worker must be protected from the wind and weather.

To remain comfortable as weather and work conditions change, clothing layers should be added or removed, or ventilation openings in clothing opened or closed.

Workers must make every effort to avoid sweating and becoming damp. Clothing selections are normally made on the basis of staying warm while inactive. Consider the work to be performed and the weather conditions, then have workers dress so that layers can be shed and they can still remain comfortably warm. If clothing layers do become damp and remain that way, workers should be prepared to replace them before becoming chilled and hypothermic. If a worker is sweating, then his or her clothing is probably too warm for the conditions and tasks being performed.

Hand wear

- Mittens keep hands warmer than gloves since fingers are together. With gloves, fingers are separated and lose heat from one another
- Have workers wear thin liners under gloves or mittens. Liners need not be removed when removing the gloves
- Removable glove and mitten liners can be replaced and dried when they become damp
- New mitten styles, including three-finger lobster claws that keep fingers warm yet offer good dexterity are available
- Windproof overmitts offer additional hand protection, without adding significant bulk

Headwear

- Up to 50% of body heat is lost through the head. A hat or other head protection must be worn in the cold
- Avoid cotton and use synthetic fabrics or wool instead
- Workers must use an appropriate hard hat liner to reduce heat loss when wearing a hard hat
- Select a hat appropriate for the weather conditions and activity level. Consider thickness, extent of head coverage (e.g., openface, full balaclava, ear coverage), need for windproofness, effect on vision and hearing, and ability to fit into or over protective headwear, if required
- A facemask and eye protection may sometimes be necessary

Footwear

- Warm, insulated safety footwear is essential. Boots should have thick soles for insulation while standing in snow or on cold concrete. Footwear selection should be based on the work being performed, the surfaces on which the worker will work and the weather conditions to which the worker will normally be exposed. Tight-fitting boots reduce circulation and can make feet feel cold
- Footwear should be sized so that it will accommodate an extra layer(s) of socks
- A synthetic sock liner, worn beneath a synthetic blend or wool outer sock, wicks moisture away from the skin, keeping feet drier and warmer

Special Precautions

- Exposure to vibration may increase a worker's susceptibility to cold injury because of the way that vibration can reduce circulation, particularly in the extremities
- Work performed in snow- or ice-covered terrain may require tinted safety eyewear and/or sunglasses with side shields. If there is a potential for eye injury from blowing snow or ice crystals, special safety goggles should be worn. As well, workers in such situations should be prepared for white-out conditions and have a plan in place regarding movement and navigation under such conditions
- Alcohol must be avoided – it produces a deceptive feeling of warmth but can affect circulation, fluid balance and judgement
- Limit the consumption of caffeine-containing beverages because they act as diuretics and affect hydration
- Workers with health conditions that affect normal body temperature regulation or impair circulation, such as Raynaud's Syndrome or diabetes, should take appropriate precautions when working in the cold. This might include more layers, including hat and mitts, and less time in the cold environment
- Body parts that have sustained a frostnip or frostbite injury are sensitive to re-injury, so extra care must be taken to protect/cover these areas

If loose or bulky clothing is worn, special care should be taken when working around moving equipment or machinery to prevent clothing entrapment

If a worker is or may be exposed to:

- thermal conditions that could cause cold stress or injury
- thermal conditions that could cause a worker's core body temperature to fall below 96.8°F (36°C)
- thermal conditions that are below the levels classified as "little danger" to workers in the criteria for the cooling power of wind on exposed flesh in the cold stress section of the ACGIH Standard

COOLING POWER OF WIND (IMPERIAL UNITS)

The ACGIH criteria, in the Fahrenheit scale, are listed in the following table as it appears in "Cold Stress" of Threshold Limit Values and Biological Exposure Indices (the ACGIH Standard). The table shows the cooling power of wind on exposed flesh. If there is a wind, use the wind speed in the first column and the actual temperature across the top to find what the equivalent temperature would be under calm conditions.

Estimated wind speed (in mph)	**Actual temperature reading (degrees Fahrenheit)**											
	50	**40**	**30**	**20**	**10**	**0**	**-10**	**-20**	**-30**	**-40**	**-50**	**-60**
	Equivalent chill temperature (degrees Fahrenheit)											
Calm	50	40	30	20	10	0	-10	-20	-30	-40	-50	-60
5	48	37	27	16	6	-5	-15	-26	-36	-47	-57	-68
10	40	28	16	4	-9	-24	-33	-46	-58	-70	-83	-95
15	36	22	9	-5	-18	-32	-45	-58	-72	-85	-99	-112
20	32	18	4	-10	-25	-39	-53	-67	-82	-96	-110	-121
25	30	16	0	-15	-29	-44	-59	-74	-88	-104	-118	-133
30	28	13	-2	-18	-33	-48	-63	-79	-94	-109	-125	-140
35	27	11	-4	-20	-35	-51	-67	-82	-98	-113	-129	-145
40	26	10	-6	-21	-37	-53	-69	-85	-100	-116	-132	-148
Wind speeds greater than 40 mph have little additional effect	LITTLE DANGER In < 1 hour with dry skin. Maximum danger of false sense of security.				INCREASING DANGER Danger from freezing of exposed flesh within one minute.				GREAT DANGER Flesh may freeze within 30 seconds.			
	Trench foot and Immersion foot may occur at any point on this chart.											

Note: Equivalent chill temperature requiring dry clothing to maintain core body temperature above 36 C (96.8 F) per cold stress TLV.

Cold Stress Assessment

If a worker is or may be exposed to cold stress conditions specified earlier the employer should conduct a cold stress assessment to determine the potential for hazardous exposure of workers

The first step in a cold stress assessment is to determine the areas, occupations, or tasks that place workers at risk of hypothermia or cold-related injuries. Consider factors such as the following:

- Areas with an equivalent chill temperature below 19.4°F (see below)
- Fine dexterity tasks that require work with bare hands
- Contact with metal surfaces or use of evaporative liquids (gasoline, alcohol, or cleaning liquids)
- Working on or near bodies of water
- Areas or occupations that have been identified through accident investigation reports, first aid treatment record books, and records of injury and disease
- Areas or occupations about which employees have expressed concern

Once the areas, occupations, or tasks that should be monitored are determined, the risk of developing hypothermia or a cold-related injury should then be evaluated.

A cold stress assessment should include determining the air temperature and wind speed (to determine the "equivalent wind chill temperature”). This information is available by:

- Obtaining weather, temperature, and wind information from the local weather office if there is a monitoring station close to the area in which the work is to be conducted
- Taking a direct measurement of the ambient air temperature using a dry bulb thermometer (or electronic equivalent) and a direct reading of the wind velocity in mph (or feet/sec) using a velometer, hot-wire thermometer, heated thermocouple, thermistor, or a thermocouple anemometer. Most air velocity instruments also provide a direct readout of air temperature

Wind chill is a concern when the equivalent chill temperature is less than 19.4°F. The conditions when this occurs are:

- The air is calm and the temperature falls below 19.4°F
- The wind speed is 5 mph or greater and the air temperature is 23°F
- The wind speed is 10 mph or greater and the air temperature is 32°F
- The wind speed is 20 mph or greater and the air temperature is 41°F

As part of the risk assessment, the potential for worker exposure to artificially generated air velocities should also be considered, for example when working in walk-in refrigerators and freezers, when riding all-terrain vehicles or snowmobiles, or when exposed to helicopter rotor downwash.

A general assessment of contact cooling for exposed skin, particularly the hands, should consider the following when workers are in contact with metal:

- Below 59°F-Prolonged contact may impair dexterity
- Below 44°F-Prolonged contact may induce numbness
- Below 32°F-Prolonged contact may induce frostnip or frostbite
- Below 19.4°F-Brief contact with may induce frostnip or frostbite

For materials other than metal, such as plastics and wood, the temperatures will be lower than those noted above since they are less conductive than metal. Any contact with liquids at subzero temperature is also of concern, particularly with cryogenic "fluids" (super-cooled liquefied gases).

Workers should be provided with gloves or other method of warming the hands when the air temperature is below:

- 61°F for sedentary work
- 39°F for light work
- 19.4°F for moderate work

COLD EXPOSURE CONTROL PLAN

If a worker is or may be exposed to cold stress conditions, the employer should develop and implement a cold exposure control plan.

Some specific components of the exposure control plan, as they relate to education and training of workers are described below.

Education and training

This element should contain initial and ongoing training and education that will be provided to all workers who work in areas where there is a reasonable likelihood of exposure to conditions that could cause cold stress. The training and education material provided to workers who have not previously worked in a cold stress environment should include the following information:

- Recognition of the signs and symptoms of impending hypothermia or excessive cooling of the body even when shivering does not occur
- Recognition of impending frostbite
- Proper re-warming procedures and appropriate first aid treatment
- Proper use of clothing
- Proper eating and drinking practices
- Safe work practices appropriate to the work that is to be performed

For those workers exposed to cold-stress environments, provide refresher training and education to ensure that workers remain knowledgeable about the above-mentioned items. It is recommended that continuing education be provided at least annually.

Engineering controls

An employer can reduce the exposure hazard of workers to thermal conditions that could cause cold stress or injury using a hierarchy of control methods: engineering controls, followed by administrative controls and, as a last resort, personal protective equipment.

Here are some examples of engineering controls to reduce cold exposure:

- Isolate the worker from the environment, where possible
- Use local heating for the body and especially bare hands (when fine work is required). This may include the use of warm air jets, radiant heaters, or contact warming plates
- Provide barricades or other structures to block air or reduce air velocities at the work location
- Provide heated metal tools and equipment handles or cover them with thermal insulating materials
- Use machine controls and tools designed so that workers do not have to remove mittens or gloves to use them

Administrative controls

If the above action is not practicable, the employer must reduce the exposure hazard by providing effective administrative controls to reduce the exposure hazard of workers to thermal conditions that could cause cold stress or injury.

Several administrative controls that are commonly used to reduce worker exposure to cold stress are described below:

Fluid replacement and diet: An ample supply of warm drinks or soup should be available, and workers should be encouraged to drink them in order to replace fluids lost through breathing and perspiration.

- Workers should restrict their intake of coffee because of diuretic and circulatory effects
- A diet high in fats and carbohydrates may help to maintain body temperature

Scheduling and organization of work: There are several ways to organize and to schedule tasks so as to minimize the length of time of exposure and to maximize the temperatures to which workers may be exposed.

For example:

- When possible, schedule tasks for the warmest part of the day or when the wind is the most calm
- Schedule routine maintenance and repair work for warmer seasons of the year
- Postpone non-urgent tasks when equivalent chill temperatures are in the "great danger" portion of the "Cooling Power of Wind" ACGIH table
- Take the equivalent chill temperature into account when planning or scheduling work activities

Work/warm-up schedule for a 4-hour shift

A work/warm-up schedule is an example of an administrative control. The ACGIH Standard contains a work/warm-up schedule for a 4-hour shift for workers who are properly clothed. See table 3 overleaf.

TABLE 3 TLVS WORK/WARM-UP SCHEDULE FOR OUTSIDE WORKERS BASED ON A FOUR-HOUR SHIFT*

Air Temperature-Sunny Sky		No Noticeable Wind		5 mph Wind		10 mph Wind		15 mph Wind		20 mph Wind	
°F (approx)	°C (approx)	Max. work Period	No. of Breaks**	Max. Work Period	No. of Breaks	Max. Work Period	No. of Breaks	Max. Work Period	No. of Breaks	Max. Work Period	No. of Breaks
-15° to -19°	-26° to -28°	(Norm breaks) 1		(Norm breaks) 1		75 min.	2	55 min.	3	40 min.	4
-20° to -24°	-29° to -31°	(Norm breaks) 1		75 min.	2	55 min.	3	40 min.	4	30 min.	5
-25° to -29°	-32° to -34°	75 min.	2	55 min.	3	40 min.	4	30 min.	5	Non-emergency work should cease	
-30° to -34°	-35° to -37°	55 min.	3	40 min.	4	30 min.	5	Non-emergency work should cease			
-35° to -39°	-38° to -39°	40 min.	4	30 min.	5	Non-emergency work should cease					
-40° to -44°	-40° to -42°	30 min.	5	Non-emergency work should cease							
-45° and below	-43° and below	Non-emergency work should cease									

Personal Protective Equipment

Personal protective equipment can be used to reduce exposure, if the equipment provides protection equally effective as administrative controls.

- Workers who are at risk of exposure to thermal conditions that could cause cold stress or injury due to unplanned or accidental events should be provided with clothing and equipment sufficient to permit survival from the natural elements until the worker can be removed from the exposure

As a minimum, a worker should be provided with the following:

- Additional clothing selected in accordance with the anticipated overnight low temperatures for the region in which work or travel is conducted
- A sleeping bag rated for the anticipated overnight low temperatures for the region in which work or travel is conducted
- Survival equipment that will allow a worker to survive the natural elements until rescued

Typical items that should be included in a survival kit:

GENERAL:	**SIGNAL:**
1-backpack with pockets	1-mini-flashlight and batteries
1-10 ft x 12 ft plastic tarp	1-compass
1-5 ft x 6 ft polar fleece blanket	1-survival whistle
2-tarp straps	1-set of flares
	1-handheld flare launcher
COOKING:	
2-large stainless steel cups	**OTHER:**
2-sets of cutlery	2-toilet tissue packets
1-survival stove	1-50 foot parachute cord
1-500 ml water bottle	1-sheathed knife
	1-tube of lip balm and/or sunscreen
FOOD:	1-container of insect repellent
4-instant soup mix	1-small folding saw
10-tea bags	4-garbage bags
1-food ration	
10-instant hot chocolate	**FIRST AID:**
12-food bars	1-basic first aid kit
1-water treatment kit	
FIRE:	
1-fire starting kit	

Heated shelters

If a worker is exposed to a thermal environment with an equivalent chill temperature less than 19°F (-7°C), as determined using the criteria for the cooling power of wind on exposed flesh in the cold stress section of the ACGIH Standard, a nearby heated shelter must be available to the worker.

- The intent of a heated shelter is to allow workers the opportunity to come out of the cold and warm themselves
- The outer layer of clothing should be removed, and remaining clothing should be loosened to permit sweat to evaporate
- Workers should be encouraged to use the shelter at regular intervals

Signs and symptoms indicating that the shelter should be used are:

- Onset of heavy shivering
- Minor frostbite (frostnip)
- Feeling of excessive fatigue
- Drowsiness, irritability or euphoria

A heated vehicle may be used as a heated shelter. In cases where workers are in remote or isolated areas without provision of vehicles capable of being heated (such as all-terrain vehicles or snowmobiles) or in cases where workers are on foot, workers should carry adequate equipment and supplies to permit the timely assembly of a heated shelter, if necessary.

Clothing (whole body)

A worker who is or may be exposed to cold stress conditions must wear adequate insulating clothing and personal protective equipment.

- The most widely used approach to dressing for work in cold environments is to use multiple layers of clothing

Generally, three layers of clothing are used:

- An inner moisture wicking layer that absorbs moisture and keeps it away from the skin
- A second insulating layer that helps keep a layer of air trapped around the body
- An outer layer that keeps dust, dirt, wind, and moisture away from the previous layer and that can be easily removed to prevent the build-up of body heat. In wet environments, the outer layer should be waterproof

The insulative value of clothing selected should be based upon the equivalent chill temperature of the work environment and the anticipated metabolic rate of the work activity.

- Wearing too much clothing can lead to sweating, and wet clothing causes greater heat loss and increases the risk of developing hypothermia
- Many manufacturers of insulated garments provide guidance for recommended temperature and metabolic rate ranges for their clothing
- There are also several standards that recommend the insulative value of clothing for use with a given temperature and metabolic rate
- An example of a standard for selecting clothing is the required insulation value or IREQ

For more information on IREQ see the following:

Holmér, Ingvar. "Cold Stress: Part I-Guidelines for the Practitioner." International Journal of Industrial Ergonomics 14:139-149 (1994).

Clothing (extremities)

Mittens rather than gloves should be worn when the air temperature is less than -1.4°F (17°C). Gloves and mittens should have removable liners so they can be effectively dried.

Footwear for use in cold environments should be insulated and should also have removable insoles for effective drying.

Exposed areas of the head and neck should be protected against heat loss and the danger of frostbite by use of adequate head covering and/or facemasks.

Walkways and Travel ways

It is the policy of Bannister Electric LLC of West Monroe that regularly used walkways and travel ways must be salted, sanded, or cleared of snow or ice on a regular basis to ensure the safety of all employees.

Buddy System

To ensure that employees are under constant observation a buddy system will be implemented to ensure that no employee is working alone in cold environments.

Cold Weather Supplies

Cold weather supplies will be regularly inspected to ensure that the supplies are always in stock.

Snow and Ice Buildup

Unstable snow and ice buildup are known to be a great threat to the safety on the job, therefore it is the determination of Bannister Electric LLC of West Monroe to ensure that employees are made aware of the dangers and destructive potential caused by them and how to prevent the accidents caused by them.

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

POLICY

This confined spaces policy is designed to ensure the safety and health of Bannister Electric LLC of West Monroe's employees by limiting exposure to the hazards present while working in construction, in and around confined spaces. There are new components in the Confined Spaces in Construction regulations that reflect different challenges present at a construction worksite to include: higher employee turnover, changing worksites, and multiple contractors (controlling and subcontractors).

Except where another policy states otherwise, this written confined space policy will be followed whenever and wherever the company's employees could enter or be exposed to confined space hazards for all construction work including modifications and upgrades. This program will be available to any employee and their representative at any time.

RESPONSIBILITIES

Confined space safety is a responsibility shared between Bannister Electric LLC of West Monroe and its employees.

Employer Responsibilities

- Develop and implement a written permit space program — available onsite for inspection by employees or their representatives — if employees are directed to enter permit spaces
- Involve affected employees on this policy, ensuring they are educated on the elements of confined space safety and trained in worksite specific procedures.
- Seek employee input during an annual review of this policy.
- Provide all necessary information to ensure employees work safely in and around confined spaces.
- Determine that employees can proficiently perform their assigned duties.
- Document training and keep training records for all current employees.
- Keep cancelled permits until an annual review can be conducted.
- Provide all documents to the Secretary of Labor upon request.
- Reevaluate confined spaces whenever an employee requests it.

Each employer who identifies, or receives notice of a permit space and has not authorized employees it directs to work in that space, must take effective measures to prevent those employees from entering that permit space.

Employee Responsibilities

- Follow all OSHA rules and regulations.
- Follow established safe work policy and procedures.
- Participate in the development and implementation of the permit required confined space entry program
- Participate in all required training.
- Be aware of potential hazards and request a reevaluate when a new hazard is suspected.

STANDARDS AND REGULATIONS

- Subpart AA — Confined Spaces in Construction 29 CFR 1926.1201 - 1213
- Federal OSHA General Duty Clause, Section 5(a)(1)

DEFINITIONS

Attendant means an individual stationed outside one or more permit spaces who assesses the status of authorized entrants and who must perform the duties specified in § 1926.1209.

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

Competent person means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has the authorization to take prompt corrective measures to eliminate them.

Confined space means a space that: 1. Is large enough and so configured that an employee can bodily enter it; 2. Has limited or restricted means for entry and exit; and 3. Is not designed for continuous employee occupancy.

Controlling Contractor is the employer that has overall responsibility for construction at the worksite.

Entry means the action by which any part of a person passes through an opening into a permit-required confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space, whether or not such action is intentional or any work activities are actually performed in the space.

Entry Employer means any employer who decides that an employee it directs will enter a permit space.

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

Host employer means the employer that owns or manages the property where the construction work is taking place.

Permit-required confined space (permit space) means a confined space that has one or more of the following characteristics: 1. Contains or has a potential to contain a hazardous atmosphere; 2. Contains a material that has the potential for engulfing an entrant; 3. Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross section; or 4. Contains any other recognized serious safety or health hazard.

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

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

Ventilate or ventilation means controlling a hazardous atmosphere using continuous forced-air mechanical systems that meet the requirements of § 1926.57 (Ventilation).

General Safety Considerations

The company must:

- Implement the measures necessary to prevent unauthorized entry
- Identify and evaluate the hazards of permit spaces before employees enter them
- Develop and implement the means, procedures, and practices necessary for safe permit space entry operations
- Provide entry equipment at no cost to each employee, maintain that equipment properly, and ensure that each employee uses that equipment properly.

For permit required pre-entry testing and periodic monitoring, the company will provide an early-warning system that continuously monitors for non-isolated engulfment hazards, and continuously monitor atmospheric hazards.

In an emergency or failed non-entry rescue, the attendant will summon rescue and emergency services. No unauthorized personnel may attempt a rescue.

Dolphus Bannister will be consulted for all permit required matters, including preparation, issuance, use, and cancellation of entry permits under both planned and emergency conditions.

When the measures taken under the permit space program may not protect employees, the program will be revised to correct deficiencies found to exist before subsequent entries are authorized. Examples of circumstances requiring the review of the permit space program include, but are not limited to: any unauthorized entry of a permit space, the detection of a permit space hazard not covered by the permit, the detection of a condition prohibited by the permit, the occurrence of an injury or near miss during entry, a change in the use or configuration of a permit space, and employee complaints about the effectiveness of the program. The company will review the permit space program, using the canceled permits within 1 year after each entry. It is permitted to perform a single annual review covering all entries performed during a 12-month period. If no entry is performed during a 12-month period, no review is necessary.

Before permit required entry is authorized, each entry employer must document the completion of measures for safe entry. The documentation must be made available at the time of entry to all authorized entrants by posting it at the entry portal or by any other equally effective means. The permit may not exceed the time required. The permit will be cancelled when the entry operations is completed; suspended or cancelled when conditions dictate. The permit must be fully reassessed before allowing re-entry. The entry employer must retain each canceled entry permit for at least 1 year to facilitate the review of the permit-required confined space program It is permitted to perform a single annual review covering all entries performed during a 12-month period. If no entry is performed during a 12-month period, no review is necessary.

Training wil be at no cost to the employee, and the company will ensure that the employee possesses the understanding, knowledge, and skills necessary for the safe performance of the duties assigned. Training must be in both a language and vocabulary that the employee can understand. Training must be conducted: before the employee is assigned confined space entry work; before there is a change in assigned duties; whenever there is a change in permit space entry operations that presents a hazard about which an employee has not previously been trained; whenever there is any evidence of a deviation from the permit space entry procedures or there are inadequacies in the employee's knowledge or use of these procedures. The training must establish employee proficiency in their assigned duties and must introduce new or revised procedures. The company must maintain training records: contain each employee's name, the name of the trainers, and the dates of training. The documentation must be available for inspection by employees and their authorized representatives, for the period of time the employee is employed by that employer.

IDENTIFYING CONFINED SPACES AND HAZARDS

A confined space is an area a worker can enter, but isn't designed for continuous occupancy and doesn't have an unrestricted entry or exit. A permit required confined space (PRCS) has a serious health or safety hazard, such as the possibility for a hazardous atmosphere, material that can engulf a person, or is in a shape that can trap or asphyxiate a person (e.g. converging or sloping walls or floor).

To help provide an understanding for determinations OSHA has provided a limited list of work sites that could have a confined space: bins, boilers, pits, elevators, escalators, pumps, manholes, and tanks (containers).

The company will ensure that a competent person will identify all confined spaces an employee might work in, before the work begins, and determine which requires permits. Employees and the controlling contractor will be informed directly of the location and danger in each permit space. Signs that effectively warn of the danger and prohibit entry will be placed at permit space entrances.

Each entry employer will have a competent person evaluate non-permit spaces initially and when there are changes to the use or configuration that might increase entrant hazards to decide whether to reclassify it.

Work will be scheduled as much as reasonably possible to avoid confined spaces by finishing tasks in areas before they become confined spaces.

Dolphus Bannister will identify permit-required confined spaces in Bannister Electric LLC of West Monroe workplaces. If the workplace contains permit spaces, Dolphus Bannister will inform exposed employees, by posting danger signs or by any other equally effective means, of the existence and location of and the danger posed by the permit spaces.
NOTE: A sign reading DANGER -- PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER or using other similar language would satisfy the requirement for a sign.

COMMUNICATING BETWEEN EMPLOYERS

As the host employer, all details (e.g. entry employer's entry program, known hazards, new hazards, and hazard elimination/isolation procedures) about confined spaces at the worksite will be communicated with the controlling contractor before and after entry. Where the company has contracted with the property owner to manage it and transmit all confined space details, it will be considered the host employer.

As the controlling contractor, all details (e.g. employer's entry program, location of confined spaces and PRCS, known hazards, new hazards, and hazard elimination/isolation procedures) will be communicated with the host employer and all entry employers (i.e. subcontractors) before and after entry, ensuring that information is transferred to the different entry employers (e.g. posting signs) before and during entry so they don't create additional hazards for other entry employers' workers. Details will be communicated with other non-entry employers so that their workers do not create hazards or go into the confined space.

As the entry employer, all details (e.g. entry program, known hazards, new hazards, and hazard elimination/isolation procedures) about confined spaces at the worksite will be communicated with the controlling contractor before and after entry.

As a non-entry employer, essential details about confined spaces will be communicated with the controlling contractor to determine where the confined spaces are and the necessary steps to prevent employees from accessing them or creating hazards for other workers. Employees will be instructed to not enter the identified confined spaces.

NON-PERMIT SPACES

Alternate Entry

The employer will use alternate procedures to enter a non-permit required space if the employer can demonstrate each of the following conditions are addressed:

- All physical hazards in the space are eliminated or isolated through engineering controls so that the only hazard posed by the permit space is an actual or potential hazardous atmosphere;
- Continuous forced air ventilation is utilized to maintain safe for entry;
- The space should have continuous monitoring unless the employer has supporting data that demonstrates continuous monitoring is unnecessary)

Non-Permit Space Re-Evaluation

When there are changes in the use or configuration of a non-permit required confined space that might increase the hazards to entrants (or some indication that the initial evaluation of the space may not have been adequate), each entry employer must have a competent person reevaluate that space and, if necessary, reclassify it as a 'permit-required' confined space.

CONFINED SPACES WITH ONLY ATMOSPHERIC HAZARDS

The following procedures and conditions are for entering a confined space with only atmospheric hazards that can be made safe to enter through forced air ventilation during entry.

To be more specific, all physical hazards have to be eliminated or isolated through engineering controls, and the forced air ventilation has to keep the space safe for entry, and entrants must be able to exit safely if ventilation stops working.

If the above can be proven and documented with monitoring and inspection where the data is available to each entrant, the space can be entered without a permit, attendant, or rescue and emergency equipment once the company certifies that:

- Entrance covers can be safely removed.
- Entrance openings are immediately guarded by a railing, temporary cover or barrier that prevents accidental falls into the opening and protects entrants from foreign objects falling into the space.
- The internal atmosphere is tested with a calibrated direct-reading instrument in the following order: oxygen content, flammable gases and vapors, and potential toxic air contaminants. The testing procedure is evaluated to ensure it is appropriate for the possible atmospheric hazards. This may mean identifying the possible toxic air contaminants and ensuring the gas detector can detect it, and testing at the top, middle, and bottom of the space to account for different gases' density.
- Testing and continuous monitoring ensures there is no hazardous atmosphere.
- Continuous forced air ventilation from a clean source directed — to the lowest spot or furthest corner — so that it eliminates any hazardous atmosphere from the space while anyone is in there.
- Continuously monitoring the atmosphere in the space with monitoring equipment, unless necessary monitoring equipment isn't commercially available, that will sound an alarm notifying all entrants if a hazard exceeds the atmospheric thresholds.
- Where the preferred continuous monitoring is not used because of equipment limitations, or that periodic monitoring is demonstrably sufficient, periodic monitoring will be often enough to detect a hazardous atmosphere is building up and that entrants have time to exit.
- Once a hazard is observed everyone will immediately leave the space. The hazard source is then found — and the company will take steps that protect employees before they enter that space again.
- There is a safe way to enter and exit the space, including a personnel hoist made for that purpose, or a job hoist approved ahead of time in writing by a registered professional engineer.

The written certificate must contain the date, location of the space and the signature of the person certifying the above conditions have been met. The certification must be made before anybody enters and be available to every employee entering the space. The employer will reevaluate the space if there is a change to the space that may increase hazards or there is indication the current evaluation is incorrect.

RECLASSIFYING PRCS FOR ENTRY

Permit required confined spaces without any potential atmospheric hazard can be reclassified as non-permit required once the entry employer certifies that:

- The Space poses no actual or potential atmospheric hazards and if the hazards can be eliminated or isolated without entering the space.
- If the entry employer can show they have to enter the space to remove the hazard, then they can do that following the permit process.
- Testing and inspection during that entry demonstrate that the hazards within the permit space have been eliminated or isolated
- Forced air ventilation does not constitute elimination or isolation of the hazards
- Document the basis for determining that all hazards in a permit space have been eliminated or isolated
- Through a certification that contains the date, the location of the space, and the signature of the person making the determination
- If hazards arise within a permit space that has been reclassified as a nonpermit space, each employee in the space must exit the space. The entry employer must then reevaluate the space and reclassify it as a permit space.

The written certificate must contain how all the hazards have been eliminated or isolated, the date, location of the space, and the signature of the person certifying the above conditions have been met. The certification must be made before anybody enters and be available to every employee entering the space. If new hazards are identified everyone must leave the space, and the entry employer will reevaluate.

ENTRY EMPLOYER RESPONSIBILITIES

As an entry employer, the company will create and put into action the following measures to protect its and other employees both inside and outside confined spaces.

- Prevent unauthorized entry. Using covers, signs, or an attendant at the entrance etc.
- Ensure safe permit space entry operations.
- Provide the necessary equipment.
- Evaluate permit spaces during entry.
- Provide attendants outside permit spaces during entry.
- Describe how the attendant monitoring multiple spaces will respond to emergencies.
- Assign a role to every person in an entry, identify their duties and provide required training.
- Rescue and emergency services for PRCS.
- Entry permits.
- Coordinate entry operations when more than one entity performs permit space entry at the same time and/or entry is performed at the same time that any activities that could foreseeably result in a hazard in the permit space are performed.
- The Controling Coordinator must debrief each entity that entered a permit space regarding the permit space program followed any hazards confronted or created in the permit space(s) during entry operations
- Review this policy annually and following any incidents or near misses

SAFE PERMIT SPACE ENTRY OPERATIONS

A competent person will identify and evaluate permit space hazards before any employees enter it and establish all the elements to ensure safe work in the area, especially:

- Citing the acceptable entry conditions.
- Authorized entrants can observe space testing and monitoring.
- Isolating the space and its hazards.

- Controlling atmospheric hazards through purging, inerting, flushing, or ventilating.
- Reducing the atmosphere to below 10 percent of its Lower Flammable Limit (LFL) or inerting the atmosphere so that it is entirely non-combustible and addressing the other atmospheric hazards like oxygen deficiency through PPE.
- Ensuring monitoring procedures will detect atmospheric hazard level increases quickly enough for entrants to exit, in case ventilation stops working.
- Having necessary barriers to protect entrants from outside hazards, namely pedestrian and vehicle barriers.
- Conditions continue to allow safe entry the entire time.
- The necessary PPE effectively protects every employee, and that they have the PPE before entering a hazardous atmosphere.
- Conditions, like high pressure, that can make removing an entrance cover unsafe are eliminated.

EVALUATING PERMIT SPACE CONDITIONS

The entry employer will take the following steps to check out the PRCS when conducting entry.

Test the conditions in the PRCS before entering or making any additional ventilation if the atmosphere can be isolated. Oxygen will be tested first, followed by combustible gases and vapors, and finally toxic gases and vapors.

If it is part of a larger continuous system and can’t be isolated, pre-entry testing will be done, and conditions will be continuously monitored unless necessary monitoring equipment isn’t commercially available. Work in large or continuous systems also requires a sufficient early-warning system continuously monitoring for engulfment hazards.

Continuously monitoring the atmosphere in space with monitoring equipment, unless necessary monitoring equipment isn’t commercially available, that will sound an alarm notifying all entrants if a hazard exceeds the atmospheric thresholds.

Authorized entrants will be allowed to observe the pre-entry and all other testing and monitoring, and the results will be posted with the permit at the entry to the confined space.

ENTRY PERMITS

Each entry employer will ensure conditions are safe for entry in permit spaces through establishing, suspending and cancelling entry permits. If there are multiple entry employers in a confined space during the same entry, then one permit will be completed by coordinating with the controlling contractor and all entry employers. The permit will be made available (e.g. posted at the entry) for all entry employers to document the completion of necessary safety measures.

Through completing an entry permit all measures needed to make the PRCS safe for entry will be documented. The entry supervisor on the permit will sign the entry permit authorizing that these necessary measures have been taken. The permit's duration will be the amount of time needed to complete the task as identified on the permit. Every entry permit will be kept for at least one year and addressed in the annual review. The entry supervisor will terminate the permit when the task identified is completed, suspended, or will cancel the permit when necessary.

A permit will be suspended when a temporary condition not allowed in the permit occurs in or near the PRCS and doesn't change its configuration or creates any new hazard. The entry supervisor needs to reevaluate the PRCS before lifting any suspension or cancelling the permit. A permit will be canceled when a condition not allowed in the permit occurs in or near the PRCS and isn't temporary or, changes its configuration or creates any new hazard.

Items on an Entry Permit

In order to identify everything needed to make a permit safe for entry the following items will be addressed:

- The permit space's location.
- The reason for entry.
- Date and duration of the entry.
- Authorized entrants identified so the attendant can easily track who is inside the PRCS.
- How any hazardous atmospheric levels will be tracked should ventilation stop.
- The name of every attendant.
- The name of every entry supervisor and the signature of the one that authorized entry.
- Hazards in the PRCS.
- How the hazards will be isolated, eliminated or controlled before entry (e.g. lockout tagout, purging, inerting, ventilating, and flushing).
- Acceptable entry conditions.
- Results and times of appropriate testing and monitoring, including the names or initials of who did the test.
- Rescue and emergency services and how they will be called.
- How entrants and attendants will communicate during entry.
- The necessary equipment.
- Additional permits needed to complete the task in the confined space.

EQUIPMENT

As an entry employer, the company will provide suitable equipment needed to safely enter, exit from, and conduct rescues in confined spaces. The equipment will also be properly maintained and all employees will know how to and be expected to use it correctly. Any equipment must also meet the regulations specific to it. For example respiratory equipment must meet the respiratory regulations, 1926.103, and barriers are governed by the rules for guardrails, 1926.502(b). The following equipment is specifically mentioned by OSHA:

- Adequate testing and monitoring equipment.
- Ventilating equipment that makes entering possible.
- Communication equipment that allows attendant to talk to entrants, assess status, and tell them to evacuate.

- PPE that meets any other applicable regulations where engineering and administrative controls do not give enough protection.
- Lighting that meets construction's minimum illumination in foot-candles (1926.56), that won't ignite the specific gas, vapor, dust or fiber present, and that enables employees to work safely and exit during emergencies.
- Barriers and shields that effectively isolate the confined space.
- Ladders needed to enter and exit the confined space.
- Rescue and emergency equipment that is called for in the company's emergency rescue policy.

AUTHORIZED ENTRANTS

Authorized entrants will know and understand which potential hazards are in each confined space such as: how they could be exposed, signs, symptoms, and consequences.

Entrants are expected to properly use all equipment, communicate with attendant, and be ready to exit any permit space quickly.

Communication includes working with the attendant to instill awareness of personal health in light of the potential hazards. This awareness includes sharing information with the attendant about any symptoms, warning signs or prohibited conditions.

The entrant must exit permit spaces when: told to by the attendant or entry supervisor; there is an exposure warning sign or symptom; they detect a prohibited condition; or an evacuation alarm is activated.

ATTENDANT RESPONSIBILITIES

An attendant's primary responsibility is to evaluate and protect authorized entrants inside permit required confined spaces. These responsibilities include:

- Be familiar with and understands the hazards that may be faced during entry, signs or symptoms, and consequences of the exposure
- Be aware of possible behavioral effects of hazard exposure in authorized entrants
- Continuously maintain an accurate count of authorized entrants in the permit space
- Know the means used to identify authorized entrants
- Remain outside the permit space during entry operations until relieved by another attendant
- Communicate with authorized entrants as necessary to assess entrant status and to alert entrants of the need to evacuate the space
- Assesse activities and conditions inside and outside the space to determine if it is safe for entrants to remain in the space
- Order the authorized entrants to evacuate the permit space immediately if conditions warrant from inside or outside the entry space
- If the attendant cannot effectively and safely perform all the duties required under this section
  - Summon rescue and other emergency services as soon as the attendant determines that authorized entrants may need assistance to escape from permit space hazards
  - Takes appropriate actions when unauthorized persons approach or attempt to enter a permit space
- Inform the authorized entrants and the entry supervisor if unauthorized persons have entered the permit space

- Perform non-entry rescues as specified by the employer's rescue procedure
- Perform no duties that might interfere with the attendant's primary duty to assess and protect the authorized entrants.)

Attendants will know and understand which potential hazards are in each confined space such as: how entrants could be exposed, signs, symptoms, and consequences. This includes knowing how the hazard could affect entrants' behavior.

Attendants will also continuously track authorized entrants in the permit space, and accurately document it on the permit.

Attendants will know and understand which potential hazards are in each confined space such as: how entrants could be exposed, signs, symptoms, and consequences. This includes knowing how the hazard could affect entrants' behavior. Attendants will also continuously track authorized entrants in the permit space, and accurately document it on the permit.

In the event of an emergency, if more than one confined space is monitored by a single attendant, the attendant must:

- Immediately call for help over the radio
- Request backup
- Order the evacuation of all entrants
- Keep in contact with affected entrants
- Remain on scene until help arrives

An attendant must stay outside the permit space during an entry, even during emergencies regardless of whether entrants can escape, until relieved by another attendant. Once another attendant is on the scene, the attendant still can only try an entry rescue if they have the necessary equipment, are trained to do so, and the entry permit allows for it.

Communication includes working with the entrant to instill awareness of personal health in light of the potential hazards, the confined space conditions and when to evacuate.

The attendant is responsible for determining when a confined space is no longer safe and ordering entrants to evacuate whenever: there is a prohibited condition, the entrant is showing behavioral effects of exposure, something outside the confined space could be dangerous to entrants, or if the attendant can't focus on all required responsibilities.

As soon as the attendant assesses that entrants need help to evacuate the permit space, he/she will immediately call rescue and emergency services as described in the permit and start non-entry rescue established in the permit.

When an unauthorized person approaches a confined space, the attendant will tell he/she to exit immediately. The attendant will tell the entrants and supervisor there is an unauthorized person in the permit space.

Attendants will not be assigned or allowed to do any work that takes their attention away from their focus on the confined space and the safety of people inside and outside it. This means attendants can do tasks that add to their knowledge of permit space conditions, like monitoring atmospheric conditions or passing tools to entrants from outside the space. Although this knowledge can be part of the job description, tasks that do not require continued attention away from or leaving the permit-required confined space are not included. An attendant will not monitor more than one confined space at a time.

Bannister Electric LLC of West Monroe's program includes the means and procedures that are used if more than one confined space is monitored by a single attendant in order to enable the attendant to respond to emergencies in one or more permit spaces that he/she is monitoring without distraction from all responsibilities.

ENTRY SUPERVISOR RESPONSIBILITIES

For every permit-required confined space entry, the entry employer will assign an entry supervisor who has the ability to complete the following responsibilities:

- Knowing the hazards of the confined space.
- Verifying the permit is completed correctly.
- Ordering evacuation and cancelling or suspending the permit.
- Communicating with and verifying the availability of emergency and rescue services.
- Removing anyone unauthorized who tries to go into a permit space.
- Assessing the permit-confined space when taking over responsibility and periodically as needed.

Entry supervisors will know and understand which potential hazards are in each confined space such as: how entrants could be exposed, signs, symptoms, and consequences. The entry supervisor will be someone who knows at least as much as the authorized entrants and attendants, and should be someone who knows even more about the space and hazards.

Before signing it, the supervisor will check the completed permit to be sure everything identified in the permit is correct: tests completed, procedures followed, and equipment in place.

The entry supervisor is responsible for deciding when there are unsafe conditions for an ongoing permit entry, terminating the entry, and then cancelling or suspending a permit. A permit can be cancelled when the entry permit is completed or there is a new condition not addressed in the permit. The supervisor can also suspend a permit if a condition requires temporary evacuation, and the space soon returns to acceptable conditions in the permit. After reevaluating the permit space, the entry supervisor can remove the suspension but will record it on the permit.

The entry supervisor will check that needed emergency and rescue services are available, can be reached, and can themselves respond in a timely manner during the permit-required confined space entry.

The entry supervisor is responsible for preventing unauthorized entry into a permit space and immediately removing from the worksite any unauthorized person who has entered a permit space.

When taking over responsibility of a permit space entry, the new entry supervisor will check the confined space conditions to make sure they are within safe levels and consistent with the permit. The entry supervisor is also responsible for periodically assessing the hazards and work within a confined space as often determined necessary according to the nature of the possible hazards and expected change of conditions.

TRAINING

Each employee will be trained in a vocabulary and language they understand so that they are proficient in their expected responsibilities. This training will occur:

- Before they are assigned duties covered in this policy.
- Before a change in assigned duties.
- When a change in permit space operations (e.g. new equipment, techniques, promotions, reassignments) introduces a new hazard the employee hasn't trained for.
- When a departure from, or a lack of knowledge in the established procedures is noticed.

Assigned duties include: authorized entrant, attendant, entry supervisor, and emergency rescue. Employees not authorized to enter confined spaces will also be trained on the hazards of the confined spaces at the worksite, and what they need to know to avoid them.

The company will determine that training has effectively taught the employee to proficiently perform their assigned duties.

The training and determination of proficiency will be documented and kept for all current employees. This documentation will be available to all employees who ask for it, and the Secretary of Labor upon request.

RESCUE AND EMERGENCY SERVICES FOR PRCS

Rescue and emergency service procedures are a necessary component of the permit and include the preferred non-entry and entry rescues. The non-entry can be initiated immediately by the attendant and entry supervisor who remains outside the PRCS. Entry rescues need to be either from a designated outside source or a team of selected employees, and each has their own requirements. Unauthorized personnel shall not attempt a rescue.

Before any employee enters a permit space, there must be established specific procedures for summoning rescue and emergency services to respond to emergencies that may occur during entry.

Any injured entrant that is exposed to a hazardous substance at the worksite will bring the associated Safety Data Sheet (SDS) and provide it to the facility where the medical treatment takes place.

Non-entry Rescue

The company will establish non-entry rescue procedures for all permit-required confined spaces, unless it can demonstrate that the necessary retrieval equipment (e.g. body harness, retrieval lines, block and tackle, winch system) increases the risk or does not help rescue.

Non-entry retrieval systems will include a chest or full body harness with the retrieval line at the center of the back where it creates a small profile to successfully remove the entrant. This can be at the shoulder level or above the entrant's head. When the chest or body harness won't work or creates a greater hazard, wristlets or anklets may be used.

The line will be attached outside the permit space so that it can be used to pull entrants out as soon as they need to be rescued. This can either be a mechanical device like a block and tackle or winch system, or a fixed point. Vertical entrances more than five feet deep call for a mechanical device to assist rescue.

Circumstances described by OSHA that increase risk of or hamper rescue include anything that can catch onto or entangle the retrieval line like: physical obstructions, airlines, electric cords, and additional retrieval lines from multiple entrants. The distance entrants have to go into the space and how much they will have to move around can also affect the decision that a retrieval system is too dangerous.

Outside Rescue and Emergency Services

Outside rescue and emergency services will be evaluated to ensure they can respond quickly, and have both the equipment and ability to provide rescue when considering each PRCS and the identified hazards.

The company will provide hazard information about its confined spaces and allow the service to go to the PRCS and develop rescue plans. The service selected must have the training, equipment, ability, and willingness to perform rescues. The service also has to agree to tell the company when it will be unable to perform rescues.

The time it takes the service to reach the permit space, enter and retrieve entrants will also be considered, along with the rescue requirements of other regulations. In particular, if the PRCS could have an atmosphere that is immediately dangerous to life or health (IDLH), the respiratory protection standard requires standby rescue personnel equipped with respiratory protection. A response time of 15 minutes may be determined adequate for mechanical hazards that could cause broken bones or abrasions.

Employee Rescue and Emergency Services

When selecting a team of employees to provide rescue and emergency services, they will: have the necessary equipment and PPE; be trained to be proficient as entrants and rescuers, correct PPE use, basic first aid and cardiopulmonary resuscitation (CPR); and practice attempting the type of rescue needed at least once every 12 months. At least one member of the rescue team will have current basic first aid and CPR certifications.

If a rescue operation is correctly performed in the last 12 months, then practice is not necessary.

REVIEW

This policy will be reviewed annually and when measures may not protect employees, such as after any incidents or near misses. Any deficiencies will be corrected before entering any additional PRCS.

Some examples of situations that may require a review are:

- An unauthorized person enters a PRCS.
- A new hazard not covered by the permit is detected in a PRCS.
- A new condition prohibited by the permit is detected in a PRCS.
- An injury takes place during entry.
- A change in the PRCS configuration or use.
- An employee issues a complaint.

The annual review will ensure that all cancelled permits are included in the review within one year after entry. This review will evaluate the policy's effectiveness of providing protection to all affected employees.

Definitions

Confined space: Is large enough for an employee to enter fully and perform assigned work; which is not designed for continuous occupancy by the employee; and has a limited or restricted means of entry or exit. These spaces may include underground vaults, tanks, storage bins, pits and diked areas, vessels, silos and other similar areas.

Permit-required confined space: Has one or more of these characteristics: Contains or has the potential to contain a hazardous atmosphere; contains a material with the potential to engulf someone who enters the space; has an internal configuration that might cause an entrant to be trapped or asphyxiated by inwardly converging walls or by a 3 floor that slopes downward and tapers to a smaller cross section; and/or contains any other recognized serious safety or health hazards.

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

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

Inerting: The displacement of the atmosphere in a permit space by a noncombustible gas (such as nitrogen) to such an extent that the resulting atmosphere is non-combustible.

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

FORMS AND ATTACHMENTS

Evaluate the documents on the following pages along with their source material from the General Industry Regulation’s appendixes, and consider using them to implement and maintain your safety program.

- Confined-Space Entry Permit
- Confined Space Entry Training Record Sheet
- Initial Evaluation of Confined Space Rescue Plans
- Evaluation of Confined Space Rescue Program
- Planning Confined Space Rescue Drills

CONFINED SPACES ENTRY PERMIT (1 OF 3)

GENERAL INFORMATION				
Permit Space Location				
Purpose of Entry				
Permit Valid For	Date		To	
	Time		To	

PERMIT SPACE HAZARDS		Y	N
ATMOSPHERIC	Oxygen Deficient	☐	☐
	Oxygen Enriched	☐	☐
	Explosive (Gas/Vapor)	☐	☐
	Explosive Dust	☐	☐
	Carbon Monoxide	☐	☐
	Hydrogen Sulfide	☐	☐
	Other Toxic Vapors	☐	☐
ENGULFMENT		☐	☐
CONFIGURATION (ENTRAPMENT)		☐	☐
MECHANICAL		☐	☐
ELECTRICAL		☐	☐
SUBSTANCE HAZARD TO SKIN/EYES		☐	☐
HEAT STRESS		☐	☐
OTHER POTENTIAL HAZARDS (radiation, noise, etc, list)		☐	☐
		☐	☐
		☐	☐

CONTROLS AND EQUIPMENT

- ☐ ISOLATION
  - ☐ Lockout/Tagout
  - ☐ Blanking/Blinding
  - ☐ Double Block and Bleed
  - ☐ Line Breaking/Misalignment
  - ☐ Other: _____
- ☐ INERTING
- ☐ PURGE/CLEAN
- ☐ METHOD FOR SAFE COVER REMOVAL AND SECURING AREA
- ☐ ATMOSPHERIC TESTING
  - ☐ Periodic (give interval) _____
  - ☐ Continuous
- ☐ VENTILATION
  - ☐ Natural
  - ☐ Continuous Forced Air
  - ☐ Local Exhaust
- ☐ ENTRY EQUIPMENT
  - ☐ Ladders
  - ☐ Other: _____
- ☐ PERSONAL PROTECTIVE EQUIPMENT
  - ☐ Respiratory (SCBA, SAR, air purifying)
  - ☐ Clothing
  - ☐ Eye and Face Protection
  - ☐ Hearing Protection
- ☐ RESCUE and RETRIEVAL EQUIPMENT
  - ☐ Full Body Harness
  - ☐ Lifeline
  - ☐ Tripod w/Mechanical Wench
  - ☐ Explosion-Proof Lighting
- ☐ NON-SPARKING TOOLS
- ☐ SAFE ELECTRICAL EQUIPMENT and GFCI
- ☐ COMMUNICATION EQUIPMENT
  - ☐ Radio
  - ☐ Phone
  - ☐ Other:_____
- ☐ HOT WORK PERMIT
- ☐ FIRE EXTINGUISHERS

CONFINED SPACES ENTRY PERMIT (2 OF 3)

PERSONNEL		
Entrant(s)	Time In	Time Out
Attendant(s)		
Entry Supervisor(s)		

COMMUNICATION PROCEDURES							
Visual	☐	Voice	☐	Rope	☐	Radio	☐
Other							

RESCUE AND EMERGENCY SERVICES				RESCUE PROCEDURES
Name		Phone		
Name		Phone		
Summoning Procedure				

CONFINED SPACES ENTRY PERMIT (3 OF 3)

ATMOSPHERIC TESTING RECORD									
Condition	Acceptable Level	Record continuous monitoring results every 2 hours							
OXYGEN	19.5% - 23%								
EXPLOSIVE (GAS/VAPOR)	<10% LFL								
EXPLOSIVE DUST	<LFL (5ft Visibility)								
CARBON MONOXIDE	50ppm								
HYDROGEN SULFIDE	10ppm								
OTHER (Specify)									
NAME(S) OF TESTER(S)									
TESTING EQUIPMENT	Type								
	Serial #								

ENTRY AUTHORIZATION (ENTRY AUTHORIZED BY)					
Signature		Date		Time	
ENTRY SUSPENSION (ENTRY SUSPENDED BY)					
Signature		Date		Time	
Resumed after Reevaluation		Date		Time	
Description					
ENTRY CANCELLATION (ENTRY CANCELLED BY)					
Name				Date	
Signature				Time	
Reason for Cancellation	☐	Entry Operations Completed	☐	Prohibited Condition Arose	
Problems Encountered					

RESCUE AND EMERGENCY SERVICES

Name	Rescue Duties	Rescue Equipment and PPE Authorized For Use	Training		Certified (Y/N)	Rescue Practice Date	Rescue Practice Session Description	Name of Trainer	Date of Training
			First Aid	CPR					

TRAINING RECORD

Trainer (include qualifications):	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

INITIAL EVALUATION OF CONFINED SPACE RESCUE PLANS

Use this worksheet to determine if a permit-required confined space rescue plan is sufficient. This plan could be a response team of employees trained by the employer or calling 911. Both must pass muster. Answering “no” to any question means an alternative must be considered to satisfy the requirements in this guide.

