NATIVE AMERICAN ELECTRIC INC

SAFETY MANUAL

Revised Jan. 2024

SAFETY AND HEALTH POLICY STATEMENT

NAE incorporates safety into every aspect of our daily business operation. It is our intent to not only comply with all applicable laws and regulations, including Federal and State Standards, Labor Code, and General Industry Safety Orders, but to do what is necessary to provide a safe and healthy work environment for our employees, sub-contractors and customers.

Each of our employees is empowered to refuse any work or task that they believe is unsafe or that involves unnecessary risk. We understand and believe that safety is every employee's responsibility, and that includes everyone in the organization. Each department has safety responsibilities. We expect our employees to be engaged in our safety program which includes ownership in detecting, communicating and mitigating hazards in the workplace, as a condition of employment. Inform your supervisor immediately of any situation beyond your ability or authority to correct.

It takes team work to create an injury free work environment and that is what we are committed to do. We also understand that our program must include positive reinforcement of desired behaviors as well as a consistent discipline for undesired actions and behaviors, at all levels of our organization. Through coaching, mentoring and excellent safety leadership from our supervisors and the participation of our workforce, we are committed to be a safety leader in our industry. Only through such a cooperative effort can we achieve our goal of making the work environment as safe as possible.

If any customer, subcontractor, or employee has any concerns over the content of this document or if anyone feels unsafe in the working environment, contact Keith Mitchell, Safety Officer immediately.

Keith Mitchell
Native American Electric
keith@naelectric.net
208-755-8465

Daniel Silvas, President
Native American Electric

NATIVE AMERICAN ELECTRIC INC

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1. **INTRODUCTION: Native American Electric (NAE)** as defined by OSHA standards is the "controlling employer" on our projects and as such is responsible for safety and health conditions at the worksite and has the authority to correct safety violations. The following protocol is proposed to establish a standard for identifying and delineating responsibilities for those construction activities that require greater attention to safety practices and procedures than might typically be encountered on a project. NAE always emphasizes safety as a primary responsibility on all projects as outlined in our IIPP. The activities listed below represent liability exposure to potentially more serious safety risks, coupled with possible lessened awareness and experience that is common to the TI environment and our employees, clients, subcontractors, the general public and others that we work with and around. We require strict adherence to our policies and the appropriate safety procedures in keeping with our IIPP and OSHA standards. NAE has and will maintain a zero-tolerance policy in regards towards safety.

2. **DUTIES AND RESPONSIBILITIES FOR SAFETY**

A successful Safety and Injury and Illness Prevention Program can only be achieved and maintained when there is active interest, participation, and accountability at all levels of the organization. To ensure this, NAE, delegates the following safety duties by job title. Please keep in mind that this is not an all-inclusive list. In some cases, employees will need to perform safety duties outside their regular responsibilities to prevent accidents.

Executive management must plan, organize, and administer the program by establishing policy, setting goals and objectives, assigning responsibility, motivating subordinates, and monitoring results. The Safety Coordinator will support and maintain an ongoing Safety and Injury and Illness Prevention Program through the following:

1. Providing clear understanding and direction to all management and union employees regarding the importance of safety through the development implementation, monitoring and revision of policy and procedures.
2. Providing financial support for the Injury and Illness Prevention Program through the provision of adequate funds for the purchase of necessary safety materials, safety equipment, proper personal protective equipment, adequate time for employee safety training, and maintenance of tools and equipment.
3. Overseeing development, implementation, and maintenance of the IIPP and other required safety programs.
4. Maintaining a company commitment to accident prevention by expecting safe conduct on the part of all managers, superintendents, foremen and employees.
5. Holding all levels of management and employees accountable for accident prevention and safety.

6. Reviewing all accident investigations to determine corrective action.

Project Managers and **Estimators** are in a position to anticipate hazards and help prevent safety problems before they occur. They will support our Safety and & Injury and Illness Prevention Program through the following:

1. Anticipating job hazards prior to the commencement of work at any site.
2. Ensuring the provision of adequate safety equipment for all jobs.
3. Communicating expected safety problems or unique hazards to the foreman and superintendent.
4. Providing for necessary equipment and safety precautions in all bids.
5. Requiring all subcontractors to comply with applicable local, state, and federal safety regulations.
6. Clarifying safety responsibilities from the contract documents. Assuring that all individuals and subcontractors follow rules and fulfill their job responsibilities.

