EAGAN
DESIGN + BUILD

HEALTH AND SAFETY PROGRAM

2026 Safety Manual

TABLE OF CONTENTS

OUR SAFETY PROGRAM

Eagan Building Group (EBG) recognizes it is widely accepted that a "Program" approach is a highly effective means to successful safety performance. Supported by an aggressive, dedicated senior management team will further ensure the necessary commitment at all levels of the organization. An employee-based group with a sincere interest in the health and safety of every employee, will further stimulate the impetus to attain the goal of "Zero Injuries."

EBG is committed to providing a safe and healthy environment for its employees and visitors. To meet this goal, EBG has established this comprehensive Safety and Health Program.

Program Goals

- Provide an environment free from recognized hazards.
- Prevent injuries, fatalities, and property loss from accidents, catastrophes, and environmental hazards.
- Maintain regulatory compliance and strive for continual improvement.
- Instill safety as a core value, making safety a way of life, not just at the workplace, but at home and at play also.

To accomplish this, our employees will be provided with a safe and healthy workplace. Every effort will be taken to identify and eliminate hazardous conditions and practices, and minimize the possibility of employee injuries and accidents with the end goal being "Zero Injuries!"

The member of management in charge of each department or location is responsible for the maintenance of working conditions and ensuring safe work habits are practiced at all times. Every employee must perform their duties in compliance with safety instructions and regulations and to strive to eliminate all injuries.

EBG management is responsible for planning, promoting, and monitoring safe working practices in compliance with all company rules and regulations, and those of all state and federal regulatory agencies. All employees are urged to report all unsafe conditions and acts immediately.

On-time delivery of a quality service is attainable and possible without personal injury and accidents. Empowering every employee to take responsibility for their own actions and to actively support accident and injury prevention activities is the foundation of a successful Safety Program. Your participation in this effort is both expected and appreciated!

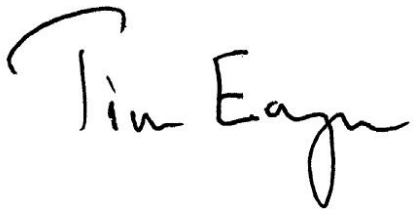
POLICY STATEMENT

Eagan Building Group is committed to maintaining a workplace that is safe, healthy, and injury-free. Our employees are our most valuable assets, and their safety and health are our first priority.

Safety is essential to all business functions and is never compromised under any circumstance. Every employee has a responsibility to maintain our work environment including reporting hazards and working toward preventing accidents.

I appreciate your full cooperation to follow our safety program and make our workplace safe, healthy, and injury-free.

Sincerely,



Tim Eagan
President

DRUG AND SUBSTANCE ABUSE POLICY

Eagan Building Group (EBG) is committed to providing a safe working environment, free of drug and alcohol abuse at each of its locations and in each of its Company-owned vehicles. In order to achieve these standards, EBG prohibits the possession, use, distribution, or presence of controlled substances or alcoholic beverages by any of its employees while on the job or in any of its vehicles. Violation of this policy is cause for immediate discharge.

The policy is not designed to include random drug testing. This policy does not include drugs prescribed by a licensed medical physician, or over-the-counter drugs when used in prescribed doses and which do not impair employee mental acuity or safety performance.

It is EBG's policy to establish a jobsite drug and substance abuse testing-for-cause program when required by the client.

On EBG's projects where the client does not require a drug-testing program, the Company manager or foremen may determine the need to implement a testing-for-cause program.

Post-accident drug or alcohol test will be conducted at the medical provider in accordance with the company's Drug-Free Workplace Policy.

EDUCATION AND TRAINING

In order to ensure employees are educated on job hazards, proper job operating procedures and required personal protective equipment, EBG will train employees through various methods depending on the job task. These include: on the job training, job instructional training, and regular reviews of safety topics. Training will be given to all new employees, employees transferring jobs or performing new tasks and as needed by best practices or to reinforce the employee's knowledge. Some duties that expose the employee to specific hazards have their own training requirements. These exposures and training requirements are outlined in Section C-Best Practices of this program. Examples include: confined space entry, handling hazardous chemicals and entering areas where harmful plants or animals are present.

NEW EMPLOYEE ORIENTATION TRAINING

All employees will be given orientation training to include: review of the general company rules, reporting accidents, requirements for reporting unsafe conditions or actions and review of the drug and alcohol policy. Specific training will be provided to employees as it relates to their job duties. All training will be conducted prior to performing any work duties. The employee will acknowledge they received the training by signing the Orientation Training Checklist.

ON-THE-JOB TRAINING (OJT)

OJT will be performed as necessary. This training method is used for a job that can easily be demonstrated to the employee. The trainer will demonstrate the job and observe the employee performing the same operations. The employee will confirm their knowledge by safely performing the job.

REFRESHER TRAINING

Training of employees can be performed at any time based on employee needs as determined by the superintendent. Accident trending, near miss incidents or as a means to heighten employee awareness based on observed behaviors, are all reasons for conducting training. OSHA and other governing agencies require formal beginning and refresher training of Best Practice programs. These training requirements will be covered in each Best Practice section of this safety program.

Company Safety Rules

- Report all **unsafe conditions and actions**.
- All **sub-contractors** must check-in before beginning work.
- **Report all accidents or** near-miss incidents to your superintendent.
- Do not bypass, remove, or disable any **safety device** or system.
- **Understand our job**. Know and understand your responsibilities. Ask you superintendent if you are unsure.
- **Only authorized and trained employees** will operate company machinery, equipment, or vehicles.
- **Housekeeping**. Maintain good housekeeping at all times. All contractor employees, and its sub-contractors shall maintain walkways clear and free of debris, trash, and trip hazards. All contractors are equally and individually required to clean up after every work day. Stairs, aisles, and hallways must be kept clear of unnecessary litter or material in the shop, office and on each job site.
- Use the **appropriate tool for the job,** as trained by your superintendent or manufacturers' instructions. Use only tools you have been trained to operate.
- Always wear personal protective equipment **(PPE)** as required. Job hazards will dictate the use of Hard Hats, Steel/composite toe boots/shoes, eye/face protection, high-visibility clothing and/or hearing protection.
- **Follow the safety policies and procedures** as outlined by tool/equipment manufacturer and as instructed by supervision.
- Perform regular **equipment and area inspections** as required by superintendent.
- **No use of illegal drugs or alcohol** as outlined by the terms of the company's Drug and Alcohol policy.
- Employees taking **physician-prescribed medication** that might impair their ability to operate certain equipment or perform various job tasks safely must report this to their immediate superintendent prior to the start of work. **advising management of severe allergies**
- Employees should strongly **consider reporting allergies** to certain foods, materials, or insect stings/bites that may be encountered.
- **No firearms or weapons** shall be present on the property, or in your possession including your vehicle, on the parking lot or on the jobsite.
- Always **wear your seatbelt** while operating any company vehicle.
- **Do not text while driving**. Use hands-free communication options when talking while driving.
- Report all **equipment maintenance** issues to your superintendent.
- **Refrain from horseplay** that could endanger you or your co-workers.
- Never engage in **verbal abuse, threatening or hostile actions** against other employees, associates, or clients.
- **Report all hostile actions** of co-workers to your superintendent.
- Smoke only in designated areas. No use of tobacco products in company vehicles.
- **Maintain good personal hygiene.**
- **Sexual harassment** is not only prohibited by Eagan Building Group, but is also prohibited by state, federal, and, where applicable, local law. This policy is detailed in the Employee Handbook.
- Traffic violations incurred while operating company vehicles are the responsibility of the driver.
- **Stop Work Authority**. All EBG employees have the right to stop work when unsafe conditions occur.

FIRST AID

First aid is the immediate and temporary care given to the victim of an injury or illness. Its purpose is to preserve life, prevent deterioration of a condition and to support recovery. Know where the first aid located in the shop and office, be familiar with the means to contact emergency services and notify the appropriate personnel in the event of injury or illness. Report all injuries immediately, no matter how minor. Whenever possible, first aid should only be administered by qualified and trained personnel. The following first aid procedures are to be utilized only in the case of an extreme emergency when fast action is necessary to support or sustain life and health.

BLEEDING

To control bleeding, apply direct pressure on the wound using a clean towel, rag, or just your hand(s). Raise the injured limb above the heart as long as doing so does not compromise or worsen other injuries to the limb (broken bones, compound fractures,)

HEART ATTACK

Call 911 and send for medical aid at once. Do not move the person unless absolutely necessary. Support the person in a sitting position, loosen tight clothing, and calm the patient. If breathing stops, commence with CPR if you are properly trained or send for a qualified/trained person to administer CPR. Per the Heart Association, do not give the patient any liquids, food, or OTC medication unless you are properly trained and certified or told to do so by the 911 operator/medical professional.

SHOCK

Call 911 and send for medical aid at once. Shock occurs after a serious injury. It may become more dangerous than the original injury. Treatment is more effective if it begins before symptoms appear.

- Dilated pupils, rapid/irregular breathing, pale, moist or cold skin and a weak rapid pulse are all signs of shock.
- Keep the person warm and positioned with the feet elevated to promote circulation to the head and vital organs. Turn the head to one side to prevent choking or aspiration.
- To treat for ELECTRICAL SHOCK, turn off the current or, use a dry stick, board, or other non-conductive object to separate the victim from the power source.
- Begin first aid (burns, shock, or possible hear attack are likely results of serious electric shock.)

BURNS

For thermal burns, send for medical aid immediately. For most burns, immediate application of the Burn-Jel product found in all first aid cabinets is the best treatment. This product is available as a crème, and as a treated pad. Either can be applied directly to the burned area of the body (except the eyes). Be prepared to treat for shock if burned area is large or extensively damaged.

RESUSCITATION

Call 911 and send for medical aid immediately. Place the victim on their back and proceed with the following:

- Turn head, clear throat/air way of water, mucus, foreign objects, etc.
- Tilt head back (chin points to ceiling, forehead tips back) and open-air passage.
- Pinch nostrils closed
- Seal your lips around victim's mouth
- Blow into victim's mouth until you see the chest rise.
- Remove your mouth and watch for natural exhalation action.
- Listen for snoring or gurgling noises as sure signs of throat obstruction/injury
- Keep throat and air passage clear as you repeat breathing for victim until help arrives, or until you are relieved.

While these techniques are generally considered basic first aid, they are not intended to provide a level of competence in the administration of the procedure(s). Administration of basic First Aid is acceptable however CPR and Mouth-to-mouth resuscitation require specific training and recognition as a 'competent person.'

PERSONAL PROTECTION EQUIPMENT (PPE)

I. POLICY

The following are compliance guidelines for hazard assessments and selections of personal protective equipment (PPE) as stated in the O.S.H.A. regulation, and adopted by EBG.

1. The workplace will be assessed for hazards that are present or are likely to be present at each workstation, and it will be certified that the assessment was completed.
2. Data will be obtained for the type of hazard, the level of risk, seriousness of potential injury, and the possibility of exposure to more than one hazard. The evaluation will be made using a risk analysis.
3. PPE will be selected for all potential hazards. If an area is exposed to more than one hazard, the PPE will be selected for the most severe.
4. Selection decision will be communicated to the employee.
5. PPE will be fitted to each employee.
6. Training of employees will include:
    a. What type of PPE is necessary?
    b. When the PPE is required to be used.
    c. How to use the PPE.
    d. PPE limitations.
    e. The proper care, maintenance, disposal, and reissue procedure.
    f. Follow up will be made on fit testing, wearing of PPE, and damaged equipment replacement.

g. Reassessment of hazards will be made when necessary, due to new machines, changes in the operation, new processes, review of accident records or reevaluation of the suitability of previously selected PPE.
h. It shall be the policy of EBG to review and update this procedure at least annually, and comply with all aspects of the PPE regulation.

II. APPLICABILITY

Safety glasses are required whenever an employee is exposed to flying particles or excessive dust. Safety glasses with side shields are required in any area where grinding or other forms of dust or flying debris is present. Safety glasses with side shields or goggles should be worn when there is a danger of material splashing into the eyes. A full-face shield and safety glasses are recommended anytime an employee is working with acid or caustic materials. Employees of EBG and its sub -contractors engaged in welding, chipping, or grinding, must wear safety glasses even when they are wearing a welding helmet. Eye and/or face protection will also be required while operating or working in the immediate vicinity of pneumatic tools powder actuated drivers, or whenever there is work creating risks to the eyes or face, or when heavy dust accumulations are present. All office personnel, contractors, and visitors at EBG are also required to wear safety glasses when risks of injury to the eyes and face are possible. Plano safety glasses are available for those instances.

III. RESPONSIBILITY

EBG shall routinely:

- Write and update the PPE Procedure as needed.
- Assess the workplace for potential hazards.
- Select Personal Protective Equipment that satisfies the requirements.
- Provide and document training to employees & Superintendents on the use and fitting of PPE.

The Superintendent shall:

- Provide fitting and training of employees for PPE.
- Monitor and enforce the PPE policy.
- Issue new and replace damaged PPE.
- Notify the Safety Office when there is a change in machinery or process that may affect the use or type of PPE, or require additional training.
- Notify all applicants of the PPE that is required.
- Maintain an inventory of safety glasses for distribution to employees and to visitors.

All EBG Employees shall comply with this procedure while and where ever employed by EBG.

Anyone bringing visitors or outside contractors into the facility shall:

- Notify visitors or contractors of the safety equipment required, and issue “loaner” PPE for their use while in our facility.
- Monitor the visitors or contractors to be sure the PPE is being properly used.

EYE AND FACE PROTECTION POLICY

It is the policy of EBG that everyone must wear safety glasses as minimum eye protection, and that office or outside personnel that have risk of eye injuries must also wear eye protection. All eye and face protection must meet or exceed ANSI Z87.1-1989 standard.

Safety glasses are issued to all employees and any other employee whose duties regularly require trips into the shop or any job site. All other employees may obtain glasses on a temporary basis from the Human Resources department.

PRESCRIPTION GLASSES

Employees who wear prescription glasses shall wear safety glasses that incorporate their prescription and meet ANSI Z87.1-1989, or shall wear safety eye protection that fits over their prescription glasses.

Prescription safety glasses may be obtained from an authorized eye care specialist. If you need prescription safety glasses contact the Human Resources department for the name and location of an eye care specialist that can examine your eyes and provide safety glasses.

The company will reimburse the employee toward an eye examination, and a pair of prescription safety glasses, once a year. Glasses must meet the ANSI Z87 standard. Reimbursement dollars is explained in detail in the employee handbook.

SAFETY FOOTWEAR POLICY

All applicable employees of EBG are required to wear safety footwear complying with ANSI Z41 standard, when performing their duties. Safety footwear includes, but is not limited to, steel or composite toed shoes.

APPLICABILITY

This procedure applies to all employees of EBG, who work in the following departments or areas:

- All production employees.
- All foremen, project managers, and superintendents

PROCEDURE

Employees will be charged all costs exceeding $100.00.

Safety footwear may be purchased elsewhere as long as compliance with the ANSI Z41 standard can be proven (noted on box, paper packed with shoes, etc.). Bring the receipt or other proof of purchase and proof of compliance, and you will be reimbursed up to $100.00.

If you are not able to wear safety shoes or boots, there are several sources of foot protection that you may purchase from and the company will assist you in the selection and evaluation of the options.

RISK ANALYSIS

Each job function shall be analyzed for frequency of the exposure, the risk of injury, and the potential for injury and a determination made as to the risk potential.

HEARING CONSERVATION

I. PURPOSE

The purpose of this program is to ensure that all job site activities are evaluated for high noise and that employees that are exposed to noise that exceeds the limits set by OSHA, are given hearing protection and the training necessary to use it, and to have their hearing tested within one year of their original exposure to the noise, and annually thereafter.

II. PROCEDURE

A. All EBG employees working in an area that is above the 85 dBA threshold averaged over an 8-hour period) will be required to wear hearing protection while in the elevated noise area. Hearing protection will be provided to the employee at no cost, and the proper method of using the hearing protection will be explained by the employee's superintendent.

B. Employees who are in a high noise area continuously during a one-hour period are also required to wear hearing protection.

C. Employees who are exposed to noise levels above 85dBA must have a baseline audiogram run within one year of the exposure. The employee shall have an audiogram annually thereafter as long as they are exposed to an area where the noise is at or above the action level.

D. The annual audiogram shall be compared by a qualified audio technician to the employee's baseline audiogram to determine if there has been a significant loss in their hearing, normally referred to as a "Standard Threshold Shift."

E. If there is a standard threshold shift of an average of 10dB at the 2,000, 3,000, and 4,000Hz ranges, and the audio technician determines that the shift is not age related, the employee shall be notified, in writing, within 21 days of the determination, and a re-test shall be scheduled.

F. If the re-test confirms the hearing loss, the employee must be notified within 21 days and the following steps taken:

i. If the employee is not using hearing protection, then they shall be given hearing protection, trained in its use, and required to use them.

ii. If the employee is currently using hearing protection, they will be retrained in their use and provided with protection of a higher NRR if necessary.

iii. The employee will be sent for a clinical audiological evaluation or an otological examination, if additional testing indicates that the problem may be medical.

H. All hearing conservation records shall be maintained by the Personnel Department. All employees, former employees, designated representatives of an individual employee, and the Assistant Secretary shall have access to these records upon request.

I. If the employer ceases to do business, the employer shall transfer to the successor employer all records required by this section, and the successor employer shall retain them for two years.

III. RESPONSIBILITIES

A. The superintendent of any area that has been designated as a high noise area must provide hearing protection and the proper instruction in its use to all employees in the area.

B. The superintendent of any high noise area is responsible for assuring that all EBG employees wear their hearing protection.