Tasks	Results
1. Determine the rescue response time needed for permit-required confined spaces. In other words, how long can a person remain trapped in the confined space? Consider any PEL, REL time limits (e.g. H_2S has an NIOSH REL 10 ppm ceiling for 10 minutes) If there is a possible IDLH, a rescue team needs to be standing by. If the hazards are only physical (e.g. broken bones, abrasions) a longer response time can be tolerated.	Needed rescue response time _____ minutes
2. Calculate the time required for the rescue service by adding the needed time to: get the notification, arrive at the scene, set-up and be ready to enter. Consider the rescue team’s distance from each worksite, quality of roads and traffic, reliability and training of the drivers. Then subtract the needed response time. The answer must be a positive number to continue.	Receive notification _____ minutes + Arrive at the scene _____ minutes + Set up and be ready for entry _____ minutes - Needed rescue response time _____ minutes = _____ minutes Must result in a positive number
3. Determine the rescue response service availability: a) Is the rescue service available when workers will enter the permit-required confined space? b) Are key rescue members available at these times? c) Can the rescue service notify the attendant when they are unavailable so entries can be prevented or stopped?	☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO
4. Has the rescue service passed the most recent performance requirement evaluations?	☐ YES ☐ NO
5. Is the planned 911 service willing to perform rescues: a) If you call 911, is a responder available? b) Is the 911 responder willing to perform rescue and first aid? c) Are the 911 responders able to perform rescues at the worksite?	☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO
6. Can the attendant immediately request a rescue?	☐ YES ☐ NO

EVALUATION OF CONFINED SPACE RESCUE PLANS

Follow this checklist to determine if a permit-required confined space rescue plan meets all performance requirements. This critique should occur during any periodic drills or following a successful rescue. Answering “no” to any question, means an appropriate corrective action must be considered.

Tasks	Results
1. Has the entire team been trained as entrants, and know the potential hazards of at least the types of spaces they may have to perform a rescue?	☐ YES ☐ NO
2. Can the team recognize signs, symptoms, and consequences of hazardous atmospheres possible in the permit confined space?	☐ YES ☐ NO
3. Is every team member: a) Provided with and trained in PPE necessary to perform rescues? b) Trained to perform rescues and use rescue equipment (e.g. ropes, backboards)?	 ☐ YES ☐ NO ☐ YES ☐ NO
4. Is every team member trained in first-aid and medical skills to treat victims injured or overcome by possible hazards?	☐ YES ☐ NO
5. Do team members perform duties safely and efficiently?	☐ YES ☐ NO
6. Do team members focus on their own safety before the victim’s?	☐ YES ☐ NO
7. If necessary, can the rescue service test the air identifying entry conditions?	☐ YES ☐ NO
8. Can team members find information that applies to rescues? a) Entry permits b) Hot work permits c) Safety Data Sheets	 ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO
9. Does the rescue service know of any hazards from outside the permit area (e.g. nearby construction)?	☐ YES ☐ NO
10. If necessary, can the rescue service safely rescue victims from: a) A limited size opening (less than 2 ft. in diameter)? b) Limited internal space? c) Internal obstacles or hazards?	 ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO
11. If necessary, can the rescue service safely perform an elevated rescue?	☐ YES ☐ NO
12. Does the rescue service have a plan for each type of rescue needed? a) A plan for each kind of permit space rescue operation at the worksite? b) Does the plan cover all types of possible necessary rescue operations?	 ☐ YES ☐ NO ☐ YES ☐ NO

PLANNING CONFINED SPACE RESCUE DRILLS

Follow this worksheet to check off that the rescue team's periodic drills – at least once every 12 months when a successful rescue has not been completed – covers all possible scenarios and worksite characteristics. Practices may occur in representative spaces or in the "worst-case" environment with the most restrictive access, entrance size, and configurations.

Tasks	Results
1. **Horizontal Access**. The entrance is located on the side of the permit space. Using retrieval lines may be difficult.	Is this a possibility at the worksite? ☐ YES ☐ NO Description attached? ☐
2. **Vertical Access**. The entrance is located: a) On the top of the permit space so rescuers must climb down, or b) On the bottom of the permit space so rescuers must climb up to enter.	Is this a possibility at the worksite? ☐ YES ☐ NO Description attached? ☐
3. **Restricted Entrance Size**. Smallest diameter entrance is 2 ft. or less. These are too small for rescuers to enter with a SCBA, or allow normal spinal immobilization of an injured employee.	Is this a possibility at the worksite? ☐ YES ☐ NO Description attached? ☐
4. **Unrestricted Entrance Size**. Smallest diameter entrance is 2 ft. or more, and allows relatively free movement into and out of the permit space.	Is this a possibility at the worksite? ☐ YES ☐ NO Description attached? ☐
5. **Open Internal Configuration**. The space has no barriers, obstacles, or obstruction (e.g. a water tank).	Is this a possibility at the worksite? ☐ YES ☐ NO Description attached? ☐
6. **Obstructed Internal Configuration**. The space has an obstacle that requires the rescuer to maneuver around it (e.g. baffle, mixing blades). Equipment brought into the space (e.g. ladder, scaffold) can be an obstruction if its position or size increases the rescue difficulty.	Is this a possibility at the worksite? ☐ YES ☐ NO Description attached? ☐
7. **Elevated Entrance Configuration**. The entrance is 4 ft. or more above grade, requiring high angle rescue procedures because of the difficulty transporting victims from the entrance to the ground.	Is this a possibility at the worksite? ☐ YES ☐ NO Description attached? ☐
8. **Non-elevated Entrance Configuration**. The entrance is less than 4 ft. above grade, and the rescue team can normally transport victims.	Is this a possibility at the worksite? ☐ YES ☐ NO Description attached? ☐

POLICY

The compliance of all employees with Bannister Electric LLC of West Monroe Safety and Health Program is mandatory and shall be considered a condition of employment. All safety rules, procedures, and plans in effect are to be followed as specified in the safety program. Employees found to be in violation of Company safety policy may be subject to penalty.

RESPONSIBILITIES

Dolphus Bannister is the supervisor for disciplinary actions and any employee in a position of management or supervisory capacity may initiate disciplinary action against any employee found to be in violation of Company policy. Not following verbal or written safety procedures, guidelines, rules, horse play, failure to wear selected Personal Protective Equipment (PPE), abuse of selected PPE, and etc. constitutes a safety violation.

TRAINING

The importance of safe work practices and the consequences of failing to abide by safety rules will be covered in the New Employee Safety Orientation and at Tailgate/Toolbox Safety Training. This will help ensure that all employees understand and abide by The Company's safety policies.

Employees that are observed performing unsafe acts or not following proper procedures or rules will be retrained by their foreman or supervisor. A Safety Contact Report may be completed by the supervisor to document the training. If multiple employees are involved, additional safety meetings will be held.

PROCEDURES

The following outlines the disciplinary measures which will be taken against employees found to be in violation:

Periodic safety inspections of the workplace and equipment will be undertaken to ensure that all personnel, including supervisory positions, are demonstrating the required commitment to safety. A general neglect of safe work procedures, practices, and requirements in the workplace, or neglect of equipment safety, will be viewed as a lack of supervisory enforcement of safety policy and the appropriate supervisor/management personnel will be subject to the same disciplinary procedures described below.

These programs will be used for employee compliance with the safety program and all safety rules: training programs; retraining; optional safety incentive programs; disciplinary action.

Safety Incentive Programs

Although strict adherence to safety policies and procedures is required of all employees, The Company may choose to periodically provide recognition of safety-conscious employees and jobsites without accidents through a safety incentive program.

Disciplinary Action

The failure of an employee to adhere to safety policies and procedures established by Bannister Electric LLC of West Monroe can have a serious impact on everyone concerned. An unsafe act can threaten not only the health and well-being of the employee committing the unsafe act but can also affect the safety of his/her coworkers and/or customers. Accordingly, any employee who violates any of The Company's safety policies will be subject to disciplinary action.

When a “Safety Violation Notice” is issued, appropriate supervisory personnel will meet with employee(s) to discuss the infraction and inform individual(s) of the rule or procedure that was violated and the corrective action to be taken.

Note: Failure to promptly report any on-the-job accident or injury, on the same day as occurrence, is considered a serious violation of The Company’s Code of Safe Practices. Any employee who fails to immediately report a work-related accident or injury, no matter how minor shall be subject to disciplinary action.

Employees will be disciplined for infractions of safety rules and unsafe work practices that are observed, not just those that result in an injury. Often, when an injury occurs, the accident investigation will reveal that the injury was caused because the employee violated an established safety rule and/or safe work practice(s).

In any disciplinary action, the foreman should be cautious that discipline is given to the employee for safety violations, and not simply because the employee was injured on the job or filed a Workers’ Compensation claim.

Violations of safety rules and the Code of Safe Practices are to be considered equal to violations of other Company policy. Discipline for safety violations will be administered in a manner that is consistent with The Company’s system of progressive discipline. If, after training, violations occur, disciplinary action will be taken as follows:

1. Oral warning. Documented, including date and facts on the “Safety Warning Report” form. Add any pertinent witness statements. Restate the policy and correct practice(s)
2. Written warning. Retrain as to correct procedure/practice
3. Written warning with suspension
4. Termination

As in all disciplinary actions, each situation is to be carefully evaluated and investigated. The particular step taken in the disciplinary process will depend on the severity of the violation, employee history, and regard to safety. Foremen and superintendents should consult with the office if there is any question about whether or not disciplinary action is justified. Employees may be terminated immediately for willful or extremely serious violations. Union employees are entitled to the grievance process specified by their contract.

Note: Consistency in the enforcement of safety rules shall be exercised at all times.

Employee Safety Warning Report

Employee's Name:		Position:	
Date of Warning:	Violation Time:	☐ am ☐ pm	Violation Date:
Supervisor:		Department:	
Type of Warning:	☐ Verbal	☐ Written	☐ Serious ☐ Other
Type of Violation:	☐ Unsafe Act	☐ Improper Safety Attire	☐ Unsafe condition ☐ Other

Supervisor's Statement:

Employee's Statement: (Check Proper Box)

☐ I agree with the Supervisor's statement. ☐ I disagree with the Supervisor's statement because:

List all previous warnings and retraining below.

When warned and by whom:	
First Warning: (Describe reason)	I have read and understand this warning decision.
	Employee's Signature: Date:
Date: Date retrained:	Supervisor's Signature: Date:
Second Warning: (Describe reason)	
Date: Date retrained:	Copy Distribution:
Third Warning: (Describe reason)	☐ Employee
	☐ Employee's Supervisor
	☐ Personnel Department
Date: Date retrained:	☐ Safety Committee

The Supervisor must complete this form immediately after the employee has been interviewed. A decision must be made on the following to ensure violators will not participate in the current safety incentive program.

☐ No further action ☐ Suspension ☐ Other:

☐ Suspension from current safety incentive program ☐ Dismissal

Submit this form for review at the next Safety Committee meeting.

Safety Committee Notes:

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

POLICY

Bannister Electric LLC of West Monroe has implemented this policy to ensure no employee is exposed to electrical hazards in the workplace. Dolphus Bannister is the supervisor responsible for ensuring the following policy for controls, training, personal protective equipment, and safe work practices are enforced:

RESPONSIBILITIES

Electrical safety is a responsibility shared between the Company and its employees.

Employer Responsibilities

Bannister Electric LLC of West Monroe is responsible for:

- Ensuring that only Qualified persons perform electrical work on de-energized equipment that has been locked-tagged out
- Training personnel in how to perform a job hazard analysis
- Responding quickly to eliminate workplace hazards
- Ensuring all equipment is kept in good repair
- Ensuring employees follow safe job procedures
- Reviewing job hazard analysis whenever there is a significant change to any element of the job or there has been an injury or illness

Safety Committee Responsibilities

It is the responsibility of the safety committee to:

- Assist in ensuring lockout-tagout is followed when necessary
- Assist in training employees to recognize and control workplace hazards
- Monitor the workplace for hazards
- Encourage employees to report hazards
- Implement appropriate controls
- Ensure corrective action is taken promptly

Employee Responsibilities

All employees are expected to:

- Perform electrical work on de-energized equipment that has been locked-tagged out only if qualified
- Qualified Persons are responsible for maintaining qualifications
- Follow safe job procedures
- Report hazards to a supervisor immediately

TRAINING

Dolphus Bannister will ensure all employees exposed to work involving electrical systems or energized parts will be trained in and familiar with the safety-related work practices required by OSHA regulation and the National Fire Protection Association NFPA 70E that pertain to their respective job assignments.

Dolphus Bannister will ensure that all employees exposed to work involving electrical systems will be trained in, and familiar with, the following:

- The requirements of NFPA 70E Standards for Electrical Safety in the Workplace
- The skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment
- The skills and techniques necessary to determine the nominal voltage of exposed live parts
- The clearance distances specified in §1910.333(c) and the corresponding voltages to which the qualified person will be exposed

The training required will be of the classroom or on-the-job type. The degree of training provided will be determined by the risk to the employee based upon the NFPA 70E - Standards for Electrical Safety in the Workplace.

- The training requirements apply to employees who face a risk of electric shock that is not reduced to a safe level by the electrical installation requirements
- Other employees who also may reasonably be expected to face comparable risk of injury due to electric shock or other electrical hazards will also be trained
- Employees will be trained in and familiar with the safety-related work practices required that pertain to their respective job assignments
- Employees who are not qualified persons will also be trained in and familiar with any electrically related safety practices not specifically addressed by regulations but which are necessary for their safety

Qualified persons (i.e. those permitted to work on or near exposed energized parts) will, at a minimum, be trained in and familiar with the following:

- The skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment
- The skills and techniques necessary to determine the nominal voltage of exposed live parts
- The specified clearance distances and the corresponding voltages to which the qualified person will be exposed
- Qualified persons whose work on energized equipment involves either direct contact or contact by means of tools or materials will also have the required training

SAFE PRACTICES

- Only qualified personnel are authorized to perform work, service, or maintenance on energized electrical parts or systems at Bannister Electric LLC of West Monroe
- Non-qualified personnel are prohibited by Company Policy from working on or near exposed energized electrical circuits or systems. If a work task requires unqualified personnel, any exposed electrical systems will be de-energized and lockout/tagout procedures adhered to, per Company Policy, before unqualified personnel are allowed access to the work areas. Non-qualified personnel will be trained in the recognition and avoidance of electrical hazards in the work area
- Safe work practices will be employed to prevent electric shock or other injuries resulting from either direct or indirect electrical contacts, when work is performed near or on equipment or circuits that are or may be energized. The specific safe work practices will be consistent with the nature and extent of the associated electrical hazards
- Live parts to which an employee may be exposed will be de-energized before the employee works on or near them, unless Dolphus Bannister can demonstrate that de-energizing introduces additional or increased hazards or is infeasible due to equipment design or operational limitations. Live parts that operate at less than 50 volts to ground need not be de-energized if there will be no increased exposure to electrical burns or to explosion due to electric arcs
- Live parts of electrical equipment operating at 50 volts or more will be guarded against accidental contact by cabinets or other forms of enclosures that only qualified persons will be able to access. Other examples might include:
  - Enclosing in a room or vault
  - Screens or partitions
  - Elevations of at least 8 feet
- Entrances to rooms and other guarded locations containing live parts will be marked with conspicuous warning signs forbidding unqualified persons to enter
- If the exposed live parts are not de-energized for reasons of increased or additional hazards or infeasibility, other safe work practices will be used to protect employees who may be exposed to the electrical hazards involved. Such work practices will protect employees against contact with energized circuit parts directly with any part of their body or indirectly through some other conductive object. The work practices that are used will be suitable for the conditions under which the work is to be performed and for the voltage level of the exposed electric conductors or circuit parts
- NFPA 70E and OSHA require employers to prove that working in a de-energized state creates more or worse hazards, or is not practical because of equipment design or operational limitations. Examples include: working on life-support systems; emergency alarm systems; ventilation equipment for hazardous locations; work on circuits that are part of a continuous process that cannot be completely shut down
- All electrical conductors and equipment will be acceptable, certified, listed, labeled, or otherwise determined to be safe by a qualified testing laboratory
- Electrical equipment will be free from recognized hazards that are likely to cause death or serious physical harm to employees

- Electrical equipment will not be used unless the manufacturer's name, trademark, or other descriptive marking is placed on the equipment providing voltage, current, wattage, or other ratings as necessary. The marking will be of sufficient durability to withstand the environment involved
- Sufficient access and working space will be provided and maintained abou t all electric equipment to permit ready and safe operation and maintenance of such equipment
- When normally enclosed live parts are exposed for inspection or serviceing, the working space, if in a passageway or general open space, will be guarded

De-Energized Electrical Equipment

- All de-energized exposed parts will be treated as live throughout the work process
- Conductors and parts of electric equipment that have been de-energized but have not been locked out or tagged will be treated as energized parts
- While any employee is exposed to contact with parts of fixed electric equipment or circuits which have been de-energized, the circuits energizing the parts will be locked out or tagged or both

Lockout-Tagout Procedures

Dolphus Bannister will maintain a written copy of these procedures and will make them available for inspection by employees and OSHA

De-energizing equipment

- Safe procedures for de-energizing circuits and equipment will be determined before circuits or equipment are de-energized
- The circuits and equipment to be worked on will be disconnected from all electric energy sources. Control circuit devices, such as push buttons, selector switches, and interlocks, may not be used as the sole means for de-energizing circuits or equipment. Interlocks for electric equipment may not be used as a substitute for lockout and tagging procedures
- Stored electric energy which might endanger personnel will be released. Capacitors will be discharged and high capacitance elements will be short-circuited and grounded, if the stored electric energy might endanger personnel
- Stored non-electrical energy in devices that could reenergize electric circuit parts will be blocked or relieved to the extent that the circuit parts could not be accidentally energized by the device

Application of locks and tags includes

- A lock and a tag will be placed on each disconnecting means used to de-energize circuits and equipment on which work is to be performed. The lock will be attached so as to prevent persons from operating the disconnecting means unless they resort to undue force or the use of tools
- Each tag will contain a statement prohibiting unauthorized operation of the disconnecting means and removal of the tag
- If a lock cannot be applied, or if Dolphus Bannister can demonstrate that tagging procedures will provide a level of safety equivalent to that obtained by the use of a lock, a tag may be used without a lock
- A tag used without a lock will be supplemented by at least one additional safety measure that provides a level of safety equivalent to that obtained by use of a lock. Examples of additional safety measures include the removal of an isolating circuit element, blocking of a controlling switch, or opening of an extra disconnecting device

- A lock may be placed without a tag only under the following conditions: only one circuit or piece of equipment is de-energized; the lockout period does not extend beyond the work shift; employees exposed to the hazards associated with reenergizing the circuit or equipment are familiar with this procedure
- Verification of de-energized condition requirements will be met before any circuits or equipment can be considered and worked as de-energized
- A qualified person will operate the equipment operating controls or otherwise verify that the equipment cannot be restarted
- A qualified person will use test equipment to test the circuit elements and electrical parts of equipment that employees will be exposed to, and will verify that the circuit elements and equipment parts are de-energized. The test will also determine if any energized condition exists as a result of inadvertently induced voltage or unrelated voltage backfeed even though specific parts of the circuit have been de-energized and presumed to be safe. If the circuit to be tested is over 600 volts, nominal, the test equipment will be checked for proper operation immediately after this test
- Reenergizing equipment requirements will be met before circuits or equipment are reenergized, even temporarily
- A qualified person will conduct tests and visual inspections to verify that all tools, electrical jumpers, shorts, grounds, or other devices have been removed, so that the circuits and equipment can be safely energized
- Employees exposed to the hazards associated with reenergizing the circuit or equipment will be warned to stay clear of circuits and equipment
- Each lock and tag will be removed by the employee who applied it or under his or her direct supervision. However, if this employee is absent from the workplace, then the lock or tag may be removed by a qualified person designated to perform this task provided that: Dolphus Bannister ensures that the employee who applied the lock or tag is not available at the workplace. Dolphus Bannister ensures that the employee is aware that the lock or tag has been removed before he or she resumes work at that workplace
- There will be a visual determination that all employees are clear of the circuits and equipment

Energized Electrical Equipment

Only qualified personnel may work on electric circuit parts or equipment that has not been de-energized under the previously stated procedures. Such personnel will be capable of working safely on energized circuits and will be familiar with the proper use of special precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools.

- If work is to be performed under or near overhead lines, the lines will be de-energized and grounded, or other protective measures will be provided before work is started. If the lines are to be de-energized, arrangements will be made with the person or organization that operates or controls the electric circuits involved to de-energize and ground them. If protective measures, such as guarding, isolating, or insulating, are provided, these precautions will prevent employees from contacting such lines directly with any part of their body or indirectly through conductive materials, tools, or equipment

- When an unqualified person is working in an elevated position near overhead lines, the location will be such that the person and the longest conductive object he or she may contact cannot come closer to any unguarded, energized overhead line than the following distances:
  - For voltages to ground 50kV or below – 10 feet
  - For voltages to ground over 50kV – 10 feet plus 4 inches for every 10kV over 50kV
- When an unqualified person is working on the ground in the vicinity of overhead lines, the person may not bring any conductive object closer to unguarded, energized overhead lines than the distances given above. For voltages normally encountered with overhead power line, objects which do not have an insulating rating for the voltage involved are considered to be conductive
- When a qualified person is working in the vicinity of overhead lines, whether in an elevated position or on the ground, the person may not approach or take any conductive object without an approved insulating handle closer to exposed energized parts than shown in Table S-5 unless:
  - The person is insulated from the energized part (gloves, with sleeves if necessary, rated for the voltage involved are considered to be insulation of the person from the energized part on which work is performed)
  - The energized part is insulated both from all other conductive objects at a different potential and from the person
  - The person is insulated from all conductive objects at a potential different from that of the energized part

TABLE S-5—APPROACH DISTANCES FOR QUALIFIED EMPLOYEES—ALTERNATING CURRENTS

Voltage range (phase to phase)	Minimum approach distance
300V and less	Avoid Contact
Over 300V, not over 750V	1 ft. 0 in.
Over 750V, not over 2kV	1 ft. 6 in.
Over 2kV, not over 15kV	2 ft. 0 in.
Over 15kV, not over 37kV	3 ft. 0 in.
Over 37kV, not over 87.5kV	3 ft. 6 in.
Over 87.5kV, not over 121kV	4 ft. 0 in.
Over 121kV, not over 140kV	4 ft. 6 in.

- Any vehicle or mechanical equipment capable of having parts of its structure elevated near energized overhead lines will be operated so that a clearance of 10 ft. is maintained. If the voltage is higher than 50kV, the clearance will be increased 4 in. for every 10kV over that voltage. However, under any of the following conditions, the clearance may be reduced
- If the vehicle is in transit with its structure lowered, the clearance may be reduced to 4 ft. If the voltage is higher than 50kV, the clearance will be increased 4 in. for every 10 kV over that voltage

- If insulating barriers are installed to prevent contact with the lines, and if the barriers are rated for the voltage of the line being guarded and are not a part of or an attachment to the vehicle or its raised structure, the clearance may be reduced to a distance within the designed working dimensions of the insulating barrier
- If the equipment is an aerial lift insulated for the voltage involved, and if the work is performed by a qualified person, the clearance (between the uninsulated portion of the aerial lift and the power line) may be reduced to the distance given in Table S-5
- Employees standing on the ground will not contact the vehicle or mechanical equipment or any of its attachments, unless:
  - The employee is using protective equipment rated for the voltage
  - The equipment is located so that no uninsulated part of its structure (that portion of the structure that provides a conductive path to employees on the ground) can come closer to the line than permitted below
- If any vehicle or mechanical equipment capable of having parts of its structure elevated near energized overhead lines is intentionally grounded, employees working on the ground near the point of grounding may not stand at the grounding location whenever there is a possibility of overhead line contact
- Additional precautions, such as the use of barricades or insulation, will be taken to protect employees from hazardous ground potentials, depending on earth resistivity and fault currents, which can develop within the first few feet or more outward from the grounding point

Illumination

- Employees may not enter spaces containing exposed energized parts, unless illumination is provided that enables the employees to perform the work safely
- Where lack of illumination or an obstruction precludes observation of the work to be performed, employees may not perform tasks near exposed energized parts
- Employees may not reach blindly into areas which may contain energized parts

Confined Spaces

- When an employee works in a confined or enclosed space (such as a manhole or vault) that contains exposed energized parts, Bannister Electric LLC of West Monroe will provide, and the employee will use, protective shields, protective barriers, or insulating materials as necessary to avoid inadvertent contact with these parts
- Doors, hinged panels, and the like will be secured to prevent their swinging into an employee and causing the employee to contact exposed energized parts

Conductive Materials and Equipment

Conductive materials and equipment that are in contact with any part of an employee's body will be handled in a manner that will prevent them from contacting exposed energized conductors or circuit parts.

- If an employee will handle long dimensional conductive objects (such as ducts and pipes) in areas with exposed live parts, Dolphus Bannister will institute work practices (such as the use of insulation, guarding, and material handling techniques) which will minimize the hazard

Portable Ladders

Portable ladders will have nonconductive siderails if they are used where the employee or the ladder could contact exposed energized parts.

Conductive Apparel

Conductive articles of jewelry and clothing (such a watch bands, bracelets, rings, key chains, necklaces, metalized aprons, cloth with conductive thread, or metal headgear) may not be worn if they might contact exposed energized parts. However, such articles may be worn if they are rendered nonconductive by covering, wrapping, or other insulating means.

Housekeeping

- Where live parts present an electrical contact hazard, employees may not perform housekeeping duties at such close distances to the parts that there is a possibility of contact, unless adequate safeguards (such as insulating equipment or barriers) are provided
- Electrically conductive cleaning materials (including conductive solids such as steel wool, metalized cloth, and silicon carbide, as well as conductive liquid solutions) may not be used in proximity to energized parts unless procedures are followed which will prevent electrical contact

Interlocks

Only a qualified person following the requirements of this section may defeat an electrical safety interlock, and then only temporarily while he or she is working on the equipment. The interlock system will be returned to its operable condition when this work is completed.

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

POLICY

Bannister Electric LLC of West Monroe has designated Dolphus Bannister as the administrator/supervisor for Emergency Action Plans. Bannister Electric LLC of West Monroe will have an Emergency Action Plan whenever an OSHA standard requires one. Emergency Action Plans will be in writing, posted in the workplace, and available to employees for review. The names and job titles of every person in the chain of command will be posted.

RESPONSIBILITIES

Bannister Electric LLC of West Monroe will have and maintain an employee alarm system. The employee alarm system will use a distinctive signal for each purpose.

Dolphus Bannister will ensure that all employees are informed and trained in the following minimum elements for Emergency Action Plans:

1. Procedures for avoiding a fire or other emergency
2. Procedures for emergency evacuation for all areas of work, including type of evacuation and exit route assignments
3. Safe assembly areas are designated for all work areas in the event of evacuation
4. Procedures for employees who operate critical plant operations before they evacuate, if applicable
   - Suppliers who rely on the EAP of the Client, must be made aware if they have employees who are considered to be part of critical operations. If so, the Client shall make prior contractual provisions for additional Supplier employee training, tools and equipment
5. Procedures to account for all employees after evacuation
6. Procedures to be followed by employees performing rescue or medical duties
   - Suppliers who rely on the EAP of the Client, must be made aware of the provisions for rescue and medical services
7. The members in the chain of command who may be contacted by employees who need more information about the Plan or for an explanation of their duties under the Plan

A written emergency action must be kept in the workplace, and available to employees for review, employers with 10 or fewer employees may communicate the plan orally. Suppliers who rely on the EAP of the client, must have a copy of the Client's EAP at the job site.

Dolphus Bannister may be contacted by employees who need more information about the plan or an explanation of their duties under the plan. Suppliers who rely on the EAP of the Client, must be made aware of the name of the Client employee who is assigned site ownership of the EAP.

TRAINING

Bannister Electric LLC of West Monroe will designate and train employees to assist in a safe and orderly evacuation of other employees.

Dolphus Bannister will review the Emergency Action Plan with each employee covered by the plan:

- When each Plan is developed or an employee is initially assigned to a job
- When the employee's responsibilities under the Plan change
- When any element of the Plan is changed

Fire Protection/Prevention training will be required on initial hiring and annually thereafter. All employees will be trained in the hazards involved in incipient stage firefighting and for escape purposes. Employees are instructed to ensure the local Emergency Medical Service EMS (Fire Department) is notified before attempting to extinguish any fire, and that if a fire is not immediately extinguished using one fire extinguisher, or the fire recurs to evacuate immediately.

PROCEDURES

All fire extinguishers will be inspected by Dolphus Bannister on a monthly basis; this inspection will be recorded and documented with the required annual maintenance check. Records of inspection will be kept on file in the office. Dolphus Bannister will ensure that all employees are trained in the proper operation of all types of fire extinguishers provided by the company.

EMERGENCY ACTION PLANS

Workplace emergencies can happen at any time and prudence dictates that response procedures must be planned and prepared for in advance. Because it is hard to think clearly during an emergency, it is essential to plan our response.

Emergency planning is the first step, and it can be challenging even if the workplace only has a few employees. Determinations must be made as to what emergencies could affect our workplace, who will lead and make decisions during an emergency, and what procedures will ensure that employees respond appropriately. These elements are the foundation of our workplace Emergency Plan.

Emergency planning may not prevent emergencies, but it can protect lives, equipment, and property over the long term. The following information in this Section describes how Bannister Electric LLC of West Monroe plans for workplace emergencies so that you and your coworkers respond appropriately when an unlikely event happens.

OSHA requires most employers to have Emergency Plans. Those that have more than 10 employees must have written plans. Those that have 10 or fewer employees do not have to put their plans in writing; however, they must ensure that their employees know what procedures to follow to protect themselves in an emergency.

MANAGING WORKPLACE EMERGENCIES

Much can be learned about planning for workplace emergencies from professional emergency responders. When someone calls 911 to report an emergency, he or she connects with a local network of fire, police, and other emergency service professionals who will respond as efficiently as possible. This network is part of a larger incident-management system that can respond to an emergency and accomplish the following:

- Identify, locate, and determine the extent of the emergency
- Determine the resources necessary to manage and control the emergency
- Coordinate command-and-control responsibilities between police and fire departments, hospitals and other medical service providers, government agencies, and on-site responders
- Establish and maintain communication between on-scene emergency responders and other emergency service providers
- Provide for the safety of victims

AN INCIDENT-MANAGEMENT SYSTEM FOR OUR WORKPLACE

With thoughtful planning, a small-scale version of the incident management system used by professional responders can be created. Our workplace will be ready to respond to any emergency – from a heart attack to an earthquake – and manage it in the most effective, efficient way possible. The essential parts of this system are our employees, our Emergency Action Plan, communication and emergency-response equipment, and our workplace.

The goal is for our Emergency Plan to ensure the well-being of everyone at our workplace. This is accomplished by involving employees in the ongoing planning processes, identifying emergencies that could affect our workplace, maintaining an emergency chain of command, and developing emergency response policy and procedures.

INVOLVING EMPLOYEES IN THE PLANNING PROCESS

Perhaps the most important element of emergency planning is getting employees involved in the planning process; when employees participate, they will take the Plan seriously and be more likely to respond appropriately during an emergency. From the start, they should be aware that the purpose of the plan is to ensure their safety.

- Employees will review the Plan to ensure that they know the procedures to follow to respond safely in an emergency. Each employee will have a copy of the plan or know where to obtain one
- Employees are encouraged to report workplace hazards and unsafe work practices that could contribute to an emergency

IDENTIFY EMERGENCIES THAT COULD AFFECT THE WORKPLACE

Identify any external incident (outside our workplace) that could threaten employees or the public and any incident within our workplace that could cause an emergency.

Examples include the following:

- Earthquake: external
- Explosion: external or internal
- Fire: external or internal
- Hazardous-substance release: external or internal
- Medical: internal
- Weather-related event (hurricane, tornado, blizzard, etc.): external
- Threat of violence: external or internal

Electrical, heating and cooling, and telecommunication-system failures can disrupt workplace activities and contribute to emergencies. Human error also contributes too many workplace emergencies; employees will be trained to do their jobs safely.

THE CHAIN OF COMMAND

The chain of command links one person with overall responsibility for managing an emergency to others responsible for carrying out specific emergency response tasks. A chain of command establishes who is in charge and ensures that everyone in the chain responds to emergencies in an organized way.

At the top of the chain is the incident commander, a trained employee who has overall responsibility for managing emergencies.

Just below the incident commander are the volunteer on-scene coordinators.

In an organization that has multiple buildings or workplaces, the chain of command might also include a facility manager, an emergency director, and other management units.

At many small- to medium-sized workplaces, the chain of command consists of an incident commander and one or two volunteer on-scene coordinators.

THE RESPONSIBILITIES OF THE INCIDENT COMMANDER

The incident commander has overall command of a workplace emergency, including the following responsibilities:

- Assessing incidents to determine if it is necessary to order emergency response
- Supervising on-scene coordinators' activities during an emergency
- Directing shutdown of critical workplace equipment or operations
- Coordinating the activities of professional responders such as ambulance, police, and fire departments
- Determining if an evacuation is necessary and managing an evacuation

The incident commander will be an employee who has experience managing others, assessing complex events, and making effective decisions under difficult circumstances

THE ROLE OF THE ON-SCENE COORDINATORS

On-scene coordinators are responsible for coordinating other employees' activities during an emergency (guiding them to appropriate exits and safe areas during an evacuation, for example) and for other emergency-response tasks for which they have volunteered and been properly trained.

Generally, each coordinator will be responsible for no more than 20 employees within a designated work area. On-scene coordinators must know how to respond to all emergencies identified in our Emergency Plan, the evacuation procedures for the particular workplace, and how to use emergency communication equipment. They will also know cardiopulmonary resuscitation (CPR), first aid, and how to respond to threats of violence.

Their primary responsibilities include the following:

- Checking rooms and other enclosed spaces for employees who may be trapped or unable to evacuate during an emergency
- Knowing who may need assistance during an evacuation and how to assist them
- Coordinating the emergency activities of employees
- Ensuring that employees understand how to respond to workplace emergencies
- Knowing the workplace layout, appropriate escape routes, and areas that employees must not enter during an evacuation
- Verifying that employees are in designated safe areas after an evacuation

The established chain of command minimizes confusion during an emergency. An effective chain of command helps ensure that responders manage an emergency in the most efficient way possible

RESPONDING TO EMERGENCIES

It is the policy of Bannister Electric LLC of West Monroe to protect employees from physical harm, harassment, and intimidation. To provide a safe working environment for all employees, Bannister Electric LLC of West Monroe is committed to establishing an effective Emergency Plan. The Plan is based on an "Incident Management System" (IMS) that consists of volunteer employees trained to respond to any workplace emergency. The system is modeled on the IMS system used by fire, police, and emergency medical-service responders. It provides for overall command and control of any emergency incident. It improves communication between IMS personnel and the fire, police, and medical personnel who respond to a call for help. It also provides appropriate emergency assistance during the first few minutes it takes for emergency responders to arrive.

EMERGENCY RESPONSE PROCEDURES

Emergency procedures are important because they tell employees exactly what to do to ensure their safety during an emergency to accomplish each of the following tasks:

- Report emergencies to local fire and police departments
- Inform the emergency chain of command of an emergency
- Warn employees about an emergency
- Conduct an orderly, efficient workplace evacuation
- Assist employees with disabilities or injuries during an evacuation
- Shut down critical equipment, operate fire extinguishers, and perform other essential services during an evacuation
- Account for employees at a designated safe area after an evacuation
- Perform rescue and first aid that may be necessary during an emergency

Other Critical Information

The following are included in our Company procedures:

- The names of the incident commander, the on-scene coordinators, and others responsible for carrying out the plan, and how to contact them during an emergency
- The name of the person who has the authority to order a workplace evacuation (typically, the incident commander)
- The names and phone numbers of those who understand the Emergency Plan and will inform others about it (typically the incident commander and the on-scene coordinators)

Planning Considerations—Accounting for Employees after an Evacuation

A designated meeting area a safe distance away from the emergency site will be identified in advance to ensure that employees know they must meet there after they evacuate the workplace. An on-scene coordinator should take a “Roll-Call” to identify employees not present. A determination will need to be made as to what information or assistance employees may need if they cannot return to the workplace after an evacuation.

Alerting Employees to an Emergency

The Company may use a public address system, portable radios, an alarm, an air-horn, or any other means that will reach and warn all employees. Alarms will be distinctive, be recognizable by all employees, and have a back-up power supply in case the primary power fails. We may need alarms that employees can hear and see.

Conducting Employee Rescues

It takes more than good intentions to save lives. Would-be rescuers can endanger themselves and those they are trying to rescue. During most emergencies, leave rescue work to professional responders who are appropriately trained and equipped. The exceptions would be during a catastrophe, such as a severe earthquake, that could delay professional emergency responders for hours or days. Also, jobs such as handling hazardous substances or working in confined spaces could result in emergencies for which fire or police departments are not trained. We will need to find out what kind of emergencies local responders are trained and equipped to respond to. If they are unable to respond to emergencies unique to our workplace, our employees must be trained and able to respond promptly.

Coordinating with Multi-Employer Workplaces

If we happen to share a facility, building, or worksite with other employers, we will consider working with them to develop, if feasible, a facility-wide Emergency Plan. If a facility-wide plan is not feasible, we will ensure that our plan does not conflict with the plans of the other employers in the facility.

Quick-Response Teams

A quick-response team consists of volunteer employees trained to handle workplace incidents that require immediate action, such as medical emergencies, threatening or violent people, and hazardous-substance releases. The following considerations are relevant to quick response teams:

- Types of incidents that require immediate action
- Roles and responsibilities of team members
- Communication and response procedures for the team

Training Employees about Emergencies and Evacuations

To protect themselves during an emergency, all employees must understand the following elements of the Emergency Plan:

- The roles of the incident commander and on-scene coordinators
- How to respond to threats and intimidation
- The method(s) for warning employees of emergencies
- The method for contacting employees' next of kin after an emergency
- The procedure for summoning emergency responders
- The location of safe meeting areas
- How to respond to an emergency and to an order to evacuate

New employees will be trained about the Emergency Plan when they are first hired and all employees will be informed about any changes to the plan.

On-scene coordinators will be trained in first aid and CPR, bloodborne-pathogen protection, and how to use rescue equipment.

Regular training drills will be scheduled so that employees can practice. Outside fire and police departments will be included in the drills when possible. The effectiveness of each drill will be evaluated and activities that need strengthening will be identified. The results will be shared with all employees.

When a workplace emergency requires an evacuation, all employees must know to leave, what emergency exits to take, and where to meet. Employees may also need to know how to shut down critical equipment during an evacuation.

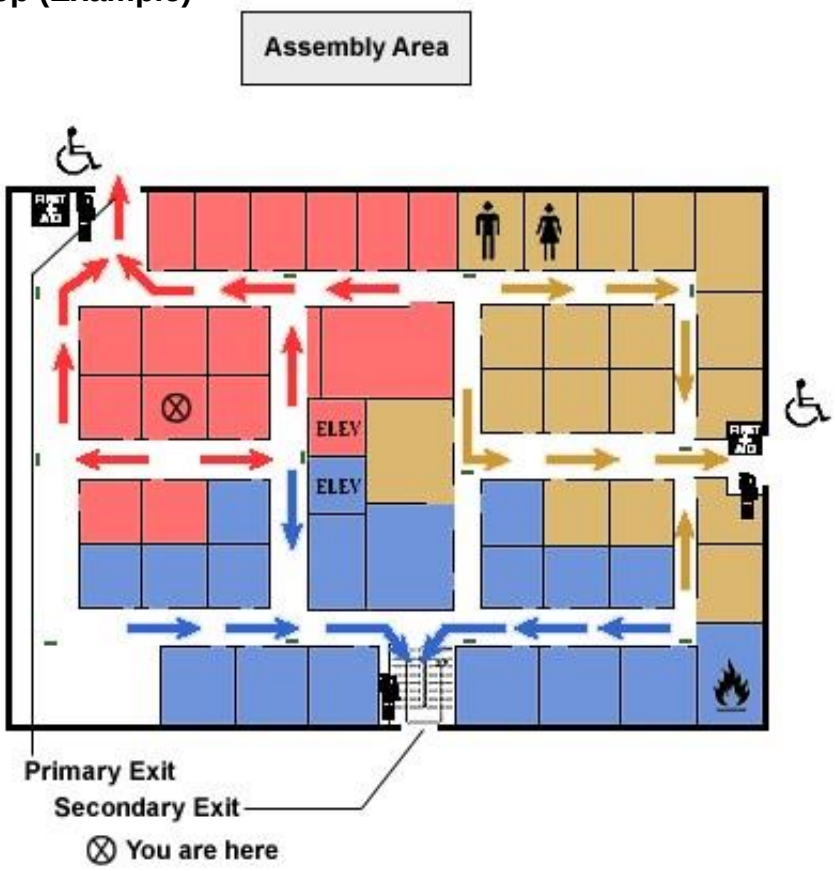
Evacuation Exits

Our workplaces will have a primary evacuation exit and an alternate exit. Diagrams will be posted that show the evacuation routes and the exits where all employees will see them. The exits and exit routes will be identified. Characteristics of exits include:

- They are clearly marked, well lit, and visible under emergency conditions
- They are wide enough to accommodate employees during an evacuation
- They are unobstructed and clear of debris at all times
- They are unlikely to expose employees to other hazards

An essential part of our Emergency Plan is an evacuation diagram – a floor plan of the facility or workplace that shows evacuation exits and describes the emergency evacuation procedure. Mark the exit routes and the “Roll-Call” assembly area on the diagram so that they are easy to see, for example:

«Q1» Main Office & Shop (Example)



Exit Routes

How would you escape from your workplace in an emergency? Do you know where all the exits are in case your first choice is too crowded? Are you sure the doors will be unlocked and that the exit access behind them will not be blocked during a fire, explosion, or other crisis? Knowing the answers to these questions could keep you safe during an emergency.

Workplace Exit Routes

Usually, a workplace must have at least two exit routes for prompt evacuation. But more than two exits are required if the number of employees, size of the building, or arrangement of the workplace will not allow a safe evacuation. Exit routes must be located as far away as practical from each other in case one is blocked by fire or smoke.

General Requirements for Exits

- Exits must be separated from the workplace by fire-resistant materials – that is, a one-hour fire-resistance rating if the exit connects three or fewer stories, and a two-hour fire-resistance rating if the exit connects more than three floors
- Exits can have only those openings necessary to allow access to the exit from occupied areas of the workplace or to the exit discharge. Openings must be protected by a self-closing, approved fire door that remains closed or automatically closes in an emergency
- Always keep the line-of-sight to exit signs clearly visible
- Install “EXIT” signs using plainly legible letters

Safety Features for Exit Routes

- Keep exit routes free of explosives or highly flammable materials, equipment, or other obstructions
- Exit routes will be arranged so that employees will not have to travel toward a high-hazard area unless the path of travel is effectively shielded from the high-hazard area
- Ensure that exit routes are free and unobstructed by materials, equipment, locked doors, or dead-end corridors
- Provide lighting for exit routes adequate for employees with normal vision
- Keep exit route doors free of decorations or signs that obscure their visibility of exit route doors
- Post signs along the exit access indicating the direction of travel to the nearest exit and exit discharge if that direction is not immediately apparent
- Mark doors or passages along an exit access that could be mistaken for an exit “Not an Exit” or with a sign identifying its use (such as “Closet”)
- Maintain exit routes during construction, repairs, or alterations

Design and Construction Requirements

- Exit routes must be permanent parts of the workplace
- Exit discharges must lead directly outside or to a street, walkway, refuge area, public way, or open space with access to the outside
- Exit discharge areas must be large enough to accommodate people likely to use the exit route
- Exit route doors must unlock from the inside. They must be free of devices or alarms that could restrict use of the exit route if the device or alarm fails
- Exit routes can be connected to rooms only by side-hinged doors that swing out in the direction of travel if the room may be occupied by more than 50 people
- Exit routes must support the maximum permitted occupant load for each floor served, and the capacity of an exit route may not decrease in the direction of exit route travel to the exit discharge
- Exit routes must have ceilings at least 7 ft., 6 in. high. An exit access must be at least 28 inches wide at all points

Providing Medical Assistance and First Aid

If there is not an emergency clinic or hospital nearby that will admit victims of emergencies from our workplace then on-scene coordinators will ensure that some members of on-site personnel have appropriate first-aid training and supplies.

Recording Critical Employee Information

After a medical emergency, an employee may be unable to contact next of kin or other relatives. Supervisors will have access to employees' home telephone numbers, the names and telephone numbers of family members they want you to contact, physician names and phone numbers, and information employees have given about their medical conditions or medications. This information will be kept with employees' permanent employment records and updated annually.

Reporting Fire and Other Emergencies

Our Emergency Plan has a procedure for reporting fires and other emergencies to professional responders. Report all fires by calling 911. Fires are generally not reported to fire departments by fire alarms; most fire alarms warn only building occupants. The incident commander will stay in a safe location to oversee and relay relevant information to professional emergency responders.

Selecting and Using Personal Protective Equipment

Personal protective equipment includes clothing and equipment that protects emergency responders against specific hazards. Examples include work gloves, goggles, hard hats, and respirators.

Properly used, personal protective equipment offers protection against a hazard but does not eliminate the hazard. If it fails or is not appropriate for a particular task, the user risks exposure.

Appropriate, effective protection depends on selecting, wearing, and using the equipment properly. The following steps outline the procedures for selecting personal protective equipment:

1. Identify emergency-related hazards for which personal protective equipment may be necessary; for example, those responding to medical emergencies need protection from bloodborne pathogens
2. Determine which personal protective equipment will protect users from the hazards; for example, latex gloves and face shields may be necessary to protect responders from bloodborne pathogens
3. Determine who will use the equipment; it is critical that the equipment fit the user and not cause allergic reactions or other health problems
4. Determine the conditions under which responders will use the equipment; the equipment must not fail under those conditions
5. Ensure that emergency responders know how to use the equipment. Whether they are wearing hard hats or atmosphere-supplying respirators, responders will know how the equipment will protect them and when it will not protect them. Responders will know how to wear, use, and maintain the equipment, and how to discard contaminated equipment

TYPES OF EMERGENCIES

Following are types of emergencies that could affect workplaces and summarizes what to do when responding to them. Consider factors such as workplace size and location, number of employees on-site, and the nature of their work in determining how to respond.

Earthquake

During an earthquake, people in most workplaces are at greatest risk from collapsing ceilings, windows, light fixtures, and other falling objects. If you are indoors, the safest response is to take cover under sturdy furniture or to brace yourself against an inside wall. Stay away from windows, skylights, bookcases, and other heavy objects. Protect your head and neck.

What to do:

- If indoors, stay there. Take cover under sturdy furniture or against inside walls
- Do not use elevators
- Stay away from windows, skylights, and other objects that could fall
- Use stairways to leave the workplace if the order is given to evacuate

Be ready to rescue victims; professional responders may not be able to respond; remove victims to a triage area if possible

Explosion

Any workplace that handles, stores, or processes flammable gases, liquids, and solids is vulnerable. Explosions offer no warnings, causing disorganization and panic.

What to do:

- Try to establish communication with on-scene coordinators
- Assess damage to the workplace and estimate human casualties
- Administer first aid if it is safe to do so
- Do not use elevators
- Evacuate following established procedures

Fire

If needed, invite a local fire department representative to our workplace to help identify fire hazards and to discuss how our workplace should respond to a fire. It is the byproducts of fire – smoke and fire gasses – that kill. A quick, orderly evacuation is the most effective response to an out-of-control fire.

What to do:

- Pull the fire alarm (or set off the predetermined signal)
- Call 911; tell the dispatcher the location and the nature of the emergency
- Inform an on-scene coordinator
- Do not use elevators
- Use ONE fire extinguisher for incipient stage fires or fires that can be extinguished with ONE extinguisher, fire extinguishers may be used for escape purposes

If on-scene coordinators or other employees are permitted to use fire extinguishers, they will be properly trained in their use for incipient stage fires and escape.

Hazardous-Substance Release

Hazardous substances include solvents, pesticides, paints, petroleum products, and heavy metals – any substance hazardous to health. Even if our workplace does not use hazardous substances, could it be affected by a nearby release or an accident on a local freeway? If so, our Emergency Plan describes how the scene commander and coordinators will respond and notify fire and police departments.

What to do:

- Inform the incident commander
- Evacuate the area surrounding the release
- Call 911; tell the dispatcher the location and the nature of the emergency

If our workplace uses hazardous chemicals, our Company Hazard Communication (HAZCOM) Program requires that we inventory them, keep the manufacturer-supplied material safety data sheets, label the chemical containers, and train employees to protect themselves from the chemicals' hazards.

If employees must wear personal protective equipment during an emergency – chemical suits, gloves, hoods, boots, or respirators, for example – make sure that equipment will be available when they need it, that it fits them, and that they know how to use it.

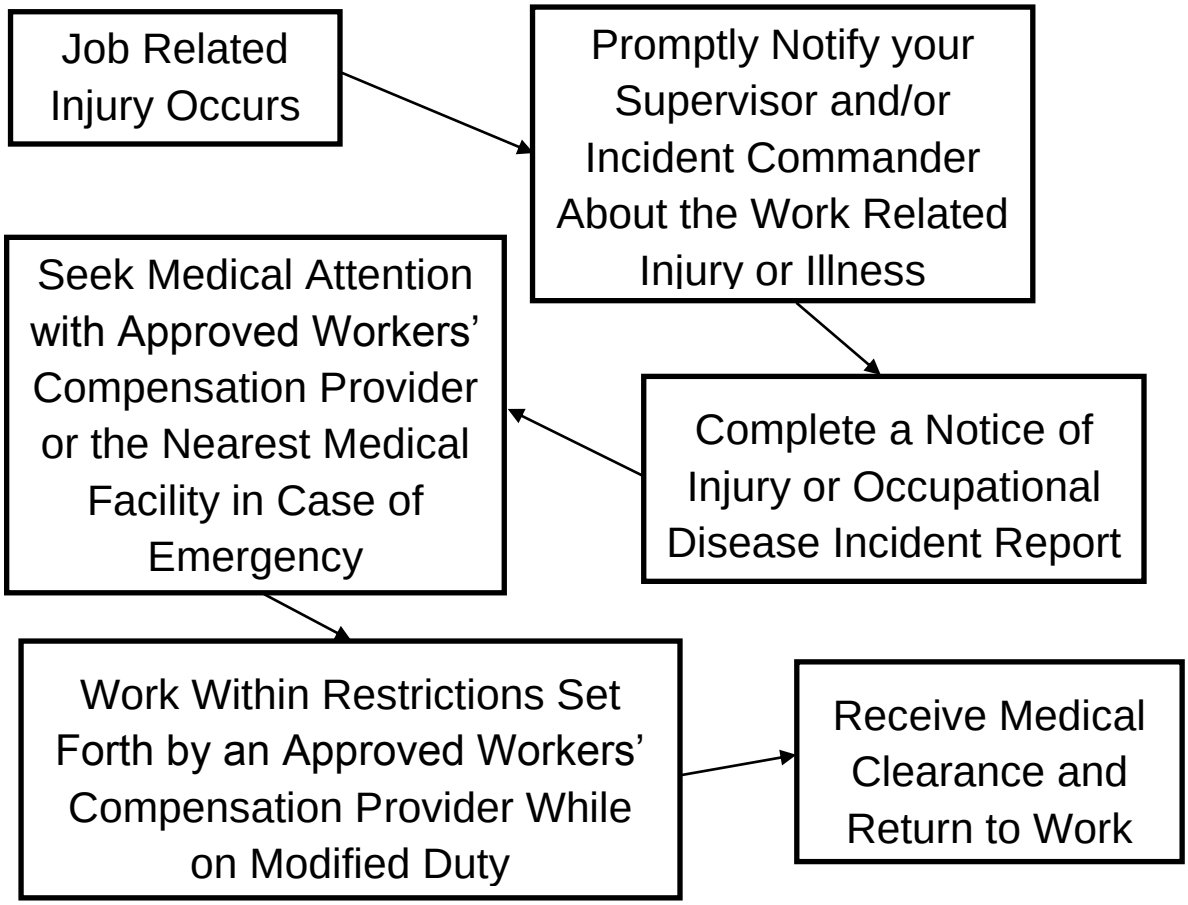
Medical

The most likely workplace emergency is a medical emergency. A serious medical emergency such as cardiac arrest requires immediate attention – response time is critical. It is essential that medical first responders know how to perform first aid/CPR.