Superintendents play a key role in the prevention of accidents on the job. They have direct contact with the foremen and trades and know the safety requirements for various jobs. Safety responsibilities for superintendents include:

1. Holding foremen accountable for safety.
2. Enforcing safe work practices among all employees.
3. Correcting all unsafe acts and conditions which could cause accidents.
4. Verifying corrective action has been taken regarding safety hazards and accident investigations.
5. Conducting periodic documented inspections of the jobsites to identify and correct unsafe actions and conditions which could cause accidents.
6. Investigating all injuries and accidents to determine their cause and potential corrective action.
7. Acting as a leader in company safety policy and setting a good example by following all safety rules.
8. Assisting the foreman in dealing with safety issues created by other contractors on the jobsite.
9. Becoming familiar with local, state, and federal safety regulations. The Safety Coordinator is available for assistance.
10. Assuring that toolbox meetings are held with all employees, and the proceedings are recorded on the company form. A copy shall be sent to the office.

Foremen have the greatest influence on motivating employees to work safely and should control unsafe acts or conditions. They have the most daily contact with the employees and have direct control over the jobsite. Foremen will:

1. Train all new and existing employees in proper safety procedures and the hazards of the job.
2. Instruct all employees, under their supervision, in safe work practices and job safety requirements.
3. Hold tailgate safety meetings with employees.
4. Ensure employee proficiency when assigning work requiring specific knowledge, special operations or equipment.
5. Ascertain that all machinery, equipment, and tools are maintained in safe working condition and operate properly.
6. Enforce all safety rules in the Code of Safe Practices and ensure safe work procedures.
7. Conduct daily inspections of the work area for unsafe actions or conditions.
8. Correct unsafe acts and conditions which could cause accidents.
9. Communicate with all employees about safety and accident prevention activities.
10. Enforce the wearing of personal protective equipment on the job. This will depend on the circumstance and may include: back support belts, cut resistant gloves, respirators, etc.
11. Correct the cause of any accident as soon as possible.
12. Act as a leader in company safety policy and set a good example by following all safety rules.
13. Ascertain that proper first aid and fire-fighting equipment is maintained and used when conditions warrant its use.
14. Maintain good housekeeping conditions at all times.
15. Investigate all injuries and accidents to determine their cause and potential corrective action.
16. Ascertain that all injuries involving our employees that require medical attention are properly treated and promptly reported to the office.
17. Locating the nearest hospital or medical facility and posting emergency numbers near all phones.

The **Safety Coordinator** or **Safety Officer** acts as a safety resource for the company and is responsible for maintaining program records. They will also be our primary person to deal

with outside agencies regarding the safety program and its contents. Safety Coordinator is currently responsible for this role. Additional duties include:

1. Coordination of all loss prevention activities as a representative of management. Act as a consultant to management in the implementation and administration of the Safety Program.
2. Develop and implement loss prevention policies and procedures designed to insure compliance with the applicable rules and regulations of all federal, state, and local agencies.
3. Review all accident reports to determine cause and "preventability".
4. Conduct periodic reviews of the program and jobsites to evaluate performance, discuss problems and help solve them.
5. Consult with representatives of our insurance companies in order that their loss control services will support the Safety Program.
6. Review Workers' Compensation Claims. Help supply the insurance carrier with information about injured employees in order to keep loss reserves as low as possible.

Every employee is responsible for working safely, both for self-protection and for protection of fellow workers. Employees must also support all company safety efforts. Specific employee safety responsibilities include:

1. If you are unsure how to do any task safely, ask your foreman.
2. Read and abide by all requirements of the Safety Manual and Injury and Illness Prevention Program (IIPP).
3. Know and follow the Code of Safe Practices and all company safety policies and rules.
4. Wear all required personal protective equipment.
5. Report all accidents and injuries, no matter how minor, to your supervisor immediately.
6. Do not operate any equipment you have not been trained and authorized to use.
7. Report any safety hazards or defective equipment immediately to your supervisor.
8. Do not remove, tamper with or defeat any guard, safety device or interlock.
9. Never use any equipment with inoperative or missing guards, safety devices or interlocks.
10. Never possess or be under the influence of alcohol or controlled substances while on the premises.
11. Never engage in horseplay or fighting.
12. Participate in, and actively support, the safety program.