C. The Personnel Dept. is responsible for scheduling hearing test, and for the required record keeping.

D. EBG management is responsible for the annual audiometric test and to make sure that all aspects of the Hearing Conservation Program are followed.

E. EBG management is responsible for the annual re-training of all employees who work in any area where noise level exceeds 85dBA. The training shall include –

i. The effects of noise on hearing,

ii. The purpose of hearing protectors, the different types of hearing protection, and the advantages and disadvantages of each.

iii. The purpose of the annual audiometric testing and how to interpret the results.

RESPIRATORY PROTECTION

I. PURPOSE

The purpose of this program is the control of those occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors, the primary objective shall be to prevent atmospheric contamination. This shall be accomplished as far as feasible by accepted engineering control measures (for example, enclosure or confinement of the operation, general and local ventilation, and substitution of less toxic materials). When effective engineering controls are not feasible, or while they are being instituted, appropriate respirators shall be used pursuant to this section.

II. PROCEDURE

A. EBG employees work in construction environments which create a myriad of risks and hazards on a day-to-day basis. Exposure to respiratory hazards is taken seriously by EBG management and will be dealt with on a job-by-job basis. Pre-work assessments are done for each job site. Personal monitors have been employed to measure the exposure to the various dusts and air-borne contaminants with a third-party lab analysis done to ascertain the exposures. We utilize HEPA rated filter units on each job site to reduce the concentration of respiratory hazards, and require particle dust masks be worn when conditions dictate their use. The most likely respiratory risks come from accumulation of dusts found in the cutting, sanding, grinding, or drilling of wood and/or steel studs or wall panels.

APPLICABILITY

This procedure applies to all employees of EBG, who work in the following departments or areas:

- All production employees.
- All foremen, project managers, and superintendents.

III. RESPONSIBILITIES

A. The job site foreman will be responsible to determine the need for and enforce the use of respirators.
B. EBG management shall ensure that pre-work sampling and analysis of suspect materials is conducted to determine the nature and level of potentially hazardous materials that may become airborne pollutants and/or health risks.

BLOODBORNE PATHOGENS

I. APPLICABILITY

This procedure is limited to persons who render first aid only as a collateral duty, responding solely to injuries resulting from workplace incidents. There are no employees who are designated to respond to an injury and provide first aid treatment.

Non-routine activities that potentially may expose a person to bloodborne pathogens include treatment of open wounds, cardiopulmonary resuscitation (CPR), cleaning of a blood spill, or handling a sharp object that had punctured or cut someone.

BACKGROUND

Bloodborne pathogens are pathogenic microorganisms that are present in human blood and other body fluids and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

Other body fluids that can contain pathogenic microorganisms include semen, vaginal secretions, cerebrospinal fluid (around brain and spinal cord), synovial fluid (around joints), pleural fluid (in the chest cavity), pericardial fluid (around the heart), peritnoeal fluid (in the abdominal cavity), amniotic fluid (around unborn child), saliva, and any body fluid that is visibly contaminated with blood.

Bloodborne pathogens are not typically found in feces, nasal secretions, sputum, sweat, tears, urine, and vomitus unless they contain visible blood.

II. ROUTES OF ENTRY

Blood or other infectious material can enter your bloodstream through these routes of entry:

- Unprotected openings in the skin such as a cut, scratch, scrape, or dermatitis.
- Unprotected mucus membrane openings such as the eyes, the nose, or the mouth.
- Penetration of the skin by a sharp object, such as broken glass, a needle, a knife blade, or the sharp edge of a piece of material.

It is important to remember that in order for you to become infected both the source blood or fluid must be infected and there must be a route of entry.

III. UNIVERSAL PRECAUTION

Universal Precautions are defined as a set of precautions designed to prevent the transmission of HIV, hepatitis B virus (HBV), and other bloodborne pathogens when providing first aid. Under universal precautions, blood and other body fluids are considered potentially infectious.

Universal precautions apply to blood and other body fluids containing visible blood. Universal precautions do not apply to feces, nasal secretions, sputum, sweat, tears, urine, and vomitus unless they contain visible blood.

- All persons should be considered as potentially infected with bloodborne pathogens.
- Hands must be washed immediately if they are contaminated with blood or body fluids.
- Gloves should be worn if contact with blood or body fluids is anticipated. Gloves should not be reused, and hands should be thoroughly washed immediately after removing the gloves.
- Disposable items contaminated with blood or body fluids should be discarded in a red bag labeled “Infectious Waste.”
- Non-disposable items should be decontaminated with a disinfectant solution.

IV. DECONTAMINATION PROCEDURE

Hands, arms, etc. – Wash hands completely immediately or as soon as possible after removing gloves with soap and water. Rub your hands together for at least 10 seconds; wash all surfaces well, including wrists, palms, backs of hands, fingers, and under your fingernails. Dry your hands completely with a clean towel, if possible, if not, it is okay to air dry your hands.

Surface Decontamination – A solution that is appropriate for the cleaning of blood or other potentially infectious materials (OPIM), is household bleach and water, diluted between 1:10 (1 ½ cups bleach in 1-gallon of water). Allow it to stand for 3 minutes, and then wipe the surface with a paper towel.

For the greatest effectiveness, prepare the bleach solution and allow it to stand for 30 minutes before using. **Never mix bleach with products containing ammonia.**

V. DISPOSAL

Materials used to clean up after an accident or injury should be placed in a container which is closable, constructed to contain all contents and prevent leakage, appropriately labeled or color-coded, and closed prior to removal to prevent spillage or protrusion of contents during handling.

Red bags labeled “Infectious Waste” are available for this purpose, but if a box is required it must be sealed and clearly marked as “Infectious Waste.” The sealed container should be put into the trash compactor for disposal in the landfill.

VI. INCIDENT REPORTING

If an exposure incident occurs, the incident must be reported to your superintendent immediately, and the report must include:

- Name of the exposed individual.
- Date and time of the incident.
- Circumstances surrounding the incident.
- Determination of the extent of the exposure.
- Action taken as a result of the incident.

VII. POST-EXPOSURE EVALUATION AND FOLLOW-UP

When an employee reports an exposure incident, the employer shall make immediately available to the employee a confidential medical evaluation and follow-up. Specific requirements are specified in the OSHA standard 1910.1030 (f). Employees who experience an “exposure incident”

- Must be reported to the employer before the end of the work shift during which the incident occurred. The report must include the name(s) of all first aid providers who rendered assistance, a description of the first aid incident, including time and date. The report must also include a determination of whether or not an “exposure incident” occurred. This employer shall make available to the exposed employee a confidential medical evaluation and follow-up.

- A report is made that lists all such first aid incidents that is readily available, upon request, to all employees.

- Provisions for the full hepatitis B vaccination series to be made available as soon as possible, but in no event later than **24-hours after the exposure incident**, to all unvaccinated first aid providers who rendered assistance in any situation involving the presence of blood or other potentially infectious materials (OPIM). If the employee chooses not to have the vaccination series, he must sign a “Decision to Decline” form available from Health & Safety.

FALL PROTECTION

I. POLICY

EBG is dedicated to the protection of its employees, affiliates, and sub-contractors from on-the-job injuries. All employees of EBG have the responsibility to work safely on the job. The purpose of this policy is to supplement our standard safety policy by providing safety standards specifically designed to cover fall protection. The term Fall Protection covers many conditions routines found in construction. Slips, Trips, and Falls from materials, floor openings and skylights, uneven flooring, working at elevation, leading edge work, roof edges, ladders, scaffolds, and/or improperly secured (fall protection) access points.

II. SCOPE

Any employee of EBG who is not standing on a ladder, is working six feet or more above the floor, and is not protected by a safety railing must wear fall protection equipment.

III. RESPONSIBILITY

EBG has the responsibility to develop a fall protection program that complies with mandated regulations. It is equally responsible to develop and implement the fall protection program.

It is the responsibility of the superintendent to ensure that the correct and approved equipment is available, the equipment is in good condition, and that only employees who understand the proper procedures and follow these procedures will be allowed to work on elevated equipment. The superintendent shall correct any unsafe acts or conditions immediately.

It is the responsibility of the employee to understand and adhere to the procedures of this plan and to follow the instructions of their superintendent. It is also the employee's responsibility to bring to management's attention any unsafe or hazardous conditions or acts that may cause injury to themselves or any other employee.

IV. FALL PROTECTION EQUIPMENT

The ABC's of a Personal Fall Arrest System

A Personal Fall Arrest System is made up of several components; an anchor point, body wear, and a connecting device. Individually, these components will not provide protection from a fall. Used properly in conjunction with each other, they form a system that becomes vitally important to safety on the job.

V. ANCHOR POINT CONSIDERATIONS

You should use an anchor point made specifically for fall protection when using a body harness and lanyard, but if this is not available, the following points should be kept in mind

- Make sure the anchor point is strong enough – the fall protection system is only as strong as its weakest link. An anchor point must be able to withstand a force of 5,000 lbs per worker, and be located a safe distance above any lower obstacles.

- An anchor point located at the level of the employee's feet is not desirable. **Whenever possible** the anchor point should be shoulder high. When this creates an unsafe condition or is not possible, any anchor point capable of withstanding the required fall force is acceptable and preferred over the potential injuries from a fall from height.

- Do not attach similar connectors together. For example, do not attach a self-locking snap hook to another self-locking snap hook. Attach a snap hook to a ring connector.

Portable Fall Arrest Pole (Davit)

The anchorage point will consist of a steel plate with two parallel uprights securely welded to the tank itself. The upright plates will have a clear hole for the attachment of an anchor pole.

Anchor poles are made of steel tubing with two plates welded to one end with a hole for pinning the pole to the anchorage point. On the opposite end a second flange will provide holes for attaching the lanyard. This will provide the employee with an attachment point above the work surface. **The anchor point and the upright are designed to withstand 5,000 pounds of force.**

The body harness consists of straps and buckles, which are secured about the employee in a manner that they will distribute the fall arresting forces on the body.

Attached to the harness is an auto-retracting lifeline terminated with a snap hook for attaching to the anchor pole or some other suitable anchor point.

Body Wear (Harness) Inspection

The only form of body wear acceptable for fall arrest is the full body harness (since January 1, 1998, body belts should be used for work positioning only). The full body harness will limit the forces on a body to a safe level in the event of a fall.

Harness and Body Belt Inspection

1. Webbing – Grasp the webbing with your hands 6 – 8 inches apart. Bend the webbing in an inverted “U” and visually inspect for damage or separation of threads. The surface tension resulting makes damaged fibers or cuts easier to detect. Follow this procedure the entire length of the webbing, inspecting both sides of each strap. Look for frayed edges, broken fibers, ripped or pulled stitches, cuts, burns, and chemical damage. Make sure the webbing joints are not loose.

2. D-Rings/Back Pads – Check D-rings for distortion, cracks, breaks, and rough or sharp edges. The D-ring should pivot freely. Also, check the attachment point of the D-ring to make sure it is secure.

3. Attachment of Buckles – Inspect for any unusual wear, frayed or cut fibers, or broken stitching around the buckle.

4. Tongue/Grommets – The tongue receives heavy wear from repeated buckling and unbuckling. Inspect for loose, distorted, or broken grommets. Webbing should not have additional punched holes.

5. Tongue Buckles – Buckle tongues should be free of distortion in shape and motion. They should overlap the buckle frame and move freely back and forth in their socket. Roller should turn freely on the frame. Check for distortion or sharp edges.

Cleaning and Storing

Storage areas should be clean, dry, and free of exposure to fumes or corrosive elements. Wipe off all surface dirt with a sponge dampened in plain water. Squeeze the sponge dry. Dip the sponge in a mild solution of water and commercial soap or detergent. Clean the harness by working up a lather with a vigorous back and forth motion, and then wipe the harness dry with a clean cloth. Hang the harness freely to dry, but away from excessive heat, steam, or in direct sunlight

6 Easy Steps that Could Save Your Life

Step 1

Hold harness by back D-ring. Shake harness to allow all straps to fall in place.

Step 2

If chest, leg and/or waist straps are buckled, release straps and unbuckle at this time.

Step 3

Slip straps over shoulders so D-ring is located in middle of back between shoulder blades.

Step 4

Pull leg strap between legs and connect to opposite end. Repeat with second leg strap. If belted harness, connect waist strap after leg straps.

Step 5

Connect chest strap and position in midchest area. Tighten to keep shoulder straps taut.

Step 6

After all straps have been buckled, tighten all buckles so that harness fits snug but allows full range of movement. Pass excess strap through loop keepers.

Connecting Device (Personal Fall Limiter)

1. Do not use the unit if any part of the system appears to be damaged.
2. Do not use the unit if it has been subject to fall arresting forces. Remove the unit from service.
3. Do not attempt to service this device.
4. The lanyard must be kept clean.
5. Do not attach similar connectors together. For example, do not attach a self-locking snap hook to another self-locking snap hook. Attach a snap hook to a ring connector.
6. Never allow the lanyard to become slack or to pass under or entwine around the user's arms, legs, or any other obstacle or person.
7. Do not allow webbing lanyards to come into contact with anything that will damage the lanyard including but not limited to sharp, abrasive, rough, or high temperature surfaces, welding, heat sources, electrical hazards, or moving machinery.

Connecting Device Inspection

1. Snaps – Inspect closely for hook and eye distortions, cracks, corrosion, or pitted surfaces. The keeper (latch) should seat into the nose without binding and should not be distorted or obstructed. The keeper spring should exert sufficient force to firmly close the keeper. The keeper lock must prevent the keeper from opening when the keeper closes.

2. Thimbles – The thimble must be firmly seated in the eye of the cable, and the cable should have no loose or cut strands. The edges of the thimble must be free of sharp edges, distortion, or cracks.

3. Wire Rope Lanyard – While rotating the wire rope, watch for cuts, frayed areas, or unusual wear patterns on the wire. Broken strands will separate from the body of the lanyard.

4. Web Lanyard – While bending webbing over a pipe or mandrel, observe each side of the lanyard for cuts and breaks. Swelling, discoloration, cracks, and charring are obvious signs of chemical or heat damage. Look closely for signs of broken stitching.

Fall Limiter Inspection

1. Lanyard Retraction: With the device in the mounted position, test the lanyard retraction and tension by pulling out several feet of the lanyard and allow it to retract back into the unit. Always maintain a light tension on the lanyard as it retracts. The lanyard should pull freely and retract all the way back into the unit.

2. If the lanyard does not pull out smoothly or sticks when retracting, pull all the lanyard
3. out of the housing and allow it to retract slowly under tension.

4. Braking Mechanism: The braking mechanism can be tested by grasping the lifeline above the impact indicator and applying a sharp steady pull that will engage the brakes. There

should be no slippage of the lifeline while the brakes are engaged. Once tension is released, the brakes will disengage and the unit will return to the retractable mode.

5. Load Indicator: A load indicator is located in the lanyard above the snap hook. A label will be exposed when subjected to fall arresting forces.

UNITS THAT DO NOT PASS THIS INSPECTION OR HAVE BEEN SUBJECTED TO FALL ARRESTING FORCES MUST BE REMOVED FROM SERVICE.

WORKING AT ELEVATION

I. PURPOSE

To ensure all employees are protected from the risks of working at heights using ladders, lifts, or work platforms.

II. SCOPE

All portable ladders used will be maintained in good working condition and visually inspected before use.

III. RESPONSIBILITY

The department superintendent, his lead, the Safety will conduct and document regular ladder inspections in each department.

CONTROLLED ACCESS ZONES

Typically utilized on roofs or similar elevations, Controlled Access Zones are found wherever a serious risk exists that could cause serious injuries. The CAZ usually requires barricading to physically prevent access to dangerous job site health and safety risks.

1. **ALWAYS** use Caution/Danger tape whenever unique hazards are present. Signs must be attached to the tape identifying the hazard,
    a) **Yellow Caution** tape identifies minor hazard areas and alerts others to the hazard.
    b) **Red Danger** tape identifies areas where a major hazard exists and requires permission from the controlling foreman to enter the zone (example fall hazards greater that 6 feet).

NOTE: No other colors may be uses for this type of flagging or barricading.

2. Crossing through danger tape is considered a serious violation without express "permission to enter" from the controlling foreman.
3. Danger tape may be used to identify temporary wiring and potential hazards (tip hazards, floor/ground openings, etc.)
4. Utilize hard/physical barricades when tighter control of the area is needed.

LADDER SAFETY

When performing work from a stepladder, you are not required to wear a harness, but you are expected to follow the following rules.

- No aluminum or steel ladders are allowed on any EBG job site. Wood or fiberglass ladders only!
- Inspect the ladder thoroughly for missing or damage components. Never use a damaged ladder and never make temporary repairs. Inspect the ladder for loose fasteners. Make sure all working parts are in good working order.
- Inspect wood ladders for cracks and splits in the wood. Never paint a wood ladder; this will cover dangerous cracks.

- Make sure a step ladder is fully opened and the spreaders are locked. It is designed to rest on four feet and when used as a straight ladder, its feet do not sit squarely on the ground; the feet can slip out from under the user when climbed.
- Set all feet on a firm, level surface. Do not place on unstable, loose, or slippery surfaces. Place ladder where access is not obstructed. Do not place ladder in front of unlocked door that could swing into the ladder.
- Make sure the ladder is stable before climbing.
- Keep the steps and rungs of ladders free of grease, oil, wet paint, mud, snow, ice, paper, and other slippery materials. Also clean such debris off your shoes before climbing a ladder.
- Make sure an extension ladder is raised about three feet higher than the surface you will be stepping on. There should be about a three-foot overlap between the lower section and the upper section of an extension ladder.
- The base of an extension ladder should be positioned one-fourth the height of the ladder, or about a 75º angle. Too straight and the ladder can fall; too flat and the ladder will slide down. A good way to judge the angle is to stand at the base of the ladder with your arms extended straight out. The ladder's side rail should fit into the palm of your hand.