What to do:

- Call 911. Tell the dispatcher the location and the nature of the emergency
- Do not move the victim
- Notify an on-scene coordinator for CPR or other first-aid tasks
- Inform the incident commander
- Assist professional medical responders when they arrive
- Inform the victim's supervisor
- Follow the medical case management process

Medical Case Management Process



Weather-Related Event

Hurricanes, tornadoes, blizzards, and floods are likely to be the cause of weather-related workplace emergencies. Many communities experience floods following warm spring rain. Winter storms often bring strong winds, freezing rain, and snow that can cause structural damage and power outages.

What to do:

- Wait for instructions from the incident commander; a power failure will slow communication
- Tune a battery-powered radio to a station that broadcasts local news
- Do not evacuate the workplace unless ordered to do so

Threats of Violence

Threats of violence may be delivered in any form: face-to-face, by fax, e-mail, phone, or in writing. Threats can be directed toward the workplace or toward a specific person. Police departments, mental health professionals, and employee-assistance program counselors offer prevention information, security inspections, and employee training that help reduce the risk of workplace violence.

What to do:

- Inform an on-scene coordinator
- Activate a silent alarm if your workplace has one
- Isolate the threatening person if it is possible to do so safely
- Inform the incident commander

Bomb Threats

Take all bomb threats seriously. Do not use fire alarms or phones in the building – they generate radio waves that could trigger a bomb. If someone finds a package that may contain or that may be a bomb, he or she should note its size, shape, and whether it emits a sound, and then notify the incident commander. Call 911 from outside the building to report the emergency and determine if an evacuation is necessary. Use a communication method that does not generate radio waves to order the evacuation.

Consider offering Threat-management training is available to on-scene coordinators and if appropriate, members of quick-response teams.

Terrorism

Although terrorist acts pose minimal risks to most workplaces, the devastating effects of recent acts have changed the perception of a “secure workplace” and added a new dimension to emergency planning. What distinguishes terrorist acts is the use of threats and violence to intimidate or coerce. Factors to consider in emergency planning include the following:

How do others perceive the mission of our Company in these contexts?

- Political activities
- Business activities
- Economic activities
- Social responsibilities

How vulnerable are our critical resources from terrorist attack?

- Production machinery and equipment
- Mail and HVAC systems
- Electronic communication, power, data, and systems hardware
- Real estate and other physical property
- Finance and administrative transactions
- Employees at the workplace or at other locations

TO BE POSTED AT ALL COMPANY FACILITIES AND WORKPLACES (PAGE 1 OF 3)

Company Name		Location			
Street Address					
City		State		ZIP	
Prepared By (Name)					
Title		Phone Number			
Signature		Date			
Emergency Scene Commander		Emergency Scene Coordinator			

PURPOSE

This Plan identifies necessary management and employee actions during fires and other emergencies. Education and training are provided so that all employees know and understand the Emergency Action Plan.

LOCATION OF PLAN

The Emergency Action Plan can be found at the station or office of each: (Foreman, Supervisor, etc.)

A copy is also maintained in THE COMPANY general offices.

Upon request, an OSHA representative may obtain a copy of the plan from: (Name and Title)

EXIT ROUTES

Draw a diagram of jobsite or facility exit routes in space below:

Locate meeting place or “Roll-Call” area on above diagram:

EMERGENCY ACTION PLAN (PAGE 2 OF 3)

ACCOUNTING FOR EMPLOYEES			
After exiting, all employees are to assemble for "Roll-Call" at this location: (Note location on above diagram)			
The following persons are responsible for ensuring that employees comply with this requirement:			
Name		Title	
Name		Title	

CRITICAL OPERATIONS	
To minimize damage from the emergency, the following personnel are responsible for shutting down the listed critical operations:	
Personnel Names	Critical Operations
As soon as shutdowns are completed, the employees who performed critical operations will take the nearest exit route in accordance with general emergency procedures.	

RESCUE AND MEDICAL DUTIES	
The following personnel are certified and trained in both CPR and general first aid. These persons are to be contacted as specified in the "General Emergency Training":	
Name and Title	Phone Number

REPORTING EMERGENCIES	
The following personnel have the duty of contacting public responders to come to the emergency scene. The personnel are listed in descending order of availability:	
Name and Title	Phone Number

EMERGENCY ACTION PLAN (PAGE 3 OF 3)

ALARM SYSTEMS AND NOTIFICATION OF EMERGENCIES			
In the event of a workplace or facility emergency, employees will be notified as follows:			
Identify method(s) of notification:			
TYPES OF EVACUATION			
OSHA requires to have an established system of types of evacuation to follow for different emergency circumstances. The following listing represents company policy for various emergency situations:			
PARTIAL EVACUATION: Code Yellow – 3 rings or horn blasts: RESPONDERS (trained extinguisher personnel and trained rescue and medical personnel)			
FULL EVACUATION: Code Red – 4 rings or horn blasts: RESPONDERS (n/a)			
NOTE: If there is more than one evacuation type, the alarm signal for each will be distinctive.			
OTHER (Describe)			
OTHER (Describe)			
PUBLIC EMERGENCY RESPONSE INFORMATION			
Ensure that 911 emergency services cover the area this Emergency Action Plan covers.			
Local Police Department:			
Local Fire Department:			
Local Ambulance/EMS:			
Local Hospital:			
FURTHER INFORMATION			
For further information or explanation about any duties under this Plan, contact:			
Name and Title			
Name and Title			
This Emergency Action Plan is authorized and approved by:			
Name		Title	
Signature		Date	

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

POLICY

Bannister Electric LLC of West Monroe has implemented this policy to ensure proper safe work practices and procedures are followed to protect employees from the fall hazards.

REFERENCES

- 1926 Subpart M, Fall protection
- § 1926.500, Scope, application, and definitions applicable to this subpart
- § 1926.501, Duty to have fall protection
- § 1926.502, Fall protection systems criteria and practices
- § 1926.503, Training requirements
- Appendix A, Determining roof widths - Non-mandatory guidelines for complying with 1926.501(b)(10)
- Appendix B, Guardrail systems - Non-mandatory guidelines for complying with 1926.502(b)
- Appendix C, Personal fall arrest systems - Non-mandatory guidelines for complying with 1926.502(d)
- Appendix D, Positioning device systems - Non-mandatory guidelines for complying with 1926.502(e)
- Appendix E, Sample fall protection plan - Non-mandatory guidelines for complying with 1926.502(k)

RESPONSIBILITIES

Employer Responsibilities

Bannister Electric LLC of West Monroe will provide at no cost to employees fall protection such as guard rails, safety nets, or personal fall arrest systems whenever employees are potentially exposed to falls to lower levels from heights of six feet or greater. This includes work near and around bins, tanks and excavations. Exception: When the standard methods of protection are not feasible or a greater hazard would be created. The exposure determination will be made without regards to the use of PPE.

Bannister Electric LLC of West Monroe is responsible for:

- Ensuring that safety inspections of the facility occur on regular basis
- Training personnel in fall protection equipment selection and use
- Responding quickly to eliminate workplace hazards
- Ensuring all equipment is kept in good repair
- Ensuring employees follow safe job procedures
- Reviewing job hazard analysis whenever there is a significant change to any element of the job or there has been an injury or illness

Dolphus Bannister Responsibilities

Dolphus Bannister is the Program Administrator – designated qualified person - responsible for managing the Fall Protection Program, the Dolphus Bannister will specify a fall protection system for each work-site, supervise its implementation, and inspect the system prior to use.

Safety Committee Responsibilities

- Assist in fall protection as necessary
- Assist in training employees to recognize and control workplace hazards
- Monitor the workplace for hazards
- Encourage employees to report hazards
- Implement appropriate controls
- Ensure corrective action is taken promptly

Employee Responsibilities

Employees will comply with the fall protection program at all times when working at heights of 6 feet or above will wear appropriate PPE (The fall protection system used will be appropriate for the specific work location or situation using best practices).

All employees are expected to: assist in job hazard analyses; follow safe job procedures; and report hazards to a supervisor immediately

TRAINING

Dolphus Bannister will ensure that all employees who participate in work where fall hazards are present are trained in recognition of fall hazards, fall protection procedures, equipment, and work practices. Written certification records will be maintained showing who was trained, types of training, dates of training, signature of person providing training, and the date training was determined to be adequate. Employees will be certified upon completion of training in the following areas:

- The nature of fall hazards in the work area
- The correct procedures for erecting, maintaining, disassembling, and inspecting the fall protection systems to be used
- The use and operation of guardrail systems, personal fall arrest systems, safety net systems, warning line systems, safety monitoring systems, personal fall restraint systems, slide guard systems, positioning devices, and other protection to be used
- The role of each employee in the safety monitoring system when this system is used
- The limitations on mechanical equipment use of during roofing
- The correct procedures for the handling and storage of equipment and materials and the erection of overhead protection
- The role of employees in the fall protection work plan

Employee re-training in fall protection will be provided when: previous training is deemed deficient; changes in work environment occur which would necessitate additional training; changes in fall protection equipment or systems occur; employee is observed applying unsafe work practices.

PROCEDURES

Prior to the start of work, Dolphus Bannister will make an initial survey of the types of fall hazards which are expected to be encountered and develop a plan relative to providing the kind and number of safeguards that will protect against these fall hazards. Each employee on a walking/working surface (horizontal and vertical surface) with an unprotected side or edge which is 6 feet or more above a lower level will be protected from falling by the use of guardrail systems, safety nets, or personal fall arrest systems.

- All accidents and serious incidents involving Bannister Electric LLC of West Monroe employees will be reported immediately to the supervisor for the work location. All accidents/incidents will be investigated under the guidelines of the company Accident Investigation Program. Changes will be implemented to the Fall Protection Plan as necessary
- Bannister Electric LLC of West Monroe will provide for prompt rescue of employees in the event of a fall or will assure the employees are able to rescue themselves
- All materials and equipment purchased and used at Bannister Electric LLC of West Monroe for fall protection will comply to ANSI and ASTM standards required for that material or equipment

Fall Protection Locations

Fall protection is required wherever the potential to fall 6 feet or more exists. Fall protection is not needed if an employee or employees are on a low sloped roof for inspection/observation, provided that they do not approach within 8 feet of the roof's edge.

Fall Protection Work Plans

Dolphus Bannister will develop and implement a written fall-protection work plan including each area of the work place where employees are assigned and where fall hazards of 6 feet or more exist. It is recommended that the written plan be upgraded as conditions change. The fall-protection work plan will:

- Identify all fall hazards in the work area as the project work progresses
- Describe the method of fall arrest or fall restraint to be provided
- Describe the procedures for assembly, maintenance, and disassembly of the fall-protection system
- Describe procedures for the handling, storage, and securing of tools and materials
- Describe the method of providing overhead protection for workers who may be in, or pass through, the area below the work site
- Be available on the job site for inspection
- Ensure that employees are trained and instructed
- Include inspection of fall-protection devices and systems to ensure compliance with applicable parts of this procedure

Fall Restraint and Fall Arrest Systems

Dolphus Bannister will ensure that fall-restraint or fall-arrest systems are provided, installed, and implemented according to the following requirements. Fall-restraint and arrest protection will consist of:

Standard Guardrails

- Top rail 39 to 45 inches above the working surface, and must be smooth and of a shape to permit grasping easily
- Midrail (center between riser and top rail), screen or mesh (continuous) or intermediate vertical members (not more than 19 inches apart) will be provided between the top rail and working surface
- Guardrail systems will be capable of supporting 250 pounds in the downward or outward direction at any point along the top edge
- Midrail will support a 150-pound load in the downward or outward direction
- Top rails and midrails will be at least 1/4-inch nominal thickness. Plastic or steel banding will not be used
- Chain gates will be used to cover hoisting areas, and the guardrails will extend 4 feet minimum on either side of the opening
- Rails will be so constructed so as not to deflect under test loads. If cable or rope is used it will have tension adjusting capability and remain taut at all times
- Wood Railings: Wood components will be minimum 1500 lb.-ft. / in.2 fiber (stress grade) construction grade lumber. Posts will be at least 2-inch by 4-inch (5 cm x 10 cm) lumber spaced not more than 8 feet (2.4 m) apart on centers. The top rail will be at least 2-inch by 4-inch (5 cm x 10 cm) lumber; the intermediate rail will be at least 1-inch by 6-inch (2.5 cm x 15 cm) lumber
- Pipe Railings: Post, top rails, and intermediate railings will be at least one and one half inches nominal diameter (schedule 40 pipe) with posts spaced not more than 8 feet (2.4 m) apart on centers
- Structural Steel Railings: Posts, top rails, and intermediate rails will be at least 2 inch by 2-inch (5 cm x 10 cm) by 3/8-inch (1.1 cm) angles, with posts spaced not more than 8 feet (2.4 m) apart on centers

Portable Guardrails

- Portable guardrails may be used in locations where permanent guardrails are not feasible
- Top rail 39 to 45 inches above the working surface, and must be smooth and of a shape to permit grasping easily
- Midrail (center between riser and top rail), screen or mesh (continuous) or intermediate vertical members (not more than 19 inches apart) will be provided between the top rail and working surface
- Guardrail systems will be capable of supporting 250 pounds in the downward or outward direction at any point along the top edge
- Midrail will support a 150-pound load in the downward or outward direction

Harness, Lanyards, Lifelines and Anchor Points

- An approved Class III full body harness will be used
- All full body harness and lanyard hardware assemblies will be capable of withstanding a tensile loading of 4,000 pounds without cracking, breaking, or taking a permanent deformation
- Anchorage points used for fall restraint will supporting four times the intended load
- Restraint protection and positioning devices will be rigged to allow the movement of employees only as far as the sides and edges of the walking / working surface
- Full body harnesses will be attached to securely rigged restraint lines
- Rope-grab devices are prohibited for fall-restraint applications unless they are part of a fall-restraint system designed specifically for the purpose by the manufacturer and used in strict accordance with the manufacturer's recommendations and instructions
- Dolphus Bannister will ensure component compatibility
- Body harness systems or components subject to impact loading will be immediately removed from service and will not be used again for employee protection unless inspected and determined by a competent person to be undamaged and suitable for reuse
- All safety lines and lanyards will be protected against being cut or abraded
- Body harness systems will be rigged to minimize free-fall distance with a maximum free-fall distance allowed of 6 feet, and ensure that employees will not contact any lower level
- Hardware will have a corrosion-resistant finish and all surfaces and edges will be smooth to prevent damage to the attached body harness or lanyard
- When vertical lifelines (droplines) are used, not more than one employee will be attached to any one lifeline
- Full-body harness systems will be secured to anchorages capable of supporting 5,000 pounds per employee, except when self-retracting lifelines or other deceleration devices are used which limit free fall to two feet; in this case, anchorages will be capable of supporting 3,000 pounds
- Independent lifelines (droplines) will have a minimum tensile strength of 5,200 pounds, except that self-retracting lifelines and lanyards, which automatically limit free fall distance to two feet or less, will have a minimum tensile strength of 3,000 pounds
- Horizontal lifelines will have a tensile strength capable of supporting a fall impact load of at least 5,200 pounds per employee using the lifeline, applied anywhere along the lifeline
- Lanyards will have a minimum tensile strength of 5,200 pounds
- All components of body harness systems whose strength is not otherwise specified in this section will be capable of supporting a minimum fall impact load of 5,000 pounds applied at the lanyard point of connection
- Snap-hooks will not be connected to loops made in webbing-type lanyards
- Snap-hooks will not be connected to each other
- Not more than one snap-hook will be connected to any one D-ring
- Independent lifelines used on rock-scaling operations, or in areas where the lifeline may be subjected to cutting or abrasion, will be a minimum of 7/8-inch wire core manila rope. For all other lifeline applications, a minimum of 3/4-inch manila rope or its equivalent, with a minimum breaking strength of 5,000 pounds, will be used

- Safety harnesses, lanyards, and lifelines, independently attached or attended, will be used while performing the following types of work when other equivalent protection is not provided:
  - Work in hoppers, bins, silos, tanks, or other confined spaces
  - Work on hazardous slopes, or dismantling safety nets
  - Working on poles or from boatswains chairs at elevations
- Fall protection will be used when working at heights greater than six feet, on swinging scaffolds or other unguarded locations, and work on skips and platforms used in shafts by crews when the skip or cage does not include the opening to within one foot of the sides of the shaft, unless cages are provided
- Full-body harness systems will be inspected prior to each use for mildew, wear, damage, and other deterioration, and defective components will be removed from service if their function or strength has been adversely affected

Safety Nets

- Safety nets will be installed as close as practicable under the walking/working surface on which employees are working, but in no case more than 30 feet (9.1 m) below such level. When nets are used on bridges, the potential fall area from the walking/working surface to the net will be unobstructed
- Safety nets will extend outward from the outermost projection of the work surface as follows:

Vertical distance from working level to horizontal plane of net	Minimum required horizontal distance of outer edge of net from the edge of the working surface
Up to 5 feet	8 feet
More than 5 feet up to 10 feet	10 feet
More than 10 feet	13 feet

- Safety nets will be installed with sufficient clearance under them to prevent contact with the surface or structures below when subjected to an impact force equal to the drop test specified in the full-body harness section
- Safety nets and their installations will be capable of absorbing an impact force equal to that produced by the drop test specified in the full-body harness section
- Safety nets and safety net installations will be drop-tested at the job site before being used as a fall-protection system. The drop-test will consist of a 400-pound bag of sand 30+2 inches in diameter dropped into the net from the highest walking / working surface on which employees are to be protected. Exception: when the employer can demonstrate that a drop-test is not feasible or practicable, the net and net installation will be certified by a qualified person to be in compliance with the provisions of this section
- Safety nets will be inspected weekly for mildew, wear, damage, and other deterioration, and defective components will be removed from service
- Materials, scrap pieces, and tools which have fallen into the safety net will be removed as soon as possible from the net, and at least before the next work shift

- The maximum size of each safety net mesh opening will not exceed 36 square inches nor be longer than six inches on any side measured center-to-center of mesh ropes or webbing. All mesh crossings will be secured to prevent the enlargement of any mesh opening
- Each safety net (or section of it) will have a border rope for webbing with a minimum breaking strength of 5,000 pounds
- Connections between the safety net panels will be as strong as integral net components and will be spaced not more than six inches apart

Catch Platforms

A catch platform will be installed within ten vertical feet of the work area. The catch platform's width will equal the distance of the fall but will be a minimum of 45 inches wide and will be equipped with standard guardrails on all open sides

Guarding Of Low Pitched Roof Perimeters

During the performance of work on low pitched roofs with a ground to eaves height greater than 6 feet, Dolphus Bannister will ensure that employees engaged in such work be protected from falling from all unprotected sides and edges of the roof as follows:

- By the use of a fall-restraint or fall-arrest system, as defined in applicable OSHA or state regulations
- Mechanical equipment will be used or stored only in areas where employees are protected by a warning line system, or fall-restraint, or fall-arrest systems as described in applicable OSHA or state regulations. Mechanical equipment may not be used or stored where the only protection is provided by the use of a safety monitor
- The general provisions section of this section do not apply at points of access such as stairways, ladders and ramps, or when employees are on the roof only to inspect, investigate, or estimate roof level conditions. Roof edge materials handling areas and materials storage areas will be guarded as provided in the roof edge materials handling section of this section
- Workers engaged in built-up roofing on low-pitched roofs less than 50 feet wide may use a safety system without warning lines where the use of hot tar poses additional hazards

Warning Line Systems and Access Paths

- When mechanical equipment is not being used, the warning line will be erected not less than 6 feet (1.8 m) from the roof edge
- When mechanical equipment is being used, the warning line will be erected not less than 6 feet (1.8 m) from the roof edge which is parallel to the direction of mechanical equipment operation, and not less than 10 feet (3.1 m) from the roof edge which is perpendicular to the direction of mechanical equipment operation
- Points of access, materials handling areas, storage areas, and hoisting areas will be connected to the work area by an access path formed by two warning lines
- When the path to a point of access is not in use, a rope, wire, chain, or other barricade, equivalent in strength and height to the warning line, will be placed across the path at the point where the path intersects the warning line erected around the work area, or the path will be offset such that a person cannot walk directly into the work area
- Warning lines will be erected around all sides of the work area for work 6 to 10 feet from the roof edge.

- A warning line system as prescribed in 29 CFR 1926.500 and supplemented by the use of a safety monitor system as prescribed in 29 CFR 1926.500 to protect any employee engaged in duties between the forward edge of the warning line and the unprotected sides and edges, including the leading edge, of a low pitched roof or walking/working surface
- Warning line and safety monitor systems as described in 29 CFR 1926.500 are prohibited on surfaces exceeding a 4/12 pitch, and on any surface whose dimensions are less than 45 inches in all directions
- The warning line will consist of a rope, wire, or chain and supporting stanchions
- The rope, wire, or chain will be flagged at not more than six feet intervals with high-visibility material
- The rope, wire, or chain will be rigged and supported in such a way that its lowest point (including sag) is no less than 39 inches from the roof surface and its highest point is no more than 45 inches from the roof surface
- After being erected, with the rope, wire or chain attached, stanchions will be capable of resisting, without tipping over, a force of at least 16 pounds applied horizontally against the stanchion, 30 inches above the roof surface, perpendicular to the warning line, and in the direction of the roof edge
- The rope, wire, or chain will have a minimum tensile strength of 500 pounds, and after being attached to the stanchions, will be capable of supporting, without breaking, the loads applied to the stanchions
- The line will be attached at each stanchion in such a way that pulling of one section of line between stanchions will not result in slack being taken up in adjacent sections before the stanchion tips over.
- Access paths: points of access, materials handling areas, and storage areas will be connected to the work area by a clear access path formed by two warning lines.
- When the path to a point of access is not in use, a rope, wire or chain, equal in strength and height to the warning line, will be placed at the point where the path intersects the warning line erected around the work area.

Roof edge Materials Handling Areas and Materials Storage

Employees working in a roof-edge materials-handling or materials storage area location on a low-pitched roof with a ground-to-work-area height greater than six feet will be protected from falling along all unprotected roof sides and edges of the area.

- When guardrails are used at hoisting areas, a minimum of four feet of guardrail will be erected on each side of the access point through which materials are hoisted
- A chain or gate will be placed across the opening between the guardrail sections when hoisting operations are not taking place
- When guardrails are used at bitumen pipe outlets, a minimum of four feet of guardrail will be erected on each side of the pipe
- When safety-harness systems are used, they will not be attached to the hoist
- When fall-restraint systems are used, they will be rigged to allow the movement of employees only as far as the roof edge
- Materials will not be stored within six feet of the roof edge unless guardrails are erected at the roof edge

Leading Edge Control Zone

When performing leading-edge work, Dolphus Bannister will ensure that a control zone is established according to the following requirements:

- The control zone will begin a minimum of six feet back from the leading edge to prevent exposure by employees who are not protected by fall-restraint or fall-arrest systems
- The control zone will be separated from other areas of the low-pitched roof or walking/working surface by the erection of a warning-line system
- The warning-line system will consist of wire, rope, or chain supported on stanchions, or a method which provides equivalent protection
- The spacing of the stanchions and support of the line will be such that the lowest point of the line (including sag) is not less than 39 inches from the walking / working surface, and its highest point is not more than 45 inches from the working / walking surface
- Each line will have a minimum tensile strength of 500 pounds
- Each line will be flagged or clearly marked with high-visibility materials at intervals not to exceed six feet

Safety-Monitor System

The employer will designate a competent person to monitor the safety of other employees and the employer will ensure that the safety monitor complies with the following requirements:

- The safety monitoring system will not be used as a fall protection system for any work other than roofing work on roof slopes of 2 in 12 (vertical to horizontal) or less
- Use of a safety monitoring system alone (i.e., without the warning line system) is not permitted on roofs more than 50 feet (15.25 m) in width
- When selected, the employer will ensure that the safety-monitor system will be addressed in the fall-protection work plan, include the name of the safety monitor(s) and the extent of their training in both the safety-monitor and warning-line systems, and will ensure that the following requirements are met:
  - The safety-monitor system will not be used when adverse weather conditions create additional hazards.
  - A person acting in the capacity of a safety monitor will be trained in the function of both the safety-monitor and warning-lines systems
  - The safety monitor will:
    - Be a competent person as defined in 29 CFR 1926.32(f)
    - Have control authority over the work as it relates to fall protection
    - Be instantly distinguishable from members of the work crew
    - Engage in no other duties while acting as safety monitor
    - Be positioned in relation to the workers under their protection, so as to have a clear, unobstructed view and be able to maintain normal voice communication
    - Not supervise more than eight exposed employees at one time
- Control zone workers will be distinguished from other members of the crew by wearing a high-visibility vest only while in the control zone

General Safety Considerations

The company will ensure prompty rescue of employees in the event of a fall or shall assure that employees are able to rescue themselves.

Fall arrest systems will be inspected prior to each use for wear, damage and other deterioration, and defective components shall be removed from service.

If Fall Protection Plans are utilized, site specific plans will be prepared, or modified by a Qualified Person, and maintained at the job site. The plan will be under the supervision of a Competent Person, and the plan will address why the use of conventional fall protection is infeasible, or why their use would cause a greater hazard.

If Fall Protection Plans are utilized, Dolphus Bannister will post a written notice of how is designated to work in controlled access zones. No other employees may enter controlled access zones.

If Fall Protection Plans are utilized, and in the event an employee falls, or some other related, serious incident occurs, (e.g., a near miss) the company will investigate the circumstances of the fall or other incident to determine if the fall protection plan needs to be changed (e.g. new practices, procedures, or training) and shall implement those changes to prevent similar types of falls or incidents.

All affected employees will undergo training to the recogonize fall hazards and how to minimize these hazards. Retraining will occur when the following conditions occur: it is determined that employees already trained do not have the necessary understanding or skill, work place changes, and/or fall protection systems or equipment changes that render previous training obsolete. This training is documented, and the latest training certification is maintained.

Hole Covers

Covers located in roadways and vehicular aisles shall be capable of supporting at least twice the maximum axle load of the largest vehicle expected to cross over the cover without failing.

All other covers shall be capable of supporting, without failure, at least twice the weight of employees, equipment, and materials that may be imposed on the cover at any one time.

In order to prevent accidental displacement by the wind, equipment, or employees, all covers shall be secured when installed.

All covers shall be color coded or be marked with the word "HOLE" or "COVER" to provide warning of the hazard.

Note: This provision does not apply to cast iron manhole covers or steel grates used on streets or roadways.

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

POLICY

Bannister Electric LLC of West Monroe has implemented this policy to ensure proper safe work practices and procedures are followed for the protection of our employees against fire/explosion hazards. The following work practices, procedures, and engineering controls will be enforced as an integral part of our Company safety policy

RESPONSIBILITIES

Dolphus Bannister is designated as the supervisor to manage the Fire Prevention Program. Bannister Electric LLC of West Monroe will have and maintain an employee alarm system. The employee alarm system will use a distinctive signal for each purpose. Dolphus Bannister will ensure that all employees are informed and trained in the following minimum elements for Emergency Action Plans:

- Dolphus Bannister will ensure all employees are trained in the proper operation of all types of fire extinguishers provided by the company
- As warranted by the project, Bannister Electric LLC of West Monroe will provide a trained and equipped organization (Fire Brigade) to assure adequate protection to life
- Procedures for reporting a fire or other emergency
- Procedures for emergency evacuation for all areas of work, including type of evacuation and exit route assignments
- Safe assembly areas designated for all work areas in the event of evacuation
- Procedures to be followed by employees who remain to operate critical plant operations before they evacuate
- Procedures to account for all employees after evacuation
- Procedures to be followed by employees performing rescue or medical duties
- The members in the chain of command who may be contacted by employees who need more information about the Plan or for an explanation of their duties under the Plan
- All materials will be stored, handled, and piled with regard to their fire characteristics

TRAINING

Bannister Electric LLC of West Monroe will designate and train employees to assist in a safe and orderly evacuation of other employees.

Dolphus Bannister will review the Fire Prevention Plan with each employee covered by the plan: when each Plan is developed or an employee is initially assigned to a job; when the employee's responsibilities under the Plan change; when any element of the Plan is changed.

Fire Protection/Prevention training will be required on initial hiring and annually thereafter. Employees will be trained in fighting class A, B, C, D, and K fires using the PASS method.

All employees will be trained in the hazards involved in using fire extinguishers for incipient stage firefighting and escape purposes. Employees are instructed to ensure the local Emergency Medical Service EMS (Fire Department) is notified before attempting to extinguish any fire, and that if a fire is not immediately extinguished using one fire extinguisher, or the fire recurs to evacuate immediately.

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Where the employer has provided portable fire extinguishers for employee use in the workplace, the employer will also provide an educational program to familiarize employees with the general principles of fire extinguisher use and the hazards involved with incipient stage fire fighting.

The employer will provide training upon initial employment and at least annually thereafter.

SAFE PRACTICES

All fire extinguishers and firefighting equipment will be inspected by Dolphus Bannister on a monthly basis; this inspection will be recorded and documented with the required annual maintenance check. And defective equipment will be replaced immediately. Records of inspection will be kept on file in the office.

Procedures are instructions for accomplishing specific tasks. Emergency procedures are important because they tell employees exactly what to do to ensure their safety during an emergency to accomplish each of the following tasks:

- Report emergencies to local fire and police departments
- Inform the emergency chain of command of an emergency
- Warn employees about an emergency
- Conduct an orderly, efficient workplace evacuation
- Assist employees with disabilities or injuries during an evacuation
- Shut down critical equipment, operate fire extinguishers, and perform other essential services during an evacuation. Account for employees at a designated safe area after an evacuation
- Perform rescue and first aid that may be necessary during an emergency

FIRE CLASSES

Not all fires are the same. Different fuels create different fires and require different types of fire extinguishing agents. The fire types are listed below:

- Class A – Ordinary combustibles such as wood, paper, cloth, trash, and plastics
- Class B – Flammable liquids such as gasoline, petroleum oil, and paint. Also includes flammable gasses such as propane and butane
  - Class B does NOT include fires involving cooking oils and grease
- Class C – Energized Electrical Equipment such as motors, transformers, and appliances.
  - If the power is removed, Class C fires become one of the other classes of fire
- Class D – Combustible metals such as potassium, sodium, aluminum, and magnesium
- Class K – Cooking oils and grease such as animal fats and vegetable fats

SELECTION AND DISTRIBUTION

Portable fire extinguishers will be provided for employee use and selected and distributed based on the classes of anticipated workplace fires and on the size and degree of hazard which would affect their use.

Bannister Electric LLC of West Monroe will distribute portable fire extinguishers for use by employees on Class A fires so that the travel distance for employees to any extinguisher is 75 feet (22.9 m) or less.

Bannister Electric LLC of West Monroe may use uniformly spaced standpipe systems or hose stations connected to a sprinkler system installed for emergency use by employees instead of Class A portable fire extinguishers, provided that such systems meet the respective requirements of 1910.158 or 1910.159, that they provide total coverage of the area to be protected, and that employees are trained at least annually in their use.

Bannister Electric LLC of West Monroe will distribute portable fire extinguishers for use by employees on Class B fires so that the travel distance from the Class B hazard area to any extinguisher is 50 feet (15.2 m) or less.

Bannister Electric LLC of West Monroe will distribute portable fire extinguishers used for Class C hazards on the basis of the appropriate pattern for the existing Class A or Class B hazards.

Bannister Electric LLC of West Monroe will distribute portable fire extinguishers or other containers of Class D extinguishing agent for use by employees so that the travel distance from the combustible metal working area to any extinguishing agent is 75 feet (22.9 m) or less. Portable fire extinguishers for Class D hazards are required in those combustible metal working areas where combustible metal powders, flakes, shavings, or similarly sized products are generated at least once every two weeks.

INSPECTION, MAINTENANCE, AND TESTING

Dolphus Bannister will be responsible for the inspection, maintenance and testing of all portable fire extinguishers in the workplace.

Portable extinguishers or hose used in lieu thereof will be visually inspected monthly.

Bannister Electric LLC of West Monroe will assure that:

- Portable fire extinguishers are subjected to an annual maintenance check. Stored pressure extinguishers do not require an internal examination. The employer will record the annual maintenance date and retain this record for one year after the last entry or the life of the shell, whichever is less. The record will be available to the Assistant Secretary upon request.
- Stored pressure dry chemical extinguishers that require a 12-year hydrostatic test are emptied and subjected to applicable maintenance procedures every 6 years. Dry chemical extinguishers having non-refillable disposable containers are exempt from this requirement. When recharging or hydrostatic testing is performed, the 6-year requirement begins from that date.
- Alternate equivalent protection is provided when portable fire extinguishers are removed from service for maintenance and recharging.

Hydrostatic Testing

Bannister Electric LLC of West Monroe will assure that hydrostatic testing is performed by trained persons with suitable testing equipment and facilities.

Bannister Electric LLC of West Monroe will assure that portable extinguishers are hydrostatically tested at the intervals listed in the table below, except under any of the following conditions:

- When the unit has been repaired by soldering, welding, brazing, or use of patching compounds;
- When the cylinder or shell threads are damaged;
- When there is corrosion that has caused pitting, including corrosion under removable name plate assemblies;
- When the extinguisher has been burned in a fire; or
- When a calcium chloride extinguishing agent has been used in a stainless steel shell.

In addition to an external visual examination, the employer will assure that an internal examination of cylinders and shells to be tested is made prior to the hydrostatic tests.

Type of Extinguishers	Test Interval (Years)
Soda Acid (soldered brass shells) (until 1/1/82)	(1)
Soda Acid (stainless steel shells)	5
Cartridge operated water and/or antfreeze	5
Stored pressure water and/or antifreeze	5
Wetting agent	5
Foam (soldered brass shells) (until 1/1/82)	(1)
Foam (stainless steel shells)	5
Aqueous fiml morming foam (AFFF)	5
Loaded steam	5
Dry chemicals with stainless steel	5
Carbon Dioxide	5
Dry chemical, stored pressure, with mild steel, brazed brass, or aluminum shells	12
Dry chemical, cartridge or cylinder operated, with mild steel shells	12
Halon 1211	12
Halon 1301	12
Dry Powder, cartridge, or cylinder operated with mild steel shells	12

[1]Extinguishers having shells constructed of copper or brass joined by soft solder or rivets will not be hydrostatically tested and will be removed from service by January 1, 1982. (Not permitted)

Bannister Electric LLC of West Monroe will assure that:

- Portable fire extinguishers are hydrostatically tested whenever they show new evidence of corrosion or mechanical injury, except under the conditions listed in paragraphs (f)(2)(i)-(v) of this section.
- Hydrostatic tests are performed on extinguisher hose assemblies which are equipped with a shut-off nozzle at the discharge end of the hose. The test interval will be the same as specified for the extinguisher on which the hose is installed.

- Carbon dioxide hose assemblies with a shut-off nozzle are hydrostatically tested at 1,250 psi (8,620 kPa).
- Dry chemical and dry powder hose assemblies with a shut-off nozzle are hydrostatically tested at 300 psi (2,070 kPa).

Hose assemblies passing a hydrostatic test do not require any type of recording or stamping. Bannister Electric LLC of West Monroe will assure that:

- Hose assemblies for carbon dioxide extinguishers that require a hydrostatic test are tested within a protective cage device.
- Carbon dioxide extinguishers and nitrogen or carbon dioxide cylinders used with wheeled extinguishers are tested every 5 years at 5/3 of the service pressure as stamped into the cylinder. Nitrogen cylinders which comply with 49 CFR 173.34(e)(15) may be hydrostatically tested every 10 years.
- All stored pressure and Halon 1211 types of extinguishers are hydrostatically tested at the factory test pressure not to exceed two times the service pressure.
- Acceptable self-generating type soda acid and foam extinguishers are tested at 350 psi (2,410 kPa).

Air or gas pressure may not be used for hydrostatic testing.

Extinguisher shells, cylinders, or cartridges which fail a hydrostatic pressure test, or which are not fit for testing will be removed from service and from the workplace.

The equipment for testing compressed gas type cylinders will be of the water jacket type. The equipment will be provided with an expansion indicator which operates with an accuracy within one percent of the total expansion or .1cc (.1mL) of liquid.

The equipment for testing non-compressed gas type cylinders will consist of the following:

A hydrostatic test pump, hand or power operated, capable of producing not less than 150 percent of the test pressure, which will include appropriate check valves and fittings;

A flexible connection for attachment to fittings to test through the extinguisher nozzle, test bonnet, or hose outlet, as is applicable; and

A protective cage or barrier for personal protection of the tester, designed to provide visual observation of the extinguisher under test.

Bannister Electric LLC of West Monroe will maintain and provide upon request to the Assistant Secretary evidence that the required hydrostatic testing of fire extinguishers has been performed at the time intervals shown in the table above. Such evidence will be in the form of a certification record which includes the date of the test, the signature of the person who performed the test and the serial number, or other identifier, of the fire extinguisher that was tested. Such records will be kept until the extinguisher is hydrostatically retested at the time interval specified in the table above or until the extinguisher is taken out of service, whichever comes first.

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

POLICY

It is the policy of Bannister Electric LLC of West Monroe that training in first aid response is not a requirement for employment, but that local Emergency Medical Services are utilized for emergency medical care. Dolphus Bannister is designated as the administrator of the Medical Services Program.

- Medical services for employee evaluations, employment requirements, and special conditions of work are provided to employees at no cost as specified in OSHA requirements
- A person(s) who has a valid certificate in first aid training, the American Red Cross, or equivalent will be available at work sites to render emergency first aid
- Provisions will be made prior to commencement of a project for prompt medical attention in case of serious injury
- First aid supplies will be easily accessible when required
- Proper equipment for prompt transportation of the injured person to a physician or hospital or a communication system for contacting necessary ambulance service will be provided
- Dolphus Bannister is the designated first aid provider and certified in cardiopulmonary resuscitation CPR and is responsible for rendering first aid in the event of an injury requiring immediate response when emergency medical services are not available, and will also be responsible for first aid training of any employee required
- Injured employees are to be transported to medical facilities by emergency medical services. If emergency medical service is not available in a timely manner, the injured employee will be transported to the nearest medical service in a company vehicle by the job foreman
- In areas where 911 service is not available employees will be notified of phone numbers to contact local emergency response medical services. Dolphus Bannister will be responsible for posting of emergency phone numbers at all jobsites. The phone numbers will be conspicuously posted in all work locations
- Dolphus Bannister is responsible for the accessibility of First Aid Kits and for checking the contents of all First Aid Kits before being sent out to each job and at least weekly on each job to ensure that the expended items are replaced
- A valid certificate in first aid training must be obtained from the the American Red Cross or equivalent training that can be verified by documentary evidence
- First aid kits are readily available in all company vehicles and in the company office. First aid kits will consist of appropriate items and stored in a weather proof container with individual sealed packages of each type of item and will stock a minimum of the following items:

• PPE for First Aid:
• 3-Pair latex gloves
• Surgical masks
• Clear eye protection or Face Shield
• Dust Masks or other needed Face Protection
• Mouth-to-mouth barrier
• Large, sterile gauze pads (6 each: 2X2's, 3X3's, and 4X4's)
• Compress Dressings (4X8), 3 each
• Rolled gauze bandages: 2" and 3" wide, 3 each
• Large box assorted "Band-Aids"
• Two elastic wrap bandages (ace)
• Cotton balls and Q-tips
• Surgical or athletic tape; 1" and 2" wide, 2 rolls each
	• Antiseptics and ointments:
	  ○ Alcohol
	  ○ Burn gel or cream
	  ○ Alcohol swabs
	  ○ Peroxide
	  ○ Antiseptic spray and ointment
	• Pain relief tabs
	• 6 burn treatment single-use packages, 0.5 g. Application
	• Good quality eye-wash solution, with eye cup
	• 1 eye covering bandages (for two eyes)
	• Self-activating cold packs, 4x5 inches
	• Liquid antiseptic hand soap
	• Blunt-nose surgical scissors
	• Forceps, tweezers and safety pins
	• Snake-bite kit

* General First-aid Guidebook, textbook, or manual will be readily available, but not necessarily inside of the first-aid kit.	

- Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities will be provided within the work area for quick drenching or flushing of eyes or body
- Eye wash bottles are available wherever eye wash stations are not available, for any employee required to work in an environment where exposure to eye hazards may exist. Wash facilities or drench barrels are available at each jobsite for employees
- Procedure for flushing eyes — Eye membranes absorb chemicals quickly. This can lead to eye damage within minutes. Flood the eye with lukewarm (never hot) water poured from a large glass two to three inches from the eye. Continue for 15 minutes. Blink the eye as much as possible during the flooding. Do not force the eyelid open and do not allow the eyes to be rubbed. If lukewarm water is not available, rinse the eye quickly using a gentle stream from a hose for at least 15 minutes
- Procedure for drenching skin — If poisons come in contact with the skin, they must be removed as quickly as possible. Remove contaminated clothing and flood the skin area with water for 10 minutes. Then gently wash the skin area with soap and water and rinse. Later, destroy contaminated clothing. For a chemical skin burn, rinse the area with lots of water, remove the clothes and cover with a soft, clean cloth. Do not apply grease or ointments
- It is the policy of Bannister Electric LLC of West Monroe that all of the requirements of OSHA §1926.50 will be met

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

POLICY

This program is designed for the prevention of employee accidents and injuries while operating industrial trucks (forklifts). Only trained and certified operators, including supervisors, are allowed to operate Powered Industrial Trucks (Forklifts).

REFERENCES

- §1910.178 – Powered Industrial Trucks

RESPONSIBILITIES

Safe forklift operation is a responsibility shared between the Company and its employees.

Employer Responsibilities

Bannister Electric LLC of West Monroe is responsible for:

- Ensuring each powered industrial truck operator is competent to operate a powered industrial truck safely, as demonstrated by the successful completion of our training and evaluation
- Responding quickly to eliminate workplace hazards
- Ensuring all equipment is kept in good repair
- Ensuring employees follow safe job procedures
- Reviewing jobsite conditions whenever there is a significant change to any element of the job or there has been an injury or illness

Safety Committee Responsibilities

- Assist in jobsite review for hazards to forklifts as necessary
- Assist in training employees to recognize and control workplace hazards
- Ensure operators of forklifts are certified operators
- Encourage employees to report hazards
- Implement appropriate controls
- Ensure corrective action is taken promptly

Employee Responsibilities

- Operate forklifts only when certified to do so
- Follow safe job procedures
- Report hazards to a supervisor immediately

Powered Industrial Truck Operators: Operators are responsible for the following: Operating all powered industrial trucks in a safe manner consistent with safe rules of operation. Inspecting powered industrial trucks at the beginning of each work shift and completing the appropriate inspection forms. Reporting all equipment malfunctions and/or maintenance needs to their supervisors immediately. Park lift in safe place, remove key, tag or note problem.

TRAINING

Training will include: formal classroom education, practical training, and an instructor's evaluation of the operator's performance. The instructor providing the training will be knowledgeable about the formal education and worksite requirements and qualified to provide operating instructions and evaluate each student's performance in the following:

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

Workplace-related topics include:

- Surface conditions where the vehicle will be operated
- Composition of loads to be carried and load stability
- Load manipulation, stacking, and unstacking
- Pedestrian traffic in areas where the vehicle will be operated
- Narrow aisles and other restricted places where the vehicle will be operated
- Hazardous (classified) locations where the vehicle will be operated
- Ramps and other sloped surfaces that could affect the vehicle's stability
- Closed environments and other areas where insufficient ventilation or poor vehicle maintenance could cause a buildup of carbon monoxide or diesel exhaust
- Other potentially hazardous environmental conditions in the workplace
- Any other operating instructions, warnings, or precautions listed in the operator's manual for the types of vehicle that the employee is being trained to operate

Refresher Training Requirements

Refresher training, including an evaluation of the effectiveness of that training, will be conducted to ensure that the operator has the knowledge and skills needed to operate the powered industrial truck safely.

Refresher training will be conducted when:

- The operator has been observed to operate the vehicle in an unsafe manner
- The operator has been involved in an accident or near-miss incident
- The operator has received an evaluation that reveals that the operator is not operating the truck safely
- The operator is assigned to drive a different type of truck
- A condition in the workplace changes in a manner that could affect safe operation of the truck

An evaluation of each powered industrial truck operator's performance will be conducted at least once every three years. Employee training records will be maintained for 5 years.

SAFE PRACTICES

Operator Requirements

- Operators must be certified to use the equipment he/she is operating
- Operators are prohibited from operating powered industrial trucks while under the influence of any of the following that might impair their driving skills:
  - Alcohol
  - Illegal drugs
  - Prescription or over the counter medications

Equipment Inspection and Maintenance

- The operator will inspect their powered industrial truck before each shift
- A file will be maintained that lists the shift inspections of equipment. This file will be kept at the Bannister Electric LLC of West Monroe Administration Offices
- A maintenance log will be kept that identifies repair needs and corrective actions taken for each powered industrial truck. This log will be kept at the Maintenance Administration Offices
- If repairs are needed on a powered industrial truck such that it cannot be safely operated, it will; be taken out of service until the repairs have been made
- After repairs have been completed, the powered industrial truck will be given a performance test to ensure that the equipment is safe to operate
- Forklifts will be kept in clean condition, free of dirt, excess oil and grease

Changing and Charging Batteries

- Equipment will be provided to safely flush and neutralize spilled battery acid and electrolyte
- Smoking will be prohibited in all battery-charging areas
- Eyewash equipment will be maintained in all charging areas
- Precautions to prevent open flames, sparks and electric arcs in charging areas
- Employees who change and service batteries and handle corrosive liquids will wear the proper Personal Protective Equipment (PPE)

General Safety

- Only authorized, trained personnel will operate lift trucks
- Before start of shift, a visual inspection must be conducted. Employees will not operate an unsafe forklift at any time
- Fill fuel tanks out of doors while engine is off
- Operators will drive with both hands on the steering wheel. Horseplay is prohibited. Do not drive with wet or greasy hands
- No person will ride as a passenger on a forklift or on the load being carried
- A forklift will not be used to elevate a platform or pallet with persons on it, except work platforms especially designed for this purpose. Work platforms must have standard guard rails, and must be securely fastened to the forks
- No person will stand or walk under elevated forks
- Operators should avoid making jerky starts, quick turns, or sudden stops. The operator will not use reverse as a brake
- Slow down on wet and slippery surfaces, cross aisles or locations with obstructed visions
- Operators entering a building or nearing a blind corner will make their approach at reduced speed. Sound horn and proceed carefully
- Operators will give pedestrians the right-of-way at all times
- Operators will not drive toward any person who is in front of a fixed object or wall
- Operators will not overtake and pass another forklift traveling in the same direction, at intersections, blind spots, or hazardous locations
- Operators should not put their fingers, arms, or legs between the uprights of the mast, or beyond the contour of the forklift
- Forks should always be placed under the load as far as possible. Do not lift a load with one fork
- No load should be moved unless it is absolutely safe and secure
- Use extra care when handling long lengths of bar stock, pipe, or other materials
- Avoid sharp or fast end-swing
- Compressed gas cylinders shall be moved only in special pallets designed for this purpose
- When loading or unloading trucks or trailers, the brakes on the vehicle will be set (locked) and the wheels of the truck and/or trailer will be chocked and secured
- Forklifts must be safely parked when not in use. The controls will be neutralized, power shut off, brakes set, key removed, and the forks left in a down position flat on the surface, and not obstructing walkways or aisles
- A forklift will not be left on an incline unless it is safely parked and the wheels blocked
- Only stable and safely arranged loads will be handled
- Only loads within the rated capacity of the powered industrial truck will be handled

Traveling

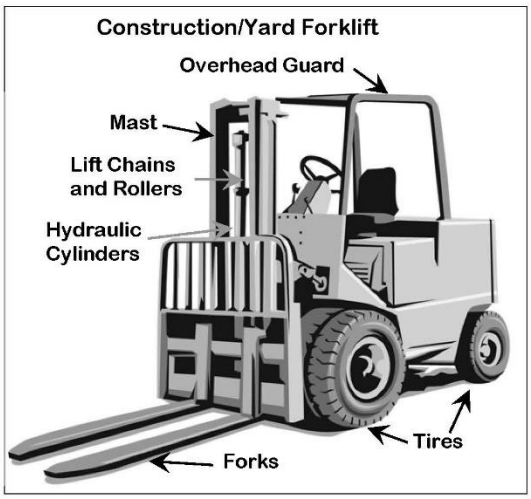
- Bannister Electric LLC of West Monroe speed limits will be observed, and under all travel conditions, a powered industrial truck will be operated at speeds that will permit it to be brought to a stop in as safe manner
- Three truck lengths (or two seconds) will be maintained between powered industrial trucks in operation
- The powered industrial truck will be kept under control at all times
- When vision is obscured, the operator will slow down and sound the horn
- If the load blocks the operator's view, the powered industrial truck will be driven in the direction that provides the best visibility
- The powered industrial truck will cross railroad tracks at a diagonal
- The powered industrial truck will be parked 8 feet or further from the center line of the railroad tracks
- The operator will keep a clear view of the path of travel
- The loaded powered industrial truck will be driven with the load upgrade when driving on ascending or descending grades greater than 10%
- Dock boards and bridge plates will be properly secured before they are driven over
- When the forklift is not carrying a load, the operator shall travel with the forks as low as possible (maximum of 3 inches on paved surfaces). When carrying a load, it should be carried as low as possible (consistent with safe operation, 2 to 6 inches above the surface)
- The forks should not be operated while the forklift is traveling
- On a downgrade, the load will be to the rear, and the forks raised only enough to clear the surface
- On an upgrade, the load will be ahead, and the forks raised only enough to clear the surface

Forklift Daily Inspection Checklist:

KEY OFF Procedures

The vehicle inspection

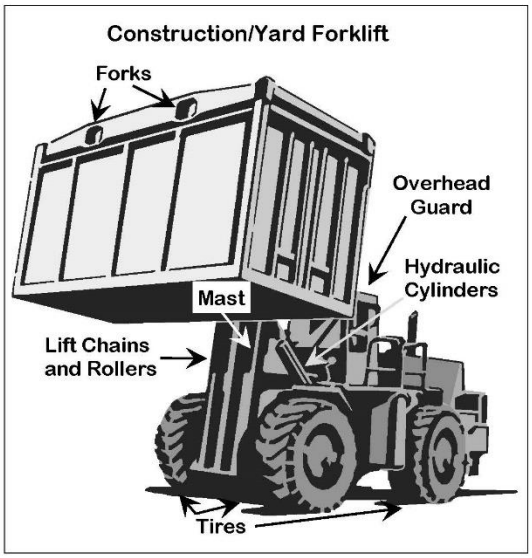
- ☐ Overhead guard
- ☐ Hydraulic cylinders
- ☐ Mast assembly
- ☐ Lift chains and rollers
- ☐ Forks
- ☐ Tires
- ☐ Gas gauge
- ☐ Check the engine oil level
- ☐ Examine the battery
- ☐ Inspect the hydraulic fluid level
- ☐ Check the engine coolant level



KEY ON Procedures

Test the standard equipment

- ☐ Front, tail, and brake lights
- ☐ Fuel gauge (if diesel)
- ☐ Windshield wiper
- ☐ Heater



ENGINE RUNNING Procedures

Check the gauges

- ☐ Oil pressure indicator lamp
- ☐ Ammeter indicator lamp
- ☐ Ammeter
- ☐ Hour Meter
- ☐ Water Temperature Gauge

Test the standard equipment

- ☐ Steering
- ☐ Brakes
- ☐ Horn
- ☐ Safety seat (if equipped)
- ☐ Check the transmission fluid level
- ☐ Check the operation of load-handling attachments

Comments/Observations: _____

_____ _____
Printed name and signature of person(s) conducting inspection Date

_____ _____
Printed name and signature of person(s) conducting inspection Date

Performance Evaluation for Forklift Operators

Employee: _____ Date: _____ Time: _____

Evaluator: _____ Equipment Type: _____

YES NO

- ☐ ☐ Shows familiarity with truck controls.
- ☐ ☐ Gave proper signals when turning.
- ☐ ☐ Slowed down at intersections.
- ☐ ☐ Sounded horn at intersections.
- ☐ ☐ Obeyed signs.
- ☐ ☐ Kept a clear view of direction of travel.
- ☐ ☐ Turned comers correctly - was aware of rear end swing.
- ☐ ☐ Yielded to pedestrians.
- ☐ ☐ Drove under control and within proper traffic aisles.
- ☐ ☐ Approached load properly.
- ☐ ☐ Lifted load properly.
- ☐ ☐ Maneuvered properly.
- ☐ ☐ Traveled with load at proper height.
- ☐ ☐ Lowered load smoothly/slowly.
- ☐ ☐ Stops smoothly/completely.
- ☐ ☐ Load balanced properly.
- ☐ ☐ Forks under load all the way.
- ☐ ☐ Carried parts/stock in approved containers.
- ☐ ☐ Checked bridge-plates/ramps.
- ☐ ☐ Did place loads within marked area.
- ☐ ☐ Did stack loads evenly and neatly.
- ☐ ☐ Did drive backward when required.
- ☐ ☐ Did check load weights.
- ☐ ☐ Placed forks on the ground when parked, controls neutralized, brake on set, power off.
- ☐ ☐ Followed proper instructions for maintenance - checked both at beginning and end.