3. EMPLOYEE SAFETY TRAINING

State law requires that employees be trained in the safe methods of performing their job. NAE is committed to instructing all employees in safe and healthful work practices. Awareness of potential hazards, as well as knowledge of how to control them, is critical to maintaining a safe and healthful work environment and preventing injuries. To achieve this goal, we will provide training to each employee on general safety issues and safety procedures specific to that employee's work assignment.

4. NEW EMPLOYEE SAFETY ORIENTATION

Every new employee will be given instruction by their foreman in the general safety every 10 working days. All training will be documented on the forms provided. Managers, superintendents, and foremen will be trained at least twice per year on various accident prevention topics.

- Training provides the following benefits:
- Makes employees aware of job hazards
- Teaches employees to perform jobs safely
- Promotes two-way communication
- Encourages safety suggestions
- Creates interest in the safety program
- Fulfills OSHA requirements

Employee training will be provided at the following times:

- All new employees will receive a safety orientation their first day on the job.
- All new employees will be given a copy of the Code of Safe Practices and required to read and sign for it.
- All field employees will receive weekly training at tailgate or toolbox safety meetings held at the jobsite.
- All employees given a new job assignment from general contractor and/or owner for which training has not been previously provided will be trained before beginning the new assignment.
- Whenever new substances, processes, procedures or equipment which represent a new hazard are introduced into the workplace.
- Whenever NAE is made aware of a new or previously unrecognized hazard.
- Whenever management believes that additional training is necessary.

- After all serious accidents.
- Safe work rules/procedures/training topics will include, but not be limited to:
    - ✓ Employee's safety responsibility
    - ✓ General safety rules
    - ✓ Code of Safe Practices
    - ✓ Safe job procedures
    - ✓ Use of hazardous materials
    - ✓ Use of equipment
    - ✓ Emergency procedures
    - ✓ Safe lifting and material handling practices
    - ✓ Use of boom and scissors lifts
    - ✓ Use of fall protection
    - ✓ Contents of safety program

Documentation of Training

All training will be documented on one of the following three forms.

- New Employee Safety Orientation/Manual
- Employee Safety Certification Documents (CPR, Lift Training, etc)
- Weekly Tailgate Safety Meeting Report

The following training method should be used. Actual demonstrations of the proper way to perform a task are very helpful in most cases.

- **Tell them** how to do the job safely.
- **Show them** how to do the job safely.
- **Have them tell you** how to do the job safely.
- **Have them show you** how to do the job safely.
- **Follow up** to ensure they are still performing the job safely.

5. SAFETY COMMUNICATION

This section establishes procedures designed to develop and maintain employee involvement and interest in the Safety Manual and IIPP. These activities will also ensure effective communication between management and employees on safety related issues which is of prime importance to NAE. The following are some of the safety communication methods that may be used:

1. Tailgate or toolbox safety meetings with employees that encourage participation and open, two-way communication.

2. New employee safety orientation and provision of the Code of Safe Practices.
3. Provision and maintenance of employee bulletin boards discussing safety issues, accidents, and general safety suggestions.
4. Written communications from management or the Safety Coordinator, including memos, postings, payroll stuffers, and newsletters.
5. Anonymous safety suggestion program.
6. Employees will be kept advised of highlights and changes relating to the safety program. The Foremen shall relay changes and improvements regarding the safety program to employees, as appropriate. Employees will be involved in future developments and safety activities, by requesting their opinions and comments, as necessary.
    - All employee-initiated safety related suggestions shall be properly answered, either verbally or in writing, by the appropriate level of management. Unresolved issues shall be relayed to the President and CEO.
    - All employees are encouraged to bring any safety concerns they may have to the attention of management. NAE will not discriminate against any employee for raising safety issues or concerns.
    - NAE also has a system of anonymous notification whereby employees who wish to inform the company of workplace hazards without identifying themselves may do so by phoning or sending written notification to the following address:

Keith Mitchell
Native American Electric
keith@naelectric.net
208-755-8465

6. ENFORCEMENT OF SAFETY POLICIES

The compliance of all employees with NAE's Safety Manual and IIPP is mandatory and shall be considered a condition of employment.