Ladder Climbing and Standing

- Perform the required visual/physical ladder inspection before using any type of ladder.
- Always face a ladder when climbing up or down.
- Do not rush. One common reason for ladders falling is the base of a ladder kicking out when workers climb too fast.
- Climb only on the front side of the ladder. Face the ladder when climbing up or down. Maintain a firm grip; use both hands for climbing. Climb using the three-point method, two-hands and one foot or one hand and two feet at all times on the ladder.
- Keep your hands free when climbing. Heavy or awkward items should be raised by alternative means, such as pulling them up on a rope, placing them in a tool belt, or having them handed up to you. (57% of ladder fall victims were holding objects in one or both hands).
- Always keep three parts of your body in contact with the ladder when climbing, holding on with either two hands and a foot, or two feet and a hand.
- Climb and stand on a ladder with your feet in the center of the steps or rungs.
- Do not overreach from a ladder, or lean too far to one side; avoid pushing or pulling off to one side of ladder. Over-reaching is probably the most common cause of falls from ladders. A good rule is to always keep your belt buckle inside the rails of a ladder. Work as far as you can reach comfortably and safely, and then climb down and move the ladder to a new position.
- Do not climb, stand, or sit above second step from the top. Do not straddle front and back. Do not climb, stand, or sit on spreader braces, ladder top, or the pail shelf. Rule of thumb; keep your belt buckle at or below the top of the ladder.
- Do not "walk" or "shift" the ladder while on it.
- Do not climb from one ladder onto another.
- Never use a ladder on scaffolds.
- Do not use a ladder if you are fatigued, drowsy, dizzy, or have any physical condition which impairs your judgment or limits your ability to work safely.
- Never climb a ladder when under the influence of any drugs or alcohol.

Other Safety Rules for Ladders

- Do not leave tools or materials on top of ladders. If they fall, you or a coworker can be hurt.
- Never use a ladder as a horizontal platform, plank, scaffold, or material hoist.

IV. ELEVATED PLATFORM LADDERS

A platform ladder can be a folding ladder with a platform at the working height or it can be a rolling safety ladder. A folding ladder with a work platform should be handled the same as a regular folding ladder and all of the same rules apply.

V. POWERED LIFTS

A powered lift is defined as a platform that is enclosed with a standard railing and toe board that can be raised or lowered automatically. The lift may or may not be capable of moving around under its own power.

The following rules will apply anytime a powered lift is used:

- Lift controls shall be tested prior to the lift being used to verify that the controls are in a safe working condition.
- Only trained and authorized personnel shall operate a powered lift.
- Employees shall always stand on the floor of the platform, and shall not sit or climb on the railing or use planks, ladders, or other devices for a work position.
- The maximum load capacity of the lift shall not be exceeded.

VI. FIXED/PORTABLE WORK PLATFORM

A fixed work platform is a stationary (or portable), elevated surface where work is done. This can be a scaffold or a custom platform. If the work platform is 4 feet or higher, or if it is located next to a machine or other equipment where something falling off the platform will cause serious injury, then a standard rail and toe board must be attached. Scaffolds are inherently dangerous if not inspected, erected and used properly.

- Each scaffold and scaffold component must support without failure its own weight and at least 4 times the maximum intended load applied or transmitted to it. [29 CFR 1926.451(a)(1)]
- A qualified person must design the scaffolds, which are loaded in accordance with that design. [29 CFR 1926.451(a)(6)]
- Scaffolds and scaffold components must not be loaded in excess of their maximum intended loads or rated capacities, whichever is less. [29 CFR 1926.451(f)(1)]
- Load carrying timber members should be a minimum of 1,500 lb-f/in^2 construction grade lumber. [29 CFR 1926 Subpart L Appendix A(1)(a)]
- Construction scaffold platforms have unique requirements. Each platform must be planked and decked as fully as possible with the space between the platform and uprights not more than 1 inch (2.5 cm) wide. The space must not exceed 9½ inches

(24.1 cm) when side brackets or odd-shaped structures result in a wider opening between the platform and the uprights. [29 CFR 1926.451(b)(1)]

- All employees must be trained by a qualified person to recognize the hazards associated with the type of scaffold being used and how to control or minimize those hazards. The training must include fall hazards, falling object hazards, electrical hazards, proper use of the scaffold, and handling of materials. [29 CFR 1926.454(a)]
- EBG employees are prohibited from working on scaffolds covered with snow, ice, or other slippery materials.
- Employers must provide fall protection for each employee on a scaffold more than 10 feet (3.1 m) above a lower level. [29 CFR 1926.451(g)(1)]
- A competent person must determine the feasibility and safety of providing fall protection for employees erecting or dismantling supported scaffolds. [29 CFR 1926.451(g)(2)]
- 1926.454(b) Scaffold erection, use, and disassembly
- The employer shall have each employee who is involved in erecting, disassembling, moving, operating, repairing, maintaining, or inspecting a scaffold trained by a competent person to recognize any hazards associated with the work in question. The training shall include the following topics, as applicable.
- 1926.454(b)(1) The nature of scaffold hazards.
- 1926.454(b)(2) The correct procedures for erecting, disassembling, moving, operating, repairing, inspecting, and maintaining the type of scaffold in question.
- 1926.454(b)(3) The design criteria, maximum intended load-carrying capacity and intended use of the scaffold.
- 1926.454(b)(4) Any other pertinent requirements.

VII. RESCUE PROCEDURE

Rescue Pre-Plan – Employers should provide for a prompt rescue should a fall occur. Rescue procedures should be reviewed on a regular basis as part of the company's overall safety training program.

Ladders or other rescue equipment should be made available in the work area.

The goal of any rescue is to limit the hanging/suspension time of the fallen employee.

In the event an employee falls from an elevated work surface and is suspended from the safety lanyard, immediate assistance will be required. The following procedure should be followed:

1. **Do not panic!** Do not be rushed into hasty action, we do not want anyone else injured nor do we want the fall victim to be further injured. Ask someone to call for the rescue squad and an ambulance (911).
2. **Get the victim out of immediate danger.** Check the immediate area for potential hazards to yourself and the victim.
3. **Consciousness.** Is the victim able to talk? If so, ask them if they can feel and move their limbs. If they are unconscious, ensure an open airway.
4. **Pulse.** Check to make sure there is a pulse. If you cannot find a pulse, then CPR will need to be started as soon as possible (but check for back or neck injuries before moving the victim).
5. **Spinal injuries.** ***Don't move the victim until you've felt their back, or if they are paralyzed or lack sensation anywhere.***
   Feel all the way down the spine - you will feel a row of regular bumps; if there is a gap or a step, or if the victim has pain on one spot on pressing, they have a back injury. If you are in doubt, play it safe and treat the victim as if they have one.

   <u>If the victim is conscious, but you suspect a back injury, do not move them. Wait for the rescue squad and ambulance personnel to arrive.</u>

6. **Bleeding.** If the victim is bleeding, use universal precautions to protect yourself from bloodborne pathogens then apply pressure to the wound using your hand and a clean gauze or rag.

7. **If the victim has difficulty breathing**, or pain on breathing, look at the chest for wounds. If you find one, put a pad on it to stop air leaking in and letting the lung out. Look for movement around the injury, if one part of the chest moves in while the rest moves out, or vise versa, put a large pad over the wound_ this is a "flail segment," a bit of the chest wall has come out and is moving independently of the rest, and while it is free the victim cannot breathe normally.

8. **Keep bystanders and onlookers away!** The victim does not need a bunch of coworkers standing around staring at him.

Fall Protection Devices

1. Fall Protection Harnesses
2. Personal Fall Protection Arrest Systems (PFAS)

Shock-Absorbing Lanyards

Lanyards extend deceleration distance during a fall, significantly reducing fall arrest forces by 65 – 80 % below the threshold of injury. This ensures greater safety on the jobsite. However, when using a shock-absorbing lanyard, it is important to understand how to calculate potential fall distance to avoid contact with a lower level. That information and additional training will be provided to those individuals whose job descriptions require working at heights over 4 feet above the ground.

A **Fall Limiter** is a self-retracting lanyard with a quick-activating braking system that limits a free fall to inches. This minimizes the risk of injuries and makes rescue easier. By law, the system must limit the maximum arresting force on an employee to 1,800 pounds, and be rigged such that an employee can neither free fall more than six feet, nor contact any lower level.

LOCK OUT TAG OUT

I. PURPOSE

This procedure shall 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 energizing or start-up of the machine or equipment, or release of stored energy, could cause injury. These procedures will protect employees during the servicing or maintenance from the unexpected energization, start up or release of stored energy.

II. POLICY

All EBG employees are required to comply with this procedure, and the restrictions and the limitations imposed on then during the use of a lockout/tag out.
All employees and outside contractors working in the facility are required to perform the lockout/tag out in accordance with this procedure.
All employees, and outside contractors working in the facility, upon observing a machine or piece of equipment which is locked out or tagged out shall not attempt to energize, start, or use that machine or equipment.
The standard progressive disciplinary action will be taken for anyone found violating this procedure.

ENFORCEMENT

Any employee failing to follow these procedures will face disciplinary action, up to and including termination of employment.

APPLICABILITY

This procedure applies to the control of energy during servicing and/or maintenance of machines and equipment. Normal production operations are not covered by this procedure. As the General Contractor, EBG will utilize the expertise of a licensed electrical contractor to apply this procedure on EBG jobsites.

DEFINITIONS

Authorized employee – an employee who is authorized to lock out machines/equipment in order to perform service or maintain that machine/equipment.

Affected employee – an employee whose job requires them to operate/use a machine/equipment or work in an area where maintenance/service is being performed while locked out.

Other employee – an employee whose work operations may be in an area where energy control procedures are being utilized.

Energy Isolating Device means a mechanical device that physically prevents the transmission or release of hazardous energy, including, but not limited to the following:a manually operated electrical circuit breaker; a disconnect switch; line valve; slide gate or similar device used to block or isolate energy.

Hazardous Energy Source - means any type of energy that could injure anyone working on or near the equipment/machine/process if released as a result of work activities.Examples of hazardous energy sources include, but are not limited to the following:electrical; hydraulic (fluid/liquids); pneumatic (air); chemical; radiation; thermal, mechanical (from stored energy like in flywheels and springs); and mechanical (from gravity).

Lockout means the placement of a control mechanism on an energy-isolating device that ensures that the equipment/machine/process being worked on cannot be operated/initiated until the control mechanism is removed.

Other Personnel means non-EBG personnel or visitors to any work area where EBG authorized employees are utilizing processes outlined in this Policy.

Operation Device means any switch, button, leaver, valve, etc. that is expressly intended for the starting or initiation of the equipment/machine/process.

Zero Energy State means the device has been purged of and blocked from hazardous energy sources and there is no hazardous energy present.

AUTHORIZATION AND RESPONSIBILITIES

The appropriate employees will be instructed in the significant components of the lockout procedures.

See the list of authorized Lock Out Tag Out employees attached. Annual refresher training will be conducted, and the plan reviewed for changes or omissions.

PROCEDURE

The following eight-step procedure is to be followed anytime it is necessary to lockout or tag out a machine or piece of equipment.

Know the equipment

Before the machine or equipment is shut off, the authorized employee shall have knowledge of the type and magnitude of the energy, the hazards that must be controlled, and the method or means to control it. Employees required to lockout a machine or piece of equipment that they are not familiar with shall refer to the appropriate Energy Control Procedure Form in order to identify the type and magnitude of the energy source(s) present.

Notify others

All employees affected by the machine or equipment being shut down shall be notified by the Employee's superintendent or the employee performing the shutdown. This notification shall be done before the machine or equipment is shut down.

Shut off equipment

The machine or equipment shall be shut down in an orderly manner to avoid any additional or increased hazard to employees.

Disconnect & lock out all energy sources

All energy isolating devices shall be physically located and activated to isolate the machine or equipment from the energy source(s). Lockout/tag out devices shall be applied to prevent the energy from being turned back on.

If a lockout device cannot be used, a tag out device may be used without a lock if it is supplemented by at least one safety measure that provides a level of safety equivalent to that obtained by the use of a lock, such as an isolating circuit element, blocking of a control switch, or opening of an extra disconnecting device.

Control secondary energy

After the energy source(s) have been located, turned off, and locked out or tagged out, all secondary energy sources such as storage tanks, hydraulic, pneumatic, water or steam lines, springs, flywheels, capacitors, batteries, and gravity, shall be relieved, disconnected, restrained, or otherwise rendered safe.

Verify lockout

Prior to starting work on machines or equipment that has been locked out or tagged out, the authorized employee shall verify that isolation and de-energization of the machine or equipment have been accomplished. This can be done by operating the push button or other operating controls, or by testing to make certain the equipment will not operate.

Caution: Return operating controls to neutral or "off" position after verifying the isolation of each energy source.

Keep the lockout in force

If it becomes necessary for the person working on the locked out or tagged out machine or equipment to reenergize to the machine or equipment for testing or adjustment, then the lockout/tag out procedure must be repeated before resuming work on the equipment or machine.

Finish safely

- Inspect the machine or equipment to ensure that nonessential items have been removed and to ensure that machine or equipment components are operationally intact. Make sure that the operating controls are in the neutral or "off" position.
- The work area shall be checked to ensure that all employees are out of harm's way.
- Notify employees that the lockout/tag out is being removed.
- Remove lockout/tag out device and reenergize the machine or equipment.
- Verify that the machine or equipment is performing in a normal manner.

When a situation arises where more than one employee is working on the machine or equipment, a safety lockout hasp will be used and each person working on the machine or equipment will attach their individual lockout/tag out device.

Training

Authorized employees will receive training covering:

- Recognition of hazardous energy sources
- Types and magnitude of hazardous energy in the workplace
- Methods, devices used to lockout confirm lockout and effectively control hazardous energy at all equipment
- Procedures for removing locks and returning equipment to full operation

- Transfer of lockout responsibilities
- Group Lockout

Affected and “other employees will receive training so they are able to:

- Recognize when energy control procedures are implemented
- Understand the purpose of the lockout procedures and the importance of not defeating any lockout device or use any lockout or tagged equipment. All such training will be documented.

Retraining

Authorized and affected employees will receive retraining in proper application of lockout procedures when there is a change in Job Assignment, or the addition or change in machines or equipment and when it becomes known that lockout procedures are not followed or performed incorrectly.

Responsibilities

EBG is responsible for annual review or update of this procedure, initial training, and any follow-up training that is required.

The Superintendent is responsible for hands on training and to ensure that all employees are aware of and comply with this procedure.

All Maintenance personnel and qualified employees whose job requires him/her to service or perform maintenance on a machine or piece of equipment shall follow the lockout/tag out procedure to assure a safe work environment.

Steps to Safe Preparation

Authorized employees shall verbally notify affected employees, (EBG employees and anyone considered as “Affected” or “Other” Personnel) of the procedures to be used BEFORE commencing other work activities.

Lockout Application

Perform the actions BEFORE commencing other work activities, in the following order:

- Identify known operation devices for the equipment/machine/process, and commit all of them to the ‘off’ or ‘neutral’ position
- Identify known energy controlling devices for the equipment/machine/process, commit all of them to the ‘off’ or ‘neutral’ position following established machine shutdown procedures, and utilize a lockout device to secure them in the ‘off’ or ‘neutral’ position

  Note 1: tag the lockout mechanism if multiple authorized employees are present or if the work will not be completed within the normal work shift. In such cases, mark the tag with your name and contact information.

Note 2: If the proper lockout procedures or a hazardous energy source is unknown, authorized employees shall not conduct further work activities and shall immediately contact their superintendent for assistance/instructions on proceeding.

- Identify and neutralize all potential stored energy sources such as gravity, springs, electrical capacitors, hydraulic pressure and compressed gases.

- Visually inspect the equipment/machine/process and/or use electronic or mechanical means to verify that a zero-energy state has been reached Ensure that affected and authorized employees are clear from the equipment/machine/process, and then try to activate the equipment/machine/process by initiating identified operation devices to ensure that a zero-energy state has been reached. Apply additional lockouts to any energy controlling devices having unprotected energy sources and repeat this procedure point until a zero-energy state is obtained. Proceed with the required work activities for the equipment/machine/process when the zero-energy state is obtained.
- If a zero-energy state cannot be assured, contact your superintendent or Safety Department for further instructions.

See exhibit on page 68.

Release From Lockout

Authorized employees shall visually inspect the equipment/machine/process to ensure that personnel and tools have been cleared and/or removed. Then, only the authorized employee who placed the lockout mechanism can remove it.

Testing/Diagnosis/Re-positioning Procedures During Lockout

Perform the actions, in the following order:

- □ Clear the equipment/machine/process of tools, materials, and personnel
- □ Remove the applicable lockout mechanisms from the energy isolating device
- □ Energize the applicable portion of the equipment/machine/process
- □ Proceed with the test/diagnosis/re-positioning
- □ De-energize the equipment/machine/process
- □ Re-apply the applicable lockout mechanisms to the energy isolating device
- □ Re-test operation devices to ensure a zero-energy state is in place
- □ Continue work and repeat this procedure as necessary.

Lockout/Tagout Safety Reference

Name _____ Date _____

1910.147 (c)(6) (i) Periodic Inspections. The employer shall conduct a periodic inspection of the energy control procedure at least annually to ensure that the procedure and the requirements of this standard are being followed.

1910.147 (c)(6)(i)(A) The periodic inspection shall be performed by an authorized employee other than the one(s) utilizing the energy control procedure being inspected.