Comments: _____

_____

_____

Total Rating: ☐ Excellent ☐ Good ☐ Fair ☐ Poor ☐ Fail

_____ _____
Evaluator's Signature Date

_____ _____
Operator's Signature Date

Certification of Forklift Operator Training

The Company certifies that the following employee has been trained and has demonstrated competence in the following areas of powered industrial truck operations:

Truck-related topics:

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

Workplace-related topics:

- Surface conditions where the vehicle will be operated.
- Composition of loads to be carried and load stability.
- Load manipulation, stacking, and un-stacking.
- Pedestrian traffic in areas where the vehicle will be operated.
- Narrow aisles and restricted areas that the vehicle will be operated.
- Hazardous (classified) locations where the vehicle will be operated.
- Ramps and sloped surfaces that could affect the vehicle's stability.
- Closed environments and other areas where insufficient ventilation or poor vehicle maintenance could cause a buildup of carbon monoxide or diesel exhaust.
- Other unique or potentially hazardous environmental conditions in the workplace that could affect safe operation.

Employee Name: _____

Name of Trainer: _____

Signature of Trainer: _____

Date of Training: ____ /____ /____ **Date of Evaluation:** ____ /____ /____

POLICY

Bannister Electric LLC of West Monroe has adopted this policy to inform employees of the written Gas Hazards Procedures. This ensures the safety and health of the employees.

RESPONSIBILITIES

Dolphus Bannister is responsible for ensuring that the following policy for control, training, personal protective equipment and safe work practices is enforced.

TRAINING

Training for Gas Hazard Awareness will be documented and available for review. Employees will be trained in gas hazards before initial assignment. Employees will receive refresher training at least: annually, as work requires; changing job assignments; changing equipment; changing environment.

Gas Hazard Awareness training requirements will include, at a minimum, the following:

- Locations of alarm stations
- Gas Monitoring Equipment – Portable and Fixed Detection
- Gas Alarms
- Gas Hazards – Characteristics of gases, to include at a minimum:
- Oxygen deficiency
- Oxygen or nitrogen enriched atmospheres
- Carbon monoxide, hydrogen sulfide, and methane
- Health hazards, particularly of the anticipated possible gas exposure
- The correct use, maintenance, and limitations of Personal Protective Equipment (PPE)

Hazard training will include any plant or department specific gases of concern, and will also include:

- Signs and symptoms of overexposure
- Personnel Rescue Procedures
- Use and care of Self-Contained Breathing Apparatus (SCBA) - includes donning and emergency procedures (when applicable)
- Evacuation procedures
- Staging Areas – Primary and Secondary

GAS DETECTORS/MONITORS

Bannister Electric LLC of West Monroe will ensure each employee will use a portable gas detector as required in all high-hazard areas.

The gas monitor will be calibrated per the manufacturer's recommendations. Each monitor will contain a current calibration sticker on the monitor providing the date of calibration.

At the beginning of each day, a bump test is required to be completed on the monitor when in use per the requesting owner client and manufacturer's guidelines. This is to ensure the monitor and alarms are functioning correctly.

Bump Test: Briefly expose the portable detector to a known concentration of gas high enough to set off the alarm. Note the reading to ensure that it is correct. A bump test is not a calibration, but a quick way to ensure that the most important functions of the instrument are intact.

RESPIRATORY PROTECTION

Bannister Electric LLC of West Monroe will ensure the company's respiratory protection program is in accordance with 29CFR 1910.134. Each employee will receive training in respiratory protection. The training will be documented and in writing.

EMERGENCY ACTION

Bannister Electric LLC of West Monroe will ensure all employees are aware of the Owners Emergency Action Plan, including evacuation routes and alarms. Employees will participate in company emergency evacuation drills and practice rescue procedures.

GAS HAZARDS RECORD OF EMPLOYEE TRAINING

Employees have been made aware of the risks for Gas Hazards identified at this site and have been trained in the appropriate actions as defined in the procedures of this program. Employees have been instructed on how to fill out the report form whenever a violent incident occurs. The following is a list of employees who have received training on Gas Hazard Awareness procedures.

Topics in this training include:

- Locations of alarm systems
- Portable & fixed monitoring equipment
- Gas alarms
- Gas hazards-i.e. characteristics, signs of overexposure, etc.
- Personnel Rescue
- Respiratory Protection procedures
- Evacuation/Emergency Action procedures
- Staging procedures

Printed Name	Signature	Date

POLICY

Bannister Electric LLC of West Monroe has implemented this policy to ensure no employee is exposed hazards caused by improper or unsafe use of hand and portable powered tools. Bannister Electric LLC of West Monroe will provide instruction and training by a Competent Person for each employee using any such tool. The program will enable each employee to recognize hazards related to hand and portable powered tool use and will train each employee in the procedures to be followed to minimize these hazards.

REFERENCES

- §1910.241 – Hand and Portable Powered Tools and Other Hand-Held Equipment
- §1926.300 – Tools - Hand and Power

RESPONSIBILITIES

Employer Responsibilities

Bannister Electric LLC of West Monroe is responsible for:

- Ensuring that hand tools and portable powered equipment outside of the facility are inspected on a regular basis
- Ensuring each employee has been trained or instructed by a competent person in the following areas, as applicable:
  - All hand and power tools and similar equipment, whether furnished by Bannister Electric LLC of West Monroe or the employee, will be maintained in a safe condition
  - Any tool not in compliance with any applicable OSHA requirements is prohibited. Such tools will either be identified as unsafe by tagging or locking the controls to render them inoperable, or the defective tool will be physically removed from its place of operation
  - When power operated tools are designed to accommodate guards, they will be equipped with such guards when in use
  - Guards shall be in place and operable at all times while the tool is in use. The guard may not be manipulated in such way that will comprise its integrity or compromise the protection in which intended. Guarding shall meet the requirements set forth in American National Standards Institute (ANSI) B15.1
  - Employees using hand and power tools and exposed to the hazard of falling, flying, abrasive, and splashing objects, or exposed to harmful dusts, fumes, mists, vapors, or gases will be provided with the appropriate Personal Protective Equipment (PPE) necessary to protect them from the hazard
  - Belts, gears, shafts, pulleys, sprockets, spindles, drums, fly wheels, chains, or other reciprocating, rotating, or moving parts of equipment will be guarded if such parts are exposed to contact by employees or otherwise create a hazard
  - One or more methods of machine guarding will be provided to protect the operator and other employees in the machine area from hazards such as those created by point of operation, ingoing nip points, rotating parts, flying chips, and sparks. The point of operation of machines whose operation exposes an employee to injury, will be guarded

- All fuel powered tools will be stopped while being refueled, serviced, or maintained. When fuel powered tools are used in enclosed spaces, the applicable PPE requirements for hazardous atmospheres will apply. Responding quickly to eliminate workplace hazards; ensuring all equipment is kept in good repair; ensuring employees follow safe job procedures; and reviewing job hazard analysis whenever there is a significant change to any element of the job or there has been an injury or illness

Safety Committee Responsibilities

It is the responsibility of the safety committee to:

- Assist in hand tool and portable powered equipment inspections
- Assist in training employees to recognize and control workplace hazards
- Monitor the workplace for hazards
- Encourage employees to report hazards
- Implement appropriate controls
- Ensure corrective action is taken promptly

Employee Responsibilities

All employees are expected to:

- Inspect hand tool and portable powered equipment before use
- Remove defective hand tool and portable powered equipment
- Follow safe job procedures
- Report hazards to a supervisor immediately

SAFE PRACTICES

General Power Tool Use

- Do not allow anyone to use power tools that has not been properly instructed and approved in the processes of safe operation
- Be familiar with your power tools. When using a new tool, or one that is foreign to you, take some time to “test-run” it and get a feel for its performance. Read and understand the operator’s manual and follow its instructions. Prior to its use, do a visual and operational inspection to ensure safe mechanical function
- Eye protection is extremely important and must always be worn when using power tools. When operations present potential eye injuries, adequate and appropriate protection must be selected. Use a face shield, protective goggles, or approved safety glasses depending on the job performed
- Hearing protection is required due to the extreme noise levels generated, especially during extended operating sessions
- Depending on the material being cut, gloves can be helpful and a respirator or dust mask may be required
- Wear clothing appropriate for power tools use; avoid long, loose shirtsleeves, neckwear, or untied long hair
- Check that the electrical circuit to be used is of the proper rating and that cords, plugs, and fittings are intact and secure. All power tools must be grounded unless they are double insulated
- Use only extension cords that are free of splices, taps, bare wires, or frayed and deteriorated insulation. Use 3-prong adapters

- Ensure all power tools are equipped with proper shields and guards, as recommended by the manufacturer. The guards are designed and engineered for the operator's safety
- Operate only properly maintained equipment. Check that spring-loaded on/off trigger switch functions properly
- If any operational problems are noted, remove the power tools from service and get it repaired immediately
- When repairing tools, changing blades, bits and/or cutters, disconnect the power source
- Remove chuck-keys or arbor wrenches before using the tool
- When possible, always secure your work on a stable platform using clamps or vices
- Unsafe practices and inadequate housekeeping create potentially dangerous work-zones; keep the work area free of trip hazards such as tangled power cords, cluttered material, scraps, bricks, or other obstacles and obstructions
- Be aware of your surroundings and always on the lookout for hazards. Avoid using power tools in a wet environment
- Always use the proper tool for the job. store tools in a dry, secure location

Powder-Actuated Tools

Bannister Electric LLC of West Monroe employees are required to follow these general requirements for safe powder-actuated tool use:

- Operators and assistants using tools must use eye, head, and face protection as required by working conditions
- Inspect the tool before use to ensure that it is clean, that all moving parts are free, and that the barrel is free of debris or obstructions
- The muzzle end of the tool must have a guard at least 3 ½" in diameter to confine any flying fragments that might create a hazard
- If a tool is defective, it must be taken out of use until it is properly repaired
- Tools are to remain unloaded until they are to be used
- Never point a tool, loaded or unloaded, at anyone
- In case of a misfire, the tool must be held in the operating position for at least 30 seconds, tried a second time, then wait another 30 seconds before unloading in strict accordance with manufacturer's instructions. Never leave a tool unattended where it would be available to unauthorized personnel
- Fasteners must not be driven into exceptionally hard materials such as cast iron, glazed tile, hardened steel, glass block, or rock
- A backing must be used on soft materials to prevent fastener from passing completely through and becoming a flying hazard
- Fasteners must not be driven through an existing hole unless means of positive alignment is available
- Fasteners may not be driven into a cracked or fractured area caused by a previous fastener
- Tools must not be used in an explosive or flammable atmosphere

Requirements for loads and fasteners:

- There must be a standard means of identifying the power level of loads being used in the powder actuated tools
- No load may be used in excess of design specifications for a low velocity tool
- Fasteners used in tools must be only those designed to be used in such tools

Circular Saws

Bannister Electric LLC of West Monroe employees are required to follow these safety guidelines when using a circular saw:

- Eye protection is extremely important and must always be worn when using circular protection must be selected. Use a face shield, protective goggles, or approved safety glasses depending on the job to be performed
- Hearing protection may be required due to the extreme noise levels generated, especially during extended use
- A respirator or dust mask may be required, depending on the material being cut
- Do not wear loose clothing, long-sleeves, or gloves while operating a circular saw
- Check that the electrical circuit to be used is of the proper rating and that cords, plugs, and fittings are intact and secure
- Circular saws must be grounded unless they are double insulated
- Use only extension cords that are free of splices, taps, bare wires, or frayed and deteriorated insulation. Do not use extensions over 100 ft. long due to the power drop. Operate only properly maintained equipment. Check that the spring-loaded on/off trigger switch functions properly. If any operational problems are noted, remove the circular saw from service and get it repaired immediately
- Be aware of your surroundings and always on the lookout for hazards. Avoid using circular saws in a wet environment
- Always cut material on an elevated work platform. Never attempt to cut any material lying on the ground or by simply holding the material in your opposite hand
- Be aware of the position of the cord. Always clear the cord before making the cut
- Inspect all material prior to cutting. Look for defects such as knots in the wood, nails and screws, or any obstruction that may impede the cut
- Always inspect the saw prior to operation, ensuring the blade is tight and guards are fully functional
- Never pin back or otherwise disable the retractable guard
- Unplug the saw when changing blades or making adjustments for depth or angle
- After tightening the blade or making other adjustments, be sure to remove wrench before operating the circular saw
- Maintain the saw and use only sharp blades or non-defective abrasive wheels free of distortion, cracks, or heat damage. A ring test will be performed on blades prior to installation to determine soundness
- Always store and discard saw blades in a safe responsible manner
- When the saw is not in use unplug the saw and place the saw out of the way with the blade facing down
- Always use the proper tool for the job. When not in use, store circular saws in a dry, secure location

Miter Saws

Bannister Electric LLC of West Monroe employees are required to follow these safety guidelines when using a miter cut-off (chop) saw:

- Do not ever, under any circumstances, allow anyone to use a chop saw that has not been properly instructed and approved in the processes of its safe operation

- Prior to its use, do a visual and operational inspection to ensure safe mechanical function of the saw:
  - Make certain all blade guards are in place and working smoothly. Removing or pinning back guards is not only extremely hazardous; it is considered a serious safety violation
  - Check the blade to be sure that it is straight and the arbor bolt is tight
  - Ensure the “constant-pressure” trigger switch operates properly
  - Check that the electrical cords, plugs, and fittings are intact and secure. Frayed cords are not permissible
  - Be sure that arbor wrenches or keys were not inadvertently left behind on the machine during a blade change
- When setting-up the cutting station, it is important that the saw is positioned in a manner that the work piece’s point of contact with the cutting edge can be easily viewed without straining or stooping
- Make sure the work-zone is level and free of trip hazards such as tangled power cords, cluttered material piles, scraps, stones, bricks, or other obstacles and obstructions. Avoid unsafe distractions by setting up away from high traffic areas
- Ensure the saw’s table or platform being used is stable and does not wobble. Be sure that accessory benches (for cutting long stock) are steady and sturdy; get assistance when needed
- During cuts, keep blade speeds at recommended levels; over-pressure on cuts will create hazardous situations
- Hearing protection is required due to the extreme sonic and acoustical levels generated, especially during extended cutting
- Eye protection must always be worn when using a chop saw
- Depending on the material being cut, a dust mask may be required
- Wear clothing appropriate with chop saw use; avoid long, loose shirtsleeves, neckwear, or untied long hair
- If any operational problems are noted, remove the saw from service and get it repaired immediately
- Proper care and maintenance should always be given the saw. Damage usually occurs during careless transport, handling, and storage of the tool
- Allow only qualified personnel to make repairs to the saw

Drills

- Do not allow anyone to use an electric drill that has not been properly trained in the processes of safe portable drilling operations
- Operate only properly maintained equipment. Before use, carefully inspect the machine for defects that could cause malfunctions. Ensure the power cord is secure and intact, trigger switch functions properly, and that fasteners and attachments are tight and fitted. Operate the tool using both hands and follow the manufacturer’s operating instructions
- Eye protection must always be worn when doing overhead operations. When operations present potential eye injuries, appropriate protection must be selected. Depending on the task, use a face shield, protective goggles, or approved safety glasses
- When using a new or unfamiliar tool, take time to “test-run” it
- Wear clothing appropriate for drilling or boring; avoid long, loose shirtsleeves, neckwear, or untied long hair
- The electrical circuit is properly rated and that cords, plugs, and fittings are intact and secure

- Use only extension cords that are free of splices, taps, bare wires, or frayed and deteriorated insulation. Use 3-prong adapters
- Select the correct drill and bit for the job and mount it securely in the chuck. Avoid using bits that are dull or bent
- When possible, always secure your work on a stable platform using clamps or vices. The work-piece must be secured so it does not move
- Prior to beginning drilling operations, inspect each work piece for nails, knots, or flaws that could cause the tool to buck or jump
- Turn on the switch for a moment to see if the bit is properly centered and running true
- With the switch off, place the point of the bit in the punched layout or pilot hole
- Hold the drill firmly in one or both hands and at the correct drilling angle
- Turn on the switch and feed the drill into the work-piece. The pressure required will vary with the size of the drill, the diameter of the drill bit, and the kind of material being drilled
- During operation, keep the drill aligned with the direction of the hole. Keep your free hand away from point of operation
- If any operational problems are noted, remove the drill from service and get it repaired immediately
- work-zones; keep the work area free of trip hazards such as tangled power cords, cluttered material, scraps, stones, bricks, or other obstacles When repairing tools or changing bits, always disconnect the power source
- Unsafe practices and inadequate housekeeping create potentially dangerous and obstructions.
- Be aware of your surroundings and always on the lookout for hazards. Avoid using electric drills in a wet environment

Portable Abrasive Wheels

Bannister Electric LLC of West Monroe employees are required to follow these safety guidelines when using handheld grinders or other portable abrasive wheels:

- Employees using grinding tools and/or are exposed to the hazards of falling, flying, abrasive, and splashing objects, or exposed to harmful dusts, fumes, or vapors will be provide with, and compelled to use, the particular personal protective equipment necessary to protect them from the hazard. This equipment includes eye and face, respiratory, hearing, and hand protection and will be properly maintained to meet all applicable standards
- All power grinding tools will be maintained in a safe condition. When these tools are designed to accommodate guards, they will be in place when the tool is in use. Safety guards will be strong enough to retain flying fragments and withstand the effects of a bursting wheel
- All grinding machines will be supplied with sufficient power to maintain safe spindle speeds under normal operating conditions
- All abrasive wheels will be carefully inspected and “ring-tested” before mounting to ensure that they are free from cracks or defects. To perform a sound or ring test, wheels should be tapped gently with a light, non-metallic instrument. If they sound cracked or dead, they could fly apart during operations and should be discarded. An intact, undamaged wheel will give a clear metallic tone or “ring”
- Only portable grinders with wheels 2 inches in diameter or less may be equipped with a positive on/off control switch. Grinders with wheels greater than 2 inches in diameter will be equipped with a momentary contact on/off switch and may have a lock-on control
- Grinders will be used on a 3-wire grounded circuit or be of the approved double insulated type. Using the tool’s power cord for hoisting or lowering will not be permitted

- All grinding/cutting wheels will fit freely on the spindle and must not be forced on. The spindle nut will be tightened only enough to hold the wheel in place
- When grinding metal, it is easy to leave razor-sharp edges; be sure you take them off before walking away from a work piece

Pneumatic Nailers and Staplers

- Never allow anyone to operate these tools without proper instruction in safe use
- Appropriate PPE must be worn when using compressed air tools and equipment
- Pneumatic powered tools must be secured to the hose by some positive means to prevent the tool from becoming accidentally disconnected
- All pneumatically powered nailers, staplers, or other similar equipment with automatic feed, that operate at over 100 psi at the tool, must have a safety device on the muzzle to prevent the tool from cycling and ejecting fasteners, unless the muzzle is in contact with the work surface
- Don't use compressed air to clean except where pressure is reduced to less than 30 psi
- The manufacturer's safe operating pressure for hoses, pipes, valves, filters, and other fittings must not be exceeded
- Avoid horseplay when using "air guns"
- Leave all safety features intact
- Always wear appropriate eye protection when using any air gun
- Hearing protection is often required depending on the noise level
- Read the owner's manual and operate the tool according to manufacturer's guidelines
- Ensure that tools are properly maintained and are in good working condition
- Never exceed manufacturer's recommended working pressures and never use more pressure than necessary (seldom more than 90 – 95 psi). Excessive pressure exerts more force, causing harder cycles. It is hard on tools and generates more flying debris
- Always keep the nose of the tool pointed toward the work-piece or downward when air charged. Never point the tool towards yourself or others
- During use, hold the nose of the gun firmly against the work-piece
- Ensure all safety features are intact and operational
- Always disconnect tool from air supply when clearing a jam or when not in use. Keep hoses and fittings in good condition
- Never carry an air-gun with your finger on the trigger. Accidental discharge and injury may result
- Tie-off and secure the air hose when working on a roof or scaffold to prevent the tool from falling on others
- Always move forward when working a nailer or stapler on a roof so you do not inadvertently trip or fall from the roof
- Never use volatile bottled gas to operate pneumatic fasteners or operate air guns around flammables; sparks may cause a fire
- Keep your free hand clear of air gun's nose during use
- Safety clips or retainers must be securely installed and maintained on pneumatic impact (percussion) tools to prevent attachments from being accidentally expelled

Air Compressors

Bannister Electric LLC of West Monroe employees are required to follow these safety guidelines while operating air compressors:

- Every air receiver must be equipped with a pressure indicator gauge with one or more spring loaded safety valves
- Pressure gauges must be located so as to be readily visible
- The pressure relief safety valves may not exceed the rated working pressure of the air receiving tank
- No valve of any type may be placed between the safety valve and the air receiver
- Safety valves, pressure gauges, regulators, and other controlling devices must be designed and installed so that they cannot be easily rendered inoperative by any means, including weather elements
- All safety valves must be tested at frequent intervals to determine proper operating condition
- A drainpipe and valve must be installed at the lowest point of any air receiver to provide for the frequent and complete removal of accumulated oil and water
- Never install compressors on an unrated air tank. The air receiver tank must be rated equal to or higher than original equipment
- If pressure gauges or pressure relief valves are damaged, replace them with compatible equipment before using the compressor
- If a compressed air storage tank is dented, deeply gouged, or badly rusted, compressor must be removed from service
- Do not use compressed air to pressurize barrels, pipes, or other containers not designed or intended as pressure vessels
- If an air receiver is equipped with a quick connect/release fitting, make sure the lock collar is fully engaged when hose is connected. When the hose is released from the fitting, firmly grasp the hose close to the fitting before releasing the lock collar
- Before servicing a compressor, disconnect it from the power source and bleed the pressure from the tank. Use appropriate Lockout Tagout (LOTO)
- Pulleys and belts on compressor motors and pumps must be properly guarded
- If using a gas powered compressor, engine must be shut off before refueling
- If an electric powered compressor, check power cord for cuts and abrasions, if the cord, plug, or any components are damaged, replace before use

Hand Tools

- Damaged, worn-out, or defective tools should be tagged and removed from service
- Do not perform "make-shift" repairs to tools
- Never use a tool if its handle has splinters, burrs, cracks, splits or if the head of the tool is loose
- Do not use impact tools such as hammers, chisels, punches or steel stakes that have mushroomed heads
- When handing a tool to another person, direct sharp points and cutting edges down and away from yourself and the other person
- Carry all sharp tools in a sheath or holster. Do not carry sharp or pointed hand tools such as screwdrivers, utility knives, scribes, snips, scrapers, chisels or files in your pocket unless the tool is sheathed. Transport hand tools only in toolboxes or tool belts
- Use tied off containers to keep tools from falling off scaffolds and other elevated work platforms

- Avoid carrying tools in your hand when you are climbing. Carry tools in tool belts or hoist the tools to the work area using a hand line
- Do not throw tools from one location to another or from one employee to another

Hammers: Do not use a hammer if your hands are oily, greasy or wet

- Never strike another hardened steel tool or surface, such as a cold chisel, with a claw hammer
- Avoid striking nails or other objects with the "cheek" of the hammer
- Do not strike one hammer against another hammer
- Never use a hammer as a wedge or a pry bar

Hand Saws: When using a handsaw, hold the work-piece firmly against the work table.

- Do not use an adjustable blade saw, such as a hacksaw or a coping saw, if the blade is not taut
- Avoid using any saw with a dull blade; always keep blades clean and sharp
- Keep hands and fingers away from the point of cut when using any saw
- Never carry a hand saw by the blade

Screwdrivers: Do not use a screwdriver if your hands are wet, oily or greasy.

- Always match the size and type of screwdriver blade to fit the head of the screw
- Never hold the work-piece against your body while using a screwdriver
- Avoid putting your fingers near the blade of the screwdriver when tightening a screw
- Use a drill, nail, or an awl to make a starting or pilot hole for screws
- Do not force a screwdriver by using a hammer or pliers on it
- Never use a screwdriver as a punch, chisel, pry bar, or nail puller
- When performing electrical work, ensure the screwdriver has a properly insulated handle

Pliers: Do not use pliers that are cracked, broken or sprung.

- Never use pliers as a wrench or a hammer
- Do not attempt to force pliers by using a hammer on them
- When you are performing electrical work, use pliers that have properly insulated handles
- When using diagonal cutting pliers, shield the loose pieces of cut material from flying into the air

Wrenches

Bannister Electric LLC of West Monroe employees are required to follow these safety guidelines when using wrenches:

- Inspect the wrench carefully before use and do not use if damaged
- Discard any wrench that has spread, nicked or battered jaws, or if the handle is loose, broken or bent
- Always use the proper size wrench for the job. A slipping wrench can damage bolt heads and nuts and cause personal injury. Do not use a shim to make a wrench fit the fastener
- Use a wrench that gives a straight, clean pull. If you must push the wrench, use the heel of your hand; do not wrap your fingers around the tool
- Do not cock the wrench in a manner that puts a strain on the points of contact; this can lead to tool failure. Keep the wrench flush with bolt head
- Avoid using a pipe or other “cheater bars” to extend the length of a wrench. Under excessive force, the wrench or bolt can slip or break

- Do not use a hammer with a wrench unless the wrench has been specifically designed for this purpose
- Replace cracked, worn, or “tweaked” wrenches
- Do not attempt to straighten a bent wrench. It will only weaken it further
- Do not substitute slip-joint pliers for a wrench; the pliers can slip and damage the bolt heads and nuts and cause hand injuries
- Sockets designed for use with hand wrenches should not be interchanged on air or impact wrenches; this can result in damage or injury
- When using air impact or other air wrenches, wear eye protection to safeguard against blowing debris. Use only heavy-duty hardened sockets
- Use a torque wrench for tightening only. Never use torque wrenches to break nuts or bolts loose; they are designed to measure tightness
- Be sure the jaws on you pipe wrenches are still sharp as unexpected slippage can cause injury

Jacks—lever and ratchet, screw, and hydraulic

Bannister Electric LLC of West Monroe employees are required to follow these safety guidelines when using jacks:

- The manufacturer's rated capacity will be legibly marked on all jacks and will not be exceeded
- All jacks will have a positive stop to prevent overtravel
- When it is necessary to provide a firm foundation, the base of the jack will be blocked or cribbed. Where there is a possibility of slippage of the metal cap of the jack, a wood block will be placed between the cap and the load
- After the load has been raised, it will be cribbed, blocked, or otherwise secured at once
- Hydraulic jacks exposed to freezing temperatures will be supplied with an adequate antifreeze liquid
- All jacks will be properly lubricated at regular intervals
- Each jack will be thoroughly inspected at times which depend upon the service conditions. Inspections will be not less frequent than the following:
    - For constant or intermittent use at one locality, once every 6 months
    - For jacks sent out of shop for special work, when sent out and when returned
    - For a jack subjected to abnormal load or shock, immediately before and immediately thereafter
    - Repair or replacement parts will be examined for possible defects
    - Jacks which are out of order will be tagged accordingly, and will not be used until repairs are made

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

POLICY

Bannister Electric LLC of West Monroe has implemented this program to ensure employees are informed of any chemical hazards and hazardous or toxic substances in their workplace:

Bannister Electric LLC of West Monroe will develop, implement, and maintain at each workplace a written hazard communication program that describes how labels and other forms of warning, safety data sheets, and employee information will be accomplished.

A copy of the Company's Hazard Communication Program is available to all employees, and will be kept at each jobsite by the foreman in charge, or in the office. Translations of the hazard communication program are available to non-English speaking employees upon request from Dolphus Bannister.

Employees will be notified of any hazardous substances used by any company other than Bannister Electric LLC of West Monroe in the workplace, and make safety data sheets available to employees.

A list of all chemicals known to be used at the workplace by company employees will be available for review at the jobsite and in the office. Safety Data Sheets (SDS) for all chemicals used in the workplace by Bannister Electric LLC of West Monroe are available to employees at the worksite from the job foreman or in the office.

Changes of job assignments, changes in materials used, or any non-routine tasks involving hazardous substances or conditions will require notification and/or retraining of effected employees. Dolphus Bannister will inform or retrain employees of any new or additional hazards, detail methods of hazard abatement or elimination, and provide proper personal protective equipment or engineering controls necessary for the job. Notifications and retraining will be documented as to name of employee, date, description of action taken, and verification by Dolphus Bannister.

CONTAINER LABELING

Dolphus Bannister will ensure that each container of hazardous chemicals in the workplace is labeled, tagged, or marked with the following information:

- Identity of the hazardous chemical(s)
- Pictograms
- A signal word
- Hazard and precautionary statements
- The product identifier
- Supplier identification

Dolphus Bannister will ensure labels or other, written warning forms, are legible and prominently displayed on the container, or readily available in the work area throughout each work shift. When Bannister Electric LLC of West Monroe has employees, whose primary language is not English, information shall be presented in their language as well.

No container will be released for use until this information is verified. Dolphus Bannister will ensure that all containers are labeled with a copy of the original manufacturer's label or a label that has the appropriate identification and hazard warning.

Bannister Electric LLC of West Monroe will have specific methods for providing other employer information concerning hazardous chemicals at job sites, methods for providing SDS, methods for precautionary measures to be taken, and methods for providing information on labeling systems. Where employees must travel between sites during a shift, the written program may be kept at a primary job site. If there is no primary site, the program will be sent with employees.

SAFETY DATA SHEETS

A SDS will be gathered and made available for every hazardous material at the worksite.

SDS are readily available for review to all Bannister Electric LLC of West Monroe employees, and cover all hazardous chemicals used in the workplace. SDS are kept with the hazard communication plan at the office location listed above. The safety data sheets are updated and managed by Dolphus Bannister. If a safety data sheet is not available for a hazardous chemical, before use, notify Dolphus Bannister, and a SDS will be obtained for the chemical to be used.

TRAINING

Required Hazard Communication Training

If you have employees who may be exposed to hazardous chemicals, you must inform them about the chemicals and train them when they are hired and whenever they are exposed to a new chemical hazard or a process change. Required employee training includes:

- An overview of the requirements in OSHA's CFR 29 1910.1200 hazard communication
- The written hazard-communication plan, and where it may be reviewed
- Hazardous chemicals present in their workplace
- The operations where hazardous chemicals are used
- Physical and health effects of the hazardous chemicals
- Methods used to determine the presence or release of hazardous chemicals in the work area
- How to reduce or prevent exposure to these hazardous chemicals through use of control/work practices and personal protective equipment
- Where to find and how to read the hazard-communication plan, the list of hazardous chemicals, and SDS
- The physical and health hazards of hazardous chemicals used by employees
- The meaning of warning labels on hazardous-chemical containers and on pipes that contain hazardous substances
- Emergency procedures to follow if an employee is exposed to these chemicals
- How to use personal protective equipment

Label Elements Training

Bannister Electric LLC of West Monroe will ensure all employees know the following elements of the labels: product identifier, signal word, pictogram, hazard statement, precautionary statement, and name address and phone number of chemical manufacturer, distributer, or importer.

Employees will also be trained on how to use the labels, to ensure proper storage and quickly locate first aid information.

They also need to know how the elements work together on a label.

- The different pictograms to indicate multiple hazards
- Where there are similar precautions, the one with most protective information will be on the label

SDS Training

Employees will be trained on the standardized 16-section format and the type of information found in each one.

Training will also explain how the SDS information is related to the label information.

After attending the training, each employee will sign a company training form verifying they understand the above topics and how the topics are related to our hazard communication plan.

General Safety Considerations

Employers who produce, use, or store hazardous chemicals at a workplace in such a way that the employees of other employer(s) may be exposed will additionally ensure that the hazard communication programs developed and implemented include the following: methods the employer will use to provide the other employer(s) on-site access to safety data sheets, precautionary measures that need to be taken to protect employees during the workplace's normal operating conditions and in foreseeable emergencies, the labeling system used in the workplace.

The company may not remove or deface existing labels on incoming containers of hazardous chemicals, unless the container is immediately marked with the required information.

Hazardous Chemicals List

The following list identifies all hazardous chemicals used at this workplace. Detailed information about the physical and health effects of each chemical is included in a safety data sheet; the identity of each chemical on the list matches the identity of the chemical on its safety data sheet. Safety data sheets are readily available to employees in their work areas.

Product or Brand Name	Manufacturer	Hazardous Ingredient

Hazardous Non-Routine Tasks

Before employees perform non-routine tasks that may expose them to hazardous chemicals, they will be informed by their supervisors about the chemicals' hazards. Their supervisors also will inform them about the safe work practices necessary to control exposure and what to do in an emergency. Examples of non-routine tasks that may expose employees to hazardous chemicals include the following:

Task:	Hazard:

Hazardous Chemicals in Pipes, Closed, or Hidden Systems

Before working in areas where hazardous chemicals are transferred through pipes or where pipes are insulated with asbestos-containing material, employees will contact Dolphus Bannister for the following information: the chemicals in the pipes; the physical or health effects of the chemicals or the asbestos insulation; the safe work practices to prevent exposure.

Notification of Contractors

It is the responsibility of the assigned job foreman to provide any workplace-associated contractors and their employees with the following information, if they may be exposed to hazardous chemicals in our workplace:

- The identity of the chemicals, how to review safety data sheets, and an explanation of the container and pipe labeling system
- Safe work practices to prevent exposure

This person will also obtain a safety data sheet for any hazardous chemical a contractor brings into the workplace to which an employee of 2 may be exposed.

Hazard Communication in the Workplace

The essence of hazard communication is a warning. We use thousands of chemical products throughout our lives, at home and at work. However, most of us would be hard-pressed to distinguish safe products from hazardous ones without a warning (the familiar skull-and-crossbones, for example). The warning tells us the product is hazardous, that it can harm us if we use it improperly.

In the workplace, hazard communication ensures workers who may be exposed to hazardous chemicals know about the chemicals' hazards and understand how to protect themselves from exposure.

The Hazard Communication Process

Hazard communication begins when chemical manufacturers and importers evaluate their products to determine each product's chemical hazards. Next, they prepare a Safety Data Sheet (SDS) for each product. An SDS includes detailed information about the product's hazards. Manufacturers and importers must include an SDS and a warning label with each container of product they ship to a customer.

The part of the process that affects your workplace is the "Written Hazard Communication Plan." The plan identifies hazardous chemicals at your workplace and describes how you will use safety data sheets, warning labels, and training to protect employees and keep informed about the product's chemical hazards.

The labeling system, location of SDS, routine precautions and emergency procedures will be provided to other employers and employees who may be affected by hazardous chemicals produced, used, or stored at the worksite.

Definition of a Hazardous Chemical

OSHA's hazard-communication rule, 1910.1200, defines a hazardous chemical as "any element, chemical compound, or mixture that is a physical hazard or a health hazard".

Chemicals that are Physical Hazards

Chemicals that are physical hazards are unstable and, when handled improperly, can cause fires or explosions. A chemical that is a physical hazard has one of the following characteristics:

- Is a combustible liquid
- Is a compressed gas
- Is explosive
- Is flammable
- Is water-reactive
- Starts or promotes combustion in other materials
- Can ignite spontaneously in air

Chemicals that are Health Hazards

Chemicals that are health hazards can damage an exposed person's tissue, vital organs, or internal systems. Generally, the higher the chemical's toxicity, the lower the amount or dose necessary for it to have harmful effects. The effects vary from person to person, ranging from temporary discomfort to permanent damage, depending on the dose, the toxicity, and the duration of exposure to the chemical.

Health effects range from short-duration symptoms that often appear immediately (acute effects) to persistent symptoms that may appear after longer exposures (chronic effects). Health effects can be classified by how they affect tissue, vital organs, or internal systems:

- Agents that damage the lungs, skin, eyes, or mucous membranes
- Carcinogens cause cancer
- Corrosives damage living tissue
- Hematopoietic agents affect the blood system
- Hepatotoxins cause liver damage
- Sensitizers cause allergic reactions and Irritants cause inflammation of living tissue
- Nephrotoxins damage cells or tissues of the kidneys
- Neurotoxins damage tissues of the nervous system
- Reproductive toxins damage reproductive systems, endocrine systems, or a developing fetus

How to Determine Whether a Chemical is Hazardous

A chemical is hazardous if it is listed in any of the following documents:

- OSHA Division 2, Subdivision Z safety and health rules, Toxic and Hazardous Substances; Division 3, Subdivision Z, Toxic and Hazardous Substances (Construction); Division 4, Subdivision Z, Chemical/Toxins (Agriculture)
- Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment (latest edition). Published by the American Conference of Industrial Hygienists (ACGIH)
- The Registry of Toxic Effects of Chemical Substances, published by the National Institute for Occupational Safety and Health (NIOSH)
- The container label of the product will issue a warning of hazardous effects

Commonly-Used Hazardous Chemicals

Listed below are chemicals among those most commonly used in U.S. workplaces:

Hazardous Chemical	Harmful Effects
1,1,1-Trichloroethane	May cause mutations in cells; can irritate the skin and eyes and cause unconsciousness and death. High exposures may damage the liver and kidneys.
Acetone	Can irritate the skin, eyes, nose, and throat. High concentrations can cause dizziness and loss of consciousness.
Aluminum oxide	Can irritate the eyes, nose, and throat. Repeated high exposure can cause scarring of the lungs and shortness of breath.
Ammonia	Can irritate the lungs and burn the eyes and skin. Long-term exposure can cause irritation of the eyes, nose, mouth, and throat.
Benzene	A cancer-causing agent that has been shown to cause leukemia. May also cause headaches and irritation of the eyes, nose, and throat. High exposure can cause convulsions and death.
Ethylbenzene	Can irritate the eyes, nose, and throat. Repeated contact can cause drying and scaling of skin and may cause liver damage. High concentrations may cause dizziness and loss of consciousness.
Ethylene glycol	Can irritate the eyes, nose, or throat and cause nausea, vomiting, and headaches. Repeated or high exposure levels can cause kidney damage or stones and brain damage. May cause birth defects.
Freon 113	May cause skin irritation and rashes as well as drowsiness.
Glycol ethers	Can irritate the eyes, nose, and throat and may cause birth defects. Repeated or high exposure can cause kidney damage or stones. Brain damage also may occur.
Hydrochloric acid	Can irritate the lungs. High exposure can cause buildup of fluid in the lungs, which can cause death.
Lead	Can cause weakness and insomnia. Higher exposure can result in damage to the nervous and reproductive systems.
Methanol	Irritates the eyes, nose, mouth, and throat and can cause liver damage.
Methyl ethyl ketone	Can cause dizziness, headaches, blurred vision, and loss of consciousness. May cause birth defects.
Methyl isobutyl ketone	Irritates the skin, eyes, nose, and throat, and may cause dizziness, nausea, diarrhea, and loss of consciousness. Long-term exposure may damage the liver and kidneys.
Phenol	Can irritate the mouth, nose, throat, and eyes. Long-term exposure may damage the liver and kidneys and lead to genetic damage. May be a cancer risk. Major skin contact or inhaling it can cause death.
Sodium hydroxide	Breathing the dust or droplets can irritate and burn the lungs. Contact can cause severe skin burns.
Sulfuric acid	Can severely burn the skin and eyes. Repeated long-term exposure can cause bronchitis, shortness of breath, and emphysema.
Tetrachloroethylene	A suspected human carcinogen that has caused liver cancer in animals. It may damage the liver and kidneys after low but repeated exposure. It can cause dizziness and loss of consciousness.
Xylene	Can irritate the eyes, nose, and throat; high levels can cause loss of consciousness and death. It may damage fetuses. Repeated exposure may damage bone marrow and eyes and cause stomach problems.

Using Safety Data Sheets

An SDS contains detailed information about a hazardous chemical product's health effects, physical and chemical characteristics, and safe practices for using it.

Responsibilities of Chemical Manufacturers, Importers, and Distributors

Chemical manufacturers and importers must prepare an SDS for each hazardous chemical product they produce. Distributors are responsible for ensuring that you have an SDS for each hazardous chemical product they sell to you.

What to do if You Use Hazardous Chemical Products at your Workplace

You must have a current SDS for each product. Employees must be able to review the SDS in their work area at any time. You can keep SDS in a notebook or on a computer, though employees must be able to obtain the information immediately in an emergency. One person should be responsible for managing all the SDS at your workplace. The person should ensure the list of hazardous chemicals is current, that the identity of each chemical on the list matches its identity on its SDS, and that incoming hazardous chemical containers have an SDS.

What to do When You No Longer Use a Hazardous Chemical at Your Workplace

When you no longer use a hazardous chemical, you do not need to keep its SDS. However, you do need to keep a record of the chemical's identity, the locations, and the calendar years it was used in your workplace, for at least 30 years. For more information about record-keeping requirements, see the "Access to employee exposure and medical records" section of 1910.1020.

Information required on Safety Data Sheets

Chemical manufacturers and importers must prepare an SDS for each hazardous chemical product they ship to you. The following information must appear on each sheet.

Section 1, Identification includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; restrictions on use.

Section 2, Hazard(s) identification includes all hazards regarding the chemical; required label elements.

Section 3, Composition/information on ingredients includes information on chemical ingredients; trade secret claims.

Section 4, First-aid measures includes important symptoms/effects, acute, delayed; required treatment

Section 5, Fire-fighting measures lists suitable extinguishing techniques, equipment; chemical hazards from fire.

Section 6, Accidental release measures lists emergency procedures; protective equipment; proper methods of containment and cleanup.

Section 7, Handling and storage lists precautions for safe handling and storage, including incompatibilities.

Section 8, Exposure controls/personal protection lists OSHA's Permissible Exposure Limits (PELs); Threshold Limit Values (TLVs); appropriate engineering controls; personal protective equipment (PPE

Section 9, Physical and chemical properties lists the chemical's characteristics.

Section 10, Stability and reactivity lists chemical stability and possibility of hazardous reactions.

Section 11, Toxicological information includes routes of exposure; related symptoms, acute and chronic effects; numerical measures of toxicity.

Section 12, Ecological information*

Section 13, Disposal considerations*

Section 14, Transport information*

Section 15, Regulatory information*

*OSHA does not require these sections.

Section 16, Other information, includes the date of preparation or last revision.

Using Container Warning Labels

The purpose of a container warning label is to warn employees about the container's contents and to refer employees to an appropriate SDS for more information about the chemical's physical and health hazards. Manufacturers, importers, and distributors must ensure that each hazardous chemical product sold to you has a label that includes the chemical's identity, a hazard warning, and a name and address for additional information about the product. If you use hazardous chemicals at your workplace, you must ensure that each hazardous chemical container has a legible label, in English, that identifies the chemical and warns of its hazards.

Containers that must be Labeled

Original containers of hazardous chemicals from a manufacturer, importer, or distributor must have warning labels. Do not remove or deface them. If you transfer a hazardous chemical from a labeled container to an unlabeled container, label the container.

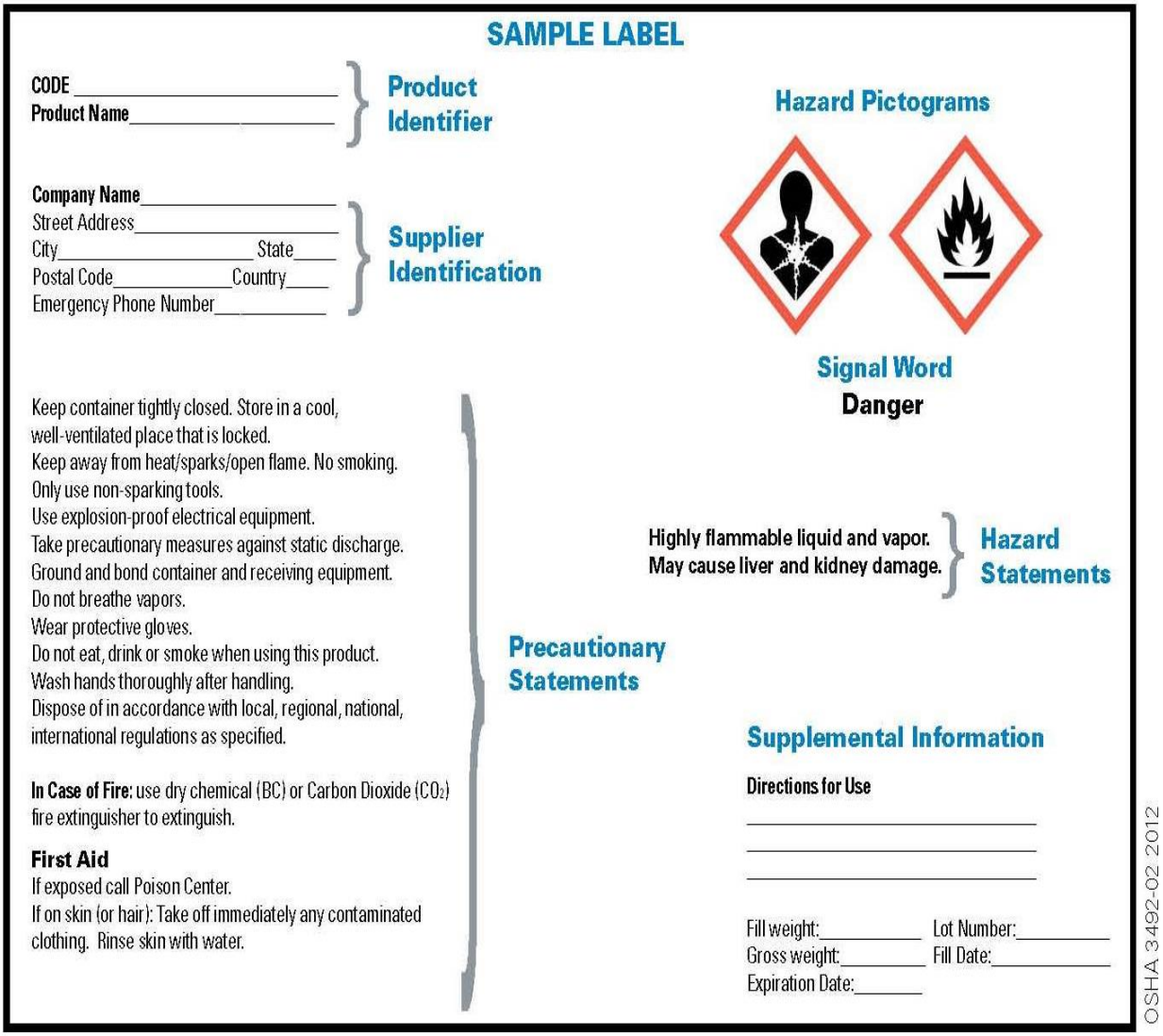
Contents of a Warning Label

A warning label must identify the chemical – a common chemical name or a code name is acceptable – and display a hazard warning such as DANGER or the familiar skull and crossbones.

- The identity of the chemical on the label, on its SDS, and on your hazardous chemical sheet must match
- If you are not sure a hazardous chemical container is properly labeled, contact the manufacturer or supplier
- Make someone at your workplace responsible for ensuring all hazardous-chemical containers are properly labeled

Bannister Electric LLC of West Monroe will ensure that workplace labels or other forms of warning are legible, in English, and prominently displayed on the container, or readily available in the work area throughout each work shift. If Bannister Electric LLC of West Monroe has employees who speak other languages, the company may add the information in their language to the material presented, as long as the information is presented in English as well

EXAMPLE OF ORIGINAL CONTAINER GHS LABEL



Secondary/Portable Containers

Secondary containers are used to hold material transferred from the manufacturers' original container. These are required to be labelled if:

- Is not used within the work shift by the individual who makes the transfer
- The worker who made the transfer leaves the work area
- The container is moved to another work area and is no longer in the possession of the person who filled the container

Labels for secondary containers must include:

- The identity of the chemical and appropriate hazard warnings must be shown on the label.
- The hazard warning that provides users with an immediate understanding of the primary health and/or physical hazard(s) of the chemical through the use of words, pictures, symbols, or any combination of these elements
- The name and address of the manufacturer, importer or other responsible party

The hazard label message must be legible, permanently displayed and written in English

Portable containers are intended for immediate use of a chemical by the person who makes the transfer. Labels on portable containers are not required if the worker who made the transfer uses all of the contents during the work shift, or the chemical is return to a labelled primary or secondary container at the end of the shift, or when work is completed.

Confirmation of Employee's Hazard Communication Training

I, _____, have been informed about the hazardous chemicals that I may be exposed to during my work and I have received training on the following topics:

- An overview of the requirements in OSHA's hazard communication rules.
- Hazardous chemicals present in the workplace.
- The written hazard-communication plan.
- Physical and health effects of the hazardous chemicals.
- Methods to determine the presence or release of hazardous chemicals in the work area.
- How to reduce or prevent exposure to these hazardous chemicals through use
- of exposure controls/work practices and personal protective equipment.
- Steps we have taken to reduce or prevent exposure to these chemicals.
- Emergency procedures to follow if exposed to these chemicals.
- How to read labels and review Safety Data Sheets.

Note to employee:

This form becomes part of your personnel file; read and understand it before signing.

By signing below I attest and verify that I have received training in the above areas of hazard communication, and that I understand the content of that training.