The following programs will be utilized to ensure employee compliance with the safety program and all safety rules.

- Training programs
- Retraining
- Disciplinary action
- Optional safety incentive programs

Training Programs

The importance of safe work practices and the consequences of failing to abide by safety rules will be covered in the New Employee Safety Orientation and at tailgate and toolbox safety meetings. This will help ensure that all employees understand and abide by NAE safety policies.

Retraining

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

Safety Incentive Programs

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

Disciplinary Action

The failure of an employee to adhere to safety policies and procedures established by NAE can have a serious impact on everyone concerned. An unsafe act can threaten not only the health and wellbeing of the employee committing the unsafe act but can also affect the safety of his/her coworkers and customers. Accordingly, any employee who violates any of the company's safety policies will be subject to disciplinary action.

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

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

should be cautious that discipline is given to the employee for safety violations, and not simply because the employee was injured on the job or filed a Workers' Compensation claim. Violations of safety rules and the Code of Safe Practices are to be considered equal to violations of other company policy. Discipline for safety violations will be administered in a manner that is consistent with NAE's system of progressive discipline. If, after training, violations occur, disciplinary action will be taken as follows:

1. Oral warning. Document it, including date and facts on the "Safety Contact Report" form.

Add any pertinent witness statements. Restate the policy and correct practice(s).

2. Written warning. Retrain as to correct procedure/practice.
3. Written warning with suspension.
4. Termination

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

Note: You must be consistent in the enforcement of all safety rules.

7. HAZARD IDENTIFICATION AND EVALUATION

To assist in the identification and correction of hazards, NAE has developed the following procedures. These procedures are representative only and are not exhaustive of all the measures and methods that will be implemented to guard against injury from recognized and potential hazards in the workplace. As new hazards are identified or improved work procedures developed, they will be promptly incorporated into our Safety Manual. The following methods will be utilized to identify hazards in the workplace:

- Loss analysis of accident trends
- Accident investigation
- Employee observation
- Employee suggestions
- Regulatory requirements for our industry
- Outside agencies such as the fire department and insurance carriers
- Periodic safety inspections

Loss Analysis

Periodic loss analyses will be conducted by NAE. These will help identify areas of concern and potential job hazards. The results of these analyses will be communicated to management, supervision, and employees through safety meetings and other appropriate means.

Accident Investigations

All accidents and injuries will be investigated in accordance with the guidelines contained in this program. Accident investigations will focus on all causal factors and corrective action including the identification and correction of hazards which may have contributed to the accident.

Employee Observation

Superintendents and foremen shall be continually observing employees for unsafe actions; and taking corrective action as necessary.

Employee Suggestions

Employees are encouraged to report any hazard they observe to their foreman or supervisor. No employee of NAE is to ever be disciplined or discharged for reporting any workplace hazard or unsafe condition. However, employees who do **not** report potential hazards or unsafe conditions that they are aware of will be subject to disciplinary action.

Regulatory Requirements

All industries are subject to government regulations relating to safety. Many of these regulations are specific to our type of business. Copies of pertinent regulations can be obtained from the Safety Coordinator.

Outside Agencies

Several organizations will assist us in identifying hazards in our workplace. These include safety officers from other contractors, insurance carrier safety and health consultants, private industry consultants, the fire department, and OSHA Consultation.

Periodic Safety Inspections

Periodic safety inspections ensure that physical and mechanical hazards are under control and identify situations that may become potentially hazardous. Inspections shall include a review of the work habits of employees in all work areas. These inspections will be conducted by the foreman, superintendent, safety coordinator or other designated individual.

Periodic safety inspections will be conducted:

- Before any work commences at the site by the foreman or superintendent.
- Daily by the foreman on all sites.
- When new substances, process, procedures or equipment are used.
- When new or previously unrecognized hazards are identified.
- Periodically by the superintendent at various jobsites.
- Periodically by NAE at various jobsites.