1910.147 (c)(6)(i)(B) The periodic inspection shall be conducted to correct any deviations or inadequacies identified.

1910.147 (c)(6)(i)(C) Where lockout is used for energy control, the periodic inspection shall include a review, between the inspector and each authorized employee, of that employee's responsibilities under the energy control procedure being inspected, and the elements set forth in paragraph (c)(7)(ii) of this section.

1910.147 (c)(6)(ii) The employer shall certify that the periodic inspections have been performed. The certification shall identify the machine or equipment on which the energy control procedure was being utilized, the date of the inspection, the employees included in the inspection, and the person performing the inspection.

Periodic Lockout/Tag Out Procedure Evaluation Form

1910.147 (c)(6) (i) Periodic Inspections. The employer shall conduct a periodic inspection of the energy control procedure at least annually to ensure that the procedure and the requirements of this standard are being followed.
1910.147 (c)(6)(i)(A) The periodic inspection shall be performed by an authorized employee other than the one(s) utilizing the energy control procedure being inspected.
1910.147 (c)(6)(i)(B) The periodic inspection shall be conducted to correct any deviations or inadequacies identified.**1910.147 (c)(6)(i)(C)** Where lockout is used for energy control, the periodic inspection shall include a review, between the inspector and each authorized employee, of that employee's responsibilities under the energy control procedure being inspected, and the elements set forth in paragraph (c)(7)(ii) of this section.
1910.147 (c)(6)(ii) The employer shall certify that the periodic inspections have been performed. The certification shall identify the machine or equipment on which the energy control procedure was being utilized, the date of the inspection, the employees included in the inspection, and the person performing the inspection.

Evaluation Criteria

The following procedure is to be followed anytime it is necessary to lockout or tag out a machine or piece of equipment.
Yes □ No □

Know the Equipment
Before the machine or equipment is shut off, the authorized employee shall have knowledge of the type and magnitude of the energy, the hazards that must be controlled, and the method or means to control it.

Employee is required to lockout a machine or piece of equipment that they are not familiar with shall refer to the Energy Control Procedure Manual to identify the type and magnitude of the energy source(s) present.
Yes □ No □

Notify Others
All employees affected by the machine or equipment being shut down shall be notified by the employee's supervisor or the employee performing the shut down. This notification shall be done before the machine or equipment is shut down.
Yes □ No □

Shut Off Equipment
The machine or equipment shall be shut down in an orderly manner to avoid any additional or increased hazard to employees.
Yes □ No □

Disconnect & Lock Out All Energy Sources
All energy isolating devices shall be physically located and activated to isolate the machine or equipment from the energy source(s). Lockout/tag out devices shall be applied to prevent the energy from being turned back on.
Yes □ No □

Tag Out Only
If a lockout device cannot be used, a tag out device may be used without a lock if it is supplemented by at least one safety measure that provides a level of safety equivalent to that obtained by the use of a lock, such as an isolating circuit element, blocking of a control switch, or opening of an extra disconnecting device.
Yes □ No □

Control Secondary Energy
After the energy source(s) have been located, turned off, and locked out or tagged out, all secondary energy sources such as storage tanks, hydraulic, pneumatic, water, or steam lines, springs, flywheels, capacitors, batteries, and gravity, shall be relieved, disconnected, restrained, or otherwise rendered safe.
Yes □ No □

Verify Lock Out
Prior to starting work on machines or equipment that has been locked out or tagged out, the authorized employee shall verify that isolation and de-energization of the machine or equipment have been accomplished. This can be done by operating the push button or other operating controls, or by testing to make certain the equipment will not operate.
Yes □ No □

Keep the Lock Out in Force
If it becomes necessary for the person working on the locked out or tagged out machine or equipment to reenergize to the machine or equipment for testing or adjustment, then the lockout/tag out procedure must be repeated before resuming work on the equipment or machine.
Yes □ No □

CONFINED SPACES

PURPOSE

To establish and implement requirements for practices and procedures to protect employees from the hazards of entry into permit-required confined space by establishing acceptable entry conditions and procedures that will ensure that employees involved in a permit-required confined space entry can safely enter and work within the space.

POLICY

It is the policy of EBG that no one will be allowed to enter or work in a confined space that has been identified as a “permit-required” confined space without first meeting all the requirements of this policy.

APPLICABILITY

All EBG employees, associates, work sites, and/or job sites where confined space entry is required.

DEFINITIONS

Attendant means an individual stationed outside permitted confined spaces that monitors the authorized entrants and who performs all attendant’s assigned duties.

Authorized Entrant means an individual who is authorized to enter a confined space.
Blanking or blinding means an absolute closure of a pipe, line, or duct by the fastening of a solid plate (such as a spectacle blind or a skillet blind) that completely covers the bore and that is capable of withstanding the maximum pressure of the pipe, line, or duct with no leakage beyond the plate.

Confined space means a space that is large enough and so configured that an individual can enter and perform assigned work; has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry.); and is not designed for continuous occupancy. A permit required confined space has one or more of the following characteristics:

- Contains or has a potential to contain a hazardous atmosphere
- Contains a material that has the potential for engulfing an entrant
- 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
- Contains any other recognized serious safety or health hazard

Double block and bleed means the closure of a line, duct, or pipe by closing and locking or tagging two in-line valves and by opening and locking or tagging a drain or vent valve in the line between the two closed valves.

Emergency means any occurrence (including any failure of hazard control or monitoring equipment) or event internal or external to the permitted confined space that could endanger entrants.

Engulfment means the surrounding and effective capture of a person by a liquid or finely divided (flow able) solid substance that can be aspirated to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction, or crushing.

Entry means 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 means the person responsible for determining if acceptable entry conditions are present at a permitted confined space where entry is planned, for authorizing entry and overseeing entry operations, and for terminating entry as required by this section. An entry supervisor may also be acting as an attendant.

Hazardous atmosphere means an atmosphere that may expose persons to the risk of death, incapacitation, impairment of ability to self-rescue (that is, escape unaided from a permit space), injury, or acute illness.

Line breaking means the intentional opening of a pipe, line, or duct that is or has been carrying flammable, corrosive, or toxic material, an inert gas, or any fluid at a volume, pressure, or temperature capable of causing injury.

Permit-required confined space program (permit space program) means the employer's overall program for controlling, and, where appropriate, for protecting employees from, permit space hazards and for regulating employee entry into permit spaces.

Permit system means a written procedure for preparing and issuing permits for entry and for returning the permit space to service following termination of entry.

Prohibited condition means any condition in a permit space that is not allowed by the permit during the period when entry is authorized.

Oxygen deficient atmosphere means an atmosphere containing less than 19.5 percent oxygen by volume.

Oxygen enriched atmosphere means an atmosphere containing more than 23.5 percent oxygen by volume.

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

Retrieval system means the equipment (including a retrieval line, chest or full-body harness, wristlets, if appropriate, and a lifting device or anchor) used for non-entry rescue of persons from permit spaces. **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.

Testing means the process used to determine the presence of hazards that entrants may be exposed to. Testing includes specifying the tests that are to be performed in the permitted space.

PROCEDURE

Confined spaces shall be considered as permit required confined spaces until a competent person conducts an initial evaluation of the work site to identify permit required confined spaces. This evaluation shall be recorded on the Confined Space Pre-Job Assessment Form (Appendix 10-1). Confined spaces shall be classified as follows:

- □Non-Hazardous
- □Hazardous due to work task
- □Hazardous due to internal condition

If the work site contains permit required confined spaces, danger signs stating "DANGER - CONFINED SPACE - ENTER BY PERMIT ONLY" or equivalent shall be posted to inform employees of the existence and location of the spaces. Bilingual signs shall be posted as necessary.

EBG shall evaluate the workplace to determine if any spaces are permit-required confined spaces. This will be done using the "Permit Required Confined Space Decision Flow Chart" shown as Appendix "A".

If the workplace contains permit-required confined spaces, EBG shall inform 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.

The decision as to whether or not permit-required confined space requirements must be complied with will be determined by the Safety Coordinator when the permit is applied for.

A permit-required confined space may be reclassified as a non-permit required confined space under the following guidelines:

If the permit space poses no actual or potential atmospheric hazard and if all hazards within the space are eliminated without entry into the space.

Management shall document the basis for determining that all hazards in a permit-required confined space have been eliminated, through a signed certification that contains the date and the specific confined space.

If hazards arise within a permit-required space that has been declassified to a non-permit required space, each employee shall exit the space until the permit determination can be re-evaluated.

It is the responsibility of the Safety Officer to evaluate each work area "confined space" to determine whether or not a permit is required for access to enter and/or work in that area.

It is the responsibility of EBG management to assure that no employee or outside contractor is allowed to enter a permit-required confined space without the proper precautions being taken, and the proper personal protective equipment supplied.

It is the employee's responsibility to comply with the requirements of a permit-required confined space, and to not enter the space until all requirements have been met. Furthermore, the employee shall inform their superintendent or the Safety Officer if they feel that the hazards have not been adequately addressed, or of concerns they have regarding the confined space entry.

CONFINED SPACE HAZARD CRITERIA

I. FLAMMABLE ATMOSPHERES

A flammable atmosphere generally arises from enriched oxygen atmospheres, vaporization of flammable liquids, byproducts of work, chemical reactions, concentrations of combustible dusts, and desorption of chemical from inner surfaces of the confined space.

Chemical reactions that form a flammable atmosphere can occur when an arc or a fire occurs in a closed, oil filled transformer, the oil is overheated, or a corona discharge occurs. The reaction can produce Hydrogen, Methane, Ethane, Ethylene, and Acetylene in sufficient quantity to produce an explosive atmosphere.

Chemical reactions forming flammable atmospheres occur when surfaces are initially exposed to the atmosphere, or when chemicals combine to form flammable gases.

Combustible dust concentrations are usually found during the process of loading, unloading, and conveying finely ground chemical products, and any other combustible material.

II. TOXIC ATMOSPHERES

Substances to be regarded as toxic in a confined space can cover the entire spectrum of gases, vapors, and finely ground airborne dust.

Carbon monoxide (CO) is a hazardous gas that may build up in a confined space. This odorless, colorless gas is formed from incomplete combustion of organic materials such as wood, coal, gas, oil, and gasoline; it can be formed from the decomposition of organic matter. Carbon monoxide forms carboxyhemoglobin in the blood, which prevents the distribution of oxygen in the body. Early stages of CO intoxication are nausea and headache. It is considered dangerous at a concentration of 200 ppm, and can be fatal at 1,000 ppm.

In welding operations, oxides of nitrogen and ozone are gases of major toxicological importance, and incomplete oxidation may occur and carbon monoxide can be formed.

III. IRRITANT (CORROSIVE) ATMOSPHERES

Irritant or corrosive atmospheres can be divided into primary and secondary groups. The primary irritants exert no systemic toxic effects (effects on the entire body). Examples of primary irritants are chlorine, ozone, hydrochloric acid, hydrofluoric acid, sulfuric acid, nitrogen dioxide, ammonia, and sulfur dioxide.

A secondary irritant is one that may produce systemic toxic effects in addition to surface irritation. Examples of secondary irritants include benzene, carbon tetrachloride, ethyl chloride, trichloroethane, trichloroethylene, and chloropropene.

Prolonged exposure at irritant or corrosive concentrations in a confined space may produce little or no evidence of irritation. This may result in a general weakening of the defense reflexes from changes in sensitivity. The danger in this situation is that the worker is usually not aware of any increase in his/her exposure to toxic substances.

IV. ASPHYXIATING ATMOSPHERES

The normal atmosphere is composed of approximately 20.9% oxygen, 78.1% nitrogen, and 1.0% argon with small amounts of various other gases.

The consumption of oxygen takes place during combustion of flammable substances, as in welding, heating, cutting, and brazing. A more subtle consumption of oxygen occurs during bacterial action, as in the fermentation process.

Oxygen may also be consumed during chemical reactions as in the formation of rust (iron oxide). And the number of people in a confined space and the amount of physical activity will also influence the oxygen consumption rate.

A second factor in oxygen deficiency is its displacement by another gas. Any gas that is heavier than oxygen will displace it in an open topped confined space (the gas will fall into a space and push the oxygen out). Likewise, any gas that is lighter than oxygen will displace it in an open bottom confined space (the gas will float up and displace the oxygen).

When the oxygen level drops to 17%, the first signs of hypoxia are a deterioration of night vision which is not noticeable until a normal oxygen concentration is restored. Physiologic effects are increased breathing and an accelerated heart rate.

At between 14-16% the effects are increased breathing and an accelerated heart rate, poor muscle coordination, rapid fatigue, and intermittent respiration.

Between 6-10% the effects are nausea, vomiting, inability to perform, and ultimately, unconsciousness.

Less than 6%, spasmatic breathing, convulsive movements, and death in minutes.

V. THERMAL EFFECTS

Four factors influence the interchange of heat between people and their environment. They are, (1) air temperature, (2) air velocity, (3) humidity, and (4) radiant heat.
As the body temperature rises, workers will continue to function until the body temperature reaches approximately 102º F when this happens, the worker is less efficient, and is prone to heat exhaustion, heat cramps, or heat stroke.

In a cold environment, certain physiologic mechanisms come into play, which tend to limit heat loss and increase heat production. The most severe strain in cold conditions is chilling of the extremities so that activity is restricted. Special precautions must be taken in cold environments to prevent frostbite, trench foot, and general hypothermia.

VI. NOISE

Noise problems are usually intensified in confined spaces because the interior tends to cause sound to reverberate and thus expose the worker to higher levels than found in an open environment.

This intensified noise increases the risk of hearing damage to workers, which could result in temporary or permanent loss of hearing. Noise in a confined space, which may not be intense enough to cause hearing damage, may still disrupt verbal communication. If the worker inside is not able to hear commands or danger signals due to excessive noise, the probability of severe accidents can increase.

VII. VIBRATION

Whole body vibration may affect multiple body parts and organs depending upon the vibration characteristics. Segmental vibration, unlike whole body vibration, appears to be more localized in creating injury to the fingers and hands of workers using tools, such as pneumatic hammers, rotary grinders or other hand tools which cause vibration.

VIII. PHYSICAL

Some physical hazards cannot be eliminated because of the nature of the confined space or the work to be performed. These hazards include surface residues and structural hazards.

Surface residues in confined spaces can increase the already hazardous conditions of electrical shock, reaction of incompatible materials, liberation of toxic substances, and bodily injury due to slips and falls.

Structural hazards within a confined space such as baffles in horizontal tanks, trays in vertical towers, bends in tunnels, overhead structural members, or scaffolding installed for maintenance constitute physical hazards.

Rescue procedures may require withdrawal of an injured or unconscious person. Careful planning m
must be given to the relationship between the internal structure, the access opening(s), and the worker.

Retrieval systems shall meet the following requirements to the greatest extent possible.

- Each authorized entrant shall use a full body harness with a retrieval lifeline attached at the center of the entrant's back near shoulder level, or above the entrant's head or safety coveralls with built-in harness, with a retrieval lifeline attached at the near shoulder level of the entrant's back, or above the entrant's head
- Wristlets may be used in lieu of the full body harness if the entry superintendent can demonstrate that the use of a full body harness is not feasible or creates a greater hazard and that the use of wristlets is the safest and most effective alternative.
- The other end of the retrieval line shall be attached to a mechanical device or fixed point outside the confined space in such a manner that rescue can begin as soon as the rescuer becomes aware that rescue is necessary. A mechanical device shall be available to retrieve personnel from vertical type confined spaces more than 5 feet deep.
- The safety harness shall be of the type that permits easy rescue of personnel from the confined space during emergency conditions and may be either the harness type that suspends a person in an upright position or the wrist type rescue harness. (A hoisting device or other effective means for lifting personnel from confined spaces is preferred)
- Lifelines shall have a minimum breaking strength of 5,400 pounds

Completion of Work

When the work is completed in a confined space the following, as a minimum shall be completed:

- Tools, equipment, and materials shall be removed
- The space shall be inspected to ensure no personnel are inadvertently
- left in the confined space according to the Energy Control section (14)
- of this manual
- The area surrounding the confined space shall be clean of materials,
- equipment, scraps, and debris
- The superintendent responsible for the confined space work shall inspect
- the work location to ensure cleanup of materials, tools, and other items
- is complete
- (Lockout) locks are removed only when work is completed

Forms

The following forms shall be used to determine if a confined space requires a permit prior to an entrant being allowed to enter, and to list those things that must be done before an entrant is allowed to enter a “Permit Required Confined Space.”

IX. ATMOSPHERIC TESTING

Atmospheric conditions of a confined space shall be tested with calibrated equipment prior to entry of personnel and as identified by the Initial Evaluation of Confined Spaces (5.2 of this section). Atmospheric testing shall be completed as indicated below and recorded on the Entry Permit:

- Oxygen content shall be tested. The acceptable range is 19.5 to 23.5 percent
- Test for combustible gas and vapors. Acceptable range is 0 to 10 percent of the Lower Flammable Limit (or Lower Explosive Limit). Record readings on the Entry Permit
- Check for toxic gases and airborne combustibles (i.e. dusts) as identified by the initial determination of confined spaces (5.2 of this section). Safe operating levels can be determined from the Permissible Exposure Level (PEL) as listed in OSHA 29 CFR 1910.1000, and applicable Safety Data Sheets (SDSs).
- Entrants and/or attendants may request additional monitoring at any time.

1910.146 General Requirements

(c)(1) The employer shall evaluate the workplace to determine if any spaces are permit-required confined spaces. (Use the decision flow chart, Appendix “A” to facilitate this requirement.)

(c)(2) If the workplace contains permit spaces, the employer shall 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.