Employee:_____Date:_____

Trainer:_____Date:_____

POLICY

Bannister Electric LLC of West Monroe has implemented this plan to ensure no employees are exposed to Heat Stress Illnesses (HRI) in the workplace, and will evaluate if heat could be a problem on a particular day based on temperature and humidity levels. If required, Bannister Electric LLC of West Monroe will implement adequate controls, methods, or procedures to reduce the risk of HRI and prevent heat illness in outdoor places of employment.

RESPONSIBILITIES

Employers

- Adjust work practices as necessary when labor complain of heat stress
- First try to control exposure through engineering controls
- Oversee heat stress training and acclimatization for new labor and for labor who have been off the job for a while
- Provide worker education and training, including periodic safety meetings on heat stress during hot weather or during work in hot environments
- Monitor the workplace to determine when hot conditions arise
- Determine whether labor are drinking enough water
- Determine a proper work/rest regimen for labor
- Arrange first aid training for labor
- When working in a manufacturing plant, for instance, a contractor may wish to adopt the plant's heat stress program if one exists
- Ensure that the program and procedures are documented and available to all labor

Safety Committee

- Assist in ensuring heat stress management is followed when necessary
- Assist in training employees to recognize and control workplace hazards
- Monitor the workplace for hazards
- Encourage employees to report hazards
- Implement appropriate controls
- Ensure corrective action is taken promptly

Employees

- Follow instructions and training for controlling heat stress
- Be alert to symptoms in yourself and others
- Avoid consumption of alcohol, illegal drugs, and excessive caffeine
- Check if prescription medications can increase heat stress
- Get adequate rest and sleep
- Drink small amounts of water regularly (up to 4 cups per hour) to maintain fluid levels and avoid dehydration

TRAINING

According to the National Institute of Occupational Safety and Health (NIOSH), heat stress training should cover the following components:

- Knowledge of heat stress hazards
- Recognition of risk factors, danger signs, and symptoms
- Awareness of first-aid procedures for, and potential health effects of, heat stroke
- Employee responsibilities in avoiding heat stress
- Dangers of using alcohol and/or drugs (including prescription drugs) in hot work environments

Employee Training

Training in the following topics will be provided to all supervisory and non-supervisory labor:

- Environmental and personal risk factors for heat illness
- Procedures for identifying, evaluating, and controlling exposures to the environmental and personal risk factors for heat illness
- Importance of frequent consumption of water (up to 4 cups per hour)
- The importance of acclimatization
- Different types of heat illness and common signs and symptoms of heat illness
- The importance of immediately reporting to the employer or designee symptoms or signs of heat illness
- Procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary
- Procedures for contacting emergency medical services, and if necessary, for transporting labor to a point where they can be reached by medical service personnel
- How to provide clear and precise directions to the work site

Supervisor Training

Prior to assignment to supervision of labor working in the heat, training on the following topics will occur:

- The information provided for employee training
- Procedures the supervisor will follow to implement controls as determined by the employer
- Emergency response procedures the supervisor will follow when an employee exhibits symptoms consistent with possible heat illness, including emergency response procedures
- How to prevent employee heat related illnesses

PROCEDURES

The risks of working in hot construction environments can be reduced if labor and management cooperate to help control heat stress.

Management

- Give labor frequent breaks in a cool shaded area away from heat (cooling period no less than 5 minutes). The area should not be so cool that it causes cold shock – around 75° F is ideal
- Increase air movement by using fans where possible. This encourages body cooling through the evaporation of sweat
- Provide unlimited amounts of conveniently located cool (50°-60°F) potable drinking water
- Allow sufficient time for labor to become acclimated. A properly designed and applied acclimatization program decreases the risk of heat-related illnesses. Such a program exposes labor to work in a hot environment for progressively longer periods. NIOSH recommends that for labor who have had previous experience in hot jobs, the regimen should be: 50% exposure on day one; 60% on day two; 80% on day three; 100% on day four
- For new labor in a hot environment, the regimen should be 20% on day one, with a 20% increase in exposure each additional day
- Make allowances for labor who must wear personal protective clothing and equipment that retains heat and restricts the evaporation of sweat
- Schedule hot jobs for the cooler part of the day; schedule routine maintenance and repair work in hot areas for the cooler seasons of the year
- Consider the use of cooling vests containing ice packs or ice water to help rid bodies of excess heat.

Employees

- Wear light, loose clothing that permits the evaporation of sweat
- Drink plenty of water or sports beverages to keep hydrated. Do not wait until you are thirsty. Drink approximately one cup of water per hour
- Avoid beverages such as tea, coffee, or beer that make you pass urine more frequently

Where personal PPE must be worn:

- Use the lightest weight clothing and respirators available
- Wear light-colored garments that absorb less heat from the sun
- Use PPE that allows sweat to evaporate
- Avoid eating hot, heavy meals. They tend to increase internal body temperature by redirecting blood flow away from the skin to the digestive system
- Do not take salt tablets unless a physician prescribes them. Natural body salts lost through sweating are easily replaced by a normal diet

Emergency Medical Response

- Bannister Electric LLC of West Monroe will have a written plan to provide emergency medical services
- Bannister Electric LLC of West Monroe will ensure the availability of a suitable number of appropriately trained persons to render first aid. Bannister Electric LLC of West Monroe will inform all labor of the procedure to follow in case of injury or illness

Emergency Transportation

Before labor are sent to a work site, Bannister Electric LLC of West Monroe will ensure that arrangements are in place to transport injured or ill labor from the work site to the nearest health care facility. If ambulance service is not readily available to the work site or travel conditions are not normal, Bannister Electric LLC of West Monroe will provide proper equipment for the prompt transportation of the injured or ill person to a physician or hospital where emergency care is provided. Bannister Electric LLC of West Monroe will ensure that other transportation is available that:

- Is suitable, considering the distance to be traveled and the types of acute illnesses or injuries that may occur at the work site
- Protects occupants from the weather
- Have systems that allow the occupants to communicate with the health care facility to which the injured or ill worker is being taken
- Can accommodate a stretcher and an accompanying person if required to

Emergency Communication

Bannister Electric LLC of West Monroe will provide an effective communication system for contacting hospitals or other emergency medical facilities, physicians, ambulance, or fire services. In the case of remote job sites, provisions for CB-type, 2-way radio communications will be implemented. The telephone numbers of the following emergency services in the area shall be posted near the job telephone or otherwise made available to the labor where no job site telephone exists:

- A physician and at least one alternate if available
- Hospitals
- Ambulance services
- Fire-protection services

Response Time of EMS

Bannister Electric LLC of West Monroe regards as important that from the time an accident happens, how many minutes it would take trained medical personnel to reach an injured worker.

Things Bannister Electric LLC of West Monroe will consider include:

- How long would it take our labor to reach a phone to call 911? Are phones conveniently located in the work area or would they have to go to an office to call?
- How far are the emergency medical services from our work site?
- How would emergency medical services get to our work site? They may only be 100 feet away, but if it is across a limited access road, they may have go 5 miles in one direction to turn around and come back
- How bad is traffic? Are back-ups common in the area at certain times?
- How available are emergency medical services? If there is only one ambulance and one medical team, they may be out on another emergency. It could take a long time for someone to respond to our call
- How large and complex is our work site? How difficult would it be for emergency services to find the place where the injured worker is? We may need to arrange for the emergency service to go to a central location (such as a reception area) and receive directions from there
- Bannister Electric LLC of West Monroe will contact the local emergency medical service within the proximity of the work site and verify their response to the above inquiries and adjust our plan accordingly
- Our work site supervisor is responsible for inspecting, and maintaining first aid kits

New or temporary labor will be trained in these elements of Bannister Electric LLC of West Monroe's Emergency Medical Response Plan as part of their safety orientation, before they start work.

RECOGNIZING AND AVOIDING HEAT STRESS

Heat Stress in Construction

Construction operations involving heavy physical work in hot, humid environments can put considerable heat stress on labor. Hot and humid conditions can occur either indoors or outdoors.

Asbestos removal, work with hazardous wastes, and other operations that require labor to wear semi-permeable or impermeable protective clothing can contribute significantly to heat stress. Heat stress causes the body's core temperature to rise.

When the Body's Core Temperature Rises

The human body functions best within a narrow range of internal temperature. This "core" temperature varies from 96.8° F to 100.4° F. A construction worker performing heavy work in a hot environment builds up body heat. To get rid of excess heat and keep internal temperature below 100.4° F, the body uses two cooling mechanisms:

The heart rate increases to move blood – and heat – from heart, lungs, and other vital organs to the skin.

Sweating increases to help cool blood and body. Evaporation of sweat is the most important way the body gets rid of excess heat.

When the body's cooling mechanisms work well, core temperature drops or stabilizes at a safe level (around 98.6° F). But when too much sweat is lost through heavy labor or working under hot, humid conditions, the body does not have enough water left to cool itself. The result is dehydration. Core temperature rises above 100.4° F. A series of heat-related illnesses, or heat stress disorders, can then develop.

Recognizing Heat Stress Disorders

Heat Rash

Heat rash – also known as prickly heat – is the most common problem in hot work environments.

Symptoms include:

- Red blotches and extreme itchiness in areas persistently damp with sweat
- Prickling sensation on the skin where sweating occurs

Treatment

Cool shaded environment, cool shower, thorough drying. In most cases, heat rashes disappear a few days after heat exposure ceases. If the skin is not cleaned frequently enough, the rash may become infected.

Heat Cramps

Under extreme conditions, such as removing asbestos from hot water pipes for several hours in heavy protective gear, the body may lose salt through excessive sweating. Heat cramps can result. These are spasms in larger muscles – usually back, leg, and arm. Cramping creates hard painful lumps within the muscles.

Treatment

Shade, stretch and massage muscles; replace salt by drinking commercially available carbohydrate/electrolyte replacement fluids.

Heat Exhaustion

Heat exhaustion occurs when the body can no longer keep blood flowing to supply vital organs and send blood to the skin to reduce body temperature at the same time. Signs and symptoms of heat exhaustion include:

- Weakness
- Difficulty continuing work
- Headache
- Breathlessness
- Nausea or vomiting
- Feeling faint or actually fainting

Labor fainting from heat exhaustion while operating machinery, vehicles, or equipment can injure themselves and others.

Treatment

Heat exhaustion casualties respond quickly to prompt first aid. If not treated promptly, however, heat exhaustion can lead to heat stroke—a medical emergency.

- Call 911
- Help the casualty to cool off by: Resting in a cool shaded place
- Drinking cool water
- Removing unnecessary clothing
- Loosening clothing

Showering or sponging with cool water takes at least 30 minutes to cool the body down once a worker becomes overheated and suffers heat exhaustion.

Heat Stroke

Heat stroke occurs when the body can no longer cool itself and body temperature rises to critical levels.

WARNING: Heat stroke requires immediate medical attention.

The primary signs and symptoms of heat stroke are:

- Confusion
- Irrational behavior
- Loss of consciousness
- Convulsions
- Lack of sweating
- Hot, dry skin
- Abnormally high body temperature — for example, 104° F

Treatment

For any worker showing signs or symptoms of heat stroke, Call 911.

- Provide immediate, aggressive, general cooling in a shaded area.
- Immerse casualty in tub of cool water or
- Place in cool shower or
- Spray with cool water from a hose
- Wrap casualty in cool, wet sheets and fan rapidly
- Transport casualty to hospital
- Do not give anything by mouth to an unconscious casualty

WARNING: Heat stroke can be fatal even after first aid is administered. Anyone suspected of suffering from heat stroke should not be sent home or left unattended unless that action has been approved by a physician. If in doubt as to what type of heat-related disorder the worker is suffering from, call for medical assistance.

Heat Stress Risk Assessment Factors

Factors that should be considered in assessing heat stress include:

- Personal Risk Factors
- Environmental Factors
- Job Factors

Personal Risk Factors

It is difficult to predict just who will be affected by heat stress and when, because individual susceptibility varies. There are, however, certain physical conditions that can reduce the body's natural ability to withstand high temperatures:

It is the determination of Bannister Electric LLC of West Monroe to ensure that prior to assigning a task where heat related illness may occur, supervisors will consider the following most common personal factors that contribute to heat related illness.

Weight: Laborers who are overweight are less efficient at losing heat.

Poor physical condition: Being physically fit aids your ability to cope with the increased demands that heat places on your body.

Previous heat illnesses: Labor are more sensitive to heat if they have experienced a previous heat-related illness.

Age: As the body ages, its sweat glands become less efficient. Labor over the age of 40 may therefore have trouble with hot environments. Acclimatization to the heat and physical fitness can offset some age-related problems.

Heart disease or high blood pressure: In order to pump blood to the skin and cool the body, the heart rate increases. This can cause stress on the heart.

Recent illness: Labor with recent illnesses involving diarrhea, vomiting, or fever have an increased risk of dehydration and heat stress because their bodies have lost salt and water.

Alcohol consumption: Alcohol consumption during the previous 24 hours leads to dehydration and increased risk of heat stress.

Medication: Certain drugs may cause heat intolerance by reducing sweating or increasing urination. People who work in a hot environment should consult their physician or pharmacist before taking medications.

Lack of acclimatization: When exposed to heat for a few days, the body will adapt and become more efficient in dealing with raised environmental temperatures. This process is called acclimatization. Acclimatization usually takes 6 to 7 days.

Benefits include:

- Lower pulse rate and more stable blood pressure
- More efficient sweating (causing better evaporative cooling)
- Improved ability to maintain normal body temperatures

Acclimatization may be lost in as little as three days away from work. People returning to work after a holiday or long weekend – and their supervisors – should understand this. Employees should be allowed to gradually re-acclimatize to work conditions.

Environmental Factors

Environmental factors such as ambient air temperature, air movement, and relative humidity can all affect an individual's response to heat. The body exchanges heat with its surroundings mainly through radiation and sweat evaporation. The rate of evaporation is influenced by humidity and air movement.

Radiant Heat

Radiation is the transfer of heat from hot objects through air to the body. Working around heat sources such as kilns or furnaces will increase heat stress. Additionally, working in direct sunlight can substantially increase heat stress. A worker is far more comfortable working at 80° F under cloudy skies than working at 80° F under sunny skies.

Humidity

Humidity is the amount of moisture in the air. Heat loss by evaporation is hindered by high humidity but helped by low humidity. As humidity rises, sweat tends to evaporate less. As a result, body cooling decreases and body temperature increases.

Air Movement

Air movement affects the exchange of heat between the body and the environment. As long as the air temperature is less than the worker's skin temperature, increasing air speed can help labor stay cooler by increasing both the rate of evaporation and the heat exchange between the skin surface and the surrounding air.

JOB FACTORS

Clothing and Personal Protective Equipment (PPE)

Heat stress can be caused or aggravated by wearing PPE such as fire - or chemical -retardant clothing. Coated and non-woven materials used in protective garments block the evaporation of sweat and can lead to substantial heat stress. The more clothing worn or the heavier the clothing, the longer it takes evaporation to cool the skin. Remember that darker clothing absorbs more radiant heat than lighter-colored clothing.

Workload

The body generates more heat during heavy physical work. For example, construction labor shoveling sand or laying brick in hot weather generate a tremendous amount of heat and are at risk of developing heat stress without proper precautions. Heavy physical work requires careful evaluation even at temperatures as low as 75° F to prevent heat disorders. This is especially true for labor who are not acclimated to the heat.

CONTROLLING HEAT STRESS

Heat stress can be controlled through education, engineering, and work procedures. Controls will:

- Protect Health: Illness can be prevented or treated while symptoms are still mild
- Improve Safety: Labor are less liable to develop a heat-related illness and have an accident. Heat stress often creeps up without warning. Many heat-induced accidents are caused by sudden loss of consciousness
- Increase Productivity: Labor feel more comfortable and are likely to be more productive as a result

Engineering Controls

Engineering controls are the most effective means of preventing heat stress disorders and should be the first method of control. Engineering controls seek to provide a more comfortable workplace by using:

- Reflective shields to reduce radiant heat
- Fans and other means to increase airflow in work areas
- Mechanical devices to reduce the amount of physical work

Given the constantly changing nature of construction sites, engineering controls are not usually feasible. Proper work procedures are therefore required to prevent heat stress disorders.

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

POLICY

Bannister Electric LLC of West Monroe has implemented this policy to ensure no employee is exposed to hazards caused by improper or unsafe use of ladders and/or stairways. Bannister Electric LLC of West Monroe will provide a training program for each employee using ladders and stairways. The program will enable each employee to recognize hazards related to ladders and stairways and will train each employee in the procedures to be followed to minimize these hazards.

REFERENCES

- §1926.1050 – Ladders and Stairways

RESPONSIBILITIES

Ladder and stairway safety is a responsibility shared between the Company and its employees.

Employer Responsibilities

- Providing and installing all stairway and ladder fall protection systems required by this subpart and will comply with all other pertinent requirements of this subpart before employees begin the work that necessitates the installation and use of stairways, ladders, and their respective fall protection systems
- Ensuring that visual safety inspections of ladders and stairways occur on regular basis
- Training personnel
- Responding quickly to eliminate workplace hazards
- Ensuring all equipment is kept in good repair
- Ensuring employees follow safe job procedures
- Reviewing job hazard analysis whenever there is a significant change to any element of the job or there has been an injury or illness

Safety Committee Responsibilities

- Assist in jobsite ladders and stairways as necessary
- Assist in training employees to recognize and control workplace hazards
- Monitor the workplace for hazards
- Encourage employees to report hazards
- Implement appropriate controls
- Ensure corrective action is taken promptly

Employee Responsibilities

- Assist in jobsite ladder and stairway inspections
- Follow safe job procedures
- Report hazards to a supervisor immediately

TRAINING

Dolphus Bannister will ensure each employee has been trained by a competent person in the following areas, as applicable: The nature of fall hazards in the work area; The correct procedures for erecting, maintaining, and disassembling the fall protection systems to be used; the proper construction, use, placement, and care in handling of all stairways and ladders; the maximum intended load-carrying capacities of ladder; the standards contained in §1926.1050 – Ladders and Stairways. Retraining will be provided for each employee as necessary so that the employee maintains the understanding and knowledge acquired through previous training required for OSHA compliance.

SAFE PRACTICES

A stairway or ladder will be at all access points with a break in elevation of 19 inches or more without a ramp, runway, sloped embankment, or personnel hoist.

- Employees will not use any spiral stairways that will not be a permanent part of the structure on which construction work is being performed
- A double-cleated ladder or two or more separate ladders will be provided when ladders are the only mean of access or exit from a working area for 25 or more employees, or when a ladder is to serve simultaneous two-way traffic
- When a building or structure has only one point of access between levels, that point of access will be kept clear to permit free passage of employees. When work must be performed or equipment must be used such that free passage at that point of access is restricted, a second point of access will be provided and used
- When a building or structure has two or more points of access between levels, at least one point of access will be kept clear to permit free passage of employees

Ladders

Dolphus Bannister will ensure the following requirements are adhered to concerning the use of all ladders:

- When portable ladders are used for access to an upper landing surface, the ladder side will extend at least 3 feet above the upper landing surface to which the ladder is used to gain access; or, when such an extension is not possible because of the ladder's length, then the ladder will be secured at its top to a rigid support that will not deflect, and a grasping device, such as a grabrail, will be provided to assist employees in mounting and dismounting the ladder. In no case will the extension be such that ladder deflection under a load would, by itself, cause the ladder to slip off its support
- Ladders will be maintained free of oil, grease, and other slipping hazards
- Ladders used by employees must meet OSHA/ANSI specifications
- Ladder rungs, cleats, and steps will be parallel, level, and uniformly spaced when the ladder is in position for use
- Ladders will not be loaded beyond the maximum intended load for which they were built or beyond their manufacturer's rated capacity. Ladders need to have the load capacity needed for the task
- Ladders will be used only for the purpose for which they were designed
- Non-self-supporting ladders will be used at a 75 degree angle
- Wood job-made ladders with spliced side rails will be used at an angle such that the horizontal distance is one-eighth the working length of the ladder

- Fixed ladders will be used at a pitch no greater than 90 degrees from the horizontal
- Ladders will be used only on stable and level surfaces unless secured
- Ladders will not be used on slippery surfaces without slip-resistant feet unless secured. Slip-resistant feet will not be used as a substitute for care in placing, lashing, or holding a ladder that is used upon slippery surfaces, including flat metal or concrete surfaces that are constructed so they cannot be prevented from becoming slippery
- Ladders placed where they can be displaced by workplace activities or traffic, such as in passageways, doorways, or driveways, will be secured to prevent accidental displacement, or a barricade will be used to keep the activities or traffic away from the ladder
- The area around the top and bottom of ladders will be kept clear
- The top of a non-self-supporting ladder will be placed with the two rails supported equally unless it is equipped with a single support attachment
- Ladders will not be moved, shifted, or extended while occupied
- Ladders will have nonconductive side-rails if they are used where the employee or the ladder could contact exposed energized electrical equipment
- The top or top step of a stepladder will not be used as a step
- Cross-bracing on the rear section of stepladders will not be used for climbing unless the ladders are designed and provided with steps for climbing on both front and rear sections
- Ladders will be inspected by a competent person for visible defects on a periodic basis and after any occurrence that could affect their safe use
- Portable ladders with structural defects will either be immediately marked in a manner that readily identifies them as defective, or be tagged with "DO NOT USE" or similar language, and will be withdrawn from service until repaired
- Fixed ladders with structural defects, such as broken or missing rungs, cleats, or steps, broken or split rails, or corroded components, will be withdrawn from service until repaired. The defective ladder will be withdrawn from service in the following manner: immediately tagged with "Do Not Use" or similar language; marked in a method that readily identifies it as defective; blocked from further use, such as with a plywood attachment that spans several rungs
- Before damaged or defective ladder may be returned to service, repairs will be made that restore the ladder to its original design specifications
- Single-rail ladders will not be used
- When ascending or descending a ladder, the user will face the ladder
- Each employee will use at least one hand to grasp the ladder when progressing up and/or down the ladder
- An employee will not carry any object or load that could cause the employee to lose balance and fall
- Extension ladders will be placed one unit away from the vertical surface for every four units high

Stairways

Dolphus Bannister will ensure the following requirements are applied to all stairways:

- Stairways that will not be a permanent part of the structure on which construction work is being performed will have landings of not less than 30 inches in the direction of travel and extend at least 22 inches in width at every 12 feet or less of vertical rise
- Stairs will be installed between 30 deg. and 50 deg. from horizontal
- Riser height and tread depth will be uniform within each flight of stairs, including any foundation structure used as one or more treads of the stairs. Variations in riser height or tread depth will not be over ¼-inch in any stairway system
- Where doors or gates open directly on a stairway, a platform will be provided, and the swing of the door will not reduce the effective width of the platform to less than 20 inches
- Metal pan landings and metal pan treads, when used, will be secured in place before filling with concrete or other material
- All parts of stairways will be free of hazardous projections, such as protruding nails
- Slippery conditions on stairways will be eliminated before the stairways are used to reach other levels
- Except during stairway construction, foot traffic is prohibited on stairways with pan stairs where the treads and/or landings are to be filled in with concrete or other material at a later date, unless the stairs are temporarily fitted with wood or other solid material at least to the top edge of each pan. Such temporary treads and landings will be replaced when worn below the level of the top edge of the pan
- Except during stairway construction, foot traffic is prohibited on skeleton metal stairs where permanent treads and/or landings are to be installed at a later date, unless the stairs are fitted with secured temporary treads and landings long enough to cover the entire tread and/or landing area
- Treads for temporary service will be made of wood or other solid material, and will be installed the full width and depth of the stair
- Stairways having four or more risers or rising more than 30 inches, will be equipped with: at least one handrail; one stairrail system along each unprotected side or edge
- Winding and spiral stairways will be equipped with a handrail offset sufficiently to prevent walking on those portions of the stairways where the tread width is less than 6 inches
- The height of stairrails will be as follows will be not less than 36 inches from the upper surface of the stairrail system to the surface of the tread, in line with the face of the riser at the forward edge of the tread
- Midrails, screens, mesh, intermediate vertical members, or equivalent intermediate structural members, will be provided between the top rail of the stairrail system and the stairway steps
    - Midrails will be located at a height midway between the top edge of the stairrail system and the stairway steps
    - Screens or mesh will extend from the top rail to the stairway step, and along the entire opening between top rail supports
    - When intermediate vertical members, such as balusters, are used between posts, they will be not more than 19 inches apart
    - Other structural members will be installed such that there are no openings in the stairrail system that are more than 19 inches wide

- Handrails and the top rails of stairrail systems will be capable of withstanding, without failure, a force of at least 200 pounds applied within 2 inches of the top edge, in any downward or outward direction, at any point along the top edge
- The height of handrails will be not more than 37 inches or less than 30 inches from the upper surface of the handrail to the surface of the tread
- When the top edge of a stairrail system also serves as a handrail, the height of the top edge will be not more than 37 inches or less than 36 inches
- Stairrail systems and handrails will be so surfaced as to prevent injury to employees from punctures or lacerations, and to prevent snagging of clothing
- Handrails will provide an adequate handhold for employees grasping them to avoid falling
- The ends of stairrail systems and handrails will be constructed so as not to constitute a projection hazard
- Handrails that will not be a permanent part of the structure being built will have a minimum clearance of 3 inches between the handrail and walls, stairrail systems, and other objects
- Unprotected sides and edges of stairway landings will be provided with guardrail systems

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

POLICY

Bannister Electric LLC of West Monroe has implemented this Control of Hazardous Energy (COHE) Program and Lockout/Tagout (LOTO) procedures to ensure that employees are properly trained, aware of hazards associated with Lockout/Tagout, and correctly informed of procedures, policies, and practices to prevent or, if possible, eliminate these hazards. This program covers the servicing and maintenance of machines and equipment in which the unexpected energizing or starting of the machines or equipment, or the release of stored energy, could cause injury to employees.

REFERENCES

- § 1910.147 – The control of hazardous energy (lockout/tagout)

ROLES AND RESPONSIBILITIES

Dolphus Bannister is the supervisor responsible for ensuring the following training, engineering controls, work practices, and safety procedures are enforced. Dolphus Bannister must ensure that employees, sub-contractors comply with the LOTO program and all client requirements. The performance of lockout/tagout procedures at Bannister Electric LLC of West Monroe will be inspected/evaluated at least annually by Dolphus Bannister for compliance with company policy. Inspections will be documented and date, equipment, and employee(s) reviewed will be recorded.

All Employees

Failure to comply with proper lockout/tagout procedures is grounds for disciplinary action. Any unauthorized removal of warning tags or lockout devices will be grounds for immediate termination of employment.

OSHA has defined three different categories of employees, depending upon their exposure to hazardous energy

- Authorized Employees
- Affected Employees
- Other Employees

Authorized Employees

An authorized employee is a person who locks out or tags out machines or equipment in order to perform servicing or maintenance on those machines or equipment. An affected employee becomes an authorized employee when that employee's duties include performing servicing or maintenance covered under this section.

- Affected employees will be notified by Dolphus Bannister or the authorized employee of the application and removal of lockout devices or tagout devices. Notification will be given before the controls are applied, and after they are removed from the machine or equipment
- Locking out the appropriate equipment
- Identifying the lockout
- Verifying the lockout
- Maintaining the key to their lock in their possession
- Checking the work area and replacing guards or reactivating safety devices as appropriate, before removing the lockout
- Removing their lock when the job is complete
- Following the requirements of this standard when either preparing equipment for maintenance or actually performing maintenance activities
- Signing and dating tags

Affected Employees

Affected employees are those who operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires them to work in an area in which such servicing or maintenance is being performed. Affected employees may assist when testing the equipment de-energized.

Other Employees

Other employees (those whose work activities are or may be in an area where energy control procedures may be utilized) may not attempt to restart or reenergize machines or equipment that are locked out or tagged

TRAINING

Dolphus Bannister will provide training to ensure the purpose and function of the Lockout / Tagout Program are understood by employees. The training program will ensure that employees acquire the knowledge and skills needed to safely apply, use, and remove energy controls. Each authorized employee will receive training in how to recognize applicable hazardous energy sources, the type and magnitude of the energy available in the workplace, and the methods and means necessary for energy isolation and control. Affected and other employees will be trained on these topics:

- An overview of the applicable LOTO regulations
- Hazards associated with stored energy
- Recognition of lockout devices
- Purpose of the energy control program
- LOTO procedures

Training will be documented using sign-in sheets that include the topics covered, and the dates and times of training sessions.

All affected / authorized employees will retrain in, and review, lockout-tagout procedures whenever there is a change in machines, assignments, equipment, or processes that presents a new hazard, or when there is a change in the energy control procedures. This retraining will be completed and documented on an ongoing basis by employees' area supervisor.

Employees must also receive additional training and demonstrate understanding if inspection or conditions show that the employees are not following established procedures or that safety has been compromised.

When tagout systems are used, employees will also be trained in the following limitations of tags.

- Tags are essentially warning devices affixed to energy isolating devices, and do not provide the physical restraint on those devices that is provided by a lock
- When a tag is attached to an energy isolating means, it is not to be removed without permission of the authorized person responsible for it, and it is never to be bypassed, ignored, or otherwise defeated
- Tags must be legible and understandable by all authorized employees, affected employees, and all other employees whose work operations are or may be in the area, in order to be effective
- Tags and their means of attachment must be made of materials that will withstand the environmental conditions encountered in the workplace
- Tags may evoke a false sense of security, and their meaning needs to be understood as part of the overall energy control program
- Tags must be securely attached to energy isolating devices so that they cannot be inadvertently or accidentally detached during use

Retraining

Changes of job assignments, changes in materials used, or any non-routine tasks involving energy control procedures will require notification and/or retraining of effected employees. Dolphus Bannister will inform or retrain employees of any new or additional hazards, detail methods of energy control necessary for the job. Notifications and retraining will be documented with the name of employee, date, description of action taken, and verification by Dolphus Bannister.

THE SOURCES OF STORED ENERGY THAT REQUIRE LOCKOUT ARE:

- Electrical: service panels, outlets, transformers, motors, capacitors
- Mechanical: spring-loaded equipment, tensioning devices
- Hydraulic: rams, oil-powered equipment
- Pneumatic: compressed-air equipment
- Kinetic / Gravity: counterweights, flywheels
- Fluids / Steam: heating pipes, steam lines

PROTECTIVE MATERIALS AND HARDWARE

Locks, tags, chains, wedges, key blocks, adapter pins, self-locking fasteners, or other hardware will be provided by the employer for isolating, securing or blocking of machines or equipment from energy sources.

Lockout devices and tagout devices will be singularly identified; will be the only devices(s) used for controlling energy; will not be used for other purposes; and will meet the following requirements:

Durable

- Lockout and tagout devices will be capable of withstanding the environment to which they are exposed for the maximum period of time that exposure is expected
- Tagout devices will be constructed and printed so that exposure to weather conditions or wet and damp locations will not cause the tag to deteriorate or the message on the tag to become illegible
- Tags will not deteriorate when used in corrosive environments such as areas where acid and alkali chemicals are handled and stored

Standardized

Lockout and tagout devices will be standardized within the facility in at least one of the following criteria: color; shape; or size, and additionally, in the case of tagout devices, print and format will be standardized.

Substantial

- Lockout devices. Lockout devices will be substantial enough to prevent removal without the use of excessive force or unusual techniques, such as with the use of bolt cutters or other metal cutting tools
- Tagout devices. Tagout devices, including and their means of attachment, will be substantial enough to prevent inadvertent or accidental removal. Tagout device attachment means will be of a non-reusable type, attachable by hand, self-locking, and non-releasable with a minimum unlocking strength of no less than 50 pounds and having the general design and basic characteristics of being at least equivalent to a one-piece, all-environment-tolerant nylon cable tie

Identifiable

Lockout devices and tagout devices will indicate the identity of the employee applying the device(s).

Tagout devices will warn against hazardous conditions if the machine or equipment is energized and will include a legend such as the following: Do Not Start, Do Not Open, Do Not Close, Do Not Energize, Do Not Operate.

SAFE PRACTICES

This policy applies to the control of hazardous energy during servicing and / or normal maintenance of machines and equipment if:

- An employee is required to remove or bypass a guard or other safety device
- An employee is required to place any part of his or her body into an area on a machine or piece of equipment where work is being performed at or upon the point of operation, or when an associated danger zone exists during a machine's operating cycle

EXCEPTION: Minor tool changes and adjustments that take place during normal production operations are not covered by the OSHA Standard if they are routine, repetitive, and integral to the use of the equipment for production, provided that the work is performed using alternative measures which provide effective protection.

The policy does not apply to:

- Work on cord-and-plug-connected electrical equipment when the employee performing the service or maintenance controls energizing by unplugging the equipment from the energy source
- Hot tap operations involving transmission systems for substances such as gas, steam, water, or petroleum, when they are performed on pressurized pipelines. However, it must be demonstrated that the continuity of service is essential, shut off of the system is impractical, and special equipment is used which provides effective protection

When a machine can be unplugged and there is no residual stored energy, a LOTO procedure need not be used. In that case, use a DO NOT OPERATE tag to warn employees that the equipment is out of order.

- If an energy source can be locked out, this method will be utilized. A “Lockout Device” utilizes a lock, either key or combination, to hold an energy isolating device in a safe position
- If an energy source cannot be locked out, a tagout system will be utilized. A “Tagout Device” is a warning tag (weather and chemical resistant) standardized in size, color, with wording warning of hazardous energy such as: (Do Not Start) (Do Not Open) (Do Not Close) (Do Not Energize) (Do Not Operate)
- Whenever equipment is replaced or undergoes major repair, renovation, or modification, and whenever new machines or equipment are installed, energy isolating devices for such machine or equipment will be designed to accept a lockout device.
- Lockout/Tagout devices will be clearly marked to indicate the identity of the employee applying the device
- Lockout or tagout will be performed only by the authorized employees who are performing the servicing or maintenance
- Affected employees will be notified by Dolphus Bannister or authorized employee of the application and removal of lockout devices or tagout devices. Notification will be given before the controls are applied, and after they are removed from the machine or equipment

Established Bannister Electric LLC of West Monroe procedures for energy control and the application of lockout or tagout devices covers the following elements and actions and will be done in the following sequence:

Sequence of Lockout

1. The authorized employee will notify all affected employees that servicing or maintenance is required on a machine or equipment, and that the machine or equipment must be shut down and locked out to perform the servicing or maintenance.

2. The authorized employee will identify the type and magnitude of the energy that the machine or equipment uses, will understand the hazards of each energy source and will know the methods to control the energy.

3. When the electrical disconnect is attached (or adjacent) to the equipment, the motor stop button will be depressed and the disconnect handle placed in the “Off” position. The disconnect handle should be operated while standing to one side of the disconnect, rather than in front of the switch. This is a safety precaution in case the parts in the switch explode. The authorized employee should attach his / her lock to the handle of the disconnect and remove the key.

4. If a switch or disconnect cannot be locked out for any reason, an electrician must remove the fuses before any work is started.

5. Stored or residual energy such as that in capacitors, springs, rotating flywheels and hydraulic systems, and in air / gas, steam or water pressure lines must be dissipated or restrained by methods such as grounding, repositioning, blocking or venting. If the accumulation of stored energy is possible, isolation must be verified continuously until servicing or maintenance is completed.

6. Equipment using hydraulic pressure will be locked out by placing the hydraulic pump motor electrical disconnect switch in the “Off” position, applying a lock to the disconnect and bleeding off residual pressure in the piping system if the energy could potentially endanger personnel.
7. The authorized employee will ensure that the equipment is completely disconnected from all energy source(s) by operating the push button or other normal operating controls or by otherwise testing to make certain the machine / equipment will not operate.
8. Return operating control(s) to neutral or “Off” position after verifying the isolation of the equipment.
9. The machine is now locked out and service or repairs can safely begin.
10. If there are any doubts about the above procedure, the authorized employee will contact his / her supervisor before proceeding.

Procedures Involving More than One Person (Group Lockout)

In the preceding steps, if more than one individual is required to lock the energy-isolating device(s), they will utilize a procedure which affords the employees a level of protection equivalent to that provided by implementing a personal lockout or tagout device. When an energy-isolating device cannot accept multiple locks, a multiple lockout or tagout device (hasp) may be used.

There will be authorized employees responsible for a set number of employees protected by a single lock under the authorized employee’s responsibility.

Restoring Equipment to Service

When servicing or maintenance is completed and the machine or equipment is ready to return to normal operating condition, the authorized person will take the following steps:

1. Visually inspect the machine or equipment and the immediate area around the machine or equipment to ensure that nonessential items have been removed and that the machine or equipment components are operationally intact.
2. Visually inspect the work area to ensure that all employees have been safety positioned or removed from the area.
3. Verify that the controls are in neutral.
4. Remove the lockout device(s) and re-energize the machine or equipment.

Note: Some forms of blocking may require the machine to be re-energized before they can be safely removed.

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

Procedures for Removing Abandoned Locks

If a safety lock has been left in place by an employee who has left the building, it will be removed only by according to the following procedures.

Before the lock is removed:

- A thorough inspection of the equipment will be made by the supervisor responsible for the area
- Dolphus Bannister will confirm that the authorized employee who applied the lockout device is not at the facility
- Dolphus Bannister will remove the lock, once he / she has determined that starting up the equipment will not endanger other personnel
- Dolphus Bannister will make all reasonable efforts to contact the authorized employee to inform him / her that his / her lockout or tagout device has been removed
- Dolphus Bannister will ensure that the authorized employee has knowledge of this release before he / she resumes work at the facility
- Each time it is necessary to remove / cut a safety lock, a written report will be prepared by the person authorized to remove the lock and a copy will be sent to the Bannister Electric LLC of West Monroe and contractor (if applicable) leadership
- In situations where lockout or tagout devices must be temporarily removed and the machine or equipment energized to test or position, the following procedures will be followed:

1. Clear the machine or equipment of tools and materials.
2. Remove employees from the machine or equipment area.
3. Remove the lockout or tagout devices as specified.
4. Energize and proceed with testing or positioning.
5. De-energize all systems and reapply energy control measures to continue the servicing and/or maintenance.

This procedure will be verified and documented by personnel performing it.

- Whenever outside servicing personnel are to be engaged in operations requiring lockout or tagout procedures, Dolphus Bannister and the outside employer will inform each other of their respective lockout or tagout procedures
- Dolphus Bannister will ensure that employees understand and comply with the restrictions and prohibitions of the outside employer's energy control program
- When servicing and/or maintenance is performed by a crew, craft, department, or other group, they will utilize a procedure which affords the employees a level of protection equivalent to that provided by the implementation of a personal lockout or tagout device. Group lockout or tagout devices will be used with the following specific requirements:
  - Primary responsibility is vested in Dolphus Bannister for a set number of employees working under the protection of a group lockout or tagout device (such as an operations lock)
  - Provision for Dolphus Bannister to ascertain the exposure status of individual group members with regard to the lockout or tagout of the machine or equipment
  - When more than one crew, craft, department, etc. is involved, assignment of overall job-associated lockout or tagout control responsibility to Dolphus Bannister to coordinate affected work forces and ensure continuity of protection
  - Each authorized employee will affix a personal lockout or tagout device to the group lockout device, group lockbox, or comparable mechanism when he or she begins work, and will remove those devices when he or she stops working on the machine or equipment being serviced or maintained
- During shift or personnel changes, procedures will be utilized to ensure the continuity of lockout or tagout protection, including provision for the orderly transfer of lockout or tagout device protection between off-going and oncoming employees, to minimize exposure to hazards from the unexpected energization or start-up of the machine or equipment, or the release of stored energy. Documentation will be maintained as to personnel, equipment, and particular Lockout/Tagout procedures involved in a specific ongoing operation.
- Lockout procedures are to be utilized over tagout procedures, where possible.
- Locks and tags used for lockout or tagout procedures will be clearly marked with identification of the employee applying the device.

General Safety Considerations

When an energy isolating device is not capable of being locked out, a tagout system will be utilized. If an energy isolating device is capable of being locked out, a lockout will be utilized, unless the employer can demonstrate that the utilization of a tagout system will provide full employee protection.

Full employee protection must be used when a tagout device is used on an energy isolating device which is capable of being locked out. The tagout device will be attached at the same location that the lockout device would have been attached, and the employer will demonstrate that the tagout program will provide a level of safety equivalent to that obtained by using a lockout program.

Lockout devices, where used, shall be affixed in a manner that will hold the energy isolating devices in a safe or off position. Tagout devices, where used, shall be affixed in such a manner as will clearly indicate that the operation or movement of energy isolating devices from the safe or off position. Where a tag cannot be affixed directly to the energy isolating device, the tag shall be located as close as safely as possible to the device in a position that will be immediately obvious to anyone attempting to operate the device.

When testing or positioning machines, equipment or components in situations in which lockout or tagout devices must be temporarily removed, the following sequence of actions will be followed: clear the machine or equipment of tools and materials, remove employees from the machine or equipment area, remove the lockout or tagout devices, energize and proceed with testing or positioning, de-energize all systems and reapply energy control measures.

Whenever outside servicing personnel are to be engaged in activities requiring LOTO, the on-site company and the outside employer will inform each other of their respective lockout or tagout procedures. The on-site employer will ensure that his/her employees understand and comply with the restrictions and prohibitions of the outside employer's energy control program.

The Lockout /Tagout procedures for Bannister Electric LLC of West Monroe are administered by Dolphus Bannister, and will be those described in the following sections.

ADDITIONAL SAFETY CONSIDERATIONS

The company will conduct a periodic inspection of the energy control procedure, at least annually, to ensure that the procedure and the requirements are being followed.

The company will conduct testing or positioning of machines, equipment or components in situations in which lockout or tagout devices must be temporarily removed. The following sequence of actions will be followed:

- Clear the machine or equipment of tools and materials
- Remove employees from the machine or equipment area
- Remove the lockout or tagout devices
- Energize and proceed with testing or positioning
- Deenergize all systems and reapply energy control measures

SPECIFIC ENERGY CONTROL PROCEDURE (PAGE 1 OF 2)

Procedure Number		Date	
Completed By			
Machine(s) or equipment utilizing this procedure			
Number of locks required			
Other lockout devices required			
PROCEDURES FOR CONTROLLING HAZARDOUS ENERGY			
1. Sources of Hazardous Energy			
☐	Electrical	☐ Natural Gas	☐ Springs
☐	Hydraulic	☐ Gravity	☐ Steam
☐	Chemical	☐ Pneumatic	☐ Thermal
☐	Other		
2. Notify affected employees that the machine is about to be shut down and locked out.			
☐	Special Instructions		
3. Shut down the machine using normal stopping procedures.			
☐	Special Instructions		
4. Isolate all energy sources listed above.			
☐	Special Instructions		

SPECIFIC ENERGY CONTROL PROCEDURE (PAGE 2 OF 2)

5. a. Apply locks to all isolating devices installed in Step Four.					
☐	Special Instructions				
5. b. If a tag is used in lieu of a lock when an energy-isolating device is incapable of locking out a piece of equipment, the following additional safety precaution will be taken:					
☐	Special Instructions				
6. Block or dissipate all stored energy in rams, flywheels, springs, pneumatic or hydraulic systems, etc.					
☐	Special Instructions				
7. Verify that the machine is locked out by testing the machine operating controls. RETURN ALL CONTROLS TO THE “NEUTRAL” OR “OFF” POSITION AFTER TESTING.					
☐	Special Instructions				

LOCKOUT PROCEDURE AUDIT/INSPECTION

Employee Auditing/Inspecting		Date	
Task/Equipment Description			

	YES	NO
1. Is there a written lockout procedure for this machine or piece of equipment?	☐	☐
2. Is individual familiar with lockout procedures for specific piece of equipment?	☐	☐
3. Has individual performing lockout been trained?	☐	☐
4. Has machine or equipment been shut down?	☐	☐
5. Has machine or equipment been isolated?	☐	☐
6. Has individual placed lockout devices? (lockout and tag)	☐	☐
7. Has individual released all stored energy or placed a positive mechanical device in place to prevent accidental release?	☐	☐
8. Has individual tested the machine or equipment to verify effectiveness of the lockout device?	☐	☐
9. Upon removal of lockout device, has individual communicated to appropriate personnel that machine/equipment is back in service?	☐	☐
10. Procedure followed?	☐	☐

Recommendations/Corrective Action	
Audited/Inspected By	
Employee Signature	

LOCKOUT PROCEDURE FOR BANNISTER ELECTRIC LLC OF WEST MONROE (PAGE 1 OF 2)

PURPOSE

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

COMPLIANCE WITH THIS PROGRAM

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

SEQUENCE OF LOCKOUT

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

Affected employees and how to notify:

Name(s)	
Job Title(s)	

2. The authorized employee will refer to the company procedure to identify the type and magnitude of the energy that the machine or equipment utilizes, will understand the hazards of the energy, and will know the methods to control the energy.

Type(s) and magnitude(s) of energy, its hazards and the methods to control the energy.

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

Machine(s) or Equipment operating controls:

Type(s)	Location(s)

4. Deactivate the energy isolating device(s) so that the machine or equipment is isolated from the energy source(s).

Type(s) and location(s) of energy isolating devices.

5. Lock out the energy isolating device(s) with assigned individual lock

(Locks will be labeled with individuals name and number).

Lock #		Assigned To	
Lock #		Assigned To	
Lock #		Assigned To	
Lock #		Assigned To	

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

Type(s) of stored energy - methods to dissipate or restrain.

7. Ensure that the equipment is disconnected from the energy source(s) by first checking that no personnel are exposed, then verify the isolation of the equipment by operating the push button or other normal operating control(s) or by testing to make certain the equipment will not operate.

Caution: Return operating control(s) to neutral or “off” position after verifying the isolation of the equipment.

Method of verifying the isolation of the equipment.

8. The machine or equipment is now locked out.

RESTORING EQUIPMENT TO SERVICE

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

1. Check the machine or equipment and the immediate area around the machine or equipment to ensure that non-essential items have been removed and that the machine or equipment components are operationally intact.

2. Check the work area to ensure that all employees have been safely positioned or removed from the area.

3. Verify that the controls are in neutral.

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

5. Note: The removal of some forms of blocking may require re-energization of the machine before safe removal.

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

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

POLICY

Bannister Electric LLC of West Monroe has implemented this policy to ensure no employee is exposed to noise that exceeds the action levels. Dolphus Bannister is the designated supervisor for ensuring the following engineering controls and work practices will be enforced:

Hearing protectors are available upon request from Dolphus Bannister at no cost to all employees exposed to an 8-hr. time-weighted average of 85 decibels. Hearing protection will be replaced as necessary. Each employee will be properly trained in the use, care, and fitting of hearing protectors. Dolphus Bannister will ensure that hearing protectors are worn. Employees will be given the opportunity to select their hearing protectors from a variety of suitable hearing protectors.

Bannister Electric LLC of West Monroe will provide a continuing effective hearing conservation program when employees are exposed to sound levels greater than 85 dBs on an 8 hour time-weighted average basis.

When information indicates that employee exposure may equal/exceed the 8 hr time-weighted avg. of 85 decibels, Dolphus Bannister will implement a monitoring program to identify employees to be tested.

TRAINING

Upon initial hiring, all employees who are exposed to action level noise will be trained in the hazards presented by excessive noise levels in the workplace, and the use and care of hearing protection devices. Training will be repeated annually for each employee and updated to reflect changes in personal protective equipment (PPE) and work processes or requirements. Dolphus Bannister will make copies of the noise exposure procedures available to affected employees and will also post a copy in the workplace and allow OSHA access to records.

HEARING PROTECTION

Hearing protectors are available upon request from Dolphus Bannister at no cost to all employees exposed to an 8-hr. time-weighted average of 85 decibels. Hearing protection will be replaced as necessary. Each employee will be properly trained in the use, care, and fitting of hearing protectors. Dolphus Bannister will ensure that hearing protectors are worn. Employees will be given the opportunity to select their hearing protectors from a variety of suitable hearing protectors.

Dolphus Bannister will ensure that hearing protectors are worn:

- By an employee who is required by paragraph (b)(1) of this section to wear personal protective equipment; and
- By any employee who is exposed to an 8-hour time-weighted average of 85 decibels or greater, and who:
  - Has not yet had a baseline audiogram established pursuant to paragraph (g)(5)(ii); or
  - Has experienced a standard threshold shift

AUDIO MONITORING

Audio monitoring will be implemented if it is believed noise levels in work areas are approaching or exceed action level limits. If monitoring results indicate exposures equaling or exceeding safe limits, an employee will be included in a hearing conservation program.

All continuous, intermittent, and impulsive sound levels from 80 decibels to 130 decibels shall be integrated into the noise measurements. Instruments used to measure employee noise exposure shall be calibrated to ensure measurement accuracy.

Monitoring shall be repeated whenever a change in production, process, equipment or controls increases noise exposures to the extent that:

- Additional employees may be exposed at or above the action level; or
- The attenuation provided by hearing protectors being used by employees may be rendered inadequate to meet the requirements

Employee notification. The employer shall notify each employee exposed at or above an 8-hour time-weighted average of 85 decibels of the results of the monitoring.

Observation of monitoring. The employer shall provide affected employees or their representatives with an opportunity to observe any noise measurements conducted pursuant to this section.

When employees are subjected to sound exceeding those listed in the below table, feasible administrative or engineering controls shall be utilized. If such controls fail to reduce sound levels within the levels of table, personal protective equipment shall be provided and used to reduce sound levels within the levels of the table overleaf.

DURATION OF EXPOSURE	SOUND LEVEL
8 hours	90 decibels
6 hours	92 decibels
4 hours	95 decibels
3 hours	97 decibels
2 hours	100 decibels
1.5 hours	102 decibels
1 hour	105 decibels
30 minutes	110 decibels
15 minutes	115 decibels

Methods of Control

All monitoring results shall be reviewed by the site safety representative. Upon receiving results that indicate noise levels to be above the action level, the site safety representative shall determine which of the following control methods shall be utilized to reduce or eliminate the hazard:

- Dolphus Bannister shall first determine if any means of engineering the problem out are possible. Some of these means may include such things as eliminating the job all together, shortening the length of the job, or installing barriers to reduce noise levels
- If engineering controls are not feasible, then administrative controls shall be taken into consideration. This type of control would include such activity as using job rotation
- Only when it is not feasible for management to implement a type of engineering or administrative control will PPE be used as the primary control method

AUDIOMETRIC TESTING

Dolphus Bannister will maintain an audiometric testing program by making audiometric testing available to all employees whose exposures equal or exceed an 8-hr. time-weighted avg. 85 decibels. The program is provided at no cost to employees.

Within 6 months of an employee's first exposure at or above the action level, Bannister Electric LLC of West Monroe shall establish a valid baseline audiogram against which future audiograms can be compared. When a mobile van is used, the baseline shall be established within 1 year.

Testing to establish a baseline audiogram will be preceded by at least 14 hours without exposure to workplace noise. Hearing protection may be used to meet the requirement. Employees will also be notified to avoid high levels of noise.

At least annually after obtaining the baseline audiogram, Dolphus Bannister will obtain a new audiogram for each employee exposed at or above an 8-hour time-weighted average of 85 decibels. Each employee's annual audiogram shall be compared to that employee's baseline audiogram to determine if the audiogram is valid and if a standard threshold shift has occurred. If a comparison of the annual audiogram to the baseline audiogram indicates a standard threshold shift, the employee shall be informed of this fact in writing, within 21 days of the determination.