These inspections will focus on both unsafe employee actions as well as unsafe conditions. The following is a partial list of items to be checked:

- The proper use of fall protection.
- The proper use, condition, maintenance and grounding of all electrically operated equipment.
- The proper use, condition, and maintenance of safeguards for all power-driven equipment.
- Compliance with the Code of Safe Practices.
- Trenches and excavations.
- Scaffolds.
- Housekeeping and personal protective equipment.
- Hazardous materials.
- Proper material storage.
- Provision of first aid equipment and emergency medical services.

Any and all hazards identified will be corrected as soon as practical in accordance with the NAE hazard correction policy.

If imminent or life-threatening hazards are identified, which cannot be immediately corrected, all employees must be removed from the area, except those with special training required to correct the hazard, who will be provided necessary safeguards.

Documentation of Inspections

Safety inspections will be documented to include the following:

- Date on which the inspection was performed.
- The name and title of person who performed the inspection.
- Any hazardous conditions noted or discovered and the steps or procedures taken to correct them.
- Signature of the person who performed the inspection.

One copy of the completed form should be sent to the office. All reports shall be kept on file for a minimum of two years.

8. HAZARD CORRECTION

The following procedures will be used to evaluate, prioritize and correct identified safety hazards. Hazards will be corrected in order of priority: the most serious hazards will be corrected first. If it is necessary to involve other contractors to correct hazards on a jobsite, they will be properly notified by the foreman, superintendent, project manager or other designated individual.

Hazard Evaluation

Factors which will be considered when evaluating hazards include:

- Potential severity - The potential for serious injury, illness or fatality
- Likelihood of exposure - The probability of the employee coming into contact with the hazard
- Frequency of exposure - How often employees come into contact with the hazard
- Number of employees exposed
- Possible corrective actions - What can be done to minimize or eliminate the hazard
- Time necessary to correct - The time necessary to minimize or eliminate the hazard

Techniques for Correcting, Hazards

1. **Engineering Controls**: Could include machine guarding, ventilation, noise reduction at the source, and provision of material handling equipment. These are the first and preferred methods of control.
2. **Administrative Controls**: The next most desirable method would include rotation of employees or limiting exposure time.
3. **Personal Protective** Equipment: Includes back support belts, hearing protection, respirators and safety glasses. These are often the least effective controls for hazards and should be relied upon only when other controls are impractical.

Documentation of Corrective Action

All corrective action taken to mitigate hazards should be documented. Depending on the circumstances, one of the following forms should be used:

- Safety Contact Report
- Safety Meeting Report
- Memo or letter
- Safety inspection form

All hazards noted on safety inspections will be rechecked on each subsequent inspection and notations made as to their status.

9. ACCIDENT INVESTIGATION

All work-related accidents will be investigated by the foreman, superintendent, project manager or other designated individual in a timely manner. This includes minor incidents and "near accidents," as well as serious injuries. An accident is defined as any unexpected occurrence which results in injury to personnel, damage to equipment, facilities, or material, or interruption of normal operations.

Responsibility for Accident Investigation

Immediately upon being notified of an accident, the foreman, superintendent, project manager or other designated individual shall conduct an investigation. The purpose of the investigation is to determine the cause of the accident and corrective action to prevent future reoccurrence; not to fix blame or find fault. An unbiased approach is necessary in order to obtain objective findings.

The Purpose of Accident Investigations

- To prevent or decrease the likelihood of similar accidents.
- To identify and correct unsafe work practices and physical hazards. Accidents are often caused by a combination of these two factors.
- To identify training needs. This makes training more effective by focusing on factors that are most likely to cause accidents.

Types of Incidents We Investigate

- Fatalities
- Serious injuries
- Minor injuries
- Property damage
- Near misses

Procedures for Investigation of Accidents

1. Immediately upon being notified of an accident the foreman, superintendent, project manager or other designated individual will:
2. Visit the accident scene, as soon as possible, while facts and evidence are still fresh and before witnesses forget important details and to make sure hazardous conditions to which other employees or customers could be exposed are corrected or have been removed;
3. Provide for needed first aid or medical services for the injured employee(s).
4. If possible, interview the injured worker at the scene of the accident and verbally "walk" him or her through a re-enactment. All interviews should be conducted as privately as possible. Interview all witnesses individually and talk with anyone who has knowledge of the accident, even if they did not actually witness it.
5. Report the accident to the corporate office. Accidents will be reported by the office to the insurance carrier within 24 hours. All serious accidents will be reported to the carrier as soon as possible.
6. Consider taking signed statements in cases where facts are unclear or there is an element of controversy.