(c)(3) If the employer decides that its employees will not enter permit spaces, the employer shall effect measures to prevent its employees from entering the permit spaces and shall comply with paragraph (c)(1), (c)(2), (c)(6), and (c)(8) of this section.

(c)(4) If the employer decides that its employees will enter permit spaces, the employer shall develop and implement a written permit space program that complies with this Section. The written program shall be available for inspection by employees and their authorized representatives.

(c)(5) An employer may use the alternate procedures specified in paragraph (c)(5)(ii) of this section for entering a permit space under the conditions set forth in paragraph (c)(5)(i) of this section.

(c)(5)(i) An employer whose employees enter a permit space need not comply with paragraphs (d) through (f), and (h) through (k) of this section, provided that:

[A] An employer can demonstrate that the only hazard posed by the permit space is an actual or potential hazardous atmosphere.

[B] The employer can demonstrate that continuous forced air ventilation alone is sufficient to maintain that permit space safe for entry.

[C] The employer develops monitoring and inspection data that supports the demonstrations required by paragraph (c)(5)(i)(A) and (c)(5)(i)(B) of this section.

[D] If an initial entry space is necessary to obtain the data required by paragraph (c)(5)(i)(C) of this section, the entry is performed in compliance with paragraphs (d) through (k) of this section.

[E] The determinations and supporting data required by paragraphs (c)(5)(i)(A), (c)(5)(i)(B), and (c)(5)(i)(C) of this section are documented by the employer and are made available to each employee who enters the permit sunder the terms of paragraph (c)(5) of this section or to that employee’s authorized representative; and

[F] Entry into the permit space under the terms of paragraph (c)(5)(i) of this section is performed in accordance with the requirements of paragraph (c)(5)(ii) of this section.

(c)(5)(ii) The following requirements apply to entry into permit spaces that meet the conditions set forth in paragraph (c)(5)(i) of this section.

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

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

[C] Before an employee enters the space, the internal atmosphere shall be tested, with a calibrated direct-reading instrument, for oxygen content, for flammable gases and vapors, and for potential toxic air contaminants, in that order. Any employee who enters the space, or that authorized representative, shall be provided an opportunity to observe the pre-entry testing required by this paragraph.

[1] Oxygen content,

[2] Flammable gases and vapors, and

[3] Potential toxic air contaminants.

[D] There may be no hazardous atmosphere within the space whenever any employee is inside the space.

[E] Continuous forced air ventilation shall be used, as follows:

[1] An employee may not enter the space until the forced air ventilation has eliminated any hazardous atmosphere.

[2] The forced air ventilation shall be so directed as to ventilate the immediate areas where an employee is or will be present within the space and shall continue until all employees have left the space.

[3] The air supply for the forced air ventilation shall be from a clean source and may not increase the hazards in the space.

[F] The atmosphere within the space shall be periodically tested as necessary to ensure that the continuous forced air ventilation is preventing the accumulation of a hazardous atmosphere. Any employee who enters the space, or that employee's representative, shall be provided with an opportunity to observe the periodic testing required by this paragraph.

[G] If a hazardous atmosphere is detected during entry:

[1] Each employee shall leave the space immediately.

[2] The space shall be evaluated to determine how the hazardous atmosphere developed, and

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

[H] The employer shall verify that the space is safe for entry and that the pre-entry measures required by paragraph (c)(5)(ii) of this section have been taken, through a written certification that contains the date, the location of the space, and the signature of the person providing the certification. The certification shall be made before entry and shall be made available to each employee entering the space or to that employee's authorized representative.

(c)(6) Where there are changes in the use or configuration of a non-permit confined space that might increase the hazards to entrants, the employer shall reevaluate that space and, if necessary, reclassify it as a permit-required confined space.

(c)(7) A space classified by the employer as a permit-required confined space may be reclassified as a non-permit confined space under the following procedures:

(i) If the permit space poses no actual or potential atmospheric hazards and if all hazards within the space are eliminated without entry into the space, the permit space may be reclassified as a non-permit confined space for as long as the non-atmospheric hazards remain eliminated.

(ii) If it is necessary to enter the permit space to eliminate hazards, such entry shall be performed under paragraphs (d) through (k) of this section. If testing and inspection during that entry demonstrate that the hazards within the permit space have been eliminated, the permit space may be reclassified as a non-permit confined space for as long as the hazards remain eliminated.

NOTE: Control of atmospheric hazards through forced air ventilation does not constitute elimination of the hazards. Paragraph (c)(5) covers permit space entry where the employer can demonstrate that forced air ventilation alone will control all hazards in the space.

(iii) The employer shall document the basis for determining that all hazards in a permit space have been eliminated, through a certification that contains the date, the location of the space, and the signature of the person making the determination. The certification shall be made available to each employee entering the space or to that employee's authorized representative.

(iv) If hazards arise within a permit space that has been declassified to a non-permit space under paragraph (c)(7) of this section, each employee in the space shall exit the space. The employer shall then reevaluate the space and determine whether it must be reclassified as a permit space, in accordance with other applicable provisions of this section.

(c)(8) When an employer (host employer) arranges to have employees of another employer (contractor) perform work that involves permit space entry, the host shall:

(i) Inform the contractor that the workplace contains permit spaces and that permit space entry is allowed only through compliance with a permit space program meeting the requirements of this section.
(ii) Apprise the contractor of the elements, including the hazards identified and the host employer's experience with the space, that make the space in question a permit space.
(iii) Apprise the contractor of any precautions or procedures that the host employer has implemented for the protection of employees in or near permit spaces where contractor' personnel will be working.

(iv) Coordinate entry operations with the contractor, when both host employer personnel and contractor personnel will be working in or near permit spaces, as required by paragraph (d)(11) of this section, and

(v) Debrief the contractor at the conclusion of the entry operations regarding the permit space program followed and regarding any hazards confronted or created in permit spaces during entry operations.

(c)(9) In addition to complying with the permit space requirements that apply to all employers, each contractor who is retained to perform permit space entry operations shall:

(i) Obtain any available information regarding permit space hazards and entry operations from the host employer.

(ii) Coordinate entry operations with the host employer, when both host employer' personnel and contractor personnel will be working in or near permit spaces, as required by paragraph (d)(11) of this section, and

(iii) Inform the host employer of the permit space program that the contractor will follow and of any hazards confronted or created in permit spaces, either through a debriefing or during the entry operation.

(d)(11) Develop and implement procedures to coordinate entry operations when employees of more than one employer are working simultaneously as authorized entrants in a permit space, so that employees of one employer do not endanger the employees of any other employer.

MACHINE GUARDING

I. SCOPE

This policy applies to all employees of EBG, its sub-contractors and agents.

II. PURPOSE

EBG shall ensure that any machine which exposes an employee to moving parts is equipped with proper safeguards that will prevent a worker from contact with hazards.

III. PROCEDURES

Any moving part of a machine presents potential hazards to employee safety and health. Injuries from moving machinery parts are usually severe and can be fatal. Proper guarding eliminates or controls the exposure, therefore machinery with exposed moving parts must be properly guarded.

The EBG Project Manager is responsible to:

- Direct all superintendents to identify machinery in each department that should be guarded in accordance with OSHA requirements.
- Ensure Job Hazard Analysis is complete, and safe work procedures are in place for each jobsite.
- Enforce compliance with this policy and applicable laws. All employees presently employed and newly hired employees must be trained to identify these hazards and made responsible for the purpose and use of the machine guarding.

Supervisor has responsibility to:

- Identify equipment / machinery where guarding is required.
- With the assistance of EH&S Coordinator and involved employee(s), complete the Job Hazard Analysis and ensure proper guarding is installed and in safe working order.
- Training of all employees to correct application and use of the guarding
- Enforce compliance with guarding.

All employees have the responsibility to:

- Ensure an understanding of correct application of procedures of equipment and guarding
- Comply with the requirement to utilize guarding
- Commit to use of guarding and under no circumstances remove guarding.

HAZARD COMMUNICATION (GLOBAL HARMONIZATION SYSTEM (GHS)

The Hazard Communication Program has been established by OSHA to ensure that the hazards of all chemicals produced and/or imported are evaluated, and that information concerning their hazards is transmitted to employers and through us, to the employees.

This transmittal of information is to be accomplished by means of container labeling, Safety Data Sheets, and employee training.

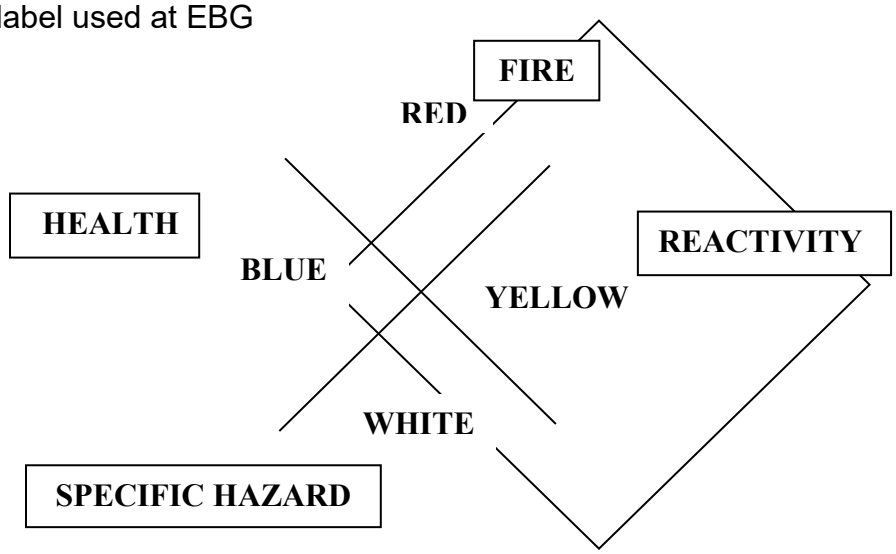
Container Labeling

An employee cannot be expected to safely handle and use a hazardous chemical if they do not know what the chemical is or what the potential hazards may be.

The Company shall assure that all containers of hazardous chemicals in the workplace are labeled. The label should contain the following information as a minimum:

- Identity of the hazardous chemical.
- An appropriate hazard warning, words, picture, symbol, or a combination thereof.
- The name of the chemical manufacturer of distributor, a telephone number to call with questions, and the facility's SDS Number.

The following is an example of a label used at EBG



Note -
A container that is used to transport a hazardous chemical for immediate use does not require a label.

Chemical Inventory

Employers are required by law to obtain an SDS for each hazardous material in our facility, to make them readily available to the employees, and to provide the necessary personal protective equipment and training to the employee to assure the employee a safe workplace.

EBG will maintain a list of all chemicals and materials used in the facility, and will update the list as necessary (when new chemicals are received). The list identifies the chemical used in the workplace/jobsites, the manufacturer or importer's name, the EBG and the NFPA/HMIS hazard designation. The list will be maintained by the EBG management, and is available upon request from the EBG management.

SDS sheets will also be scanned into the company network and made available for viewing when needed. The original SDS file will be cataloged and stored in a binder in the EBG office. (See EAP map).

Access to Safety Data Sheets

When employees enter our employ, they have a right to know what hazardous chemicals they work with, could be exposed to, and what they can do to avoid injury and/or illnesses.

Safety Data Sheets are maintained in the office and on the job site, and are available to all employees.

If an employee needs a hard copy of the SDS, contact their superintendent and a copy will be made and delivered to him/her as quickly as practical.

Understanding the Material Safety Data Sheet

Although the SDS is a necessary part of the Hazard Communication Standard, there has been no specific format prescribed for the presentation of its contents until the late 1980's. Therefore, SDS's from various manufacturers may vary dramatically in organization and appearance yet still present the required data.

The following is a 16-part Material Safety Data Sheet that can be used to understand the type of data that is available. Each section of the SDS has categories listed on the left side and a brief explanation of what the information means on the right side.

Section 1	**Product and Company Identification**
Product Name	Product Brand Name
Manufacturer	Company's Name, Address, Etc.
Telephone	Non-Emergency number for information on the chemical
CHEMTREC	**CHEM**ical **TR**ansportation **E**mergency **C**enter Phone No.
EPA Registration	EPA Assigned Product Identification Number

Section 2	**Hazards Identification**
Chemical Ingredients	The **Active** ingredients do the work, and the **Inert** ingredients help make the product safer or easier to handle.
CAS Reg. No.	Ingredients can also be identified by their **C**hemical **A**bstract **S**ervice (CAS) number.

Section 3	**Composition & information on ingredients**
Emergency Overview	This is a quick overview of the chemical – what it looks like and the potential hazard. This information is intended for emergency personnel.
Potential Health Effects	**Acute effects** occur immediately upon exposure **Chronic effects** are due to long-term exposure

Section 4	First Aid Measures
Eyes	What to do if the product gets into the eyes
Skin Exposure	What to do if the product gets on the skin
Inhalation	What to do if the product is breathed into the lungs
Ingestion	What to do if the product is swallowed
Notes to Physician	Specific instructions to the physician.

Section 5	Fire Fighting Measures
Flash Point	The minimum temperature at which a material give off a vapor in sufficient concentration to ignite.
Extinguishing Media	Specific instructions on how to extinguish a fire involving the chemical.
Personnel Protective Equipment	Safety equipment that should be worn using, cleaning up a spill or when fighting a fire involving the chemical.
Unusual Fire and Explosion Hazards	Additional safety information for emergency personnel
Hazardous Decomposition Materials	By-products formed due to fire that may pose a risk.

Section 6	Accidental Release Measures
Evacuation Procedures	Action to be taken when dealing with a spill
Containment of Spill	
Cleanup and Disposal	
Environmental and Regulatory Reporting	

Section 7	**Handling and Storage**
Temperature Range safe	Minimum/maximum storage temperature for storage.
Handling	Procedure to minimize the risk of accidental exposure or release of the product.
Storage	Procedure to minimize storage hazards.

Section 8	**Exposure Control/Personal Protection**
This section lists the engineering controls, the recommended personal protective equipment, and exposure guidelines.	
Ingestion	Protective measures to reduce the likelihood of swallowing.
Eye Contact	Protective measures to reduce the likelihood of the chemical getting into the eyes.
Skin Contact	Protective measures to reduce the possibility of getting the chemical on the skin.
Respiratory Protection	The type of respirator, if any, needed when handling this product.
Engineering Controls	Procedures used to maintain airborne levels of the chemical within safe levels.
Exposure Guidelines TLV (Threshold Limit Value) and PEL (Permissible Exposure Limit) below which workers would not be expected to experience health problems.	

Section 9	Physical and Chemical Properties
Color and Odor	Describes the physical appearance and odor (for detection purposes) of the chemical.
PH	PH values below 2.0 or above 12.5 are usually corrosive to skin and eyes.
Specific Gravity (Water = 1)	The weight of the material compared to water; < 1.0, the material will float on water, >1.0, the material is heavier than water and will sink.
Vapor Density (Air = 1)	The weight of gases compared to air; <1.0, the gas is lighter than air and will rise, >1.0, the gas is heavier than air and will drop to a low spot and pool.
Vapor Pressure	The higher the vapor pressure of a material, the lower the boiling point. Materials with a high vapor pressure are volatile (fire hazard) and will evaporate quickly.
Boiling Point	The temperature where a liquid becomes a vapor.
Solubility in Water	A measure of how easily a material will dissolve in water; <100 ppm is considered insoluble, >1,000 ppm, very soluble.

Section 10	Stability and Reactivity
	General terms to describe the material's stability, reactivity, or conditions that may cause an unwanted reaction.

Section 11	Toxicological Information
	This list the consequences of short-term (Acute) and long-term (Chronic) exposure to a material.

Section 12	Ecological Information
	What happens when the material is exposed to the environment, photolysis (exposure to sunlight).

Section 13	Disposal Considerations
	The required procedures for safely disposing of the material or its by-products and packaging.

Section 14	Transportation Information
	The requirements for packaging, labeling, and shipping of the material.

Section 15	Regulatory Information
	This section lists the various government gencies have regulatory control over the material.

Section 16	Other Information
	This section will tell you what the NFPA rating is for the material, when the SDS was written, and when any revisions were made to the SDS.

EBG management is responsible for the employee's safety training, and is to ensure that all of the following elements specified below are covered and understood by the employees.

- An overview of the requirements contained in the Hazard Communication Standard (29 CFR 1910.1200).
- Chemicals present in the workplace.
- Location and availability of EBG written Hazard Communication Program.
- The location of the Safety Data Sheets (SDS) and how to access them.
- How to read labels and Safety Data Sheets to understand the potential hazards associated with using a chemical, and how to protect yourself through personal protective equipment and the proper handling and use of the material.

Hazardous Non-Routine Operations

Any non-routine work shall be reviewed by the Health & Safety Officer for potential hazards prior to the work being performed.

A procedure shall be determined, detailing appropriate actions and safeguards for the control of exposure to hazardous materials. This procedure shall be used whenever the work is performed.

Outside Contractors

When outside and sub-contractors are brought into the facility to work, they must be made aware of the hazardous materials that they may be exposed to on-the-job site, and the precautions they should take to lessen the possibility of exposure. Likewise, outside contractors must notify EBG of hazardous materials brought to the job site.

EBG is committed to maintaining a safe and secure workplace and job-site. Contractors are expected to support EBG's commitment to the safety of everyone. Behavior of suspicious, threating or considered harassing in nature will not be tolerated. Failure to follow Local, State, and Federal regulations is contractually mandatory.

The Company representative who has contracted the work is responsible to provide a copy of the "Visitor/Contractor Guidelines" procedure to the contractor before the work starts.

Hazardous Material Storage and Disposal

Satellite Accumulation Points

No more than 55 gallons of hazardous waste or I quart of acutely hazardous waste may be accumulated at a satellite accumulation site.