If a standard threshold shift occurs, use of hearing protection shall be re-evaluated and/or refitted and if necessary a medical evaluation may be required. The following procedures will be implemented:

- Employees not using hearing protectors will be fitted with hearing protectors, trained in their use and care, and required to use them
- Employees already using hearing protectors will be refitted and retrained in the use of hearing protectors and provided with hearing protectors offering greater attenuation if necessary
- Employees will be referred for a clinical audiological evaluation or an otological examination, as appropriate, if additional testing is necessary or if it is suspected that a medical pathology of the ear is caused or aggravated by the wearing of hearing protectors
- Employees will be informed of the need for an otological examination if a medical pathology of the ear that is unrelated to the use of hearing protectors is suspected
- Audiometric evaluation and testing conducted by a licensed physician using the guidelines contained in §1910.95 (g), and is available to all employees whose work requirements equals or exceeds an 8 hr. time-weighted average 85 decibels on a regular basis at no cost to the employee.
- Proctored hearing protector attenuation will be evaluated for the specific noise environments in which the protector will be used. The methods used for measuring attenuation will be one of the four methods described in CCR Title 8, Section 5098, Appendix E
- Hearing protectors must attenuate the noise level to an 8-hour TWA of 90 dBA or less
- For employees who have experienced a standard threshold shift, the attenuation must reduce the sound level to an 8-hour TWA of 85 dBA or less
- Re-evaluation of hearing protectors will be done whenever a workplace noise level increase renders the hearing protector's attenuation inadequate
- Workplaces in which the noise level exceeds 85 dBA will have signs posted. Signs will read "Hearing Protectors Required"

Hearing protection is available at no cost to all employees upon request from the jobsite foreman or company office.

RECORDKEEPING

Bannister Electric LLC of West Monroe will keep all records collected by this policy, and specifically maintain noise exposure measurement records for at least two years and audiometric test records for the entire length of each employee’s employment.

These records will also be transferred to any successor employer if Bannister Electric LLC of West Monroe ceases to do business.

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

POLICY

Bannister Electric LLC of West Monroe has adopted this policy to inform employees of the Drug and Alcohol Policy. This ensures the safety and health of the employees.

Dolphus Bannister is responsible for ensuring that the following policy is enforced.

DRUG AND ALCOHOL TESTING

It is the policy of Bannister Electric LLC of West Monroe that drug and alcohol testing will occur at pre-employment, post-accident, or at random, and will be conducted by only a laboratory certified by the U.S. Department of Health and Humans Services (HHS) under the National Laboratory Certification Program (NLCP).

Employees with unacceptable test results will not be allowed to work at the worksite or facility.

Pre-Employment Testing Procedures

Any offer of employment is deemed conditional upon the potential employee having a negative test result for drugs.

Pre-employment drug testing shall be scheduled by the hiring supervisor directly with the third-party service provider immediately upon acceptance by the candidate of a conditional offer of employment. Testing should be done in a location most likely to ensure timely receipt of the results. Pre-employment test results will be reported by the Medical Review Officer.

Reasonable-Suspicion Testing Procedures

Any competent person may require any employee to be tested for Alcohol or Drugs and must tell the employee beforehand why the test is being requested. Any employee who refuses a request to be tested is in breach of this policy and may be subject to disciplinary action that may include termination of employment.

When testing for either alcohol or drugs is to occur, Dolphus Bannister will direct the employee to a sample collection site designated by a third-party service provider and provide transportation to the site. At Bannister Electric LLC of West Monroe’s discretion, a qualified technician may be brought to the worksite to conduct the testing.

Post-Incident Testing Procedures

In the event of an accident, injury or other work-related incident, the employee(s) involved will be required to submit to a drug and alcohol test to determine if the incident is a result of impairment.

Any employee who refuses a request to be tested is in breach of this policy and may be subject to disciplinary action that may include termination of employment

Reasonable-Cause Testing Procedures

Should a competent person deem it to be necessary, the employee(s) who has shown reasonable cause (or reasonable suspicion) shall submit a drug and alcohol test to ensure that they are not under the influence and do not have any type of prohibited drug in their system. Any employee who refuses a request to be tested is in breach of this policy and may be subject to disciplinary action that may include termination of employment.

Random Drug and Alcohol Testing

Bannister Electric LLC of West Monroe will conduct a number of random tests each calendar year that meets or exceeds 25 percent of covered employees.

Bannister Electric LLC of West Monroe may use a third-party administrator to manage all aspects of the random testing program.

All covered employees will be placed into a random selection pool. Covered employees will remain in the random selection pool at all times, regardless of whether or not they have been previously selected for testing. The selection of employees will be made by using a computer-based, scientifically valid method (e.g., random number generator or equivalent random selection method) that is matched with an employee's social security number or employee ID number.

All covered employees will have an equal chance of being selected for testing.

Random testing will occur on a quarterly basis. Prior to selection, Dolphus Bannister must ensure that the random testing pool has been updated to include all current covered employees.

The number of tests to be conducted will be based on the number of covered employees at the beginning of each quarter’s test cycle. The random selection procedure will compile a list of employees to be tested in each testing cycle. The number of employees selected must be sufficient to meet the minimum number of required tests. The selected employee list will be will be kept in a secure location until the time of testing, at which the list will be provided to the appropriate supervisor, who will, in turn, notify the employee(s) to report for testing.

Random testing is unannounced, and employees are notified that they have been selected for testing only after they have reported for duty on the day of collection. Specimen collection will be conducted on different days of the week throughout each test cycle to prevent employees from matching their drug-use patterns to the schedule for collection. Random drug tests are normally unobserved by the collector. However, provisions will be available at the collection site for a directly observed collection to take place should circumstances require such action.

Once notified by the appropriate Company official, employees will be instructed to report immediately to the collection site.

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

POLICY

Bannister Electric LLC of West Monroe has implemented this safety program to ensure the protection of personnel from hazards on the job which may be safeguarded against by the proper use of Personal Protective Equipment (PPE).

Dolphus Bannister is the supervisor responsible for ensuring the following work practices are enforced.

PPE will be provided at no cost for all work required by Bannister Electric LLC of West Monroe and employees are required by company policy to use only proper company PPE at all times when required on the job or on company property. Failure to use PPE will result in disciplinary action against the violating employee.

- Dolphus Bannister will ensure that if employee-owned PPE is used, Bannister Electric LLC of West Monroe is responsible that it will be adequate for the application, properly maintained, and kept in sanitary condition
- PPE will be issued and fitted to each affected employee individually. Employees must demonstrate proficiency in donning and doffing equipment, and proper techniques of cleaning and maintaining their respective equipment
- Defective or damaged PPE will NOT be used. Defective or damaged PPE will be immediately tagged “OUT OF SERVICE”, removed from service, and replaced with serviceable equipment. PPE will be inspected by the individual employee at the beginning of each work shift
- PPE must be used, stored, and maintained in a sanitary condition. All PPE must be cleaned and/or disinfected and stored according to manufacturer’s recommendations

TRAINING

Dolphus Bannister will ensure all employees are properly trained in the recognition and assessment of hazards, the proper selection and use of PPE required for the hazard and how to control the hazards.

PPE training will include when it is necessary; what is necessary; how to don, doff, adjust, and wear PPE; the limitations, proper care, maintenance, useful life and disposal of PPE.

Retraining of employees is required when the workplace changes, making the earlier training obsolete; the type PPE changes; or when the employee demonstrates lack of use, improper use, or insufficient skill or understanding.

Employees will be trained on initial hiring to use, maintain, clean and disinfect, store, and service PPE properly. Employees will receive refresher training on PPE at least annually, or as work requirements, changing job assignments, changing equipment, or environment warrants it. Any employee who demonstrates a lack of knowledge or understanding of any aspect of PPE use or maintenance will be re-trained. An employee must verify his/her understanding of training content as a condition of employment.

All training will be documented and will include the employee name, the dates of training, and the certification subject.

HAZARD ASSESSMENT

Dolphus Bannister will perform a hazard assessment of each jobsite prior to commencement of work to ascertain if hazards are present or likely to be encountered, what engineering controls may be implemented to minimize hazards, and what PPE is necessary for the performance of the job. The hazard assessment will include the certifier's name, signature, date(s), and identification of assessment documents. Affected employees will be notified of hazards, engineering controls needed, and PPE required.

GENERAL REQUIREMENTS

PPE devices should be relied on as the final protection against hazards, used in conjunction with guards, engineering controls, and sound manufacturing practices. It is necessary to consider certain general guidelines for assessing the foot, head, eye and face, and hand hazard situations that exist in an occupational operation or process, and to match the protective devices to the particular hazard. It is the responsibility of Dolphus Bannister to exercise common sense and appropriate expertise to accomplish these tasks.

After completion of a Hazard Identification and Risk Assessment, the general procedure for selection of protective equipment is to:

- Become familiar with the potential hazards and the type of protective equipment that is available, and what it can do; i.e., splash protection, impact protection, etc
- compare the hazards associated with the environment; i.e., impact velocities, masses, projectile shape, radiation intensities, with the capabilities of the available protective equipment
- select the protective equipment which ensures a level of protection greater than the minimum required to protect employees from the hazards
- fit the user with the protective device and give instructions on care and use of the PPE. It is very important that end users be made aware of all warning labels for and limitations of their PPE

PERSONAL WORK CLOTHING

The minimum work clothing acceptable is long pants, good work shoes or boots, and a shirt that completely covers the worker's shoulders (minimum 4-inch sleeves) and provides adequate protection against such hazards as concrete splash, abrasions to the skin, oil or grease spills, and slag from welding or cutting.

Welders should be cautioned against wearing any type of highly flammable clothing, such as polyesters, double-knits, etc. Wool and specially treated cotton are two natural fibers that are fire-resistant and comfortable. Heat-resistant material, such as leather, is used to protect against dry heat, flames, and molten material. Fire-resistant clothing also protects from high workplace temperature and electrical operations.

For the most part, construction workers should wear clothing that is reasonably snug, particularly about the neck, wrists, and ankles. Employees shall not wear loose clothing, rings, watches, necklaces or long hair, all of which may catch in power driven equipment.

Rubber and rubberized fabrics, neoprene, and plastics protect against some acids and chemicals. Disposable chemical suits are used to protect against dusty materials and materials that splash. For materials that have are extremely toxic, a fully encapsulated suit may be necessary.

Arc rated clothing shall be worn during work activities that have been identified to present an arc flash potential. The clothing will be rated for the arc flash potential of the task. Such clothing may include long sleeved FR shirts, FR pants, face shield, and appropriate class rubber gloves. The employee shall not wear synthetic fiber clothing under Fire Resistant clothing. Refer to the Electrical Safety and Arc Flash policy for clothing required for arc flash potential posed by the task and equipment.

EYE AND FACE PROTECTION

To prevent possible eye and face injuries suitable eye protection shall be worn. Potential eye and face injuries occur from flying objects, liquid chemicals, acids or caustic liquids, molten metal, chemical gases or vapors, and light radiation. Eye protection shall provide adequate protection, be reasonably comfortable, fit snugly, be durable, capable of being disinfected and cleaned, kept sanitary and in good repair. When selecting eye and face protection consider what kind and degree of hazard is present.

Eye or face protection shall comply with American National Standards Institute (ANSI) Z87.1. If you have questions about eye or face protection ask your supervisor or refer to the manufacture instructions.

FOOT AND LEG PROTECTION

Most foot injuries occur from employees not wearing protective footwear. The typical foot injury is caused from objects falling fewer than 4 feet. For protection from falling or rolling objects, sharp objects, molten metal, hot surfaces, and slippery surfaces, employees shall use appropriate foot guards, steel toe safety shoes, steel toe safety boots, metatarsal guards and leggings. Leggings protect the lower leg and feet from molten metal and welding sparks.

Leather work shoes/boots are required and safety shoes are recommended for use by all employees. Safety shoes should be sturdy, have an impact resistant toe, and have puncture resistant soles. Protective footwear shall comply with ANSI Z41-1991.

When working with wet concrete, workers shall wear rubber boots.

Shoes and boots shall be kept in good repair, and those with worn heels of thin or worn soles should not be permitted. In addition, the wearing of sneakers, sandals, or shoes that have been slit or have holes cut in them, shall not be permitted.

HAND AND ARM PROTECTION

Arm and hand protection is used to prevent skin contact and absorption with potentially harmful materials, to prevent burns, and electrical shock. Where needed, workers should wear work gloves in good condition, which are suited to the type of work involved. Some of the factors taken into account when gloves were selected are the toxic properties of chemicals handled by employees, the degree of dexterity required, duration, frequency, degree of exposure to the hazards, and physical stress that will be applied. The company relies on the manufacturers' standard test procedures for hand and arm protection performance characteristics. Refer to Attachment C for guidelines for glove selection.

Employees who are required to operate or work around drill presses, power saws, and similar rotating machinery shall not wear gloves.

Special type gloves such as neoprene or rubber to handle chemicals shall be issued to those employees who have a need for them. Welders shall wear gloves during settling operations.

HEAD PROTECTION (HARD HATS)

Employees shall wear protective helmets when working in areas where there is a potential for injury to the head from falling objects. Protective helmets designed to reduce electrical shock hazard shall be worn by each such affected employee when near exposed electrical conductors which could contact the head.

All employees that wear company issued hard hats shall wear them at all times when working on construction projects or areas of an existing facility, which has been designated as a "Hard Hat Area." This includes visitors, subcontractors, engineers, inspectors, and anyone else who has authorization to be on the project site.

Head protection shall be worn properly with the brim in front. Hard hats which have been altered by drilling or cutting will not be permitted, nor will those hats which have been altered by the addition of any items on the outside of the hat other than safety, or site stickers. When it is necessary to use additional personal protective equipment, which shall be attached to the hard hat, only those hard hats designed for this purpose may be used.

Protective hard hats shall meet ANSI requirements Personal Protection-Protective Headgear for Industrial Workers Z89.1-1986. Electrical workers shall wear hard hats that are rated for the voltage of the equipment where work is being performed.

RESPIRATORY PROTECTION

Company issued respiratory protective devices, appropriate for the hazard, shall be used where airborne contaminates, such as fibers, dust, smoke, vapors, and mists exist and may exceed acceptable levels. Respiratory protective devices will be used in accordance with NIOSH requirements.

HEARING PROTECTION

Hearing protection shall be worn in areas that exceed 85 dBA. Refer to 28, Occupational Noise Exposure Program.

FULL BODY HARNESS AND LANYARDS

Harnesses with lanyards in use, shall be worn by all employees who are working at elevated levels which are not protected by standard handrails, or when working from suspended scaffolds. Employees are required to wear and use full body harnesses to protect them from falling when they are exposed to falls from heights of six feet or more. If they are working on powered platforms or over machinery, moving equipment or objects posing an impalement hazard, or in the case of entering a confined space, with an attended lifeline, 100% full protection is required. This might include the need for two lanyards per belt. All harnesses and lanyards shall be inspected and each inspection documented with the harness serial number. Inspections shall be performed by supervision. Quick release belts shall only be used when working over bodies of water. Lanyards shall have locking snaps that require two actions to open. Refer to the Fall Protection Program for complete requirements.

FLOTATION VESTS

US Coast Guard approved flotation vests shall be worn by all employees when working on barges, floating pipelines or plants, or on structures extending over water, that are not protected by adequate standard handrails. In addition, any employee who is working over the side of a vessel or structure, which is extended over water, or, in any area where a drowning hazard exists, shall wear an approved flotation vest.

TRAFFIC VESTS

Employees shall wear, as a minimum, an ANSI Class II fluorescent orange or lime traffic safety vest when working within 15 feet of a roadway or in a parking lot. Vests shall also be used when directing traffic on a construction site.

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

POLICY

Bannister Electric LLC of West Monroe has implemented this policy to ensure that no employee is exposed to airborne hazards in the workplace exceeding Permissible Exposure Limits (PEL), or oxygen deficient atmospheres. Bannister Electric LLC of West Monroe will provide respirators which are applicable and suitable for the purpose intended when such equipment is necessary to protect the health of our employees. Specifically when workers may be exposed to harmful vapors and oxygen deficient atmospheres. This Respiratory Protection Program provides training, medical evaluations, and respirators at no cost to our employees.

Dolphus Bannister is the supervisor responsible for ensuring the following training, administrative controls, engineering controls, and safe work practices are enforced:

Dolphus Bannister is responsible for administrating the Respiratory Protection Program its recordkeeping and periodic evaluation. The evaluation will be based on results of the air quality monitoring program, medical evaluations, changing work environment, equipment changes, work requirements, and employee responses. Respiratory equipment will be National Institute of Occupational Safety and Health (NIOSH) certified only, and selection will be made by Dolphus Bannister, based on identified and potential hazards, estimated exposures, and contamination information.

In any workplace where respirators are necessary to protect the health of our employees, Bannister Electric LLC of West Monroe has established and implemented this written Respiratory Protection Program with worksite-specific procedures. This program will be updated as necessary to reflect any changes in workplace conditions that affect respirator use.

The Respiratory Protection Program includes the following elements:

- Procedures for selecting respirators for use in the workplace
- Medical evaluations of employees required to use respirators
- Fit testing procedures for tight-fitting respirators
- Procedures for proper use of respirators in routine and reasonably foreseeable emergency situations
- Procedures and schedules for cleaning, disinfecting, storing, inspecting, repairing, discarding, and otherwise maintaining respirators
- Procedures to ensure adequate air quality, quantity, and flow of breathing air for atmosphere-supplying respirators
- Training of employees in the respiratory hazards to which they are potentially exposed during routine and emergency situations
- Training of employees in the proper use of respirators, including putting on and removing them, any limitations on their use, and their maintenance
- Procedures for regularly evaluating the effectiveness of the program

TRAINING

Dolphus Bannister will ensure that effective training is initially provided to all employees who are required to use respirators. The training will be comprehensive, conducted in a manner that is understandable to our employees, and recur annually or more often if necessary. Before being allowed or required to wear breathing protection, each of our employees will be able to demonstrate knowledge of at least the following:

- Why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator
- What the limitations and capabilities of the respirator are
- How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions
- How to inspect, put on and remove, use, and check the seals of the respirator
- Procedures for cleaning, maintenance, and storage of respirators
- How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators
- The general requirements of §1910.134 – Respiratory Protection

Retraining will be administered annually or when the following situations occur:

- Changes in the workplace or the type of respirator render previous training obsolete
- Inadequacies in the employee's knowledge or use of the respirator indicate that the employee has not retained the requisite understanding or skill
- Any other situation arises in which retraining appears necessary to ensure safe respirator use

Bannister Electric LLC of West Monroe allows employees to wear respirators on a voluntary basis when not required by OSHA. When a filtering face piece respirator is all that is used, the employee must be provided a copy of Appendix D. A filtering facepiece respirator is defined in 29 CFR 1910.134(b) as “a negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium. For all other voluntary users, the respiratory protection program that covers medical fitness and proper maintenance procedures will be implemented.

EVALUATION AND MONITORING

Workplace evaluations will be conducted as necessary to ensure that the provisions of the current Respiratory Protection Program are being effectively carried out and that it continues to be effective.

Employees required to use respirators will be regularly consulted to assess their views on program effectiveness and to identify any problems. Any problems that are identified during this assessment will be corrected. Factors to be assessed include, but are not limited to:

- Respirator fit, including the ability to use the respirator without interfering with effective workplace performance
- Appropriate respirator selection for the hazards to which the employee is exposed
- Proper respirator use under the workplace conditions the employee encounters
- Proper respirator maintenance

Dolphus Bannister will ensure that all filters, cartridges and canisters used in the workplace are labeled and color coded with the NIOSH approval label and that the label remains legible and is not removed.

Proper respiratory equipment, replacement elements, and any parts or equipment necessary for the proper functioning of the respiratory equipment will be available to employees at no cost.

RESPIRATOR SELECTION, CARE AND MAINTENANCE

All respiratory protection equipment will be maintained, cleaned, stored, and serviced per manufacturer's recommendations. Job foremen will supervise and ensure proper methods are used.

Respirator selection will be based on the hazards that the worker is exposed. Only NIOSH-certified respirators will be provided. Hazard evaluation is based on the estimate of exposures, type of contaminant, physical form, and chemical state. For no exposure estimate or data, the exposures will be addressed as immediately Dangerous to Life and Health (IDLH) and NIOSH-approved respirators for full-faced, pressure demand 30 minute SCBA, or SAR with auxiliary air supply will be provided. Respirator brands and models will be listed below.

Respirator Models and Brand used by this Company		
Brand	**Model**	**I.D. Number**

Bannister Electric LLC of West Monroe will provide each respirator user with a respirator that is clean, sanitary, and in good working order. Dolphus Bannister will ensure that respirators are cleaned and disinfected using the procedures in Appendix B-2 of §1910.134, or procedures recommended by the respirator manufacturer, provided that such procedures are of equivalent effectiveness. The respirators will be cleaned and disinfected at the following intervals:

- Respirators issued for the exclusive use of an employee will be cleaned and disinfected as often as necessary to be maintained in a sanitary condition
- Respirators issued to more than one employee will be cleaned and disinfected before being worn by different individuals
- Respirators maintained for emergency use will be cleaned and disinfected after each use
- Respirators used in fit testing and training will be cleaned and disinfected after each use

Dolphus Bannister will ensure that respirators are stored as follows:

- All respirators will be stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals, and they will be packed or stored to prevent deformation of the facepiece and exhalation valve
- In addition to the above requirements, emergency respirators will be: kept accessible to the work area and stored in compartments or covers that are clearly marked as emergency respirators

Stored in accordance with any applicable manufacturer instructions.

Dolphus Bannister will ensure respirators are inspected as follows:

- All respirators used in routine situations will be inspected before each use and during cleaning
- All respirators maintained for use in emergency situations will be inspected at least monthly and in accordance with the manufacturer's recommendations, and will be checked for proper function before and after each use
- Emergency escape-only respirators will be inspected before being carried into the workplace for use

Dolphus Bannister will ensure respirator inspections include the following:

- A check of respirator function, tightness of connections, and the condition of the various parts including, but not limited to, the facepiece, head straps, valves, connecting tube, and cartridges, canisters or filters
- A check of elastomeric parts for pliability and signs of deterioration

In addition to the requirements above, self-contained breathing apparatus will be inspected monthly. Air and oxygen cylinders will be maintained in a fully charged state and will be recharged when the pressure falls to 90% of the manufacturer's recommended pressure level. Dolphus Bannister will determine that the regulator and warning devices function properly.

For respirators maintained for emergency use, Dolphus Bannister will:

- Certify the respirator by documenting the date the inspection was performed, the name (or signature) of the person who made the inspection, the findings, required remedial action, and a serial number or other means of identifying the inspected respirator
- Provide this information on a tag or label that is attached to the storage compartment for the respirator, is kept with the respirator, or is included in inspection reports stored as paper or electronic files. This information will be maintained until replaced following a subsequent certification

Dolphus Bannister will ensure that respirators that fail an inspection, or are otherwise found to be defective, are removed from service and are discarded, repaired, or adjusted in accordance with the following procedures:

- Repairs or adjustments to respirators will be made only by persons appropriately trained to perform such operations and will use only the respirator manufacturer's NIOSH-approved parts designed for the respirator
- Repairs will be made according to the manufacturer's recommendations and specifications for the type and extent of repairs to be performed
- Reducing and admission valves, regulators, and alarms will be adjusted or repaired only by the manufacturer or a technician trained by the manufacturer

MEDICAL EVALUATION AND FIT TESTING

A medical examination for employees required to use respiratory equipment is required before use of the equipment, and will be provided at no cost to the employee. The medical questionnaire provided in Appendix C is mandatory for employees required to use respiratory protection.

Bannister Electric LLC of West Monroe will provide a medical evaluation to determine the employee's ability to use a respirator, before the employee is fit tested or required to use the respirator in the workplace. Bannister Electric LLC of West Monroe may discontinue an employee's medical evaluations when the employee is no longer required to use a respirator.

Periodic monitoring of the air quality in work areas will be performed to determine if, or where respiratory equipment will be required.

Dolphus Bannister will maintain appropriate surveillance, and ensure employees leave the area to wash, change cartridges, or if they detect break-through or resistance.

Medical evaluation procedures will include:

Bannister Electric LLC of West Monroe will identify a physician or other licensed health care professional (PLHCP) to perform medical evaluations using a medical questionnaire or an initial medical examination that obtains the same information as the medical questionnaire.

The medical evaluation will obtain the information requested by the questionnaire in Sections 1 and 2, Part A of Appendix C of §1910.134.

Follow-up medical examination

Bannister Electric LLC of West Monroe will ensure that a follow-up medical examination is provided for an employee who gives a positive response to any question among questions 1 through 8 in Section 2, Part A of Appendix C or whose initial medical examination demonstrates the need for a follow-up medical examination

The follow-up medical examination will include any medical tests, consultations, or diagnostic procedures that the PLHCP deems necessary to make a final determination.

Administration of the medical questionnaire and examinations will include:

- The medical questionnaire and examinations will be administered confidentially during the employee's normal working hours or at a time and place convenient to the employee. The medical questionnaire will be administered in a manner that ensures that the employee understands its content
- Bannister Electric LLC of West Monroe will provide the employee with an opportunity to discuss the questionnaire and examination results with the PLHCP

The following supplemental information will be provided to the PLHCP before the PLHCP makes a recommendation concerning an employee's ability to use a respirator:

- The type and weight of the respirator to be used by the employee
- The duration and frequency of respirator use (including use for rescue and escape)
- The expected physical work effort
- Additional protective clothing and equipment to be worn
- Temperature and humidity extremes that may be encountered

Bannister Electric LLC of West Monroe will provide the PLHCP with a copy of the written respiratory protection program and a copy of §1910.134.

Fit Testing

Fit testing of the equipment to individual employees will follow OSHA guidelines listed in §1910.134 (f)(1-8) and is required before use of the equipment.

Bannister Electric LLC of West Monroe will ensure employees pass OSHA-accepted qualitative fit test (QLFT) or quantitative fit test (QNFT) of tight-fitting facepieces before initial use, if a different respirator is used, and annually. SARs are required to be fit tested as well. (Refer to the Appendices).

Facial hair, glasses, etc. which might affect the seal of the respirator facepiece are prohibited, and seal will be checked each time equipment is donned.

If employees are required to work in Immediately Dangerous to Life or Health (IDLH) atmospheres, the following procedures and controls will be in place:

- At least one employee is located outside the IDLH atmosphere
- Visual, voice, or signal line communication is maintained between the employee(s) in the IDLH atmosphere and the employee(s) located outside the IDLH atmosphere
- The employee(s) located outside the IDLH atmosphere are trained and equipped to provide effective emergency rescue
- Dolphus Bannister is notified before personnel enter the IDLH atmosphere, or before employee(s) located outside the IDLH atmosphere enter the IDLH atmosphere to provide emergency rescue
- Employee(s) located outside the IDLH atmospheres will be equipped with:
  - Pressure demand or other positive pressure SCBA
  - Appropriate retrieval equipment for removing the employee(s) who enter(s) these hazardous atmospheres

SAR and SCBA equipment will only be filled by certified refilling facilities using grade D or better air. Oxygen will not be used in compressed air units and all cylinders will meet DOT requirements. Compressor will be located in a "clean" atmosphere, with in-line purification, and tagged to indicate date of change-out. A carbon monoxide monitor will be in place and set to alarm at 10 PPM or monitored frequently. All line fittings will be incompatible for non-respirable gases and containers.

Where possible, ventilation will be required for all enclosed work areas to ensure that airborne hazards do not exceed permissible limits. The least hazardous or toxic materials which will allow the job required to be accomplished will be used in the performance of work.

Bannister Electric LLC of West Monroe will maintain written records and information regarding medical evaluations, fit testing, and the Respiratory Protection Program. These records will promote employee involvement in the respirator program, assist in auditing the adequacy of the program, and provide a record for OSHA compliance. Records will be retained at the main office and be made available upon request to affected employees and to OSHA. Written records include the following:

- Required medical evaluations will be retained and made available in accordance with §1910.1020
- Qualitative and quantitative fit tests administered to an employee including: the name or identification of the employee tested; type of fit test performed; specific make, model, style, and size of respirator tested; date of test.
- The pass/fail results for qualitative fit tests or the fit factor and strip chart recording or other recording of the test results for quantitative fit tests
- Fit test records will be retained for respirator users until the next fit test is administered

EMPLOYEE ACKNOWLEDGMENT

By my signature below, I acknowledge that I have received instruction and have read the Bannister Electric LLC of West Monroe Respiratory Protection Program. I have been given the opportunity to ask questions and have received answers, instruction, and clarification to my questions. I understand the contents of and agree to follow Bannister Electric LLC of West Monroe company policy regarding this Respiratory Protection Program.

Respiratory Protection Program received on (Date)			
Employee Name (Print)			
Employee Signature		Date	
Employee Social Security Number (Print)			
Trainer Name (Print)			
Trainer Signature		Date	

cc: Employee file

INFORMATION FOR EMPLOYEES USING RESPIRATORS

When Not Required Under 29 CFR 1910.134	
To the employer: The statement below must be read by all employees using respirators not required under the Respiratory Protection Standard	
To the employee: Can you read? Yes ☐ No ☐	
Your employer is required to have you read the statement below if you are using respirators not required under the Respiratory Protection Regulation. Ensure you keep a copy of this form for your personal records.	
EMPLOYEE INFORMATION	
Employee Name:	Work Location:
Facility:	ID/Clock Number:
Job Title:	Dept./Phone:
CERTIFICATION: I certify that I have read and understand the below Respiratory Protection Statement as required by the Occupational Safety and Health Administration (OSHA).	
Employee Signature:	**Date:**

OSHA RESPIRATORY PROTECTION STATEMENT

To The Respirator User:

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, of if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

You Should Do The Following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.
3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.

Keep track of your respirator so that you do not mistakenly use someone else's respirator.

FORM RETENTION INFORMATION		ATTACHMENTS
Retention File:	Location:	*Yes ☐ No ☐
Date Filed:	Filed By:	*See Following Pages ☐

Respirator Cleaning Record

OWNER INFORMATION	
Owner's Name (if individually issued)**:**	
Company Name:	**Department:**
Employee ID # (if applicable):	**Work Phone:**
RESPIRATOR INFORMATION	
Type of Respirator:	
Manufacturer:	**Model #:**
Size #:	**Respirator ID #:**
Date of Inspection:	**Time:**

CLEANING REQUIREMENTS FOR TIGHT FITTING RESPIRATIORS

Estimated Frequency (Check all that apply)**:**
☐ Hourly ☐ Twice each Shift ☐ Daily ☐ Weekly ☐ Monthly ☐ Before Use ☐ After Use

COMPONENT	CLEANING REQUIREMENTS
Cartridge Holder:	
Cartridge Threads/Fittings:	
Cartridge/Canister:	
Cartridge Filter:	
Connections:	
Elastomeric Parts Deteriorating?:	
Elastomeric Parts Pliable?:	
Exhalation Valve Assembly:	
Facepiece:	
Gaskets:	
Harness Assembly:	
Headbands:	
Hose Assembly:	
Inhalation Valve:	
Nose Cup Valves:	
Speaking Diaphragm:	

Respirator Cleaning Procedures (Mandatory)

These procedures are provided for employee use when cleaning respirators. They are general in nature, and the employee as an alternative may use the cleaning recommendations provided by the manufacturer of the respirators, provided such procedures are as effective as those listed in 29 CFR 1910.134 Appendix B-2. Equivalent effectiveness simply means that the procedures used must accomplish the objectives set forth below.

Procedures for Cleaning Respirators:

A. Remove filters, cartridges, or canisters. Disassemble facepieces by removing speaking diaphragms, demand and pressure - demand valve assemblies, hoses, or any components recommended by the manufacturer. Discard or repair any defective parts.

B. Wash components in warm (110 deg. F maximum) water with a mild detergent or with a cleaner recommended by the manufacturer. A stiff bristle (not wire) brush may be used to facilitate the removal of dirt.

C. Rinse components thoroughly in clean, warm (110 deg. F maximum), preferably running water. Drain.

D. When the cleaner used does not contain a disinfecting agent, respirator components should be immersed for two minutes in one of the following:

1. Hypochlorite solution (50 ppm of chlorine) made by adding approximately one milliliter of laundry bleach to one liter of water at 110 deg. F.
2. Aqueous solution of iodine (50 ppm iodine) made by adding approximately 0.8 milliliters of tincture of iodine (6-8 grams ammonium and/or potassium iodide/100 cc of 45% alcohol) to one liter of water at 110 deg. F.
3. Other commercially available cleansers of equivalent disinfectant quality when used as directed, if their use is recommended or approved by the respirator manufacturer.

E. Rinse components thoroughly in clean, warm (110 deg. F maximum), preferably running water. Drain. The importance of thorough rinsing cannot be overemphasized. Detergents or disinfectants that dry on facepieces may result in dermatitis. In addition, some disinfectants may cause deterioration of rubber or corrosion of metal parts if not completely removed.

F. Components should be hand-dried with a clean lint-free cloth or air-dried.

G. Reassemble facepiece, replacing filters, cartridges, and canisters where necessary.

H. Test the respirator to ensure that all components work properly.

Inspector's Name:	**Title:**
Signature:	**Date:**

FORM RETENTION INFORMATION	ATTACHMENTS
Retention File: Location:	*Yes ☐ No ☐
Date Filed: Filed By:	*See Following Pages ☐

Respirator Inspection Record

OWNER INFORMATION	
Owner's Name (if individually issued)**:**	
Company Name:	**Department:**
Employee ID # (if applicable):	**Work Phone:**
RESPIRATOR INFORMATION	
Type of Respirator:	
Manufacturer:	**Model #:**
Size #:	**Respirator ID #:**
Date of Inspection:	**Time:**
INSPECTION CRITERIA	
Estimated Frequency (Check all that apply)**:** ☐ Hourly ☐ Twice each Shift ☐ Daily ☐ Weekly ☐ Monthly ☐ Before Use ☐ After Use	
This inspection is being conducted **PRIOR** to use.	Initials:
This inspection is being conducted **AFTER** use.	Initials:

COMPONENT:	**DEFECTS FOUND:**	**CORRECTIVE ACTION TAKEN**:
Cartridge Holder:		
Cartridge Threads/Fittings:		
Cartridge/Canister:		
Cartridge Filter:		
Connections:		
Elastomeric Parts Deteriorating?:		
Elastomeric Parts Pliable?:		
Exhalation Valve Assembly:		
Facepiece:		
Gaskets:		
Harness Assembly:		
Headbands:		
Hose Assembly:		
Inhalation Valve:		
Nose Cup Valves:		
Speaking Diaphragm:		
Other:		

Comments:	
Inspector's Name:	**Title:**
Signature:	**Date:**

FORM RETENTION INFORMATION	**ATTACHMENTS**
Retention File: Location:	*Yes ☐ No ☐
Date Filed: Filed By:	*See Following Pages ☐

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

POLICY

Bannister Electric LLC of West Monroe is committed to providing a safe and hazard free workplace and has adopted this policy for Hazard Identification and Risk Assessment from industry standards and best available practices.

RESPONSIBILITIES

Dolphus Bannister is the assigned Company Supervisor responsible for ensuring the following procedures, practices, and rules are implemented and enforced. Dolphus Bannister will administrate and review regularly scheduled facility-wide or area-specific analysis/inspections of all jobsites and facilities for hazards on a weekly or as needed basis that will also include spot-checks and random inspections.

TRAINING

The Bannister Electric LLC of West Monroe Hazard Identification and Risk Assessment Program will ensure employees will be trained in the hazard identification process, including the proper use and care of Personal Protective Equipment.

PROCEDURES

Assessment/inspections will be documented for review by the Company Safety Committee. Hazard assessments include inspection of the area as well as safe work practices. Hazard assessments will be appropriately documented using the appropriate form found at the end of this section.

During the course of inspection, when a job hazard is identified it is immediately corrected if possible. If the hazard is not immediately correctable, all appropriate personnel are notified and the hazard is clearly identified by signs, barricades, or other warnings.

Bannister Electric LLC of West Monroe employees and/or subcontractors are actively involved in the hazard identification process and hazards are reviewed with all employees concerned.

The hazard identification process is used for routine and non-routine activities as well as new process, changes in operation, products, or services as applicable.

Dolphus Bannister will identify risks and hazards based on hazard assessments and reports. Hazards will be addressed and mitigated. This will be accomplished by dedicated assignment, appropriate documentation of completion, and implemented controls.

The Bannister Electric LLC of West Monroe Safety Committee will review all Hazard Assessments in order to avoid creating new hazards derived from the corrective measures.

What is a Job Hazard

A Job hazard is the potential for harm. In practical terms, a job hazard is often associated with a condition or activity that, if left uncontrolled, can result in an injury or illness. Identifying job hazards and eliminating or controlling them as early as possible will help prevent injuries and illnesses.

A Job Hazard Assessment

A Job Hazard Assessment is a technique that focuses on job tasks as a way to identify hazards before they occur. It focuses on the relationship between the worker, the task, the tools, and the work environment. Ideally, after identifying uncontrolled hazards, steps will be taken to eliminate or reduce them to an acceptable risk level.

The Importance of a Job Hazard Assessment

Many workers are injured and killed at the workplace every day in the United States. Safety and health adds value to business, your job, and your life. Workplace injuries and illnesses can be prevented by looking at workplace operations, establishing proper job procedures, and ensuring that all employees are trained properly. One of the best ways to determine and establish proper work procedures is to conduct a Job Hazard Assessment.

The Value of a Job Hazard Assessment

Supervisors can use the findings of a Job Hazard Assessment to eliminate and prevent hazards in their workplaces. This is likely to result in fewer worker injuries and illnesses; safer, more effective work methods; reduced Workers' Compensation costs, and increased worker productivity. The assessment also can be a valuable tool for training new employees in the steps required to perform their jobs safely.

For a Job Hazard Assessment to be effective, managers and supervisors must demonstrate their commitment to safety and health and follow through to correct any uncontrolled hazards identified. Otherwise, management will lose credibility and employees may hesitate to go to supervisors when dangerous conditions threaten them.

Jobs Appropriate for Hazard Assessment

Job Hazard Identification and Risk Assessment will be conducted on jobs in our workplace. Hazards are classified/prioritized and addressed based on the risk associated with the task (Risk analysis matrix outlining severity and probability on page 8). Priority will go to the following job types:

- Jobs with the highest injury or illness rates
- Jobs with the potential to cause severe or disabling injuries or illness, even if there is no history of previous accidents
- Jobs in which one simple human error could lead to a severe accident or injury
- New jobs or ones with changes in processes and procedures
- Jobs complex enough to require written instructions

Where to Begin

Involve employees and subcontractors. It is very important to involve employees and subcontractors in the hazard assessment process. They have a unique understanding of the job, and this knowledge is invaluable for finding hazards. Involving employees will help minimize oversights, ensure a quality assessment, and get workers to “buy in” to the solutions because they will share ownership in their safety and health program.

Review accident history. Review with employees our workplace’s history of accidents and occupational illnesses that needed treatment, losses that required repair or replacement, and any “near misses” – events in which an accident or loss did not occur, but could have. These events are indicators that the existing hazard controls (if any) may not be adequate and deserve more scrutiny.

Conduct a preliminary job review. Discuss with employees and subs the hazards they know exist in their current work and surroundings. Brainstorm with them for ideas to eliminate or control those hazards.

If any hazards exist that pose an immediate danger to an employee’s life or health, take immediate action to protect the worker. Any problems that can be corrected easily should be corrected as soon as possible. Do not wait to complete your Job Hazard Assessment. This demonstrates our commitment to safety and health and enables us to focus on the hazards and jobs that need more study because of their complexity. For those hazards determined to present unacceptable risks, evaluate types of hazard controls.

List, rank, and set priorities for hazardous jobs. List jobs with hazards that present unacceptable risks, based on those most likely to occur, and with the most severe consequences. These jobs are first priority for assessment.

Outline the steps or tasks. Nearly every job can be broken down into job tasks or steps. When beginning a Job Hazard Assessment, watch the employee perform the job and list each step as the worker takes it. Be sure to record enough information to describe each job action without getting overly detailed. Avoid making the breakdown of steps so detailed that it becomes unnecessarily long or so broad that it does not include basic steps. It is valuable to get input from other workers who have performed the same job. Later, review the job steps with the employee to make sure something was not omitted. Point out that the job itself is being evaluated, not the employee’s job performance. Include the employee in all phases of the assessment – from reviewing the job steps and procedures to discussing uncontrolled hazards and recommended solutions.

Sometimes, in conducting a Job Hazard Assessment, it may be helpful to photograph or videotape the worker performing the job. These visual records can be handy references when doing a more detailed assessment of the work.

Identifying Workplace Hazards

A Job Hazard Assessment is an exercise in detective work. The goal is to discover the following: what can go wrong; the consequences; how it could arise; contributing factors; likelihood that it will occur.

To make our Job Hazard Assessment useful, document the answers to these questions in a consistent manner. Describing a hazard in this way helps to ensure that our efforts to eliminate the hazard and implement hazard controls help target the most important contributors to the hazard.

Good hazard scenarios describe:

- Where it is happening? (environment)
- Who or what it is happening to? (exposure)
- What precipitates the hazard? (trigger)
- The outcome that would occur should it happen? (consequence)
- Any other contributing factors

Rarely is a hazard a simple case of one singular cause resulting in one singular effect. More frequently, many contributing factors tend to line up in a certain way to create the hazard.

Here is an example of a hazard scenario:

In the metal shop (environment), while clearing a snag (trigger), a worker's hand (exposure) comes into contact with a rotating pulley. It pulls his hand into the machine and quickly severs his fingers (consequences).

To perform a Job Hazard Assessment, you would ask:

- What can go wrong? The worker's hand could come into contact with a rotating object that "catches" it and pulls it into the machine
- What are the consequences? The worker could receive a severe injury and lose fingers and hands
- How could it happen? The accident could happen as a result of the worker trying to clear a snag during operations or as part of a maintenance activity while the pulley is operating. Obviously, this hazard scenario could not occur if the pulley is not rotating
- What are other contributing factors? This hazard occurs very quickly. It does not give the worker much opportunity to recover or prevent it once his hand comes into contact with the pulley. This is an important factor, because it helps determine the severity and likelihood of an accident when selecting appropriate hazard controls. Unfortunately, experience has shown that training is not very effective in hazard control when triggering events happen quickly because humans can react only so quickly

How to Correct or Prevent Hazards

After reviewing the list of hazards with the employee, consider what control methods will eliminate or reduce them. The most effective controls are engineering controls that physically change a machine or work environment to prevent employee exposure to the hazard. The more reliable or less likely a hazard control can be circumvented, the better. If this is not feasible, administrative controls may be appropriate.

This may involve changing how employees do their jobs. Discuss recommendations with all employees who perform the job and consider their responses carefully. If it is planned to introduce new or modified job procedures, be sure they understand what they are required to do and the reasons for the changes.

Before Starting a Job Hazard Assessment

The job procedures discussed are for illustration only and do not necessarily include all the steps, hazards, and protections that apply. When conducting a job safety assessment, be sure to consult OSHA standards. Compliance with these standards is mandatory, and by incorporating their requirements into the Job Hazard Assessment, we can be sure that our Safety and Health Program meets Federal Standards.

Review the Job Hazard Assessment

Periodically reviewing the Job Hazard Assessment ensures that it remains current and continues to help reduce workplace accidents and injuries. Even if the job has not changed, it is possible that during the review process you will identify hazards that were not identified in the initial assessment. It is particularly important to review the Job Hazard Assessment if an illness or injury occurs on a specific job.

Based on the circumstances, it may be determined that changes are needed in the job procedure to prevent similar incidents in the future. If an employee's failure to follow proper job procedures results in a "close call or near miss," discuss the situation with all employees who perform the job and remind them of proper procedures. Any time a Job Hazard Assessment is revised, it is important to train all employees affected by the changes in the new job methods, procedures, or protective measures adopted.

When to Hire a Professional

If our employees are involved in many different or complex processes, we may need professional help conducting a Job Hazard Assessment. Even if we receive outside help, it is important that our employees remain involved in the process of identifying and correcting hazards because they are at the workplace every day and most likely to encounter these hazards. New circumstances and a recombination of existing circumstances may cause old hazards to reappear and new hazards to appear. In addition, we and our employees must be ready and able to implement whatever hazard elimination or control measures a professional consultant recommends.

Hazard Control Measures

Information obtained from a Job Hazard Assessment is useless unless hazard control measures recommended in the assessment are incorporated into the tasks. Managers and supervisors must recognize that not all hazard controls are equal. Some are more effective than others at reducing the risk.

The order of precedence and effectiveness of hazard control is the following: engineering controls; administrative controls; personal protective equipment.

Engineering controls include the following:

- Elimination/minimization of the hazard – Designing the facility, equipment, or process to remove the hazard, or substituting processes, equipment, materials, or other factors to lessen the hazard
- Enclosure of the hazard using enclosed cabs, enclosures for noisy equipment, or other means
- Isolation of the hazard with interlocks, machine guards, blast shields, welding curtains, or other means
- Removal or redirection of the hazard such as with local and exhaust ventilation

Administrative controls include the following:

- Written operating procedures, work permits, and safe work practices
- Exposure time limitations (used most commonly to control temperature extremes and ergonomic hazards)
- Monitoring the use of highly hazardous materials
- Alarms, signs, and warnings
- The “Buddy” system
- Training

Personal Protective Equipment

Protective equipment such as respirators, hearing protection, protective clothing, safety glasses, and hardhats is acceptable as a control method in the following circumstances:

- When engineering controls are not feasible or do not totally eliminate the hazard
- While engineering controls are being developed
- When safe work practices do not provide sufficient additional protection
- During emergencies when engineering controls may not be feasible

Use of one hazard control method over another higher in the control precedence may be appropriate for providing interim protection until the hazard is abated permanently. In reality, if the hazard cannot be eliminated entirely, the adopted control measures will likely be a combination of all three items instituted simultaneously.

Bannister Electric LLC of West Monroe will use the forms on the following pages for the Hazard Identification and Risk Assessment Program.

JOB HAZARD ALERT

Department		Date	
Location			
Description of Hazard			
Person who Discovered Hazard			
Supervisor Actions			
Root Cause(s)			
Control(s)			
Reviewed By		Date Corrected	

JOB HAZARD ASSESSMENT

Job Title		Job Location			
Task #		Person Doing Assessment		Date	
Task Description					
Hazard Type					
Hazard Description					
Consequence					
Hazard Control					
Rational or Comment					
Final Disposition					
Supervisor Signature				Date	

HAZARD TRACKING LOG

Hazard Number	Description	Reported by	Date Reported	Corrected by	Responsible Supervisor	Date Corrected

JOB HAZARD ASSESSMENT (PAGE 1 OF 2)

Bannister Electric LLC of West Monroe uses this program of self-inspection for our facilities and workplaces in order to identify hazards and assess risk. Self-inspection is a must if we are to know where probable hazards exist and whether they are under control. Safety inspection items are completed using the following self-inspection form. These checklists are designed to assist in this fact-finding. It will give The Company some indication of where we can take action to make our business safer and more healthful for all of our employees. Use sections on the checklist relevant to particular operations and disregard those which do not apply.