7. Thoroughly investigate the accident to identify all accident causes and contributing factors. Document details graphically. Use sketches, diagrams and photos as needed. Take measurements when appropriate.
8. All accidents involving death, disfigurement, amputation, loss of consciousness or hospitalization for more than 24 hours must be reported to OSHA immediately.
9. Focus on causes and hazards. Develop an analysis of what happened, how it happened, and how it could have been prevented. Determine what caused the accident itself, not just the injury.
10. Every investigation must also include an action plan. How can such accidents be prevented in the future?
11. In the event a third party or defective product contributed to the accident, save any evidence as it could be critical to the recovery of claim costs.

Accurate & Prompt Investigations

- Ensures information is available
- Causes can be quickly corrected
- Helps identify all contributing factors
- Reflects management concern
- Reduces chance of recurrence

Investigation Tips

- Avoid placing blame
- Document with photos and diagrams, if needed
- Be objective, get the facts
- Reconstruct the event
- Use open-ended questions

Questions to Ask

- When investigating accidents, open-ended questions such as who?, what?, where?, when?, why? and how? will provide more information than closed-ended yes and no questions such as, "Were you wearing gloves?" Examples of open ended questions include:
- How did it happen?
- Why did it happen?
- How could it have been prevented?
- Who was involved?
- Who witnessed the incident?
- Where were the witnesses at the time of the incident?
- What was the injured worker doing?
- What was the employee working on?
- When did it happen?
- When was the accident reported?

- Where did it happen?
- Why was the employee assigned to do the job?

The single, most important question that must be answered as the result of any investigation is, "What do you recommend be done (or have you done) to prevent this type of incident from recurring?"

Once the Accident Investigation is Completed

- Take or recommend corrective action
- Document corrective action
- Management and NAE will review the results of all investigations
- Consider safety program modifications
- Information obtained through accident investigations can be used to update and improve our current program

10. PROGRAM RECORDS

The Safety Coordinator will ensure the maintenance of all Safety Manual and IIPP records, for the listed periods, including:

• New Employee Safety Orientation forms	length of employment
• Code of Safe Practices Receipt	length of employment
• Disciplinary actions for safety	1 year
• Safety inspections	2 years
• Tailgate or toolbox meeting reports	2 years
• Safety Contact Reports	2 years
• Accident investigations	5 years
• OSHA log of injuries	5 years
• Inventory of Hazardous Materials	forever
• Employee exposure or medical records	forever

- Records are available for review at our office.
- Emergency Medical Services and First Aid

11. EMERGENCY MEDICAL SERVICES AND FIRST AID

NAE will ensure the availability of emergency medical services for its employees at all times. We will also ensure the availability of a suitable number of appropriately trained persons to render first aid. Where more than one employer is involved in a construction project on a given site, we may agree to work with other contractors to ensure employee access to emergency medical services for the combined work force. Each crew will have at least one individual trained in rendering first aid. The Safety Coordinator will maintain a list of trained individuals and take steps to provide training for those that desire it.

First-Aid Kits

Every jobsite shall have access to at least one first-aid kit in a weatherproof container. The first aid kit will be inspected regularly to ensure that it is well stocked, in sanitary condition, and any used items are promptly replaced. The contents of the first-aid kit shall be arranged to be quickly found and remain sanitary. First-aid dressings shall be sterile and in individually sealed packages. The following minimum first-aid supplies shall be kept:

Type of Supply Recommended by Number of Employees

Dressings in adequate quantities consisting of:	1-5	6-15	16-200	200+
Adhesive dressings	X	X	X	X
Adhesive tape rolls, 1-inch wide	X	X	X	X
Eye dressing packet	X	X	X	X
1-inch gauze bandage roll or compress		X	X	X
2-inch gauze bandage roll or compress	X	X	X	X
4-inch gauze bandage roll or compress		X	X	X
Sterile gauze pads, 2-inch square	X	X	X	X
Sterile gauze pads, 4-inch square	X	X	X	X
Sterile surgical pads suitable for pressure dressings			X	X
Triangular bandages	X	X	X	X
Safety pins	X	X	X	X
Tweezers and scissors	X	X	X	X
Cotton-tipped applicators*			X	X
Forceps*			X	X
Emesis basin*			X	X
Flashlight*			X	X
Magnifying glass*			X	X
Portable oxygen and its breathing equipment*				X
Tongue depressors*				X
Appropriate record forms*	X	X	X	X
First-aid textbook, manual or equivalent*	X	X	X	X