Accumulation Area

Barrels of hazardous waste stored outside will be stored in a designated area and the area will be identified with a sign or placard. The containers will be left in this area until shipment to a disposal site when appropriate labeling will be affixed for shipment.

Disposal of Hazardous Materials

Barrels of hazardous material and barrels that previously contained a hazardous material will be disposed of through a licensed TDS company that is contracted by the company for the purpose. A manifest will be completed and all applicable labels attached prior to shipping.

NOTE

In 2012 the Hazard Communication Program (Employee Right-To-Know) began a 4-year change to what is now known as the Global Harmonization System (Employee Right to Understand). The Material Safety Data Sheets (MSDS) became the Safety Data Sheets (SDS) under this new federal law. Changes to labeling and the SDS were included in the new law and are meant to provide an easier visual means of recognizing the presence and extent of hazard for a chemical or compound. New under this new law are nine Pictograms which are shown below.

MSDSs have been replaced by Safety Data Sheets (SDSs) under a new OSHA initiative known as GHS or Global Harmonization Standard. Employees will receive refresher training on how to read and interpret the various sections of the SDS and in dealing with known or

potentially hazardous chemicals.

OVERHEAD CRANE/HOISTS AND HOISTS

I. PURPOSE

To establish a standardized procedure for the operation of overhead or mobile crane/hoists and the inspection and use of wire rope, chains, synthetic slings, and rigging hardware.

II. POLICY

It is the policy of EBG that crane/hoist use is performed by trained and authorized employees in a safe and responsible manner, and that all wire rope, chain, synthetic slings, clevis, eye bolts, and hooks be inspected by the operator. Additionally, a documented inspection of all slings will be performed on a monthly basis by the area supervisor, and the documentation kept on file, and daily visual inspections will be performed as per manufacturer's recommendations and as required by law.

III. CRANE/HOIST OPERATION

The crane/hoist operator is directly responsible for the safe operation of the crane/hoist. Whenever there is doubt as to safety, the crane/hoist operator should refuse to handle the load until the supervisor and/or the EBG management has reviewed the item to be lifted and the hoist equipment. At no time should an employee lift a load he/she deems unsafe. **EBG management reserves the right to ensure any Sub-Contractor's crane/hoist operator (fixed or mobile) is properly trained and certified in the inspection and operation of the specific equipment on the site. EBG employees are not trained or authorized to operate overhead or mobile cranes, or hoists.**

<u>Before Using the Crane/hoist</u>

The crane/hoist should be visually inspected for the following –

- Visually check the condition of the cable, hooks, chain, and slings that you will be using. Note any problems and notify your superintendent immediately.
- Smooth play out of wire rope to and from the drum.
- Hooks – cracks, twisting, straightening, hook throat-opening, or other signs of wear or damage.
- Rubbing, scraping, or clattering noises during operation.
- Worn wheels (shown by bumpy rolling).
- Bridge bumpers and trolley end stops – loose, missing, or improperly placed.
- Make sure that no one is near the crane/hoist, and then turn the power on.
- Proper operation of controls and brakes.
- Check each button on the crane/hoist pendent to make sure that all the controls are functioning properly. Observe the changes in speed as you move through the steps in the controller.

NOTE!
Each crane/hoist must be inspected daily by a competent person before it is used.

When Using the Crane/hoist:

- Do not divert your attention from the load when operating a crane/hoist.

- Move the hook directly over the load. This will eliminate side load on the crane/hoist, and prevent the load from moving sideways when picked up.

- If slings are used to handle the load, they should be fully seated in the saddle of the hook. With the hook's safety latch closed, the hook should be raised slowly until all slack has been taken out of the slings. Raise the load just high enough to determine if the load is properly balanced and the slings properly positioned.

- Avoid shock loading by starting all motions slowly, step the speed gradually, do not exceed the safe operating speed. Learn to judge the "drift" of the crane/hoist after power is removed. Fast or "jerky' movements increase the strain on the rigging, slings, and hoist.

- Never lower the hook to a point where there are less than two wraps remaining on the hoist' s drum.

- Be sure the immediate area of the load is clear of personnel before lifting a load. Do not carry or direct a load over personnel.

- Do not attempt to lift loads beyond the rated load capacity of the crane/hoist. Understand and observe Working Load Limits (sometimes referred to Safe Working Load).

- Raise the load the minimum height to clear any obstructions. Keeping the load low reduces the severity of injury or damage if the load falls.

- Never leave a load suspended from the crane/hoist unless the operator is at the control pendent with the power "on". The load should be as low to the floor as practical in case a brake should slip.

- Do not lift loads with unused rigging hanging loose. All slings, chains, and cables should be removed from the hook and properly stored. A dangling chain or sling can inadvertently snag other objects when the crane/hoist is moving.

- Do not use the wire rope as a ground for welding. Never touch a live welding electrode to the rope.

- Do not jog the controls unnecessarily. Hoist motors are generally high torque, high slip types. Each start causes an inrush of current 10X greater than the running current and leads to overheating or burnout.

- Avoid swinging of load or load hook. Start and stop all crane motions with slow speed to avoid swinging of the load.

When Finished with the Crane/hoist

- Detach the crane/hoist from the load; raise the hook to an intermediate position (about 7 feet above the floor). Do not leave spreader bars suspended over aisles or work areas, and do not leave spreader bars suspended for long periods of time. (Causes excessive wear on the hold brake).

- Move the hook out of the aisle and into an area where no one will be walking.

- Push the E-Stop on the pendent - this will turn off the power to the crane.

- Leave the pendent where no one will walk into it.

EMPTY DRUM/CONTAINER STORAGE AND DISPOSAL

I. PURPOSE

EBG is dedicated to the protection of its employees from on-the-job injuries. All employees of EBG have the responsibility to work safely on the job. The purpose of this policy is to supplement our standard safety policy by providing safety standards specifically designed to cover the storage and disposal of empty drums and containers.

II. POLICY

No drums or containers are to be sold, recycled or disposed of in any manner without the written approval of the EBG management.

It is against company policy to give away any drums or containers for personal/private use. Employees are not allowed to take any drum(s) or container(s) from company property. No exceptions will be allowed.

Any container on which EBG has to pay a deposit shall be returned for the deposit when empty.

Before ordering chemicals or material in drums or containers, purchasing shall investigate the possibility of returning the drums or containers to the supplier for recycling.

III. APPLICIABILITY

This procedure applies to all employees of EBG who are involved in the storage and disposal of drums and containers.

IV. RESPONSIBILITY

The employee is responsible for emptying the drum or container, ensuring a working, properly fitted gasket and lid are placed on the drum and tightening the bungs and/or cover, and placing the drum or container in the appropriate area.

The supervisor is responsible for making sure the employee complies with the safety regulations, that the bungs an/or cover is replaced and tightened, that the drum or container does not leak, and that the drum or container is placed in the appropriate storage area.

The supervisor of the department who purchases material in drums or containers that require a deposit shall ensure that they are returned for credit.

It is the responsibility of the Safety Officer to check the drums and containers to be sure they are not leaking, and the review this procedure on a regular basis to keep up with changes in the regulations and in the manufacturing process.

V. OPERATIONS

Storage

1. All drums or containers that are empty must have the bungs or lid (and gasket) replaced and secured, and the bungs and lids should be checked for leakage before they are placed outside for storage.

2. No “empty” drum or container shall have more than 1-inch of material remaining in the drum or container.

3. All empty drums shall be placed in the designated empty drum storage area adjacent to the paint waste containment area, and the empty containers shall be placed in the designated area in the back lot by the end of each shift.

4. Material purchased from Fischer Oil is received in steel drums that have a deposit on them. These empty drums should be kept separate from other drums for return to Fischer for a refund.

5. Any drum or container found bulging or leaking must be reported to the department supervisor and the EBG office immediately.

Disposal

1. All empty drums in the storage area shall be inspected by the safety department on a weekly basis to make sure the storage area is orderly and that all drums do not leak.

2. Empty steel drums shall be sent to a hazardous waste disposal facility to be reconditioned or destroyed.

Safety

1. Smoking is not permitted on EBG property or job-site except in designated areas.

2. Never try to lift or empty a 55-gallon drum by yourself; ask for help.

3. Test chemicals, special paints, solvents, oils, etc. shall not be emptied into a drum or container without the prior approval.

COMPRESSED GAS CYLINDER PORCEDURE

I. POLICY

EBG is dedicated to the protection of its employees from on-the-job injuries. All employees of EBG have the responsibility to work safely on the job. The purpose of this policy is to

supplement our standard safety policy by providing safety standards specifically designed to cover the handling, use, and storage of compressed gas cylinders, and to ensure that each employee whose job requires the use of compressed gas cylinders is trained and made aware of the proper use.

II. APPLICIABILITY

All employees of EBG who are required to handle, store, or use compressed gas cylinders is trained in the proper methods.

III. RESPONSIBILITY

Safety policy and procedure cannot be administered, implemented, monitored, and enforced by any one individual. The total objective of a safe, accident-free work environment can only be accomplished by a dedicated, concerted effort by every individual involved, from management down to the last employee. This allows for a more personal approach to compliance through planning, training, understanding and cooperative effort, rather than by strict enforcement.

It is EBG responsibility to develop a compressed gas program that complies with regulations. The most effective programs are those where employers work closely with their workers to identify gas cylinder hazards and to jointly develop a comprehensive program that either eliminates the hazards or provides appropriate protection against them.

It is the responsibility of the EBG management to implement this plan, and for the continual observational safety checks to enforce the safety policy and procedure.

It is the responsibility of the superintendent to ensure that the correct and approved equipment is available, the equipment in good condition, and that only employees who understand the proper procedures and follow these procedures will be allowed to handle and use compressed gas cylinders.

The superintendent shall correct any unsafe conditions immediately.

It is the responsibility of the employee to understand and adhere to the procedures of this plan and to follow the instructions of their superintendent. It is also the employee's responsibility to being to management's attention any unsafe or hazardous conditions or acts that may cause injury to themselves or any other employee.

Approval and Marking

- Compressed gas cylinders shall be legibly marked with either the chemical or the trade name of the gas it contains. Such markings shall be by means of stenciling, stamping, or labeling, and shall not be readily removable.

- All cylinders with a water capacity of 30 pounds (13.6kg) shall be equipped with means of connecting a valve protection cap or with a collar or recess to protect the valve.

Storage of Compressed Gas Cylinders

- Cylinders shall be kept away from radiators and other heat sources.

- Cylinders shall be stored in a well-ventilated, well-protected, dry location, at least 20 feet (6.1m) from highly combustible materials such as oil. Cylinders should be stored in definitely assigned places away from stairs and gangways. Storage places shall be located where cylinders will not be knocked over or damaged by passing or falling objects, or subject to tampering by unauthorized persons. Cylinders shall not be kept in unventilated enclosures such as lockers.

- Valve protection caps, where the cylinder is designed to accept a cap, shall always be in place and hand-tight, except when the cylinders are in use or connected for use.

- Empty cylinders shall have their valves closed, the valve protection cap in place and hand-tight, and the cylinder tagged as empty.

- Oxygen cylinders in storage shall be separated from fuel-gas cylinders or combustible materials (especially oil or grease), a minimum distance of 20 feet (6.1m) or by a noncombustible barrier at least 5 feet (1.5m) high having a fire-resistance rating of at least one-half hour.

- Cylinders shall not be placed where they might become part of an electric circuit.

- Valves of empty cylinders shall be closed.

- If a cylinder is found to have a leak that cannot be stopped by closing the valve, it should be taken outdoors away from sources of ignition and slowly emptied.

IV. PROCEDURE

Handling and Use of Compressed Gas Cylinders

- Cylinders, cylinder valves, couplings, regulators, hose, and apparatus shall be kept free from oily or greasy substances.

- Oxygen cylinders or apparatus shall not be handled with oily hands or gloves; you might be providing the fuel that the oxygen needs to start a fire. A jet of oxygen must never be permitted to strike an oily surface, greasy clothes, or enter a fuel oil or other storage tank.

- Inert gases such as argon or nitrogen can be deadly because they will displace air and are often heavier than air. If there is a pit, tank, or other confined space that is not well ventilated near a tank of compressed gas, make sure the space is checked for oxygen content before entering the space.

- Compressed gas, even compressed air can cause flying fragments or debris to penetrate the eyes or skin. Compresses air itself might penetrate the skin, damage your eyes or ears.

- Use a cradle specifically designed for the purpose when moving compressed gas cylinders. Slings or electric magnets shall not be used for transporting cylinders. Valve-protection caps, where the cylinder is designed to accept a cap, shall always be in place when the tank is not in use and during transport.

- Valve-protection caps shall not be used for lifting cylinders from one vertical position to another. Bars shall not be used under valves or valve-protection caps to pry cylinders loose when frozen together or otherwise fixed.

- Make sure the regulator is compatible with the gas before installing the regulator.

- Cylinders shall be handled carefully. Rough handling, knocks, or falls are liable to damage the cylinder, the valve, or the safety devices and cause leakage. Cylinders shall not be dropped or struck or permitted to strike each other violently.

- Unless cylinders are secured, regulators shall be removed and valve-protection caps, when provided for, shall be put in place before cylinders are moved.

- Cylinder valves shall be closed before moving cylinders.

- Cylinder valves shall be closed when work is finished.

- Cylinders shall be kept far enough away from the actual welding or cutting operation as that sparks, hot slag, or flame will not reach them, or fire-resistant shields shall be provided.

- Tapping of an electrode against a cylinder to strike an arc is strictly prohibited.

- Compressed gas cylinders shall never be used as rollers or supports, whether full or empty.

- A hammer or wrench shall not be used to open cylinder valves. If the valve cannot be opened by hand, the supplier shall be notified.

- Before connecting a regulator to a cylinder valve, the valve shall be opened slightly and then closed immediately to clear any debris that may be in the valve. Stand to the side of the outlet, never in front of it. Never “crack” a fuel-gas cylinder valve near other welding work or near sparks, flames, or other possible sources of ignition.

- The cylinder valve shall always be opened slowly.

- Acetylene cylinders are different from other gas cylinders in that they are filled with a porous material that is saturated with a solvent. The solvent absorbs, or holds, the acetylene while it

is under pressure. This is the reason that you should never use an acetylene gas cylinder that is not standing up.

- An acetylene cylinder valve shall not be opened more than 1 ½ turns of the valve, and preferably no more than ¾ of a turn.

- Nothing which may damage the safety device or interfere with the quick closing of the valve shall be placed on top of an acetylene cylinder when in use.

- Propane tanks have relief valves and should never be placed upside down. When you do place the tank upside down, the relief valve is exposed to liquid propane and, if there is a pressure release, liquid propane will leak out. When the liquid propane leaks to atmosphere, the liquid expands 270 times when it converts to a gas.

EMERGENCY ACTION PLAN

I. POLICY

A fire is the most common type of emergency for which a business must plan. A critical decision when planning is whether or not employees should fight a small fire with portable fire extinguishers or simply evacuate.

Barring any catastrophic disaster, a fire usually starts in a small, localized area, and an employee can assess the fire and, if they are comfortable using one, may attempt to put out the fire using a portable fire extinguisher.

If the fire cannot be contained or if the fire alarm goes off, all employees are to follow the evacuation plan and exit the building. After the fire alarm goes off, no employee is allowed in the building except members of the Emergency Response Team, and they must travel in pairs or be accompanied by a member of the fire department.

II. RISK ASSESSMENT

Risk Assessment Question	Characteristics of incipient stage fires or fires that can be extinguished with portable fire extinguishers	Characteristics of fires that **SHOULD NOT** be fought with a portable fire extinguisher (beyond incipient stage) – evacuate immediately
Is the fire too big?	The fire is limited to the original material ignited, it is contained (such as in a waste basket) and has not spread to other materials. The flames are no higher than the firefighter's head	The fire involves flammable solvents, has spread over more than 60 square feet, is partially hidden behind a wall or ceiling, or cannot be reached from a standing position.
Is the air safe to breathe?	The fire has not depleted the oxygen in the room and is producing only small quantities of toxic gases. No respiratory protection equipment is required.	Due to smoke and products of combustion, the fire cannot be fought without respiratory protection.
Is the environment too hot or smoky?	Heat is being generated, but the room temperature is only slightly increased. Smoke may be accumulating on the ceiling, but visibility is good. No special personal protective equipment is required.	The radiated heat is easily felt on exposed skin making it difficult to approach within 10 – 15 feet of the fire (or the effective range of the extinguisher). One must crawl on the floor due to heat or smoke. Smoke is quickly filling the room, decreasing visibility.
Is there a safe evacuation path?	There is a clear evacuation path that is behind you as you fight the fire.	The fire is not contained; the fire, heat, or smoke may block the evacuation path.

To extinguish a fire with a portable fire extinguisher, a person must have immediate access to the extinguisher, know how to actuate the unit, and know how to apply the agent effectively.

Attempting to extinguish even a small fire carries risk. Fires can increase in size and intensity in seconds, blocking the exit path from the fire scene and creating a hazardous atmosphere. In addition, portable fire extinguishers contain a limited amount of extinguishing agent and can be discharged in a matter of seconds. Therefore, individuals should attempt to fight only very small or incipient stage fires.

Prior to fighting any fire with a portable fire extinguisher, you must perform a risk assessment that evaluates the fire size, the fire fighter's evacuation path, and the atmosphere in the vicinity of the fire.

Fighting a Fire

Portable fire extinguishers have two functions; to control or extinguish small or incipient stage fires and to protect evacuation routes that a fire may block directly or indirectly with smoke or burning/smoldering materials.