When a checklist has been completed, this material will be added to our injury information, our employee information, and to our process and equipment information. The Company will now possess many facts that will help determine what problems exist. Management will then use the OSHA standards in the problem-solving process and it will be much easier to determine the action needed to solve these problems. Corrective action is required to be documented on the form at the end of this section. Corrective action or preventive action plans will be reviewed by management at safety committee meetings. The scope of our self-inspections will include the following:

- Processing, Receiving, Shipping and Storage – equipment, job planning, layout, heights, floor loads, projection of materials, materials-handling and storage methods, and training for material handling equipment
- Building and Grounds Conditions – floors, walls, ceilings, exits, stairs, walkways, ramps, platforms, driveways, and aisles
- Housekeeping Program – waste disposal, tools, objects, materials, leakage and spillage, cleaning methods, schedules, work areas, remote areas, and storage areas
- Electricity – equipment, switches, breakers, fuses, switch-boxes, junctions, special fixtures, circuits, insulation, extensions, tools, motors, grounding, and NEC compliance
- Lighting – type, intensity, controls, conditions, diffusion, and location
- Heating and Ventilation – type, effectiveness, temperature, humidity, controls, and natural and artificial ventilation and exhaust
- Machinery – points of operation, flywheels, gears, shafts, pulleys, key ways, belts, couplings, sprockets, chains, frames, controls, lighting for tools and equipment, brakes, exhausting, feeding, oiling, adjusting, maintenance, lockout/tagout, grounding, work space, location, and purchasing standards
- Personnel – experience training, hazard identification training; methods of checking machines before use; type of clothing; personal protective equipment; use of guards; tool storage; work practices; and methods of cleaning, oiling, or adjusting machinery
- Hand and Power Tools – purchasing standards, inspection, storage, repair, types, maintenance, grounding, use, and handling
- Chemicals – storage, handling, transportation, spills, disposals, amounts used, labeling, toxicity or other harmful effects, warning signs, supervision, training, protective clothing and equipment, and hazard communication requirements
- Fire Prevention – extinguishers, alarms, sprinklers, smoking rules, exits, personnel assigned, separation of flammable materials and dangerous operations, explosive-proof fixtures in hazardous locations, and waste disposal

JOB HAZARD ASSESSMENT (PAGE 2 OF 2)

- Maintenance, including tracking and abatement of preventive and regular maintenance – regularity, effectiveness, training of personnel, materials and equipment used, records maintained, method of locking out machinery, and general methods.
- Personal Protective Equipment – type, size, maintenance, repair, storage, assignment of responsibility, purchasing methods, standards observed, training in care and use, rules of use, and method of assignment
- Transportation – motor vehicle safety, seat belts, vehicle maintenance, and safe driver programs
- Review – evacuation routes, equipment, and personal protective equipment

JOB SAFETY INSPECTION AND REPORT (PAGE 1 OF 6)

Company		Date		Time	
Job Site Location					
Job Foreman/Supervisor					
Person(s) Making Inspection					
Subcontractors On-Site (List Name and Trade)					

A	Adequate at time of inspection	B	Needs consideration	C	Needs immediate attention	N	Not applicable

CATEGORY

Jobsite Information	A B C N	Action Taken
Copy of Company Safety Program on site?	☐ ☐ ☐ ☐	
OSHA 300 and 301 Forms Posted and Complete?	☐ ☐ ☐ ☐	
Are required OSHA Posters posted?	☐ ☐ ☐ ☐	
Phone number to nearest medical center posted?	☐ ☐ ☐ ☐	
Tailgate/Toolbox training current?	☐ ☐ ☐ ☐	
HAZCOM and Safety Data Sheets (SDS) on site?	☐ ☐ ☐ ☐	
Work areas properly signed and barricaded?	☐ ☐ ☐ ☐	
Housekeeping	A B C N	Action Taken
Work area generally neat?	☐ ☐ ☐ ☐	
Projecting nails removed or bent over?	☐ ☐ ☐ ☐	
Waste containers in use?	☐ ☐ ☐ ☐	
Designated disposal area in place?	☐ ☐ ☐ ☐	
Passageways/walkways clear?	☐ ☐ ☐ ☐	
Cords, leads, and trip hazards off the floor?	☐ ☐ ☐ ☐	

JOB SAFETY INSPECTION AND REPORT (PAGE 2 OF 6)

Fire Prevention	A B C N	Action Taken
Charged and inspected fire extinguishers accessible?	☐ ☐ ☐ ☐	
Phone number of local fire department posted?	☐ ☐ ☐ ☐	
Flammables properly stored?	☐ ☐ ☐ ☐	
“No Smoking” signs posted near flammables?	☐ ☐ ☐ ☐	
Electrical	A B C N	Action Taken
Damaged extension cords removed from service?	☐ ☐ ☐ ☐	
Ground fault circuit interrupters used?	☐ ☐ ☐ ☐	
Terminal boxes equipped with required covers?	☐ ☐ ☐ ☐	
Employees trained in Lockout\Tagout?	☐ ☐ ☐ ☐	
Hand, Power, Powder Tools	A B C N	Action Taken
Hand tools inspected regularly?	☐ ☐ ☐ ☐	
Guards in place on machines?	☐ ☐ ☐ ☐	
Tools suited for their jobs?	☐ ☐ ☐ ☐	
Operators of powder-actuated tools licensed?	☐ ☐ ☐ ☐	
Fall Protection	A B C N	Action Taken
Employees properly trained?	☐ ☐ ☐ ☐	
Safety rails and cables secured properly?	☐ ☐ ☐ ☐	
Guardrails properly installed and secured?	☐ ☐ ☐ ☐	
Employees have D- ring belts in center of back?	☐ ☐ ☐ ☐	
Employees exposed to fall hazards tied off?	☐ ☐ ☐ ☐	
Employees below protected from falling objects?	☐ ☐ ☐ ☐	

JOB SAFETY INSPECTION AND REPORT (PAGE 3 OF 6)

Ladders	A B C N	Action Taken
Ladders extend 36 inches above the landing?	☐ ☐ ☐ ☐	
Ladders secured to prevent slipping or sliding?	☐ ☐ ☐ ☐	
Damaged ladders removed from service?	☐ ☐ ☐ ☐	
Stepladders used in fully open position?	☐ ☐ ☐ ☐	
No stepping on top 2 rungs of stepladder?	☐ ☐ ☐ ☐	
Scaffold	A B C N	Action Taken
All scaffolding inspected daily?	☐ ☐ ☐ ☐	
Erected on solid, stable footing?	☐ ☐ ☐ ☐	
Tied-off to structure as required?	☐ ☐ ☐ ☐	
Guardrails, midrails, and toeboards in place?	☐ ☐ ☐ ☐	
Is scaffold properly planked?	☐ ☐ ☐ ☐	
Is working level of scaffold fully planked?	☐ ☐ ☐ ☐	
Proper access provided?	☐ ☐ ☐ ☐	
Employees below protected from falling objects?	☐ ☐ ☐ ☐	
Floor and Wall Openings	A B C N	Action Taken
All floor and deck openings covered or barricaded?	☐ ☐ ☐ ☐	
Perimeter protection in place?	☐ ☐ ☐ ☐	
Deck planks secured?	☐ ☐ ☐ ☐	
Materials stored away from edge?	☐ ☐ ☐ ☐	
Guardrails in place?	☐ ☐ ☐ ☐	

JOB SAFETY INSPECTION AND REPORT (PAGE 4 OF 6)

Trenches, Excavations, and Shoring	A B C N	Action Taken
Competent person on hand?	☐ ☐ ☐ ☐	
Employees properly trained?	☐ ☐ ☐ ☐	
No water in excavation or signs of cave-in?	☐ ☐ ☐ ☐	
Excavations shored or sloped back?	☐ ☐ ☐ ☐	
Materials stored at least two feet from trench?	☐ ☐ ☐ ☐	
Excavations properly identified and barricaded?	☐ ☐ ☐ ☐	
Ladders provided every 25 feet in trench?	☐ ☐ ☐ ☐	
Is equipment a safe distance from edge of trench?	☐ ☐ ☐ ☐	
Materials Handling	A B C N	Action Taken
Materials properly stored or stacked?	☐ ☐ ☐ ☐	
Employees using proper lifting methods?	☐ ☐ ☐ ☐	
Tag lines used to guide loads?	☐ ☐ ☐ ☐	
Proper number of workers for each operation?	☐ ☐ ☐ ☐	
Welding and Burning	A B C N	Action Taken
Gas cylinders stored correctly?	☐ ☐ ☐ ☐	
Proper separation between fuels and oxygen?	☐ ☐ ☐ ☐	
Burning/welding goggles or shields used?	☐ ☐ ☐ ☐	
Other required PPE being used?	☐ ☐ ☐ ☐	
Fire extinguishers in close proximity?	☐ ☐ ☐ ☐	
Hoses in good condition?	☐ ☐ ☐ ☐	
Employees properly trained?	☐ ☐ ☐ ☐	

JOB SAFETY INSPECTION AND REPORT (PAGE 5 OF 6)

Cranes	A B C N	Action Taken
Outriggers extended and properly placed?	☐ ☐ ☐ ☐	
Swing radius barricades in place?	☐ ☐ ☐ ☐	
Operators familiar with load charts?	☐ ☐ ☐ ☐	
Hand signal charts on crane?	☐ ☐ ☐ ☐	
Crane operators' logs up-to-date and on-site?	☐ ☐ ☐ ☐	
Employees kept from under suspended loads?	☐ ☐ ☐ ☐	
Chains and slings inspected and tagged as required?	☐ ☐ ☐ ☐	
Forklifts and Other Equipment	A B C N	Action Taken
Operators properly trained?	☐ ☐ ☐ ☐	
Pre-shift equipment inspection completed?	☐ ☐ ☐ ☐	
Are avenues of operation designated and marked?	☐ ☐ ☐ ☐	
Stationary running equipment properly located?	☐ ☐ ☐ ☐	
Concrete Construction	A B C N	Action Taken
Exposed rebar properly capped or covered?	☐ ☐ ☐ ☐	
Employees protected from cement dust and silica?	☐ ☐ ☐ ☐	
Exposed skin covered?	☐ ☐ ☐ ☐	
Runways adequate?	☐ ☐ ☐ ☐	

JOB SAFETY INSPECTION AND REPORT (PAGE 6 OF 6)

Personal Protective Equipment	A B C N	Action Taken
Fall protection inspected and used correctly?	☐ ☐ ☐ ☐	
Hard hats being worn?	☐ ☐ ☐ ☐	
Safety glasses/goggles being worn?	☐ ☐ ☐ ☐	
Respirators used when required? (medical evaluations and fit-testing completed)	☐ ☐ ☐ ☐	
Hearing protection being worn when required?	☐ ☐ ☐ ☐	
Boots and long pants worn on jobsite?	☐ ☐ ☐ ☐	
Long hair tied back?	☐ ☐ ☐ ☐	
Traffic vests being worn?	☐ ☐ ☐ ☐	
Other	A B C N	Action Taken
	☐ ☐ ☐ ☐	
	☐ ☐ ☐ ☐	
	☐ ☐ ☐ ☐	
	☐ ☐ ☐ ☐	

Unsafe Acts or Practices Observed	
Comments	

Signature (person performing evaluation)		Date	
Signature (person performing evaluation)		Date	

File this document in the "Company Safety and Health File."

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

POLICY

Bannister Electric LLC of West Monroe has adopted this policy to ensure the safety of personnel who use scaffolding in the performance of work.

REFERENCES

- §1926 Subpart L – Scaffold Specifications
- Bannister Electric LLC of West Monroe Fall Protection Policy

RESPONSIBILITIES

The following engineering controls, training requirements, and safe work practices will be enforced by Dolphus Bannister to protect our employees from hazards associated with the erecting and use of scaffolds:

- Training of all employees that work on scaffolds is conducted by "Qualified" persons.
- An inspection of the scaffold must be conducted by a competent person and deemed safe prior to being used.

Competent Person

The competent person will be trained in accordance with the Occupational Safety and Health Administration and responsible for:

- Directing employees who erect, dismantle, move or alter scaffolding
- Determining if it is safe for employees to work from a scaffold during storms or high winds, and ensure that a personal fall arrest system is in place
- Training employees involved in erecting, disassembling, moving, operating, repairing, maintaining, or inspecting scaffolding to recognize associated work hazards
- Inspecting scaffolds and scaffold components for visible defects before each work shift, and after any occurrence which could affect the structural integrity, and to authorize prompt corrective action
- Inspecting ropes on suspended scaffolds prior to each work shift and after every occurrence which could affect the structural integrity, and to authorize prompt corrective actions
- For suspension scaffolds, evaluating direct connections to support the load to be imposed
- For erectors and dismantler’s, determining the feasibility and safety of providing fall protection and access
- For scaffold components: determining if a scaffold will be structurally sound when intermixing components from different manufacturer’s; and determining if galvanic action has affected the capacity when using components of dissimilar metals

Qualified Person

Qualified persons will be responsible for:

- Designing and loading scaffolds in accordance with design specifications
- Training employees working on the scaffolds to recognize the associated hazards and understand procedures to control or minimize those hazards
- For suspension scaffolds:
  - Designing platforms on two-point adjustable suspension types that are less than 36 inches wide to prevent instability
  - Making swaged attachments and spliced eyes on wire suspension ropes
  - Designing components in accordance with design specifications

TRAINING

Before use, each Bannister Electric LLC of West Monroe employee who performs work erecting, disassembling, moving, or working with scaffolds in any way is trained under the supervision of Dolphus Bannister, who is designated as the Qualified Person for Bannister Electric LLC of West Monroe, to recognize the hazards associated with the type of scaffold being used and to understand the procedures to control or minimize those hazards. Re-training will occur when conditions change or as needed.

- The training program, at a minimum, addresses the following hazards
- Assessment of any electrical hazards, fall hazards, and falling object hazards in the work area
- The correct procedures for dealing with electrical hazards and for erecting, maintaining, and disassembling the scaffolding and fall protection systems and falling object protection systems being used
- Proper use of the scaffold, and the safe handling of materials on the scaffold
- Maximum intended loads and the load carrying capacities of the scaffolds used
- The nature of scaffold hazards
- The correct procedures for erecting, disassembling, moving, operating, repairing, inspecting, and maintaining the type of scaffold being used
- The design criteria, maximum intended load carrying capacity, and intended use of the scaffold
- Any other safety topics deemed pertinent to the particular work-site, scaffold system, or fall protection systems being used
- Retraining is required when scaffold application, type of scaffold used, or when job conditions change

DEFINITIONS

Adjustable suspension scaffold means a suspension scaffold equipped with a hoist(s) that can be operated by an employee(s) on the scaffold.

Bearer (putlog) means a horizontal transverse scaffold member (which may be supported by ledgers or runners) upon which the scaffold platform rests and which joins scaffold uprights, posts, poles, and similar members.

Boatswains' chair means a single-point adjustable suspension scaffold consisting of a seat or sling designed to support one employee in a sitting position.

Body belt (safety belt) means a strap with means both for securing it about the waist and for attaching it to a lanyard, lifeline, or deceleration device.

Body harness means a design of straps which may be secured about the employee in a manner to distribute the fall arrest forces over at least the thighs, pelvis, waist, chest and shoulders, with means for attaching it to other components of a personal fall arrest system. **Brace** means a rigid connection that holds one scaffold member in a fixed position with respect to another member, or to a building or structure.

Bricklayers' square scaffold means a supported scaffold composed of framed squares which support a platform.

Cleat means a structural block used at the end of a platform to prevent the platform from slipping off its supports. Cleats are also used to provide footing on sloped surfaces such as crawling boards.

Competent person means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Continuous run scaffold (Run scaffold) means a two-point or multi-point adjustable suspension scaffold constructed using a series of interconnected braced scaffold members or supporting structures erected to form a continuous scaffold.

Coupler means a device for locking together the tubes of a tube and coupler scaffold.

Crawling board (chicken ladder) means a supported scaffold consisting of a plank with cleats spaced and secured to provide footing, for use on sloped surfaces such as roofs.

Deceleration device means any mechanism, such as a rope grab, rip-stitch lanyard, specially-woven lanyard, tearing or deforming lanyard, or automatic self-retracting lifeline lanyard, which dissipates a substantial amount of energy during a fall arrest or limits the energy imposed on an employee during fall arrest.

Double pole (independent pole) scaffold means a supported scaffold consisting of a platform(s) resting on cross beams (bearers) supported by ledgers and a double row of uprights independent of support (except ties, guys, braces) from any structure.

Equivalent means alternative designs, materials or methods to protect against a hazard which the employer can demonstrate will provide an equal or greater degree of safety for employees than the methods, materials or designs specified in the standard.

Exposed power lines means electrical power lines which are accessible to employees and which are not shielded from contact. Such lines do not include extension cords or power tool cords.

Eye or Eye splice means a loop with or without a thimble at the end of a wire rope.

Fabricated decking and planking means manufactured platforms made of wood (including laminated wood, and solid sawn wood planks), metal or other materials.

Fabricated frame scaffold (tubular welded frame scaffold) means a scaffold consisting of a platform(s) supported on fabricated end frames with integral posts, horizontal bearers, and intermediate members.

Failure means load refusal, breakage, or separation of component parts. Load refusal is the point where the ultimate strength is exceeded.

Float (ship) scaffold means a suspension scaffold consisting of a braced platform resting on two parallel bearers and hung from overhead supports by ropes of fixed length.

Form scaffold means a supported scaffold consisting of a platform supported by brackets attached to formwork.

Guardrail system means a vertical barrier, consisting of, but not limited to, toprails, midrails, and posts, erected to prevent employees from falling off a scaffold platform or walkway to lower levels.

Hoist means a manual or power-operated mechanical device to raise or lower a suspended scaffold.

Horse scaffold means a supported scaffold consisting of a platform supported by construction horses (saw horses). Horse scaffolds constructed of metal are sometimes known as trestle scaffolds.

Independent pole scaffold (see "Double pole scaffold").

Interior hung scaffold means a suspension scaffold consisting of a platform suspended from the ceiling or roof structure by fixed length supports.

Ladder jack scaffold means a supported scaffold consisting of a platform resting on brackets attached to ladders.

Ladder stand means a mobile, fixed-size, self-supporting ladder consisting of a wide flat tread ladder in the form of stairs.

Landing means a platform at the end of a flight of stairs.

Large area scaffold means a pole scaffold, tube and coupler scaffold, systems scaffold, or fabricated frame scaffold erected over substantially the entire work area. For example: a scaffold erected over the entire floor area of a room.

Lean-to scaffold means a supported scaffold which is kept erect by tilting it toward and resting it against a building or structure.

Lifeline means a component consisting of a flexible line that connects to an anchorage at one end to hang vertically (vertical lifeline), or that connects to anchorages at both ends to stretch horizontally (horizontal lifeline), and which serves as a means for connecting other components of a personal fall arrest system to the anchorage.

Lower levels means areas below the level where the employee is located and to which an employee can fall. Such areas include, but are not limited to, ground levels, floors, roofs, ramps, runways, excavations, pits, tanks, materials, water, and equipment.

Masons' adjustable supported scaffold (see "Self-contained adjustable scaffold").

Masons' multi-point adjustable suspension scaffold means a continuous run suspension scaffold designed and used for masonry operations.

Maximum intended load means the total load of all persons, equipment, tools, materials, transmitted loads, and other loads reasonably anticipated to be applied to a scaffold or scaffold component at any one time.

Mobile scaffold means a powered or unpowered, portable, caster or wheel-mounted supported scaffold.

Multi-level suspended scaffold means a two-point or multi-point adjustable suspension scaffold with a series of platforms at various levels resting on common stirrups.

Multi-point adjustable suspension scaffold means a suspension scaffold consisting of a platform(s) which is suspended by more than two ropes from overhead supports and equipped with means to raise and lower the platform to desired work levels. Such scaffolds include chimney hoists.

Needle beam scaffold means a platform suspended from needle beams.

Open sides and ends means the edges of a platform that are more than 14 inches (36 cm) away horizontally from a sturdy, continuous, vertical surface (such as a building wall) or a sturdy, continuous horizontal surface (such as a floor), or a point of access. Exception: For plastering and lathing operations the horizontal threshold distance is 18 inches (46 cm).

Outrigger means the structural member of a supported scaffold used to increase the base width of a scaffold in order to provide support for and increased stability of the scaffold.

Outrigger beam (Thrustout) means the structural member of a suspension scaffold or outrigger scaffold which provides support for the scaffold by extending the scaffold point of attachment to a point out and away from the structure or building.

Outrigger scaffold means a supported scaffold consisting of a platform resting on outrigger beams (thrustouts) projecting beyond the wall or face of the building or structure, the inboard ends of which are secured inside the building or structure.

Overhand bricklaying means the process of laying bricks and masonry units such that the surface of the wall to be jointed is on the opposite side of the wall from the mason, requiring the mason to lean over the wall to complete the work. It includes mason tending and electrical installation incorporated into the brick wall during the overhand bricklaying process.

Personal fall arrest system means a system used to arrest an employee's fall. It consists of an anchorage, connectors, a body belt or body harness and may include a lanyard, deceleration device, lifeline, or combinations of these.

Platform means a work surface elevated above lower levels. Platforms can be constructed using individual wood planks, fabricated planks, fabricated decks, and fabricated platforms.

Pole scaffold (see definitions for "Single-pole scaffold" and "Double (independent) pole scaffold").

Power operated hoist means a hoist which is powered by other than human energy.

Pump jack scaffold means a supported scaffold consisting of a platform supported by vertical poles and movable support brackets.

Qualified means one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his/her ability to solve or resolve problems related to the subject matter, the work, or the project.

Rated load means the manufacturer's specified maximum load to be lifted by a hoist or to be applied to a scaffold or scaffold component.

Repair bracket scaffold means a supported scaffold consisting of a platform supported by brackets which are secured in place around the circumference or perimeter of a chimney, stack, tank or other supporting structure by one or more wire ropes placed around the supporting structure.

Roof bracket scaffold means a rooftop supported scaffold consisting of a platform resting on angular-shaped supports.

Runner (ledger or ribbon) means the lengthwise horizontal spacing or bracing member which may support the bearers.

Scaffold means any temporary elevated platform (supported or suspended) and its supporting structure (including points of anchorage), used for supporting employees or materials or both.

Self-contained adjustable scaffold means a combination supported and suspension scaffold consisting of an adjustable platform(s) mounted on an independent supporting frame(s) not a part of the object being worked on, and which is equipped with a means to permit the raising and lowering of the platform(s). Such systems include rolling roof rigs, rolling outrigger systems, and some masons' adjustable supported scaffolds.

Shore scaffold means a supported scaffold which is placed against a building or structure and held in place with props.

Single-point adjustable suspension scaffold means a suspension scaffold consisting of a platform suspended by one rope from an overhead support and equipped with means to permit the movement of the platform to desired work levels.

Single-pole scaffold means a supported scaffold consisting of a platform(s) resting on bearers, the outside ends of which are supported on runners secured to a single row of posts or uprights, and the inner ends of which are supported on or in a structure or building wall.

Stair tower (Scaffold stairway/tower) means a tower comprised of scaffold components and which contains internal stairway units and rest platforms. These towers are used to provide access to scaffold platforms and other elevated points such as floors and roofs.

Stall load means the load at which the prime-mover of a power-operated hoist stalls or the power to the prime-mover is automatically disconnected.

Step, **platform**, and **trestle ladder scaffold** means a platform resting directly on the rungs of step ladders or trestle ladders.

Stilts means a pair of poles or similar supports with raised footrests, used to permit walking above the ground or working surface.

Stonesetters' multi-point adjustable suspension scaffold means a continuous run suspension scaffold designed and used for stonesetters' operations.

Supported scaffold means one or more platforms supported by outrigger beams, brackets, poles, legs, uprights, posts, frames, or similar rigid support.

Suspension scaffold means one or more platforms suspended by ropes or other non-rigid means from an overhead structure(s).

System scaffold means a scaffold consisting of posts with fixed connection points that accept runners, bearers, and diagonals that can be interconnected at predetermined levels.

Tank builders' scaffold means a supported scaffold consisting of a platform resting on brackets that are either directly attached to a cylindrical tank or attached to devices that are attached to such a tank.

Top plate bracket scaffold means a scaffold supported by brackets that hook over or are attached to the top of a wall. This type of scaffold is similar to carpenters' bracket scaffolds and form scaffolds and is used in residential construction for setting trusses.

Tube and coupler scaffold means a supported or suspended scaffold consisting of a platform(s) supported by tubing, erected with coupling devices connecting uprights, braces, bearers, and runners.

Tubular welded frame scaffold (see "Fabricated frame scaffold").

Two-point suspension scaffold (swing stage) means a suspension scaffold consisting of a platform supported by hangers (stirrups) suspended by two ropes from overhead supports and equipped with means to permit the raising and lowering of the platform to desired work levels.

Unstable objects means items whose strength, configuration, or lack of stability may allow them to become dislocated and shift and therefore may not properly support the loads imposed on them. Unstable objects do not constitute a safe base support for scaffolds, platforms, or employees. Examples include, but are not limited to, barrels, boxes, loose brick, and concrete blocks.

Vertical pickup means a rope used to support the horizontal rope in catenary scaffolds.

Walkway means a portion of a scaffold platform used only for access and not as a work level.

Window jack scaffold means a platform resting on a bracket or jack which projects through a window opening.

SAFE PRACTICES

- Stationary scaffolds over 125 feet in height and rolling scaffolds over 60 feet in height will be designed by a professional engineer
- An inspection of the scaffold must be conducted by a competent person and deemed safe prior to being used
- Damaged or deteriorated equipment will not be used
- All scaffolding systems, components, and fall protection systems used will be inspected by Dolphus Bannister prior to use, before each work shift begins, after erecting or moving, and periodically through the work day to ensure the system is erected properly, that there is no damage to components of the system, and that the system is being used properly and safely
- Modifications of scaffold by non-qualified employees is prohibited. Only qualified and competent personnel are allowed to modify scaffolding systems. Disciplinary action for non-qualified modifications will be enforced
- Any system or component of a system which is found to have a defect in manufacturing or design, damage, excessive wear, weathering, or corrosion, will be immediately removed from service and tagged to indicate that it is not to be used with a prominent tag, as shown below, which states:

- Unsafe equipment or conditions must be tagged out by a Competent Person and tags must be complied with
- Any repairs or modifications to a scaffold system or component of a system must be approved by Dolphus Bannister prior to implementation
- Any violation of the above policy, misuse of scaffolds, or misconduct while working on scaffolds will be subject to disciplinary action within the scope of Company policy, up to and including termination of employment

Capacity/Loads

Each scaffold and scaffold component will be capable of supporting, without failure, its own weight and at least four times the maximum intended load applied or transmitted to it.

Platforms

Each platform on all working levels of scaffolds will be fully planked or decked between the front uprights and the guardrail supports as follows;

- Platforms will be entirely planked and decked with space not more than one inch wide between the platforms and uprights
- The platform will not deflect more than 1/60 of the span when loaded
- All platforms will be kept clear of debris or other obstructions
- Wood planks will be inspected to see that there are graded for scaffold use, are sound and in good condition, straight grained, free from saw cuts, splits and holes
- Platforms and walkways will be at least 18 inches in width. When the work area is less than 18 inches wide, guardrails and/or personal fall arrest systems will be used
- Where platforms are overlapped to create a long platform, the overlap will occur only over supports, and will not be less than 12 inches unless the platforms are nailed
- The front edge of all platforms will not be more than fourteen inches from the face of the work without guardrails or PFAS
- A platform greater than 10 feet in length will not extend over its support more than 18 inches, unless it is designed and installed so that the cantilevered portion of the platform is able to support employees without tipping, or has guardrails which block employee access to the cantilevered end
- Don’t cover wood with opaque finishes, other than the edges for making identification
- Coatings will not obscure the top or bottom wood surfaces
- Each end of the platform, unless cleated or otherwise restrained by hooks or equivalent means, will extend over the centerline of its support at least six inches
- Scaffold components manufactured by different manufacturers will not be intermixed unless the components fit together without force and the scaffold's structural integrity is maintained. Scaffold components made of dissimilar metals will not be used together unless a competent person has determined that galvanic action will not reduce the strength of any component

Support Scaffolds

Supported scaffolds are platforms supported by legs, outriggers beams, brackets, poles, uprights, posts, frames, or similar rigid support. The structural members, poles, legs. posts, frames, and uprights, must be plumb and braced to prevent swaying and displacement.

Supported scaffolds with a height to base width ratio of more than 4:1 must be restrained by guying, tying, bracing or an equivalent means.

The following placements must be used for guys, ties, and braces;

- Install guys, ties, or braces at the closest horizontal member to the 4:1 height and repeat vertically with the top restraint no further than 4:1 height from the top
- Vertically – every 20 feet or less for scaffolds less than three feet wide and every twenty-six feet or less for scaffolds more than three feet wide
- Horizontally – at each end; at intervals not to exceed 30 feet from one end

Supported scaffold poles, legs, posts, frames, and uprights will bear on base plates and mud sills or other adequate firm foundation and will include the following;

- Footings will be level, sound, rigid, and capable of supporting the loaded scaffold without settling or displacement
- Unstable objects will not be used to support working platforms
- Front-end loaders and similar pieces of equipment will not be used to support scaffold platforms unless specifically designed by the manufacturer for such use
- Forklifts will not be used to support scaffold platforms unless the platform is attached to the fork and the fork-lift is not moved horizontally while the platform is occupied

Supported scaffold poles, legs, posts, frames, and uprights will be plumb and braced to prevent swaying and displacement.

Suspended Scaffolds

A suspension scaffold contains one or more platforms suspended by ropes or other non-rigid means from an overhead structure, 1926.450(b), such as the following scaffolds: single-point, multi-point, multi-level, two-point, adjustable, boatswain's chair, catenary, chimney hoist, continuous run, elevator false car, go-devils, interior hung, masons', and stone setters'.

- All support devices must rest on surfaces that can support four times the scaffold load when operating at the rated load of the hoist, or at least one-and-a-half times the load imposed on them by the scaffold at the stall capacity of the hoist, whichever is greater
- A competent person must evaluate all direct connections prior to use to confirm that the supporting surfaces are able to support the imposed load
- Suspension scaffolds must be secured to prevent them from swaying
- Guardrails, a personal fall-arrest system, or both must protect each employee more than 10 feet (3.1 m) above a lower level from falling
- A competent person must inspect ropes for defects prior to each workshift and after every occurrence that could affect a rope's integrity
- When scaffold platforms are more than 24 inches (61 cm) above or below a point of access, ladders, ramps, walkways, or similar surfaces must be used
- When using direct access, the surface must not be more than 24 inches (61 cm) above or 14 inches (36 cm) horizontally from the surface
- When lanyards are connected to horizontal lifelines or structural members on single-point or two-point adjustable scaffolds, the scaffold must have additional independent support lines equal to the suspension lines and have automatic locking devices
- Outrigger beams must be placed perpendicular to their bearing support
- Emergency escape and rescue devices must not be used as working platforms, unless designed to function as suspension scaffolds and emergency systems.
- Tiebacks must be secured to a structurally sound anchorage on the building or structure. Sound anchorages do not include standpipes, vents, other piping systems, or electrical conduit. A single tieback must be installed perpendicular to the face of the building or structure. Two tie-backs installed at opposing angles are required when a perpendicular tieback cannot be installed
- Only those items specifically designed as counterweights must be used
- Counterweights must be secured by mechanical means to the outrigger beams

- Vertical lifelines must not be fastened to counterweight
- Sand, masonry units, or rolls of roofing felt may not be used for counterweights
- The suspension ropes must be long enough to allow the scaffold to be lowered to the level below without the rope passing through the hoist, or the end of the rope configured to prevent the end from passing through the hoist
- Repaired wire may not be used
- Drum hoists must contain no less than four wraps of the rope at the lowest point
- Employers must replace wire rope when the following conditions exist: kinks; six randomly broken wires in one rope lay or three broken wires in one strand in one lay; one third of the original diameter of the outside wires is lost; heat damage; evidence that the secondary brake has engaged the rope; and any other physical damage that impairs the function and strength of the rope
- Suspension ropes supporting adjustable suspension scaffolds must be a diameter large enough to provide sufficient surface area for the functioning of brake and hoist mechanisms
- Suspension ropes must be shielded from heat-producing processes
- Power-operated hoists used to raise or lower a suspended scaffold must be tested by a qualified testing laboratory
- The stall load of any scaffold hoist must not exceed three times its rated load
- The stall load is the load at which the prime-mover (motor or engine) of a power-operated hoist stalls or the power to the prime-mover is automatically disconnected
- Gasoline power-operated hoists or equipment are not permitted
- Drum hoists must contain no less than four wraps of suspension rope at the lowest point of scaffold travel
- Gears and brakes must be enclosed
- An automatic braking and locking device, in addition to the operating brake, must engage when a hoist makes instantaneous change in momentum or an accelerated overspeed.
- Manually operated hoists used to raise or lower a suspended scaffold must be tested an listed by a qualified testing laboratory
- These hoists require a positive crank force to descend

Welding can be done from suspended scaffolds when:

- A grounding conductor is connected from the scaffold to the structure and is at least the size of the welding lead
- The grounding conductor is not attached in series with the welding process or the work piece
- An insulating material covers the suspension wire rope and extends at least 4 feet (1.2 m) above the hoist
- Insulated protective covers cover the hoist
- The tail line is guided, retained, or both, so that it does not become grounded
- Each suspension rope and any other independent lines are insulated from grounding

Access Requirements

Access will be provided when scaffold platforms are more than 24 inches above or below the point of access. Direct access is acceptable when the scaffold is not more than 14 inches horizontally and not more than 24 inches vertically from the other surfaces. Crossbraces will not be used as a means of access.

Type of accesses which are permitted: portable ladders tied off to the structure; hook-on ladders; attachable ladders; stairways; stair towers; ramps and walkways; or integral prefabricated frames.

When erecting or dismantling supported scaffolds, a safe means of access will be provided when a competent person has determined the feasibility and analyzed the site conditions.

FALL PROTECTION

Fall protection includes guardrail systems and personal fall arrest systems.

Guardrails

All scaffolds more than six feet above the lower level will protect employees with guardrails on each open side of the scaffold. Guardrails will be installed along the open sides and ends before releasing the scaffold for use by the employees, other than erection or dismantling crews.

Guardrails are not required when:

- The front end of all platforms are less than 14 inches from the face of the work
- When employees are plastering and lathing 18 inches or less from the front edge

Materials such as steel or plastic banding will not be used for toprails or midrails.

Fall Arrest Systems

Personal fall arrest systems include harnesses, components of the harness/belt such as Dee-rings, and snap hooks, lifelines, and anchorage point. Employees working on scaffolds ten (10) feet or more above ground/floor level will use fall protection in accordance with Bannister Electric LLC of West Monroe’s Fall Protection Program.

The following chart illustrates the type of fall protection required for specific scaffolds:

Type of Scaffold	Fall Protection Required
Aerial lifts	Personal fall-arrest system
Boatswains' chair	Personal fall-arrest system
Catenary scaffold	Personal fall-arrest system
Crawling board (chicken ladder)	Personal fall-arrest system, or a guardrail system, or a ¾ inch (1.9 cm) diameter grabline or equivalent handhold securely fastened beside each crawling board
Float scaffold	Personal fall-arrest system
Ladder jack scaffold	Personal fall-arrest system
Needle beam scaffold	Personal fall-arrest system
Self-contained scaffold	Both a personal fall-arrest system and a guardrail system
Single-point and two-point suspension scaffolds	Both a personal fall-arrest system and a guardrail system
Supported scaffold	Personal fall-arrest system or guardrail system
All other scaffolds not specified above	Personal fall-arrest system or guardrail systems that meet the required criteria

Clearance Distances between Scaffolds and Powerlines

The following table provides the clearance distances between scaffolds and powerlines, or any other conductive material, while being erected, used, dismantled, altered or moved.

Insulated Lines Voltage	**Minimum Distance**	**Alternatives**
Less than 300 volts	3 feet	
300 to 50 kv	10 feet	
More than 50 kv	10 feet plus 0.4 inches for each 1 kv over 50 kv	Two times the length of the line insulator, but never less than 10 feet
Uninsulated Lines Voltage	**Minimum Distance**	**Alternatives**
Less than 50 kv	10 feet	
More than 50 kv	10 feet plus General Rule: 0.4 inches for each 1 kv over 50 kv	Two times the length of the line insulator, but never less than 10 feet

However, scaffolds can be moved closer if it is necessary for the performance of work, provided the power lines are de-energized or protective coverings are installed to help prevent accidental contact.

Fall Hazard Assessment

Job Name:		Location:
Date Assessed:	Related Operating Procedures Reviewed: ☐ YES ☐ NO	Location Marked and Entry Controlled: ☐ YES ☐ NO

FALL HAZARD ASSESSMENT CHECKLIST		
1. Can an employee enter the area without restriction and perform work?	☐ YES	☐ NO
2. Are fall prevention systems such as cages, guardrails, toeboards, and manlifts in place	☐ YES	☐ NO
3. Have slipping and tripping hazards been removed or controlled?	☐ YES	☐ NO
4. Have visual warnings of fall hazards been installed?	☐ YES	☐ NO
5. Can the distance a worker could fall be reduced by installing platforms, nets etc.?	☐ YES	☐ NO
6. Are any permanently installed floor coverings, gratings, hatches, or doors missing?	☐ YES	☐ NO
7. Does the location contain any other recognized safety and or health hazards?	☐ YES	☐ NO
8. Is the space designated as a Permit Required Confined Space?	☐ YES	☐ NO
9. Have anchor points been designated and load tested?	☐ YES	☐ NO

Assessment Information: (indicate specifics with initials)

Initials	Hazard	Remarks/Recommendations
	Total potential fall distance:	
	Number of workers involved:	
	Frequency of task:	
	Obtainable anchor point strength:	
	Required anchor point strength: (not less than 5000 lbs)	

Additional Requirements:

Potential environmental conditions that could impact safety:

Initials	Condition	Remarks/Recommendations

Possible required structural alterations:

Initials	Alteration	Remarks/Recommendations

Possible task modification that may be required:

Initials	Task	Remarks/Recommendations

Training requirements:

Initials	Requirement	Remarks/Recommendations

Personal protective equipment required:

Initials	Requirement	Remarks/Recommendations

Comments:

☐ **Approved** **AUTHORIZATION:**

I certify that I have conducted a Fall Hazard Assessment of the above designated location and have detailed the findings of the assessment on this form. * Further detailed on attachment: ☐ YES ☐ NO

Title:	Date:	Time:
Name:	Signature:	

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

POLICY

Bannister Electric LLC of West Monroe has adopted this policy for Subcontractor Management from industry standards and best practices.

RESPONSIBILITIES

Dolphus Bannister is the assigned Company Supervisor responsible for ensuring the following procedures, practices, and rules are implemented and enforced.

PROCEDURES

Prequalification

Dolphus Bannister will ensure that all prospective subcontractors be pre-qualified through the review of their safety programs, safety training documents, and safety statistics. Proposed subcontractors will complete and submit a Contractors Prequalification Form from which a Subcontractor/Supplier Quality Rating Report will be completed. The Contractor's Prequalification Form must be complete and all requested attachments provided.

Selection

Dolphus Bannister will utilize acceptable safety matrixes to be used as a criteria for selecting subcontractors and will be based upon several considerations including but not limited to:

- Prior working relationships
- Quality Rating Report scores such as: TRIR, EMR, DART
- Audits of current work in progress
- Availability of contractors in the area

The contractor that receives the best overall review will be forwarded to the Owner's representative for review and approval.

Pre-Job

The selected subcontractor will provide a training matrix with individual employee names and the areas of completed training for employees. The subcontractor will also identify Competent Persons and the areas of their competency. The subcontractor will be included in pre-job meetings or kick-off meetings, and safety orientations.

On-Site

The subcontractor will notify Bannister Electric LLC of West Monroe Site Safety a minimum of 24 hours prior to the arrival of new employees on-site so that arrangements can be made to provide the required orientations. Employees must meet all of the requirements of the Site Safety Plan, including the training and orientation.

The Subcontractor will be required to meet all hazard analysis requirements and request the safe work permits as required by this plan. The subcontractor will be included in the audits and inspections on-site and are expected to immediately correct any “At Risk” behaviors or hazards identified that are within the subcontractor’s scope of work and ability to correct. Employees of subcontractors have the right to refuse any work they deem to be hazardous.

All subcontractors will be included in tailgate safety meetings, job safety analysis or hazard assessments, and on-the-job safety inspections.

The subcontractor will be required to adjust their “Safe Work Practices” in order to prevent excessive Near Hits and/or Near Misses. If the subcontractor is unable to perform their scope of work without “At Risk” behavior or creating hazardous working conditions on the site, the subcontractor’s working element will be required to leave the site until an abatement plan can be prepared and agreed upon.

Post-Contract

Upon completion of the work, a post-job subcontractor safety performance review and evaluation will be completed to determine the safety performance of the subcontractor and provide reference for future job consideration.

Management of Change

Bannister Electric LLC of West Monroe will conduct a hazard assessment when a change occurs in the construction plan or external influences impact the manner in which the work will be conducted. This includes, but is not limited to:

- Changes in policy or objectives
- Operating licenses and permits, legal, and regulatory requirements
- Changes in procedures, practices, and rules
- Changes to controlled documentation
- Work processes or methods
- Changes other than exact replacement in kind to equipment, processes, hardware, or software
- Changes to operating boundaries; e.g. operating envelopes
- Temporary changes that specify the period of time a change will be in effect

All employees affected by any temporary or permanent operational changes will be informed and trained in prior to the start of any new work.

The management of change process covers all activities including the initial request, implementation, review, and closure of a change. Any proposed changes will be managed by Dolphus Bannister and forwarded, in writing, to the Owner's management for approval or disapproval.

The following items will be included in the management of change proposal:

- Technical basis for the change
- Impact of the change on the health and safety of personnel
- Impact of change on the supplied tools and equipment
- Necessary modifications to existing or new operating procedures
- Methodology used to analyze the impact of the change

When revisions are necessary, affected employees will be consulted regarding the development and implementation of the newly revised procedures.

OPEN LETTER TO ALL SUBCONTRACTORS

Date: _____

Greetings Prospective Subcontractor:

As part of Bannister Electric LLC of West Monroe's continuing commitment to safety, we are assessing our potential subcontractors' compliance with all applicable safety requirements. Enclosed are the materials you will need to complete this process, including a questionnaire that will assist us in assessing your safety programs. We are asking all subcontractors "Invited to Bid" to complete the attached questionnaire. The matrix included in this package is designed to assist you in determining which programs are applicable to your operations.

Please contact me _____ or _____ with any questions or concerns.

I am in and out of the office so please leave me a voice mail and I will get back to you when I return.

Please forward the completed forms and attach a copy of your safety manual by: _____

TO:

Company _____

Attn _____

Address _____

City/State/Zip _____

Phone _____

Fax _____

Email _____

Regards,

_____

Construction Manager

SUBCONTRACTOR SAFETY AND HEALTH QUESTIONNAIRE (PAGE 1 OF 4)

Company Name		Number of Employees		Date	
Address					
City		State		ZIP	
Telephone #	( )	Fax #	( )		
Form Completed By					
Officer Name and Signature					
Please describe the services that your Company provides					

	YES	NO
1. Has your Company received any inspections from a regulatory agency in the last three (3) years?	☐	☐
If yes, provide details		
2. Has your Company received any citations from a regulatory agency during the last three (3) years?	☐	☐
3. Does your Company have regularly scheduled, documented employee safety meetings? (Tailgate/Toolbox)	☐	☐
If yes, how often		
What is covered at safety meetings?		
4. Does your Company perform equipment checks on all equipment?	☐	☐
If yes, are records maintained?	☐	☐
5. Does your Company perform Job Hazard Analysis (JHA)?	☐	☐

SUBCONTRACTOR SAFETY AND HEALTH QUESTIONNAIRE (PAGE 2 OF 4)

6. Does your Company provide and require employees to use the following Personal Protective Equipment (PPE)?					
Hard Hats				☐	☐
Safety Shoes/Boots				☐	☐
Eye and Face Protection				☐	☐
Hand Protection				☐	☐
Hearing Protection				☐	☐
Fall Protection				☐	☐
Respiratory Protection				☐	☐
7. In addition to regulatory required Personal Protective Equipment, what other PPE is required or supplied?					
If any, please list					
8. Indicate the circumstances in which your Company's employees may be subject to alcohol/drug screening					
☐	Never	☐	Reasonable Cause/ Suspicion	☐	Periodic
☐	Random	☐	Post Accident	☐	Follow-Up
☐	Return to Duty	☐	Other		
Do you have a documented Substance Abuse Prevention Program available for review?				☐	☐
9. Does your Company have a policy requiring written accident/incident reports (injuries, property damage, etc.)?				☐	☐
10. Does your Company document, investigate, and discuss "Near Miss Incidents"?				☐	☐

SUBCONTRACTOR SAFETY AND HEALTH QUESTIONNAIRE (PAGE 3 OF 4)

11. Please respond to all items below with YES, NO, or N/A (not applicable). Do not leave any items unanswered.

OSHA Programs/Training	Program Written and Documented?	Training Conducted By (In-House or Outsourced)	Frequency of Employee Training	Documented Individual Employee Training?
OSHA Programs				
Confined Spaces				
Electrical Safety (qualified)				
Electrical Safety (non-qualified)				
Excavation and Shoring				
Fire Protection and Prevention				
Fall Protection				
First Aid/CPR				
HAZCOM				
Heat Stress Prevention				
Lifting/Mobile Equipment				
Lockout/Tagout				
Noise/Hearing Conservation				
PPE				
Respiratory				
Scaffolds/Ladders				
Trenching/Shoring				
Welding, Cutting, and Hot Work				

SUBCONTRACTOR SAFETY AND HEALTH QUESTIONNAIRE (PAGE 4 OF 4)

12. Please provide any additional information on other industry-specific programs or training, including written procedures, which your Company provides to employees	
13. Does your Company have a Safety and Health Program with clearly written safety policy that is endorsed and enforced by upper management?	☐ ☐
14. Does your Company perform documented safety audits/reviews?	☐ ☐
15. Who in your Company is responsible for coordinating your health, safety, and environmental program?	
16. If your Company has more than ten (10) employees, please attach with this questionnaire your Company's OSHA 300 Log for the last three (3) years.	
17. Does your Company use subcontractors?	☐ ☐
If yes, explain	
Are your Subcontractor's written safety programs and procedures available for review?	☐ ☐
18. Are all documents and records pertaining to this questionnaire available for audit?	☐ ☐
If no, explain	
19. Please attach your current/completed Health and Safety Program along with other written safety programs for review. A disk or CD-ROM is acceptable.	
Comments	

SAFETY CONTRACT

Following are Safety Requirements as stated in your subcontract agreement: Subcontractor agrees to comply with prevailing safety regulations, whether OSHA, Contractor Policies, Owner Policies, or otherwise imposed while working on the project. Subcontractor also agrees to be bound by any rule or regulation needed during the course of the project. Subcontractor further agrees:

- To provide a safe work area to all his employees by providing, and requiring the use of, the required Personal Protective Equipment such as: hard hats, safety glasses, respirators, dust masks, face shields, etc
- Subcontractor's employees shall wear long or short sleeve shirts, long pants, and sturdy work shoes, boots, or when required, steel-toed boots
- To provide this Contractor with proper documentation on employee training for specific tools and equipment such as powder actuated tools, air guns (nail guns), forklifts, scaffolding, scissors lifts, boom lifts, and any safety plan applicable to their scope of work
- Be responsible for implementing and administering their safety program and must provide a copy of said program to this Contractor including a Job Hazard Analysis (inspections) and documentation on weekly job site safety meetings with its employees
- To implement daily hazard recognition for its employees by using a Pre-Task Planner form for their daily scope of work
- To provide its employees with safe tools and equipment and to safely perform the work under this agreement with high regard for the safety of its employees and others
- To provide a designated person for a weekly contractor safety coordination meeting

Subcontractor shall:

- Immediately report to this Contractor in writing and remedy any accidents/illness, near misses, or unsafe conditions brought to its attention or discovered by subcontractor employees, involving its work and/or posing a danger to persons or property
- Not permit its employees at the project to use publicly audible radios or to wear headsets except as are used for job site communications
- Prior to bringing on site a substance or material for which a Safety Data Sheet (SDS) is required by federal, state, and local regulations, subcontractor shall provide said SDS to Contractor

This Contractor is a Drug-free Company and provides such a workplace for its employees.

Subcontractor shall provide this Contractor, prior to beginning scope of work, with current documentation of subcontractor's drug testing policy or program (i.e. pre-hire and random testing). The subcontractor will conduct random drug testing for all of their employees throughout the course of the project. All subcontractors' employees shall attend a Project Safety Orientation on the first day of work on the job site.

Subcontractor Name	Signature	Title	Date

POLICY

Bannister Electric LLC of West Monroe has adopted this program for the safety of employees when working in or around trenches and excavations

REFERENCES

- §1926.651 – Specific Excavation Requirements
- §1926.652 – Requirements for Protective Systems

RESPONSIBILITIES

Bannister Electric LLC of West Monroe will provide the resources necessary for the implementation of this program. Bannister Electric LLC of West Monroe will implement and enforce the engineering controls, procedures, and work practices to ensure that no employee is exposed to hazards from excavations being performed or existing at the jobsite.

Dolphus Bannister is designated as the Competent Person for Bannister Electric LLC of West Monroe in authority over all excavation operations. Dolphus Bannister will ensure all safety measures and systems are in place and correctly installed, all safety procedures are adhered to, and make regular inspections of excavations, trenches, and the general work site.

Competent Person Responsibilities

- Will maintain a copy of 29 CFR 1926- Subpart "P" and have a comprehensive knowledge of OSHA's Excavation Standards. In addition, competent persons will have a general knowledge of all applicable construction standards
- Conduct pre-job site review to develop a job plan that ensures a safe, efficient job process. A competent person will evaluate difficult sloping and shoring problems (i.e. manholes, etc) prior to commencing the work
- Perform daily inspections of equipment and trench conditions at the start of each shift or as needed by changing conditions
- Competent person has the duty and responsibility to remove all employees from hazardous condition and effect all changes necessary to ensure safety
- Categorize soil conditions and conduct visual and manual tests to determine stability of soil and surrounding trench conditions. NOTE: If visual and manual tests are not performed, soils will be classified as type "C"
- Maintain on-site records of protection systems
- Determine the appropriate protection system to be used and oversee installation
- Verify that a competent person designs ramps and walkways for employee use in accordance with OSHA standards
- Competent person will verify proper design of structural equipment ramps and walkways, or will contact an RPE to design structural equipment ramps and walkways
- Hold tailgate safety meetings with all crew members prior to trenching and shoring operations. Subsequent meeting will be held as conditions warrant
- A competent person will be on-site at all times during excavation/trenching operations
- Assure that appropriate emergency rescue equipment is available to meet existing or potential conditions
- Monitor use of water removal equipment

- Test for oxygen presence and air quality in excavations as necessary. Competent persons will be qualified in identifying confined/hazardous spaces due to the presence of flammable/combustible gases, toxics, oxygen deficiency and oxygen enriched environments
- Competent person will consult with RPE for trenches over 20', specially designed shoring bracing or underpinning or when excavation endangers nearby structures

NOTE: Competent persons will ensure that all trenches are properly classified, sloped, or shored in accordance with the appendices of 29 CFR 1926- Subpart "P", or in accordance with manufactures tabulated data. Furthermore, competent persons will consult with a registered professional engineer (RPE) obtaining written guidance whenever the work exceeds 20 feet in depth, or the work will require control measures not specified in the standard.

Supervisors are responsible for:

- Establishing and maintaining safe and healthful working conditions
- Being familiar with excavation safety and health hazards to which their employees are exposed, how to recognize them, the potential effects these hazards have on the employees, and rules, procedures and work practices for controlling exposure to those hazards
- Setting good examples, instructing their employees, making sure they fully understand and follow safe procedures

Employees:

- No employee is expected to undertake a job until he/she has received instructions on how to do it properly and safely, and is authorized to perform the job
- No employees should undertake a job that appears to be unsafe
- Mechanical safeguards must always be in place and kept in place
- Employees are to report to a superior or designated individual all unsafe conditions encountered during work
- Personal protective equipment must be used when and where required, and properly maintained

TRAINING

Employees who are involved in the excavation operation and exposed to excavation operation hazards will be trained in the excavator notification and excavation practices. When Bannister Electric LLC of West Monroe has reason to believe that an employee lacks the skill or understanding needed for safe work involving excavation practices, Dolphus Bannister will retrain each such employee so that the requisite proficiency is regained. Retraining is required in at least the following situations:

- Where changes at the worksite present a hazard about which an employee has not been previously trained
- Where inadequacies in an affected employee's work involving excavations indicate that the employee has not retained the requisite proficiency

The employer will document that each employee has received the training. This documentation will be made when the employee demonstrates proficiency in the work practices involved and will be maintained for the duration of the employee’s employment. The documentation will contain the content of the training, each employee’s name, and dates of training.