**To be readily available but not necessarily within the first-aid kit.*

Drugs, antiseptics, eye irrigation solutions, inhalants, medicines, or proprietary preparations shall not be included in NAE first-aid kits unless specifically approved, in writing, by an employer-authorized, licensed physician. Other supplies and equipment, if provided, shall be in accordance with the documented recommendations of an employer-authorized licensed physician upon consideration of the extent and type of emergency care to be given based upon the anticipated incidence and nature of injuries and illnesses and availability of transportation to medical care.

First Aid

The designated first aid person on each site will be available at all times to render appropriate first aid for injuries and illnesses. Proper equipment for the prompt transportation of the injured or ill person to a physician or hospital where emergency care **is** provided, or an effective communication system for contacting hospitals or other emergency medical facilities, physicians, ambulance and fire services, shall also be provided. The telephone numbers of the following emergency services in the area shall be posted near the job telephone, or otherwise made available to the employees where no jobsite telephone exists:

- A company authorized physician or medical clinic, and at least one alternate if available.
- Hospitals.
- Ambulance services.
- Fire-protection services.

Prior to the commencement of work at any site, the foreman or superintendent shall locate the nearest preferred medical facility and establish that transportation or communication methods are available in the event of an employee injury.

Each employee shall be informed of the procedures to follow in case of injury or illness through our new employee orientation program, Code of Safe Practices, and tailgate safety meetings.

Where the eyes or body of any person may be exposed to injurious or corrosive materials, suitable facilities for drenching the body or flushing the eyes with clean water shall be conspicuously and readily accessible.

At least one basket or equally appropriate litter equipped with straps and two blankets, or other similar warm covering, shall be provided for each building or structure five or more floors or 48 feet or more either above or below ground level.

Accident Procedures

These procedures are to be followed in the event of an employee injury in the course of employment.

For severe accidents call 911 and request the Paramedics.

Employees must report all work-related injuries to their foreman immediately. Even if they do not feel that it requires medical attention. Failure to do so may result in a delay of Workers' Compensation benefits and disciplinary action.

The foreman, employee, and first aid person, should determine whether or not outside medical attention is needed. When uncertainty exists on the part of any individual, the employee should be sent for professional medical care.

1. If medical attention is not desired or the employee refuses treatment, you must still fill out a NAE Accident Report in case complications arise later.
2. In all cases, if the employee cannot transport themselves for any reason, transportation should be provided.
3. In the event of a serious accident involving hospitalization for more than 24 hours, amputation, permanent disfigurement, loss of consciousness or death, phone contact should be made with the corporate office. Contact must also be made with the nearest OSHA office.

12. HAZARDOUS MATERIALS AND CHEMICALS COMMUNICATION PROGRAM

It is the policy of NAE that the first consideration of work shall be the protection of the safety and health of all employees. We have developed this Hazard Communication Program to ensure that all employees receive adequate information about the possible hazards which may result from the various materials used in our operations. This Hazard Communication Program will be monitored by NAE, who will be responsible for ensuring that all facets of the program are carried out, and that the program is effective.

Our program consists of the following elements:

- Hazardous material inventory.
- Collection and maintenance of Material Safety Data Sheets.
- Container labeling.
- Employee training.
- The following items are not required to be included in the program and are therefore omitted:
- Foods, drugs, cosmetics or tobacco.
- Untreated wood products.
- Hazardous waste.
- Consumer products packaged for sale to and use by the general public, provided that our exposure is not significantly greater than typical consumer exposure.

Hazardous Material Inventory

The Safety Coordinator maintains a list of all hazardous materials used in our operations.

This list contains the name of the product, the type of product (solvent, adhesive etc.) and the name and address of the manufacturer.