If you can answer "Yes" to the following questions, you may use a portable fire extinguisher

- Is the fire small or are there hazardous or highly flammable materials near the fire area? If the
- fire is large or conditions are unsafe, all employees should evacuate.
- Do you have an escape route in the event you cannot extinguish the fire?
- You know what is burning and have the correct class of extinguisher?
- Are you comfortable using a fire extinguisher?
- Do you know the proper way to operate your fire extinguisher?

If you are in any way uncomfortable fighting a fire, leave the area immediately, closing all doors leading to the fire area as you go.

Extinguisher Locations

Fire extinguishers are located throughout the shop and office areas on columns or along walls, and within 50ft. of Class B and Class C hazards.

The Proper Extinguisher

There are four classes of fires. All fire extinguishers are labeled, using standard symbols for the classes of fires they can be used to fight. A red slash through any of the symbols tells you the extinguisher cannot be used on that class of fire.

Class A: Ordinary combustibles such as wood, cloth, and paper.

Class B: Flammable liquids such as gasoline, oil, and oil-based paint.

Class C: Energized electrical equipment--including wiring, fuse boxes, circuit breakers,machinery and appliances.

Class D: Combustible metals--such as magnesium or sodium.

All the extinguishers available to EBG employees are either a CO″ or a multi-purpose dry-chemical extinguisher, both of which can be safely used on class “A”, “B”, or “C” fires.

Using a Portable Fire Extinguisher: "PASS"

Fire requires three things to exist; heat, fuel, and oxygen. If you remove any one of the three elements, the fire can no longer exist. A multi-purpose dry chemical extinguisher works by smothering the fuel and preventing oxygen from getting to the fuel. A CO2 extinguisher both eliminates the oxygen and cools the fuel, but is not effective in a windy environment, and is dangerous in a closed area.

Find a place to stand where you can escape the area in case the fire gets out of control. Stand about 8 to 10 feet away from the fire and follow the four step P-A-S-S procedure -

Pull the pin: This unlocks the operating lever and allows you to discharge the extinguisher.

Aim low: Point the extinguisher hose (or nozzle) at what is burning, not at the flames.

Squeeze the lever: This discharges the extinguishing agent. Releasing the lever will stop the discharge.

Sweep from side to side: Moving carefully toward the fire, keep the extinguisher aimed at the base of the fire and sweep back and forth until the fire is extinguished.

Watch the fire area, if the fire re-ignites, repeat the process.

III. EVACUATION

Activating the Alarm

The fire alarm can be activated automatically when water flows through one or more sprinkler heads, and it can be activated manually at any of the pull stations located next to exit doors. If you are unsure of what to do contact your superintendent or call Personnel.

In the event of a severe weather alarm, the activation button is in the aisle between the Tank Shop and the office. This alarm will typically be activated by Management when weather conditions require.

Evacuation Plan

The company strives to assure the safety of all the employees and those responding to an emergency at our facility, therefore an evacuation plan has been developed.

From time to time, maintenance and testing are required on the fire alarm system. If we anticipate the work might sound an alarm, a notice will be posted the day prior to the work being done telling everyone of a possible false alarm.

When the fire alarm goes off and you have not been notified of alarm testing being done, you are to follow the evacuation plan.

When notified to **evacuate**:

- Turn off any operating machines or equipment.
- Exit the building in an orderly manner through the nearest exit.
- Try to help those who may have difficulty leaving the area or are not familiar with the plan.
- Walk to your designated assembly point (see the evacuation map).
- Be careful of emergency equipment and responders.
- Assemble at the location indicated on the map as quickly as possible. The superintendent and/or lead person must account for everyone in their department as quickly as possible and then send word to Health & Safety who will be located across <company. (See map).
- Stay in designated area until told otherwise by management.

Take Cover Order

In the event that **serious weather** develops, employees will be asked to take cover.

The following procedure is to be taken:

- Turn off your machine.
- Try to help those who may have difficulty leaving the area.
- Walk calmly to an area where there are no windows and there is a solid structure overhead, such as:
    - Restrooms
    - Under a heavy table or piece of equipment.
- All employees are to stay in these areas until told it is safe to go back to work.
- In the event that the building is damaged, all employees, when told it is safe, will proceed to the assembly areas outside as quickly as possible and make your presence known, and to receive additional instructions.

IV. EMERGENCY RESPONSE

EBG management will provide training in Emergency Response. They will be trained in the use of fire extinguishers, emergency shutdown of utilities and key pieces of equipment, manage evacuation should that be necessary, and guide other employees/visitors to take cover areas in the event of storm threats.

In the event of an evacuation of the facility, the Emergency Response Team will evacuate the building and assemble at the end of the drive-up ramp to the warehouse area or at the front of the building. (See map). They will then respond to specific directions from management. ERT members will work only in teams of two or more, never alone; two members of the ERT group, or one ERT and at least one professional emergency responder.

V. PROCEDURE FOR SHUTTING DOWN UTILITIES

Natural Gas

There is no Natural Gas Feed at the EBG facility.

Electricity

- Electric Power Shut off is located at the NE corner of the loading dock area. (See map)

Water

- Domestic water - shutoff is located in the mechanical room near the reception desk. (See map)

EMERGENCY ACTION PLAN - 207 E. 5TH STREET

LEGEND

- FIRE EXTINGUISHER
- ELECTRICAL PANELS
- WATER SHUTOFF
- SECURITY ALARM PANEL
- SDS BINDER
- TAKE COVER LOCATION
- EVACUATION ASSEMBLY POINT
- EMERGENCY EXIT

HAND AND POWER TOOLS

I. POLICY

This policy is to ensure all hand and power tools used on EBG property is in good functioning condition and meets the requirements of and is designed for the task. Tools not purchased and/or provided by EBG must be submitted for inspection and approval prior to implementation and use.

II. PURPOSE

To provide for the general safety of all employees whose work requires the use of hand tools.

III. APPLICABILITY

This policy applies to all EBG employees and staff who may use hand and portable powered tools and equipment during the course of their work. EBG employees and staff must be able to use hand and power tools safely and will comply with manufacturer guidelines.

Responsibility

EBG management is responsible for:

1. Ensuring that hand and portable powered tool safety measures are in place according to this program and the applicable OSHA standards;
2. Maintaining training records; and
3. Periodically evaluating program implementation.
4. Superintendents are responsible for:
5. Ensuring that all hand and portable powered tools and other hand-held equipment are free from defects and are working and maintained properly;
6. Ensuring that tools are used in accordance with manufacturer recommendations;
7. Ensuring that all affected employees have been trained;
8. Ensuring that all affected employees comply with this program;
9. Taking damaged tools out of service immediately if they are defective; and
10. Conducting periodic inspections of work areas.

Employees are responsible for:

1. Attending required training programs;
2. Inspecting hand and portable powered tools and equipment for defects or possible hazards prior to use;
3. Tagging any defective tools as out of service immediately; and
4. Reporting any defects to their superintendent immediately.

Training and Recordkeeping

All employees shall be trained in the proper use of tools prior to using hand and power tools and other hand-held equipment. Employees shall be trained in the following:

1. Recognition of the hazards associated with different types of tools and the safety precautions necessary for use;
2. The PPE required during use; and
3. The proper use of hand and power tools and other hand-held equipment.

Employees shall be retrained as necessary to maintain their understanding and knowledge on the safe use of hand and power tools and other hand-held equipment.

General Safety Requirements

Tools and equipment shall be kept in safe condition. The following help prevent hazards associated with the use of hand and power tools:

1. Keep all tools in good condition with regular maintenance;
2. Use the right tool for the job;
3. Inspect each tool for damage before use;
4. Never use damaged tools - take damaged tools out of service immediately;
5. Operate tools according to the manufacturers' instructions; and
6. Use the proper personal protective equipment (PPE).

Guards

The exposed moving parts of power tools shall be guarded. Safety guards must never be removed when a tool is being used. Belts, gears, shafts, pulleys, sprockets, spindles, drums, flywheels, chains, or other reciprocating, rotating, or moving parts of equipment must be guarded.

Machine guards must be provided to protect the operator and others from the following:

1. Point of operation;
2. In-running nip points;
3. Rotating parts; and
4. Flying chips and sparks.

The following considerations should be evaluated at a minimum in the selection and use of PPE when using hand and portable powered tools:

1. Safety glasses or goggles must be worn at all times when using hand and powered tools;
2. A face-shield may be used in addition to safety glasses or goggles to protect the face and neck;
3. Composite-toe leather shoes should be worn while working with power tools to prevent injury from dropped tools; and
4. Hearing protection is recommended when using power tools.

Before working with hand and power tools, consult the hazard evaluation for the job you will be conducting to determine if additional PPE will be needed. Refer to the PPE Policy regarding the proper use of PPE.

Hand Tools

Hand tools are tools that are powered manually. Some examples of hand tools include anvils, axes, chisels, files, hammers, hand boring tools, planes, pliers, punches, saws, scissors, screw drivers, tin snips, and wrenches. Hazards associated with hand tools result from misuse and improper maintenance. To prevent injury, follow the guidelines listed below:

- Hand tools shall be used for their intended purpose. For example, if a screwdriver is used as a chisel, the tip of the screwdriver may break and fly off, hitting the user or other employees;
- Inspect tools for damage prior to use;
- Hand tools shall be maintained in good condition free of damage. For example, wooden handles on tools, such as a hammer or an axe, shall be tight and free from splinters or cracks;
- Bent screwdrivers or screwdrivers with chipped edges shall be replaced;
- Always direct tools such as knives, saw blades, etc. away from aisle areas and away from other employees working in close proximity;
- Knives and scissors must be sharp; dull tools can cause more hazards than sharp ones;
- Cracked saw blades must be removed from service;
- Wrenches must not be used when jaws are sprung to the point that slippage occurs;
- Impact tools such as drift pins, wedges, and chisels must be kept free of mushroomed heads;
- Iron or steel hand tools may produce sparks that can be an ignition source around flammable substance. Spark-resistant tools made of non-ferrous materials should be used where flammable gases, highly volatile liquids, and other explosive substances are stored or used;
- Keep the work area and tools clean. Dirty, greasy tools and floor may cause accidents;
- Tools shall be stored in a dry secure location;
- Carry and store tools properly. All sharp tools shall be carried and stored with the sharp edge down. Do not carry sharp tools in a pocket; and
- Wear the proper personal protective equipment (PPE).

Power Tools

Power tools must be equipped with guards and safety switches. They can be hazardous when used improperly. Types of power tools are determined by their power source: battery, electric, pneumatic, liquid fuel, hydraulic, and powder-actuated.
To prevent hazards associated with the use of power tools, workers should observe the following general precautions:

- Read the owner’s manual to understand the tool’s proper applications, limitations, operation, and hazards;

- Never carry a tool by the cord or hose;
- Never yank the cord or the hose to disconnect it from the receptacle;
- Keep cords and hoses away from heat, oil, and sharp edges;
- Ensure tools are properly grounded; use Ground Fault Circuit Interrupter (GFCI) for corded tools;
- Disconnect tools when not using them, before servicing and cleaning, and when changing accessories such as blades, bits, and cutters;
- Keep all people not involved with the work at a safe distance from the work area;
- Secure work with clamps or a vise, freeing both hands to operate the tool;
- Avoid accidental starting. Do not hold fingers on the switch button while carrying a plugged-in tool;
- Maintain tools sharp and clean;
- Be sure to keep good footing and maintain good balance when operating power tools;
- Wear proper apparel for the task. Loose clothing, ties, or jewelry can become caught in moving parts; and
- Inspect tools for damage before each use. Remove all damaged portable electric tools from use and tag them: “Do Not Use.”

Electric Tools

Electric tools may cause electrical burns and shocks. To prevent the user from electrocution, electric tools shall have a three-wire cord with a ground and be plugged into a grounded receptacle, be double insulated, or be powered by a low voltage isolation transformer to protect from burns and shocks. Three-wire cords contain two current carrying conductors and a grounding conductor. When an adapter is used to accommodate a two-hole receptacle, the adapter wire must be attached to a known ground. The third prong must never be removed from the plug.
Double-insulated tools are available that provide protection against electrical shock without third-wire grounding. On double insulated tools, an internal layer of protective insulation completely isolates the external housing of the tool.

The following general practices should be followed when using electric tools:

- Operate electric tools within their design limitations;
- Use gloves and appropriate safety footwear when using electric tools;
- Store electric tools in a dry place when not in use;
- Do not use electric tools in damp or wet locations unless they are approved for that purpose;
- Keep work areas well lighted when operating electric tools;
- Ensure that cords from electric tools do not present a tripping hazard.

Pneumatic Tools

Pneumatic tools are powered by compressed air and include chippers, drills, hammers, and sanders. Some hazards associated with pneumatic tools include noise, vibration, fatigue, and strains. Additional hazards are described below:

- The greatest hazard is being hit by one of the tool's attachments or by a fastener used with the tool. Eye protection must be worn for employees working with pneumatic tools;
- Pneumatic tools must be checked to ensure that they are fastened securely to the air hose to prevent them from becoming disconnected. A short wire or positive locking device attaching the air hose to the tool must also be used and will serve as an added safeguard;
- If an air hose is more than 1/2-inch in diameter, a safety excess flow valve must be installed at the source of the air supply to shut off the air automatically in case the hose breaks;
- When using pneumatic tools, a safety clip or retainer must be installed to prevent attachments such as chisels on a chipping hammer from being ejected during tool operation;
- Pneumatic tools that shoot nails, rivets, staples, or similar fasteners and operate at pressures more than 100 pounds per square inch, must be equipped with a special device to keep fasteners from being ejected, unless the muzzle is pressed against the work surface;
- Airless spray guns that atomize paints and fluids at pressures of 1,000 pounds or more per square inch must be equipped with automatic or visible manual safety devices that will prevent pulling the trigger until the safety device is manually released;
- Screens must be set up to protect nearby workers from being struck by flying fragments around chippers, riveting guns, staplers, or air drills; and
- Compressed air guns should never be pointed toward anyone. Workers should never "dead-end" them against themselves or anyone else.

Operating Controls and Switches

The following hand-held power tools must be equipped with a constant-pressure switch or control that shuts off the power when pressure is released:

- Drills;
- Tappers;
- Fastener drivers;
- Horizontal, vertical, and angle grinders with wheels more than 2 inches in diameter;
- Disc sanders with discs greater than 2 inches;
- Belt sanders;
- Reciprocating saws;
- Saber saws, scroll saws, and jigsaws with blade shanks greater than 1/4-inch wide; and
- Other similar tools.

These tools also may be equipped with a "lock-on" control, if it allows the worker to also shut off the control in a single motion using the same finger or fingers.
The following hand-held power tools must be equipped with a positive "on-off" control switch, a constant pressure switch, or a "lock-on" control:

- Disc sanders with discs 2 inches or less in diameter;
- Grinders with wheels 2 inches or less in diameter;

- Platen sanders, routers, planers, laminate trimmers, nibblers, shears, and scroll saws; and
- jigsaws, saber, and scroll saws with blade shanks a nominal 1/4-inch or less in diameter.

DRUG AND ALCOHOL ABUSE

I. PURPOSE

EBG is a drug-free workplace. The purpose of this policy is to ensure the safety of all employees and to promote productivity. This policy applies to all employees, contractors, and temporary workers. Substances covered under this policy include alcohol, illegal drugs, inhalants, prescription, and over-the-counter drugs. We reserve the right to inspect our premises for these substances.

The Company has a strict policy of maintaining a workplace free of drug abuse and the inappropriate use of alcohol. The Company and its employees share a mutual interest in adherence to this policy.

Maintaining satisfactory performance and the decision to acknowledge substance-abuse-related problems and seek assistance are the responsibility of the employee. Human Resources maintains information about local drug counseling, rehabilitation programs, and employee assistance programs. Employees are encouraged to obtain such information from Human Resources.

The Company will accommodate any employee who wishes to voluntarily enter and participate in an alcohol or drug rehabilitation program (provided that the accommodation does not impose an undue hardship on the Company) and will make reasonable efforts to safeguard the privacy of the employee regarding the employee's enrollment in a rehabilitation program. As permitted by law, the Company will allow employees to use accrued sick leave, disability programs, and/or vacation for the purpose of entering and participating in an alcohol or drug rehabilitation program.

Voluntary participation in an alcohol or drug rehabilitation program will not prevent disciplinary action for violation of this policy, for being unable to perform job duties, or for being unable to perform job duties in a manner that does not endanger the employee's health or safety or the health or safety of others. Specific details of this policy are maintained in the EBG Employee Handbook.

DEMOLITION SAFETY

I. POLICY

Prior to permitting employees to start demolition operations, an engineering survey if required, is to be performed and documented, by a competent person, of the structure to

determine the condition of the structure, framing, floors, and walls, and possibility of unplanned collapse of any portion of the structure. Any adjacent structure where employees may be exposed shall also be similarly checked. The Company shall have in writing evidence that such a survey has been performed. All demolition work performed is required to follow the engineering survey. All deviations from the engineering survey shall be preapproved by the survey engineer prior to performance. Employees are required to follow all instructions and guidelines set forth in the engineering survey to prevent potential collapse.

All electric, gas, water, steam, sewer, and other service lines shall be shut off, capped, or otherwise controlled, outside the building line before demolition work is started. In each case, any utility company which is involved shall be notified in advance.

If it is necessary to maintain any power, water or other utilities during demolition, such lines shall be temporarily relocated, as necessary, and protected.
It shall also be determined if any type of hazardous chemicals (including asbestos or lead paint), gases, explosives, flammable materials, or similarly dangerous substances have been used in any pipes, tanks, or other equipment on the property. When the presence of any such substances is apparent or suspected, testing and purging shall be performed, and the hazard eliminated before demolition is started. All questions regarding the past or present presence of hazardous materials should be immediately communicated to the Safety Team for clarification prior to starting or continuing demolition work.