SAFE PRACTICES

Bannister Electric LLC of West Monroe will implement and enforce the following engineering controls, procedures, and work practices to ensure that no employee is exposed to hazards from excavations being performed or existing at the jobsite:

- Dolphus Bannister will ensure that all employees are trained in and familiar with required work practices and excavation procedures to safeguard personnel involved in trenching operations or who work in the vicinity of excavation operations
- Employees conducting trenching and excavation operations will be protected from cave-in hazards through benching, sloping, shoring, scaling loose material, or trench shields/boxes
- Utility operators will be contacted at least 48 hours before work is to begin and underground installations located prior to the commencement of any excavation work. When excavations are approaching any located utility line, equipment operations will be stopped no closer than 3 feet from the suspected location, and the utility will be positively located by careful hand digging, prior to the resumption of machine operations
- Any utilities which are uncovered as a result of excavation operations will be protected and suitably supported during work progress, prominently marked for location and hazard, and will be carefully backfilled as soon as possible
- Trench excavations will have access and egress ladders, ramps, or stairs provided for employees on any excavation that is 4 feet or more in depth. Ladders will be located within 25 feet of the workers and will extend to a height of at least 3 feet above the excavation. Lateral travel along the wall of a trench to a ladder or other means of egress will not exceed 25 feet
- Walkways will be provided where employees or equipment are required or permitted to cross over excavations. Regulation guardrails will be installed where walkways are elevated 6 feet or more above lower levels
- Employees are not permitted underneath loads handled by lifting or digging equipment. Personnel will be required to stand away from any vehicle being loaded or unloaded to avoid being struck by any equipment, spillage, or falling materials. Operators may remain in the cabs of vehicles being loaded or unloaded when the vehicles are equipped with adequate overhead protection for the operator during loading and unloading operations
- Tests will be conducted for hazardous atmospheres and air contaminants (oxygen, flammable gases, etc.) and provide ventilation where necessary
- In excavations where a hazardous atmosphere, to include an oxygen deficient atmosphere, exists or could reasonably be expected to exist, such as in excavations in landfill areas or excavations in areas where hazardous substances are stored nearby, the atmospheres in the excavation will be tested before employees enter excavations greater than 4 feet in depth
- Proper respiratory protection will be provided where necessary for personnel exposed to hazardous atmospheres above Permissible Exposure Limits (PEL). Where ventilation is used to control exposure to hazardous atmospheres, continued testing will be used to monitor levels of hazardous atmospheres
- Employees are not permitted to work in excavations in which there is accumulated water, or in excavations in which water is accumulating, unless adequate precautions such as special support or shield systems to protect from cave-ins, water removal to control the level of accumulating water, or use of a safety harness and lifeline have been taken to protect employees against the hazards posed by water accumulation
- An adequate system of shoring, benching, or sloping in accordance with specifications in §1926.652 and appendices A and C of OSHA standards for excavation operations will be provided for any excavation over 5 feet in depth, or any excavation which has been inspected

and is believed unsafe to enter without a protective system. Inspections and determination of the type of protective system used will be done by Dolphus Bannister and based on soil type, density, moisture content, and other factors which might affect the performance of protective systems

- Protection of employees with regard to soil classifications includes:
  - The determination of soil types and special considerations will be done in specific measures
  - Shoring, sloping, shield, and excavation will be installed as needed
  - Shoring equipment will not be subjected to excessive forces and be installed to protect employees from lateral loads
  - Timber shoring or aluminum hydraulic shoring will be determined according to appendices A and C of the OSHA standard
  - The devices used will be properly maintained and in good repair. If inspection reveals damage or defect, shoring equipment will be tagged and immediately removed from service
  - Employees will be protected from hazards of falling, rolling, or sliding materials or equipment
  - Personnel are prohibited from being within the shield when installing or removing the shield.
  - All shields used will be designed to resist calculated trench forces

Inspections

- A competent person designated by Dolphus Bannister will conduct an inspection of worksites daily, prior to any employee entering an excavation to ensure that safety measures are in place and proper procedures for safety are being observed. Inspections of the excavation site will be made daily prior to commencement of work, regularly during work operations, in the event an occurrence takes place (such as inclement weather) which might pose a hazard to commencing, and at the cessation of work to ensure barricades and appropriate safety measures are in place before leaving the site
- In the event an inspection reveals the possibility of a cave-in, failure of a protective system, hazardous atmosphere, or any threat to the safety of personnel, the excavation will immediately be evacuated until corrections are made to the satisfaction of Dolphus Bannister

Locating Underground Utility Installations

- Prior to digging, call 811 to determine the location of any underground utilities
- Bannister Electric LLC of West Monroe will not excavate in a street, highway, public place, a private easement of a public utility, or near the location of a public utility facility owned, maintained, or installed on a customer's premises, without having first ascertained the location of all underground facilities of a public or private utility in the proposed area of excavation
- Upon receiving the information from the public utility, Bannister Electric LLC of West Monroe personnel will exercise reasonable care when working in close proximity to the underground utilities. If the utilities are or likely to be exposed, only hand digging will be employed in such circumstances and any support reasonably necessary for protection of the utilities will be provided on the construction site.
- When any contact with or damage to any pipe, cable, or any other underground utility occurs, Bannister Electric LLC of West Monroe will immediately notify the utility company. If an energized electrical cable is severed, an energized conductor is exposed, or dangerous fluids or gases are escaping from a broken line, Dolphus Bannister will evacuate personnel from the immediate area until the utility company representative arrives
- While an excavation is open, underground utilities will be protected, supported, or removed as necessary to safeguard employees

Surface Encumbrances

- All surface encumbrances such as trees, boulders, rock fragments, or other obstructions whose movement could cause injury to an employee will be removed or supported
- Excavations that personnel are required to enter will have spoil piles and other material stored and retained not less than 2 feet from the excavation edge
- When a shoring system is used, the system will be designed and used to resist the added pressure when heavy equipment, material handling equipment, or material is located near an excavation
- When mobile equipment is utilized or permitted adjacent to an excavation where the operator's vision is restricted, stop logs, barricades, or a signal person will be used

Access and Egress

- Lateral travel along the wall of a trench to a ladder or other means of egress will not exceed 25 feet
- An excavation four feet or more in depth and occupied by an employee will be provided with either a ladder extending not less than 3 feet above the top as a means of access or with a ramp meeting the following requirements:
    - Structural ramps that are used solely by employees as a means of access or egress from excavations will be designed by a competent person. Structural ramps used for access or egress of equipment will be designed by a competent person qualified in structural design, and will be constructed in accordance with the design
    - Ramps and runways constructed of two or more structural members will have the members connected together to prevent displacement. Structural members used for ramps and runways will be of uniform thickness
    - Cleats or other appropriate means used to connect runway structural members will be attached to the bottom of the runway or will be attached in a manner to prevent tripping
    - Structural ramps used in lieu of steps will be provided with cleats or other surface treatments on the top surface to prevent slipping

- An earth ramp may be used in place of a ladder if:
  - The ramp material will be stable
  - The sides of the excavation above the ramp will be maintained to the maximum allowable slope or sheeted or shored along the means of egress
  - The degree of angle of the ramp will not be more than 45 degrees
  - Vertical height between the floor of the trench and the toe of the ramp will not exceed 30 inches

Exposure to Vehicle Traffic

- Employees exposed to public vehicular traffic will be provided with, and be required to, warning vests or other suitable garments marked with or made of reflectorized or high-visibility material
- A sidewalk will not be undermined unless it is shored to support a live load of at least 125 pounds per square foot
- Employees who are routed from a sidewalk or walkway into a roadway to detour excavations will be protected on all sides by regulation guardrails or barricades
- If an employee or equipment is required or permitted to cross a trench or ditch, a walkway, ramp, or bridge will be provided and will have a designed capacity of not less than 3 times the imposed load. Regulation guardrails will be installed
- If equipment is routed across or onto a roadway, protection will be provided using regulation signals, signs, or barricades
- An open cut into a roadway will be provided with a regulation barricade on all sides. Warning lights will be provided during hours of darkness

Walkways

- Walkways will be provided where employees or equipment are required or permitted to cross over excavations. Regulation guardrails will be provided where walkways are 6 feet or more above lower levels
- A walkway or sidewalk will be kept clear of excavated material and other obstructions
- The walkways and sidewalks will be lighted if used during hours of darkness
- A walkway or sidewalk that is adjacent to an excavation will be separated from the excavation and protected by an appropriate guardrail

Exposure to Falling Loads

Personnel will not be permitted under loads handled by lifting or digging equipment. Employees will be required to stand away from any vehicle being loaded or unloaded to avoid being struck by any spillage or falling materials. Operators may remain in the cabs of vehicles being loaded or unloaded when the vehicles are equipped with regulation protection for the operator during loading and unloading operations.

Mobile Equipment Warning Systems

When mobile equipment is operated adjacent to an excavation, or when such equipment is required to approach the edge of an excavation, and the operator does not have a clear and direct view of the edge of the excavation, a warning system will be utilized such as barricades, hand or mechanical signals, or stop logs. If possible, the grade should be away from the excavation.

Hazardous Atmospheres

To prevent exposure to hazardous atmospheres and to assure acceptable breathing conditions, all of the following requirements will apply:

- Where an oxygen deficiency or a hazardous atmosphere exists, the atmosphere will be tested before employees enter excavations that are more than 4 feet deep
- Precautions will be taken to prevent employee exposure to atmospheres that contain less than 19.5% oxygen and any other hazardous atmosphere. These precautions include providing regulation respiratory protection or ventilation
- Precautions will be taken, such as providing ventilation, to prevent employee exposure to an atmosphere that contains a concentration of a flammable gas in excess of 20% of the lower flammable limit of the gas
- When using controls intending to reduce levels of atmospheric contaminants to acceptable PEL, testing will be conducted as often as necessary to ensure that breathing air remains safe
- Emergency rescue equipment will be readily available and attended where atmospheric conditions exist or could develop
- Employees entering bell-bottom pier holes, or other similar deep and confined footing excavations, will wear a harness with a lifeline securely attached to it. The lifeline will be separate from any line used to handle materials, and will be individually attended at all times while employee wearing it is in the excavation

Protection from Water Accumulation Hazards

- Employees will not work in excavations where water has or is accumulating, unless adequate precautions have been taken to protect employees against the hazards posed by such water accumulation including support and shield systems, water removal, and safety harnesses and lifeline
- If water is controlled or prevented from accumulating by the use of water pumps, the pumping equipment and operations will be monitored by a competent person to ensure proper operation
- If excavation work interrupts the natural drainage of surface water (such as streams), diversion ditches, dikes, or other suitable means will be used to prevent surface water from entering the excavation and to provide adequate drainage of the area adjacent to the excavation
- Excavations subject to runoff from heavy rains will require an inspection by a competent person
- An ongoing inspection of an excavation or trench will be made by a qualified person. After every rainstorm or other hazard-producing occurrence, an inspection will be made by a competent person for evidence of possible slides or cave-ins. Where these conditions are found, all work will cease until additional precautions, such as additional shoring or reducing the slope, have been accomplished

Stability of Adjacent Structures

- Excavation below the level of the base or footing of any foundation or retaining wall that could be reasonably expected to pose a hazard to employees will not be permitted except when:
  - A support system, such as shoring, bracing, or underpinning, is provided to ensure the safety of employees and the stability of the structure
  - The excavation is in stable rock
  - A registered professional engineer has approved the determination that the structure is sufficiently removed from the excavation so as to be unaffected by the excavation activity or that such excavation work will not pose a hazard to employees

- Sidewalks, pavements, and appurtenant structure will not be undermined unless a support system or another method of protection is provided to protect employees from the possible collapse of such structures
- The shoring, bracing, and underpinning will be inspected daily or more often, as conditions warrant, by a competent person

Employee Protection from Loose Rock or Soils

- Adequate protection will be provided to protect employees from loose rock or soil that could pose a hazard by falling or rolling from an excavation face. Such protection will consist of scaling to remove loose material; installation of protective barricades at intervals as necessary on the face to stop and contain falling material or other means that provide equivalent protection
- Employees will be protected from excavated or other materials or equipment that could pose a hazard by falling or rolling into excavations. Protection will be provided by placing and keeping such materials or equipment at least 2 feet from the edge of excavations, or by the use of retaining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations, or by a combination of both if necessary
- If different textured soils are encountered in the side of an excavation, each soil type of the excavation will be cut to the proper maximum allowable slope, except that the slope will not steepen between the toe of the slope and the ground level where soft clay or running soil is encountered in the lower cut
- If the excavation is a trench, a trench shoring system will be used or the sides will be properly benched or sloped to protect against a cave-in
- An excavation that is cut into a rock formation will be scaled to remove loose material
- When installed forms, walls, or similar structures create a trench between the form, wall, or structure and the side of the excavation, it will be treated as a trench

General Classification of Soil and Rock Deposits

- Each soil and rock deposit will be classified by a competent person as Stable Rock, Type A, Type B, or Type C in accordance with OSHA definitions
- The classification of the deposits will be made based on the results of at least one visual and at least one manual analysis. Such analyses will be conducted by a competent person using approved methods of soil classification and testing
- The visual and manual analyses will be designed and conducted to provide sufficient quantitative and qualitative information as may be necessary to identify properly the properties, factors, and conditions affecting the classification of the deposits
- Layered systems will be classified according to its weakest layer. However, each layer may be classified individually where a more stable layer lies under a less stable layer
- If after classifying a deposit, the properties, factors, or conditions affecting its classification change in any way, the changes will be evaluated by a competent person. The deposit will be reclassified as necessary to reflect the changed circumstances

Protection of Employees in Excavations

- Employees in an excavation will be protected from cave-ins by an adequate protective system designed in accordance with OSHA requirements, except when: excavations are made entirely in stable rock; excavations are less than 5 feet deep and examination of the ground by a competent person provides no indication of a potential cave-in

- Protective systems will have the capacity to resist without failure all loads that are intended or could reasonably be expected to be applied or transmitted to the system
- The slopes and configurations of sloping and benching systems will be selected and constructed by Bannister Electric LLC of West Monroe and will be in accordance with OSHA requirements, or the following alternative options

Option 1 - Allowable configurations and slopes.

- Excavations will be sloped at an angle not steeper than one and one-half horizontal to one vertical (34 degrees measured from the horizontal), unless Bannister Electric LLC of West Monroe uses one of the other options listed below
- Specified slopes will be excavated to form configurations that are in accordance with the slopes shown for Type C soil.

Option 2 - Maximum allowable slopes, and allowable configurations for sloping and benching systems, will be determined in accordance with the conditions and requirements set forth in §1926 Subpart P – Appendices A and B.

Option 3 - Designs using other tabulated data.

- Designs of sloping or benching systems will be selected from and in accordance with tabulated data, such as tables and charts
- The tabulated data will be in written form and will include all of the following:
  - Identification of the parameters that affect the selection of a sloping or benching system drawn from such data
  - Identification of the limits of use of the data, to include the magnitude and configuration of slopes determined to be safe
  - Explanatory information as may be necessary to aid the user in making a correct selection of a protective system from the data
  - At least one copy of the tabulated data which identifies the registered professional engineer who approved the data, will be maintained at the jobsite during construction of the protective system. After that time the data may be stored off the jobsite, but a copy of the data will be made available to OSHA upon request

Option 4 - Design by a registered professional engineer.

- Sloping and benching systems not utilizing previous Options 1, 2, or 3 will be approved by a registered professional engineer
- Designs will be in written form and will include at least the following:
  - The magnitude of the slopes that were determined to be safe for the particular project
  - The configurations that were determined to be safe for the particular project
  - The identity of the registered professional engineer approving the design
- At least one copy of the design will be maintained at the jobsite while the slope is being constructed. After that time the design need not be at the jobsite, but a copy will be made available to OSHA upon request

Design of Support Systems

Designs of support systems, shield systems, and other protective systems will be selected and constructed by Bannister Electric LLC of West Monroe and will be in accordance with OSHA requirements, or the following alternative options:

Option 1 - Designs for timber shoring in trenches will be determined in accordance with the conditions and requirements set forth in §1926 Subpart P – Appendices A and C. Designs for aluminum hydraulic shoring will be in accordance with Option 2 below, but if manufacturer's tabulated data cannot be utilized, designs will be in accordance with Appendix D.

Option 2 - Designs Using Manufacturer's Tabulated Data.

Design of support systems, shield systems, or other protective systems that are drawn from manufacturer's tabulated data will be in accordance with all specifications, recommendations, and limitations issued or made by the manufacturer.

Deviation from the specifications, recommendations, and limitations issued or made by the manufacturer will only be allowed after the manufacturer issues specific written approval.

Manufacturer's specifications, recommendations, and limitations, and manufacturer's approval to deviate from the specifications, recommendations, and limitations will be in written form at the jobsite during construction of the protective system. After that time this data may be stored off the jobsite, but a copy will be made available to the Secretary upon request.

Option 3 - Designs using other tabulated data.

Designs of support systems, shield systems, or other protective systems will be selected from and be in accordance with tabulated data, such as tables and charts.

The tabulated data will be in written form and include all of the following:

- Identification of the parameters that affect the selection of a protective system drawn from such data
- Identification of the limits of use of the data
- Explanatory information as may be necessary to aid the user in making a correct selection of a protective system from the data
- At least one copy of the tabulated data, which identifies the registered professional engineer who approved the data, will be maintained at the jobsite during construction of the protective system. After that time the data may be stored off the jobsite, but a copy of the data will be made available to OSHA upon request

Option 4 - Design by a registered professional engineer.

Support systems, shield systems, and other protective systems not utilizing previous Options 1, 2, or 3 will be approved by a registered professional engineer.

Designs will be in written form and will include the following:

- A plan indicating the sizes, types, and configurations of the materials to be used in the protective system
- The identity of the registered professional engineer approving the design

At least one copy of the design will be maintained at the jobsite during construction of the protective system. After that time, the design may be stored off the jobsite, but a copy of the design will be made available to OSHA upon request.

Protective Systems Materials and Equipment.

- Materials and equipment used for protective systems will be free from damage or defects that might impair their proper function
- Manufactured materials and equipment used for protective systems will be used and maintained in a manner that is consistent with the recommendations of the manufacturer, and in a manner that will prevent employee exposure to hazards
- When equipment used for protective systems is damaged, a competent person will examine the equipment and evaluate its suitability for continued use. If the competent person cannot assure the equipment is able to support the intended loads or is otherwise suitable for safe use, then equipment will be removed from service be evaluated and approved by a registered professional engineer before being returned to service
- General installation and removal of support systems:
  - Members of support systems will be securely connected together to prevent sliding, falling, kickouts, or other predictable failure
  - Support systems will be installed and removed in a manner that protects employees from cave-ins, structural collapses, or from being struck by members of the support system
  - Individual members of support systems will not be subjected to loads exceeding those which those members were designed to withstand
- Excavation of material to a level no greater than 2 feet below the bottom of the members of a support system will be permitted, but only if the system is designed to resist the forces calculated for the full depth of the trench, and there are no indications while the trench is open of a possible loss of soil from behind or below the bottom of the support system
- Installation of a support system will be closely coordinated with the excavation of trenches
- Before temporary removal of individual members begins, additional precautions will be taken to ensure the safety of employees, such as installing other structural members to carry the loads imposed on the support system
- Loads will be released slowly so as to note any indication of possible failure of the remaining members of the structure or possible cave-in of the sides of the excavation
- Backfilling will progress together with the removal of support systems from excavations
- Employees will not be permitted to work on the faces of sloped or benched excavations at levels above other employees except when employees at the lower levels are adequately protected from the hazard of falling, rolling, or sliding material or equipment
- General shield systems requirements:
  - Shield systems will not be subjected to loads exceeding those which the system was designed to withstand

  - Shields will be installed in a manner to restrict lateral or other hazardous movement of the shield in the event of the application of sudden lateral loads
  - Employees will be protected from the hazard of cave-ins when entering or exiting the areas protected by shields
  - Employees will not be allowed in shields when shields are being installed, removed, or moved vertically
  - Excavations of earth material to a level not greater than 2 feet below the bottom of a shield will be permitted, but only if the shield is designed to resist the forces calculated for the full depth of the trench, and there are no indications while the trench is open of a possible loss of soil from behind or below the bottom of the shield
- Regulation guardrails or barricades will be provided at all remotely located excavations. All wells, pits, and shafts, temporary or otherwise, will be barricaded or covered. Temporary wells, pits, and shafts will be backfilled when exploration and similar operations are completed.

Inspection of Trenches & Excavations Form

Project:	Date:	Weather:	Soil Type:
Trench Depth:	Length:	Width:	Type of Protective System:
Project Supervisor:			
Assigned **Competent Person**:			
Crew Members:			
Excavation equipment type(s):			
Equipment Operator(s):			

Yes	No	N/A	Excavation
☐	☐	☐	Excavations and Protective Systems inspected by **Competent Person** daily, before start of work.
☐	☐	☐	**Competent Person** has authority to remove workers from excavation immediately.
☐	☐	☐	Surface encumbrances supported or removed.
☐	☐	☐	Employees protected from loose rock or soil.
☐	☐	☐	Hard hats worn by all employees.
☐	☐	☐	Spoils, materials, and equipment set back a minimum of 2' from edge of excavation.
☐	☐	☐	Barriers provided at all remote excavations, wells, pits, shafts, etc.
☐	☐	☐	Ingress/egress within excavation provided at 25' intervals.
☐	☐	☐	Walkways and bridges over excavations 6' or more in depth equipped with guardrails.
☐	☐	☐	Warning vests, or other highly visible PPE provided and worn by all employees exposed to vehicular traffic.
☐	☐	☐	Employees prohibited from working or walking under suspended loads.
☐	☐	☐	Employees prohibited from working on faces of sloped or benched excavations above other employees.
☐	☐	☐	Warning system established and used when mobile equipment is operating near edge of excavation.

Yes	No	N/A	Utilities
☐	☐	☐	Utility companies contacted and/or utilities located.
☐	☐	☐	Exact location of utilities marked when near excavation.
☐	☐	☐	Underground installations protected, supported, or removed when excavation is open.

Yes	No	N/A	Wet Conditions
☐	☐	☐	Precautions taken to protect employees from accumulation of water.
☐	☐	☐	Water removal equipment monitored by **Competent Person**.
☐	☐	☐	Surface water controlled or diverted.
☐	☐	☐	Inspection made after each rainstorm.

Yes	No	N/A	Hazardous Atmosphere
☐	☐	☐	Atmosphere tested when there is a possibility of oxygen deficiency or build-up of hazardous gases.
☐	☐	☐	Oxygen content is between 19.5% and 21%.
☐	☐	☐	Ventilation provided to prevent flammable gas build-up to 20% of lower explosive limit of the gas.
☐	☐	☐	Testing conducted to ensure that atmosphere remains safe.
☐	☐	☐	Emergency Response Equipment readily available where a hazardous atmosphere could or does exist.
☐	☐	☐	Employees trained in the use of Personal Protective and Emergency Response Equipment.
☐	☐	☐	Safety harness and life line individually attended when employees enter deep confined excavation.

Comments:	
Signature of **Competent Person**:	Date:

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

INTRODUCTION

Bannister Electric LLC of West Monroe has implemented this policy based on an OSHA Final Rule issued Nov. 17, 2016 that updated 1910 Subpart D – Walking-Working Surfaces – also known for covering “slip, trip, and fall” hazards.

This policy incorporates technology advances, industry best practices, and national consensus standards. OSHA updated 1910 Subpart D – Walking-Working Surfaces – and added personal fall protection system requirements to 1910 Subpart I – Personal Protective Equipment.

IMPLEMENTATION TIMELINE

- 60 days after publication:
  - Final rule is effective
- 6 months
  - Train exposed workers on fall hazards
  - Train workers who use equipment covered by the final rule
- 1 year
  - Inspect and certify permanent anchorages for rope descent systems
- 2 years
  - Install personal fall arrest or ladder safety systems on:
    - New fixed ladders over 24 feet
    - Replacement ladders/ladder sections
    - Fixed ladders on outdoor advertising structures
  - Placing a cage, well, personal fall arrest system (PFAS), or ladder system on fixed ladders over 24 feet.
- 20 years
  - Replace cages and wells used for fall protection with ladder safety or PFAS on all fixed ladders over 24 feet.

EXCEPTIONS

These safe work procedures do not apply to the following:

- When inspecting, investigating, or assessing workplace conditions and the work at hand before starting the work or after completing it where fall protection systems or equipment are not installed or available.
- Edges of entertainment stages and rail-station platforms
- Powered platforms which are covered by 1910.66(j)
- Aerial lifts which are covered by 1910.67(c)(2)(v)
- Telecommunications work which is covered by 1910.268(n)(7) and (8)
- Electrical power generation, transmission, and distribution which is covered by 1910.269(g)(2)(i)
- Scaffolds which will be designed, constructed, and maintained to meet 1926 Subpart L. Workers on scaffolds will follow 1926 Subpart L on fall protection.
- Safety nets will be designed, constructed, and maintained to meet 1926 Subpart M.

TRAINING

Dolphus Bannister will ensure training is provided to all employees who use personal fall protection and work in high hazard situations. Training must be conducted by a qualified person about fall and equipment hazards and fall protection systems so employees can correctly:

- Identify and minimize fall hazards
- Use personal fall protection systems and rope descent systems
- Maintain, inspect, and store fall protection equipment and systems

Retrain whenever:

- Change in workplace operations
- Change in equipment
- A worker can benefit from additional training because of a lack of knowledge or skill

Bannister Electric LLC of West Monroe's employees will be trained on fall hazards before exposed to a fall hazard and how to properly use relevant equipment described in this chapter (e.g. personal fall protection systems, ladders, rope descent systems) before using it.

The training will be provided by a qualified person so the employer understands the following topics:

- How to recognize fall hazards in the work area.
- Procedures that minimize those hazards.
- How to correctly install, inspect, operate, maintain, and disassemble the provided personal fall protection systems.
- How to correctly care for, inspect, store, and use equipment and personal fall protection systems before they use it.
    - Manufacturer specifications for equipment inspection and storage.
    - Hook-up, anchoring, and tie-off techniques.
    - Properly place and secure dockboards against unintentional movement.
    - Proper rigging and use of rope descent systems
    - Working in designated areas for proper set up and use of fall protection equipment.

Bannister Electric LLC of West Monroe's employees will be retrained whenever there is reason to believe the employee doesn't have the understanding and skill to avoid fall hazards and safely use the equipment. Examples include:

- When workplace, fall protection systems, or equipment changes make the previous training obsolete or inadequate.
- When an employee demonstrates inadequate knowledge or skill using fall protection systems or equipment safely.

WALKING WORKING SURFACES

All places of employment – passageways, storerooms, service rooms, and walking-working surfaces - will be inspected and maintained as often as necessary to keep them in safe condition, particularly regarding the surface conditions, hazards, loads, access and egress, and repairs.

Places of employment will be kept in a clean, orderly, and sanitary condition, with the floor maintained in a clean and, where feasible, dry condition. When using wet processes, drainage will be maintained and, where feasible, dry standing places (e.g. platforms, mats) will be provided.

Walking-working surfaces will be kept free of sharp or protruding hazards, loose boards, corrosion, leaks, spills, snow, and ice. The surface also must be able to support the maximum intended load. Employees must use the provided safe access and egress to and from the surface.

Posted load limits of walking working surfaces where equipment or materials are stored will not be exceeded.

Identified hazards will be corrected immediately before an employee uses the walking-working surface again or the hazard will be guarded to prevent employees from being exposed to the hazard until it is corrected. A qualified person will perform or supervise any correction or repair that involves the walking-working surface's structural integrity.

FALL PROTECTION

Employees will be protected from falls and falling object hazards according to the appropriate equipment and procedures in General Industry's 1910 Subpart D and Subpart I.

Unless otherwise stated, the threshold for fall protection is to protect all employees from falling at least four feet to the next lower level by at least one of the following:

- Guardrail
- Safety net
- Personal fall protection system such as:
  - Personal fall arrest system (PFAS)
  - Travel restraint system
  - Positioning system

When fall protection systems or equipment are installed and available they will be used, even when inspecting, investigating, or assessing workplace conditions and the work at hand before starting the work or after completing it.

Unprotected Sides and Edges

Unprotected edges will be protected by at least one of the following:

- Guardrail
- Safety net
- Personal fall protection system such as:
  - Personal fall arrest system (PFAS)
  - Travel restraint system
  - Positioning system

If a written determination by a qualified person demonstrates that all of the above preferred systems are either infeasible or creates a greater hazard, a fall protection plan will be developed according to the requirements of 1926.502(k) with training developed according to the requirements of 1926.503(a) and (c).

Work can be done on a loading dock, loading rack, or teeming platforms without a fall protection system provided:

- A written determination by a qualified person demonstrates the fall protection systems are infeasible.
- Only the work in the determination is in process.
- Only authorized and properly trained employees can access the platform.

Hoist Areas

Hoist areas will be protected by at least one of the following:

- Guardrail
- Personal fall arrest system (PFAS)
- A travel restraint system

Guardrails will have any removable guardrail sections in place when employees are not doing any hoisting work. Gates or chains can be used instead of removable sections If a written determination by a qualified person demonstrates they provide an equal level of safety.

When any removable section or gate is removed during hoisting operations, employees will use a PFAS when leaning over the edge.

Holes

A hole is a gap or open space in a floor, roof, horizontal surface, or a similar surface (e.g. skylight) that is at least two inches in its least dimension.

Holes less than four feet above a lower level will be protected by at least one of the following:

- Covers
- Guardrails

Holes more than four feet above a lower level will be protected by at least one of the following:

- Covers
- Guardrails
- Travel restraint systems
- Personal fall arrest systems (PFAS)

Stairway Floor Holes

Stairway floor holes will be protected by a fixed guardrail on all exposed sides except at the stairway entrance. A hinged floor hole cover and a removable guardrail system may be used for stairways that are used less than once a day and a permanent guardrail blocks traffic across the stairway hole.

Ladderway Floor Holes

Employees will be protected from falling into a ladderway floor hole or platform hole by a guardrail and toeboards on all exposed sides, except the entrance. The entrance will have a self-closing gate or offset.

Hatchway and Chute Floor Holes

Hatchway and chute-floor holes will be protected by at least one of the following:

- A hinged floor-hole cover and a fixed guardrail system with only one exposed side. When not used, the cover must be closed or a removable guardrail is provided on the exposed sides.
- A fixed guardrail where no more than two of the exposed sides are removable. The removable guardrails must always be in place when the hole is not used.

When the work involves employees passing material through a hatchway or chute floor hole, at least one of the following will be used:

- Guardrails
- Travel restraint system

Dockboards

Dockboards (e.g. bridge plates, dock plates, dock levelers) span gaps or elevation differences between a vehicle and the loading platform. They must be able to support the maximum intended load and be designed and maintained with transfer vehicle run-off protection where that is potential hazard.

Portable dockboards will be secured, when feasible, so they don’t move out of position. If it can’t be secured, then there must at least be enough contact with the surface so it won’t move out of a safe position. They will also have handholds or another way to safely handle them.

When using the dockboard, the transport vehicle will be prevented from moving through measures such as wheel chocks or sand shoes.

Employees on dockboards are to be protected from fall hazards of at least four feet with a guardrail system or handrails unless only using motorized equipment on the dockboard or employees are properly trained according to 1910.30 and employees are not exposed to fall hazards more than 10 feet.

Runways and Similar Walkways

Runways and similar walkways will be protected by guardrails along each unprotected side.

If a written determination by a qualified person demonstrates that guardrails on both sides of a runway used exclusively for a special purpose are infeasible, a guardrail on one side can be left off if:

- The runway is at least 18 inches wide, and
- Each employee is given and required to use a PFAS or travel restraint system.

Dangerous Equipment

Dangerous equipment is anything that may harm an employee who falls into or on it such as: vats, tanks, electrical equipment, and equipment or machinery with protruding parts.

Uncovered or unguarded dangerous equipment less than four feet below the walking-working surface will be protected by at least one of the following:

- Guardrail
- Travel restraint system

Uncovered or unguarded dangerous equipment at least four feet below the walking-working surface will be protected by at least one of the following:

- Guardrails
- Safety nets
- Travel restraint systems
- Personal fall arrest systems (PFAS)

Openings

An opening is a gap or open space in a wall, partition, vertical surface, or a similar surface at least 30 inches high and 18 inches wide that an employee can fall through to a lower level.

Openings will be protected by at least one of the following:

- Guardrails
- Safety nets
- Travel restraint systems
- Personal fall arrest systems (PFAS)

This specifically includes openings with chutes attached with the inside bottom edge opening is less than 39 inches above the walking working surface, and the outside bottom edge is at least four feet above a lower level.

Every temporary wall opening shall have adequate guards but these need not be of standard construction.

Repair Pits, Service Pits, and Assembly Pits Less Than 10 Feet Deep

Repair pits, service pits, and assembly pits less than 10 feet deep will have the following precautions that limits access within six feet of the pit edge to properly trained and authorized employees:

- Readily visible caution signs posted that say “Caution – Open Pit” and meeting 1910.145 and at least one of the following:
  - Floor markings for the six foot barrier in a color that contrasts with the surrounding area
  - A warning line at least six feet from the pit edge with stanchions that meet requirements in 1910.28(b)(8)(ii)

Multiple pits in a common area less than 15 feet apart can be within the same barrier of contrasting six foot wide floor markings around the entire area of the pits’ edge.

Low-Slope Roofs

Low slope roofs have a roof slope ratio that isn't more than 4 in 12 (vertical to horizontal).

When working less than 15 feet from the edge, employees will be protected by at least one of the following:

- Guardrails
- Safety nets
- Travel restraint system
- PFAS

When performing infrequent and temporary work between six and 15 feet from the edge a designated area can be used instead.

When working at least 15 feet from the edge, employees will be protected by at least one of the following:

- Guardrails
- Safety nets
- Travel restraint system
- PFAS
- Designated area

When performing infrequent and temporary work, employees will not be allowed to go within 15 feet of the edge without using fall protection.

Slaughtering Facility Platforms

Unprotected sides of slaughtering facility platforms will be protected by at least one of the following:

- Guardrails
- Travel restraint systems

If a written determination by a qualified person demonstrates that these two preferred systems are infeasible for the type of work required, then properly trained and authorized employees don't need fall protection as long as the platform is limited to those authorized employees only during work identified in the written determination.

GUARDRAIL SYSTEMS

Guardrail systems will be designed, constructed, and maintained so they meet the specifications of 1910.29(b) regarding the materials, height, intervals, opening size, overhang, thickness, and strength of: top rails, midrails, screens and mesh, intermediate vertical members, and other intermediate members.

Guardrails will be smooth to prevent catching or snagging on clothing as well as punctures or lacerations. Manila and synthetic rope top and mid rails will be inspected as necessary to ensure they meet the specified strength requirements.

Guardrails will be installed on all unprotected sides of holes. When passing material through the hole, only two sides of the guardrail will be removed.

Guardrail openings at access points (e.g. ladderways) will either have a self-closing gate with appropriate top and mid rails that swings away from the hole or the opening will be offset from the hole so employees are prevented from walking or falling into the hole.

Manholes and open pit door openings shall have standard railings, be protected by removable railings, or be constantly attended.

Standard Guardrails

- Top rail 39 to 45 inches above the working surface, and must be smooth and of a shape to permit grasping easily
- Midrail (center between riser and top rail), screen or mesh (continuous) or intermediate vertical members (not more than 19 inches apart) will be provided between the top rail and working surface
- Guardrail systems will be capable of supporting 250 pounds in the downward or outward direction at any point along the top edge
- Midrail will support a 150-pound load in the downward or outward direction
- Top rails and midrails will be at least 1/4-inch nominal thickness. Plastic or steel banding will not be used
- Chain gates will be used to cover hoisting areas, and the guardrails will extend 4 feet minimum on either side of the opening
- Rails will be so constructed so as not to deflect under test loads. If cable or rope is used it will have tension-adjusting capability and remain taut at all times
- Wood Railings: Wood components will be minimum 1500 lb.-ft. / in.^{2} fiber (stress grade) construction grade lumber. Posts will be at least 2-inch by 4-inch (5 cm x 10 cm) lumber spaced not more than 8 feet (2.4 m) apart on centers. The top rail will be at least 2-inch by 4-inch (5 cm x 10 cm) lumber; the intermediate rail will be at least 1-inch by 6-inch (2.5 cm x 15 cm) lumber
- Pipe Railings: Post, top rails, and intermediate railings will be at least one and one-half inches nominal diameter (schedule 40 pipe) with posts spaced not more than 8 feet (2.4 m) apart on centers
- Structural Steel Railings: Posts, top rails, and intermediate rails will be at least 2-inch by 2-inch (5 cm x 10 cm) by 3/8-inch (1.1 cm) angles, with posts spaced not more than 8 feet (2.4 m) apart on centers

DESIGNATED AREAS

A designated area is safe to work in without additional fall protection with boundaries clearly marked by warning lines designed, constructed, and maintained so they meet the specifications of 1910.29(d) regarding the materials, strength, lowest point, support, visibility, and placement near unprotected edges.

The warning line must be clearly visible from 25 feet away outside the designated area and at all times inside the designated area, installed so that the sag at its lowest point is between 34 and 39 inches above the surface, and supported so that pulling on one section doesn’t affect its compliance in other sections.

Employees will remain inside the designated area without additional fall protection equipment.

Designated area warning lines will be erected as close to the work area as possible and also:

- At least 15 feet from the unprotected edge or,
- At least six feet from the unprotected edge for temporary and infrequent work.

When using mobile mechanical equipment for temporary and infrequent work in a designated area, the warning lines will be erected:

- At least six feet from unprotected edges parallel to the direction the mobile equipment is operated
- At least 10 feet from unprotected edges perpendicular to the direction the mobile equipment is operated.

HOLE COVERS

Hole covers will support at least twice the maximum possible intended loads and will be secured against accidentally being moved. Floor holes into which persons cannot accidentally walk due to the presence of fixed machinery, equipment, or walls will be protected by a cover that leaves no openings more than 1 inch wide and is securely held in place to prevent tools or materials from falling through.

HANDRAILS AND STAIR RAIL SYSTEMS

Hand and stair rails will be designed, constructed, and maintained so they meet the specifications of 1910.29(f) regarding height, minimum finger clearance, surface condition, minimum opening dimensions, handholds, projection hazards, and strength. Manholes and open pit door openings shall have standard railings, be protected by removable railings, or be constantly attended

FALLING OBJECTS

When employees could encounter falling objects hazard, they must wear appropriate head protection and will be protected by at least one of the next three methods:

- Toeboards, screens, or guardrails that prevent objects from falling to a lower level.
- Canopy structures and work practices that keep potential falling objects away from any edge far enough from the edge of an opening to keep them from falling to a lower level.
- Barricading the area objects could fall and prohibiting employees from entering that area and work practices that keep potential falling object far enough from the edge of an opening to keep them from falling to a lower level.

Toeboards for falling object protection will meet the specifications of 1910.29(k) for minimum vertical height, clearance, opening size, and minimum force. Toeboards may be omitted around vehicle repair, service or assembly pits with a written demonstration that toeboards would prevent access to a vehicle over the pit.

Guardrail system openings must be small enough to prevent objects from falling through and canopies will be strong enough to prevent collapse and penetration from falling objects.

Tools, equipment, and materials must not be piled higher than the falling object protection. For example, if the items are higher than the toeboard, a paneling or screening to prevent falls must be installed either to the midrail or top rail so it’s above the piled material.

STAIRWAYS

This covers all types of stairways (e.g. spiral, ship, alternating tread) except for stairs:

- On scaffolds
- For floating roof tanks
- Designed into machines or equipment
- On self-propelled motorized equipment

Standard stairs will be used to provide access to different walking-working surfaces, including accessing equipment operating platforms, when there is regular and routine travel. Spiral, ship, or alternating tread stairs will only be used after demonstrating it's not feasible to provide standard stairs. These different stairs will be installed, used, and maintained according to manufacturer's instructions.

Stairways will be designed, constructed, and maintained so they meet the specifications of 1910.25(b) regarding vertical clearance, riser height and tread depth, stair width, a platform's usable depth, load support, winding stairways, applicability of spiral, ship, or alternating tread stairs, and manufacturer's instructions. For instance: vertical clearance above a stair tread will be at least six feet, eight inches; and the riser heights and tread depths must be uniform between landing.

Specifically, standard stairs will be designed and maintained according to the specifications of 1910.25(c); spiral stairs, 1910.25(d); ship stairs 1910.25(e); alternating tread type stairs 1910.25(f).

Stairway Fall Protection

Each flight of stairs with at least three treads and four risers will have a stair rail system and handrails according to "Table D-2 – Stairway Handrail Requirements" within 1910.28(b)(11)(ii).

Landings will be protected by at least one of the following:

- Guardrail
- Stair rail system

Ship stairs and alternative tread type stairs will have handrails on both sides.

LADDERS

This covers ladders not used in emergencies (e.g. firefighting, rescue) or designed as an integral part of machines or equipment.

Ladder Use

Ladders are only to be used in the way they are designed. Face the ladder when climbing up and down it, using at least one hand to grasp the ladder and don't carry a load or object that could cause you to lose balance and fall.

Inspect ladders at least at the beginning of each shift when they are used and then whenever necessary (e.g. after possible damage) for visible defects that could cause injury. Ladders with defects will be immediately tagged to indicate they are not to be used and removed from service until repaired or replaced.

Ladder Design

Ladders will be designed, constructed, and maintained so they meet the specifications of 1910.23(b) regarding spacing of ladder rungs, steps, and cleats; the ladder's minimum width, and covering stepstools. These include ensuring ladder rungs, steps, and cleats are parallel, level, and uniformly spaced when in use. The surface must not have any punctuation and laceration hazards. Wooden ladders must not be painted or coated in a material that obscures structural defects. Metal ladders must be protected against corrosion.

Mobile ladder stands and mobile ladder stand platforms will be designed, constructed, and maintained so they meet the specifications of 1910.23(e).

Fixed Ladders

Fixed ladders will be designed, constructed, and maintained so they meet the specifications of 1910.23(d) regarding distance from the structure, grab bars, side rails, through ladders, parapet ladders, side rails, rungs, and steps, pitch, minimum perpendicular distance and other construction details.

Cages, wells, and platforms used with fix ladders will be designed, constructed, and maintained so they meet the specifications of 1910.29(g) regarding access, egress, transfer points, clearances, and horizontal surfaces. Specifically, cages and wells will:

- Permit easy access to and egress from the ladder
- Run the length of the ladder except for access, egress, and transfer points
- Contain falling employees and direct them to a lower landing

Existing fixed ladders extending more than 24 feet will be protected by at least one of the following:

- PFAS
- Cage
- Well

New ladders installed after November 19, 2018 will be protected by at least one of the following:

- PFAS
- Ladder safety system

When replacing a section of a fixed ladder, cage, or well, that section will be protected by at least one of the following:

- PFAS
- Ladder safety system

By November 18, 2036 all fixed ladders will be protected by at least one of the following:

- PFAS
- Ladder safety system

Personal Fall Protection Systems and Ladder Safety Systems

A PFAS and Ladder Safety System will protect workers from falling for the entire vertical distance and all sections. There will also be rest platforms at least every 150 feet.

Components of personal fall protection systems used in PFAS, work positioning systems, and travel restraint systems (e.g. body belts, harnesses, lanyards, anchors) will be designed, constructed, and maintained so they meet the specifications of 1910.140.

Ladder safety systems will be designed, constructed, and maintained so they meet the specifications of 1910.29(i) regarding connections, mountings for rigid and flexible carriers, and strength. Ladder safety systems will allow employees to climb up and down using both hands without having to continuously hold, push, or pull any part of the system. Ladder safety systems will not reduce the designed strength of the ladder.

Cages and Wells

Ladder sections with a well or cage will be offset from adjacent sections with landing platforms at least every 50 feet. Cages and wells used with PFAS or ladder safety systems will not interfere with the systems' operation.

Billboards

Workers climbing fixed ladders on billboards before November 19, 2018 that do not have a cage, well, PFAS, or ladder safety system will:

- Wear a body harness with an 18-inch rest lanyard.
- Keep both hands free of tools or material when climbing.
- Be protected by a fall protection system when working.
- Demonstrate appropriate training and physical ability to climb the fixed ladder by successfully completing:
  - A physical examination or being observed performing climbing activities that show physical capability of climbing the ladder.
  - Successfully completing a training or apprenticeship program with hands on ladder climbing training and necessary retraining.
  - Formal classroom or on-the-job training with performance observations.
  - Climbing duties as part of the routine work activity.

Portable Ladders

Rungs and steps must be treated to minimize slipping (e.g. corrugated, coated with skid-resistant material). Step and combination ladders must have a device that securely holds the sections open when being used. Do not use portable single rail ladders.

Follow these rules when using portable ladders:

- Don't exceed the maximum intended load.
- Only use ladders on stable, level, nonslip surfaces, unless they are secured and stabilized against accidental displacement.
- Don't place ladders on unstable bases like boxes or barrels.
- Don't move, shift, or extend a ladder with an employee on it.

- Secure and guard with a temporary barricade: ladders in passageways, doorways, or driveways where they can be affected by traffic or activities.
- Ladders must extend at least three feet above the upper landing surface to access that level.
- Don't use the cap and top steps as steps
- Don't tie or fasten together ladders and their sections if they aren't specifically designed for it.

ROPE DESCENT SYSTEM

A qualified person will direct the use of rope descent systems so they are used according to manufacturer instructions, warnings, and design limitations. The rope descent system will be inspected at the start of each shift it will be used for damaged or defective equipment that will be tagged and removed from service and replaced immediately.

Equipment

Rope descent systems will have the proper rigging, anchorages, and tiebacks when non-permanent anchorages are used such as counterweights and cornice hooks. Ropes will be protected from destructive conditions such as open flames, hot work, corrosive chemicals, and where they may contact other surfaces that may cut or weaken them (e.g. building, anchorage, or obstruction edges).

All parts of the rope descent system must be capable of sustaining at least 5,000 pounds, with the exception of seat boards, which must support a live load of 300 pounds.

Building owners are responsible for testing, certifying, and maintaining anchorages so they are capable of supporting at least 5,000 pounds in any direction for each employee attached. This responsibility is based on an annual inspection and certification at least every 10 years by a qualified person. Employees will not use these anchorages unless their employer has written information from the building owner that the anchorages are certified.

Each person will use their own independent personal fall arrest system (PFAS) that meets the fall protection regulations.

Use

Employees using a rope descent system at least four feet above a lower level will be protected with a PFAS.

Rope descent systems will not be used higher than 300 feet without a written demonstration on why the area can't be accessed another way or the rope descent system is the safest method. Stabilization will be used at heights of at least 130 feet. At all times, there will be a viable plan to promptly rescue any employee who might fall.

Rope descent systems will not be used when the weather conditions are hazardous such as storms, gusty, or excessive wind.

Tools and equipment (e.g. buckets, squeegees) will be secured so they won't fall using methods like tool lanyards.

WORKING AT A HOST LOCATION

While on a host employer's property, protection for fixed stairways, ladder openings, hatchway openings, manholes, skylights, ramps, and platforms will be not be compromised. Requests to make any changes shall not take place without direct permission from the host employer.

STEP BOLTS AND MANHOLE STEPS

Step bolts will be designed, constructed, and maintained so they meet the specifications of 1910.24(a) regarding: corrosion protection, uniform vertical distance spacing, minimum clear width, minimum perpendicular distance, maximum load, inspection, and replacement criteria.

Newly installed step bolts must support at least four times its maximum intended load. Also step bolts installed in a potentially corrosive environment will be protected against corrosion. Step bolts must prevent the employee's foot from slipping off the end of the step bolt. A step bolt bent more than 15 degrees from perpendicular must be removed and replaced. Each step bolt will be inspected during initial use at the start of the workshift.

Manhole steps will be designed, constructed, and maintained so they meet the specification of 1910.24(b) regarding: load, slip prevention, corrosion protection, minimum clear step width, minimum uniform vertical spacing distance, minimum perpendicular distance, inspection, and maintenance.

Manhole steps will be designed and maintained to prevent slipping. Manhole steps in a potentially corrosive environment will be protected against corrosion. Each manhole step will be inspected during initial use at the start of the workshift.

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

POLICY

Bannister Electric LLC of West Monroe has implemented this policy and procedures to inform workers of the written Working Alone Procedures in the workplace. This ensures the health and safety of workers at the work site.

RESPONSIBILITIES

Working alone safety is a shared responsibility between the Company and its employees.

Employer Responsibilities

- Ensuring all employees are physically fit and capable to perform the job duties assigned
- Training personnel to recognize and manage fatigue
- Responding quickly to eliminate workplace hazards
- Providing adequate rest breaks
- Ensuring employees follow safe job procedures
- Reviewing job hazard analysis whenever there is a significant change to any element of the job or there has been an injury or illness

Supervisor Responsibilities

- Establishing and maintaining safe and healthful working conditions
- Monitoring employee fatigue
- Ensuring employees are not impaired by illness or medication use
- Setting good examples, instructing their employees, making sure they fully understand and follow safe procedures

Safety Committee Responsibilities

- Assist in training employees to recognize and control workplace hazards
- Monitor the workplace for hazards
- Encourage employees to report hazards
- Implement appropriate controls
- Ensure corrective action is taken promptly

Employee Responsibilities;

- Notifying their supervisors if they are fatigued to the point of not being able to perform their duties safely
- Ensuring they are physically and mentally fit to perform their job functions safely; they must take responsibility for their own safety as well
- Notifying their supervisor if they are taking prescription or over-the-counter medications

- No employee is expected to undertake a job until he/she has received instructions on how to do it properly and safely, and is authorized to perform the job
- No employee should undertake a job that appears to be unsafe
- Employees are to report to a superior or designated individual all unsafe conditions encountered during work
- Personal protective equipment must be used when and where required, and properly maintained

PROCEDURES

Working Alone

Working alone applies when a worker is working alone at a work site, and assistance is not readily available if:

- There is an emergency, or
- The scheduled co-worker(s) is injured or ill
- Bannister Electric LLC of West Monroe will notify its workers when workers will not be permitted to work alone

When Working Alone is Prohibited

- Rescue operations in an Immediately Dangerous to Life and Health (IDLH) atmosphere
- Operations in an IDLH atmosphere during an internal structure fire
- Permit-required confined space entry
- Hot work when other than a minor fire may develop
- Logging Operations
- Tree trimming operations involving electrical hazards greater than 750 volts
- Operations where hazardous procedures are being conducted

Hazard Identification, Elimination and Control

Bannister Electric LLC of West Monroe ensures that before any worker is assigned to work alone or in isolation that a hazard assessment will be performed to identify any potential hazard to that worker.

Dolphus Bannister will perform the hazard assessment. If any hazard(s) are determined through the hazard assessment, Bannister Electric LLC of West Monroe will take measures to eliminate or, if not practicable, reduce said hazard(s).

Communication

The safe work procedure for communication provided for a worker who works alone and persons capable of assisting the worker in an emergency or if the worker is injured or ill is: two-way radio; telephone, cell phone, or; other electronic type of communication.

Dolphus Bannister will ensure that any employee working alone has properly functioning primary and secondary methods of communication and has been adequately trained in their use.

When electronic communication is not practicable or readily available at the worksite an alternate form of communication will be implemented for workers who work alone.

Bannister Electric LLC of West Monroe will ensure:

- Bannister Electric LLC of West Monroe or another competent worker visits the worker,
- The worker contacts Bannister Electric LLC of West Monroe or another competent worker,
- The visits or contacts will be at intervals of time appropriate to the nature of the hazards associated with the work being performed by the worker.

Procedures for Checking the Well-being of a Worker

It is the determination of Bannister Electric LLC of West Monroe to implement written procedures, in consultation with the joint committee or worker health and safety representative, for checking the well-being of any worker assigned to work alone or in isolation.

The written procedures include: a system to check on the worker (well-being) at regular time intervals, including a final check at the end of the work shift; procedures to follow when the worker cannot be contacted, and provisions for emergency rescue.

Contact Person

A designated worker will be assigned to establish contact with the worker at regular predetermined intervals and shall record the results each time he/she establishes contact.

Emergency Procedures

Bannister Electric LLC of West Monroe will implement emergency procedures taking into consideration the length of time missing, weather conditions, physical fitness, etc..

In the event of an emergency:

- Report emergencies to local fire and police departments
- Inform the emergency chain of command of an emergency
- Warn employees about the emergency
- Conduct an orderly, efficient workplace evacuation
- Assist employees with disabilities or injuries during an evacuation
- Shut down critical equipment, operate fire extinguishers, and perform other essential services during an evacuation
- Account for employees at a designated safe area after an evacuation
- Perform rescue and first aid that may be necessary during an emergency

In the event that the lone worker cannot be contacted by Bannister Electric LLC of West Monroe or the lone workers known associates, an employee search will be initialized. The employee search will include notifying the local fire and police departments

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**

DISCLAIMER

OSHA's "Safety and Health Regulations" are continuously being reinterpreted. Therefore, Safety Services Company is unable to completely guarantee the exactness of the information conveyed in this publication. Safety Services Company assumes no responsibility and shall be held harmless for any inaccuracies or omissions contained within this manual and shall not be held liable to any extent or form for any injury or loss resulting from the manner in which this information is interpreted and/or applied.

Careful effort has been dedicated in order to provide a simplified, understandable explanation of OSHA regulations based on currently available information. This "Safety and Health Manual" is distributed with the agreement that Safety Services Company is not employed in providing legal or other specialized business services. Should expert assistance be required, retain the services of a competent professional.

Safety Services Company

P.O. Box 27148 Tempe, Arizona 85285-7148

Toll Free (866) 204-4786

Toll Free FAX (866) 556-0004

Toll Free Customer Service (866) 644-9630

e-mail ssc@safetyservicescompany.com

www.safetyservicescompany.com

NOTES

NOTES

EMPLOYEE SIGNOFF

This is to certify that I have received a copy of the Company Health, Safety and Environment Manual.

I have read these instructions, understand them, and will comply with them while working for the Company.

I understand that failure to abide by these rules may result in disciplinary action and possible termination of my employment with Bannister Electric LLC of West Monroe

I also understand that I am to report any injury to my foreman or superintendent immediately and report all safety hazards.

I further understand that I have the following “Safety Rights”:

- I am not required to work in any area I feel is not safe.
- I am entitled to information on any hazardous material or chemical I am exposed to while working.
- I will not be discriminated against for reporting safety concerns.

Employee Name	Signature	Date

Supervisor Name	Signature	Date

cc: Employee File