All floor openings, not used as material drops, shall be covered over with material substantial enough to support the weight of any load which may be imposed. Such material shall be properly secured to prevent its accidental movement. These hole covers shall be marked “HOLE COVER” and shall be secured in place to prevent movement.

II. CHUTES

No material shall be dropped to any point lying outside the exterior walls of the structure unless the area is effectively protected. Fences, barricades with signage, and controlled access zones may be employed to protect the debris landing zone.
All materials chutes, or sections thereof, at an angle of more than 45° from the horizontal, shall be entirely enclosed, except for openings equipped with closures at or about floor level for the insertion of materials. The openings shall not exceed 48 inches in height measured along the wall of the chute. At all stories below the top floor, such openings shall be kept closed when not in use.

A substantial gate shall be installed in each chute at or near the discharge end. A competent employee shall be assigned to control the operation of the gate, and the backing and loading of trucks.

When operations are not in progress, the area surrounding the discharge end of a chute shall be securely closed off. Fences, barricades with signage, and controlled access zones may be employed to protect the debris landing zone.

EXCAVATION

I. POLICY

EBG will utilize qualified, bonded, and insured contractors to perform all excavation work on EBG job sites. The following requirements are compatible with standards of practice required by a registered professional engineer. **Soil type determination** will be made by Excavation contractor and submitted to General Contractor before excavation begins. See Exhibit D.

II. Competent Person – A competent person will be on-site 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.

III. Means of Egress from Trench Excavations

A stairway, ladder, ramp, or other safe means of egress shall be located in trench excavations that are 4 feet (1.22 m) or more in depth so as to require no more than 25 feet (7.62 m) of lateral travel for employees.

IV. Design of Sloping and Benching Systems

The slopes and configurations of sloping and benching systems shall be selected and constructed by the employer or his designee and shall be constructed as follows:

• **Option (1)** – Allowable Configurations and Slopes Excavation Safety Program
Excavations shall be sloped at an angle not steeper than one and one-half horizontal to one vertical (34 degrees measured from the horizontal), unless the employer uses one of the other options listed below. Slopes shall be excavated to form configurations that are in accordance with the slopes shown for Type C soil (34 Degrees 1-1/2 – 1 Slope), unless directed otherwise.

• **Option (2)** – Determination of Slopes and Configurations using OSHA 1926 Subpart P - Appendices A and B. Maximum allowable slopes, and allowable configurations for sloping and benching systems, shall be determined in accordance with the conditions and requirements set forth in appendices A and B to OSHA 29 CFR 1926 Subpart P.

• **Option (3)** – Designs Using Other Tabulated Data
Designs of sloping or benching systems shall be selected from and be in accordance with tabulated data, such as tables and charts.

The tabulated data shall be in written form and shall 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, shall be maintained at the jobsite during construction of the protective system. After that time the data may be stored off the jobsite.

• **Option (4)** – Design by a Registered Professional Engineer
Sloping and benching systems not utilizing Option (1) or Option (2) or Option (3) shall be approved by a registered professional engineer.
Any trenching or excavation deeper than 6 feet requires fall protection.
All ground openings will be guarded, barricaded, or covered if left open and unattended.

V. Use of Trench Box ~ Exhibit C

OSHA trench box regulations require that protective systems be used for trenches that are 5
feet deep or more, or for shallower trenches if the soil is unstable. Key regulations inclu de:

- 29 CFR 1926.650, 1926.651, and 1926.652 outline the standards for trenching and e xcavation
    - safety.
- Contractors must ensure the trench box is properly supported/backfilled, there is a safe way to enter and exit the trench, ensure materials are kept away from the edge of the trench, and spoils are a minimum of 2 feet from the trench edge(s). Never allow workers to enter a trench unless it has been properly inspected.

BARRICADE AND SIGNAGE PROGRAM

I. POLICY

The importance and integrity of the Company's barricades are critical in the light of construction conditions and significant construction activities adjacent to the Company worksite. This program outlines the measures to be taken to ensure safe working conditions through the proper use of signs, and signals.

II. Signs

- Signs will be posted to warn of potential hazards, comply with relevant standards, and provide instructions for safe work practices.
- Signs will be visible, legible, and posted in a location where they can be easily seen.
- Signs will be regularly inspected to ensure they remain in good condition and are still relevant. Signals: • Signals will be used to communicate with operators of equipment, vehicles, and cranes.

III. Signals

- Signals will be clearly visible and easily understood by the operator.
- Signals will be standardized and follow recognized hand signals or other appropriate methods.
- Operators will be trained to respond correctly to signals and to stop work if the signal is unclear or not understood.

IV. Barricades

- Barricades will be used to restrict access to areas where work is being performed and where there are potential hazards.
- Barricades will be constructed to prevent unauthorized access.
- Barricades will be properly marked with appropriate signs.
- Barricades will be inspected regularly to ensure they remain in good condition.

PROGRESSIVE DISCIPLINE

I. POLICY

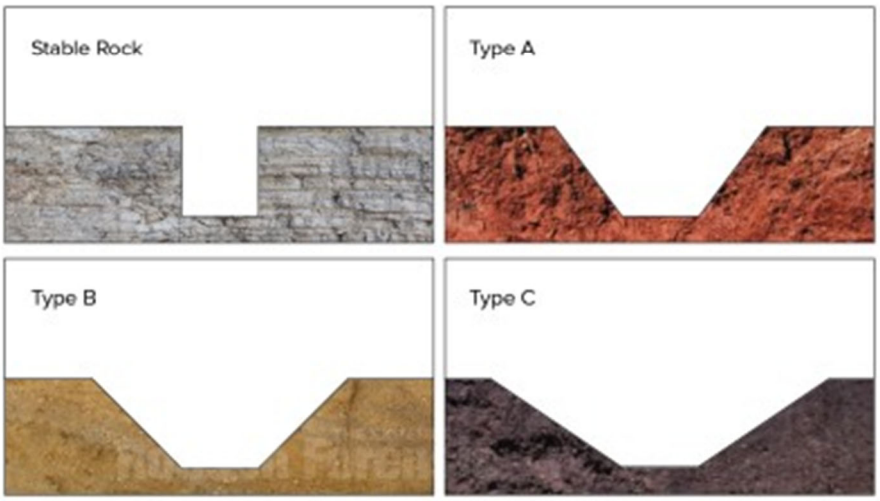
The Progressive Discipline policy has been prepared to state the position of EBG on administering equitable and consistent discipline for unsatisfactory conduct or performance in the workplace. The major purpose of any disciplinary action is to correct the problem, prevent reoccurrence, and prepare the employee for satisfactory performance in the future. Specific details outlining EBG's policy are maintained in the Eagan Building Group Employee Handbook.

Exhibit C~ Trench Box Example

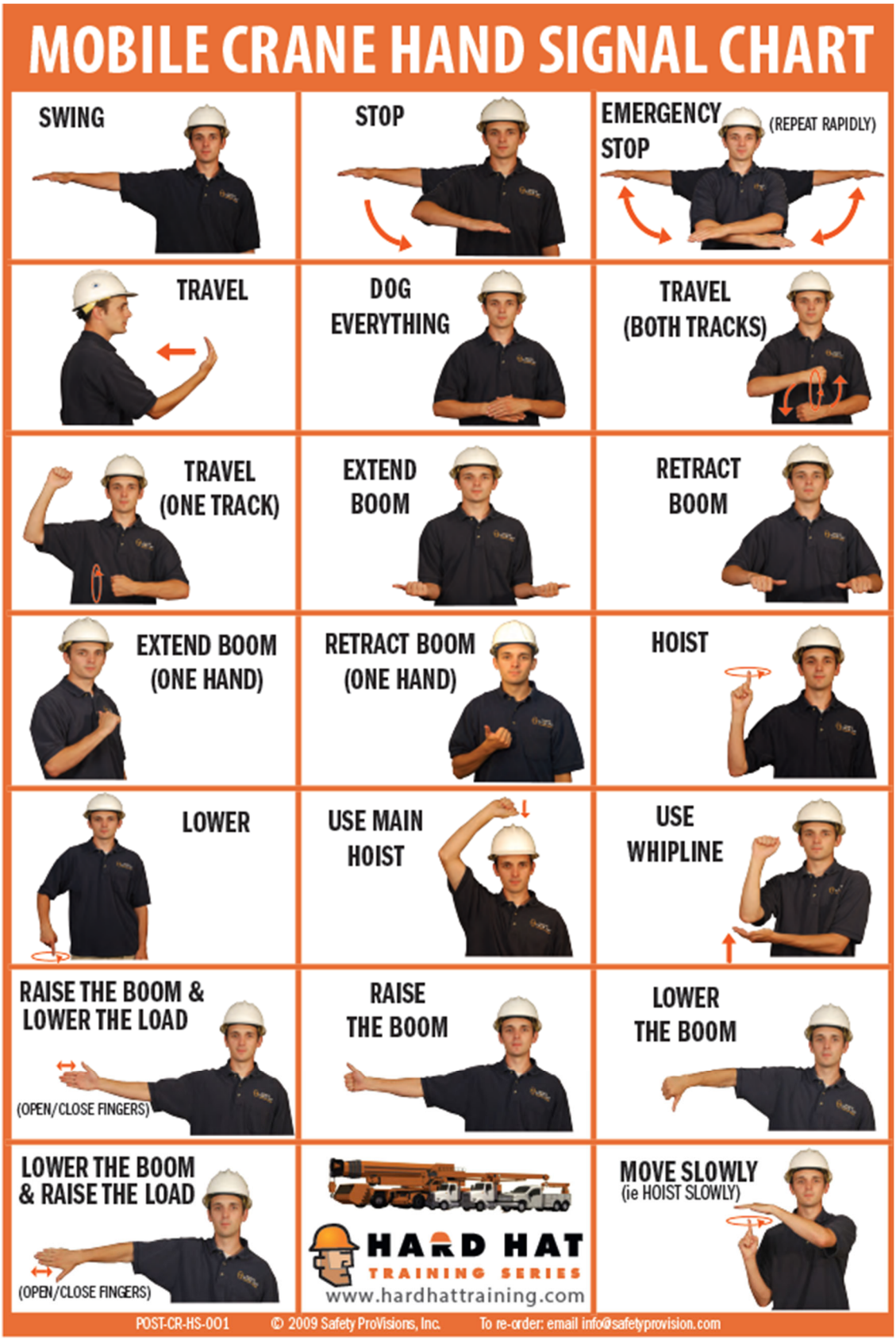
Exhibit D~Trench Slope Chart

Soil Conditions Effect the Choice of Protective Measures

Soil Type	Max. Slope (H:V)	Slope Angle (degrees)
Stable Rock Vertical	90	
Type A	3/4 : 1	53
Type B	1 : 1	45
Type C	1-1/2 : 1	34

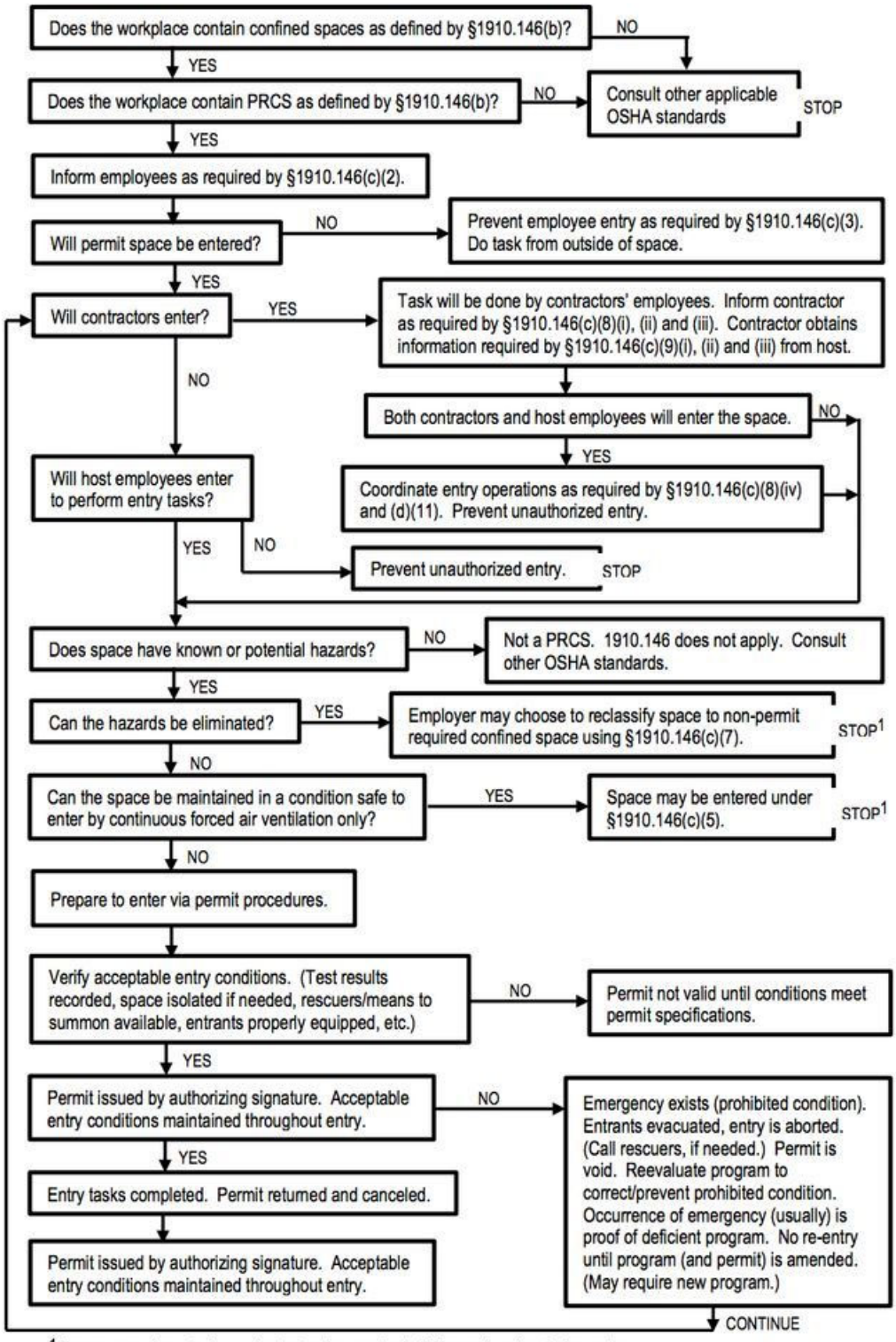


MOBILE CRANE HAND SIGNAL CHART

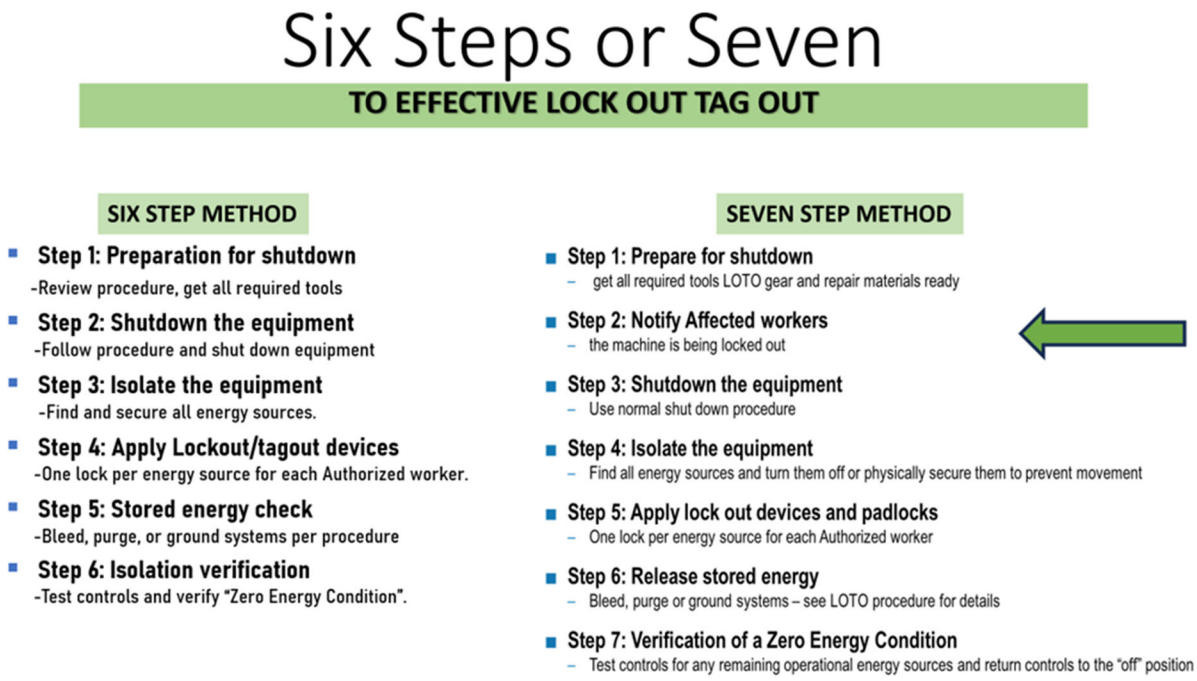


Appendix A

Permit-Required Confined Space Decision Flow Chart



[1] Spaces may have to be evaluated and re-evaluated if hazards arise during entry.



Notifying the affected employees and superintendents in the immediate area of the work is an added step to further reduce risks of interference with you and your work, and adds another level of protection from accidental energizing of the equipment while work is being performed by the authorized employee.