Material Safety Data Sheets (MSDS)

Copies of MSDS for all hazardous substances to which our employees may be exposed will be kept in a binder in the corporate office. These MSDS are available to all employees, at all times, upon

request. Copies of the most commonly used products will also be kept by the foremen at the jobsite or in their vehicles.

The Safety Coordinator will be responsible for reviewing incoming MSDS for new and significant health/safety information. They will ensure that any new information is passed on to the affected employees.

The Safety Coordinator will also review all incoming MSDS for completeness. If an MSDS is missing or obviously incomplete, a new MSDS will be requested from the manufacturer.

OSHA will be notified if a complete MSDS is not received and the manufacturer will not supply one.

New materials will not be introduced into the shop or field until a MSDS has been received. The purchasing department will make it an ongoing part of their function to obtain MSDS for all new materials when they are first ordered.

Container-Labeling

No container of hazardous substances will be used unless the container is correctly labeled and the label is legible.

All chemicals in cans, bags, drums, pails, etc., will be checked by the receiving department to ensure the manufacturer's label is intact, is legible, and has not been damaged in any manner during shipment. Any containers found to have damaged labels will be held until a new label has been installed. New labels will be obtained from the manufacturer.

The label must contain:

- The chemical name of the contents.
- The appropriate hazard warnings.
- The name and address of the manufacturer.
- All secondary containers will be labeled as to their contents with a reference to the original label.

Employee Information and Training

All employees will be provided information and training on the following items through the NAE safety training program and prior to starting work with hazardous substances:

1. An overview of the requirements of the Hazard Communication Standard, including their rights under this regulation.
2. Information regarding the use of hazardous substances in their specific work areas.
3. The location and availability of the written hazard communication program. The program will be available from the foreman and NAE.
4. The physical and health hazards of the hazardous substances in use.

5. Methods and observation techniques used to determine the presence or release of hazardous substances in the work area.
6. The controls, work practices and personal protective equipment which are available for protection against possible exposure.
7. Emergency and first aid procedures to follow if employees are exposed to hazardous substances.
8. How to read labels and material safety data sheets to obtain the appropriate hazard information.
9. Hazardous Non-Routine Tasks
10. Infrequently, employees may be required to perform hazardous non-routine tasks. Prior to starting this work, each involved employee will be given information by his/her supervisor about hazards to which they may be exposed during such activity.

This information will include:

- The specific hazards.
- Protective/safety measures which must be utilized.
- The measures the company has taken to lessen the hazards, including special ventilation, respirators, the presence of another employee, emergency procedures, etc.

Informing Contractors

To ensure that other contractors are not exposed to our hazardous materials, and to ensure the safety of the contractor's employees, it will be the responsibility of the foreman to provide other contractors the following information:

The hazardous substances under our control that they may be exposed to while at the site.

The precautions the contractor's employees must take to lessen the possibility of exposure.

We will obtain from outside contractors the name of any hazardous substances the contractor's employees may be using at a jobsite or bringing into our facility. The contractor must also supply a copy of the material safety data sheet relevant to these materials.

Employee Rights Under the Hazard Communication Standard

- At any time, an employee has the right to:
- Access the MSDS folder, and the Hazard Communication Program.
- Receive a copy of any environmental sampling data collected in the workplace.
- See their employment medical records upon request.

13. GENERAL CONSTRUCTION AND SAFETY GUIDELINES

Working near Perimeter Windows in a High-Rise Complex:

NAE as defined by OSHA standards is the "controlling employer" on our projects and a s such is responsible for safety and health conditions at the worksite and has the authority to correct safety violations. The following protocol is proposed to establish a standard for identifying and delineating responsibilities for those construction activities that require greater attention to safety practices and procedures than might typically be encountered on a TI project. NAE always emphasizes safety as a primary responsibility on all projects as outlined in our IIPP. The activities listed below represent liability exposure to potentially more serious safety risks, coupled with possible lessened awareness and experience that is common to the TI environment and our employees, clients, subcontractors, the general public and others that we work with and around. We require strict adherence to our policies and the appropriate safety procedures in keeping with our IIPP and OSHA standards. NAE has and will maintain a **zero-tolerance policy** in regards towards safety.

Our Policy will be implemented as follows:

- NAE management will develop procedures that will assist in heightened awareness of the dangers of working near the perimeter glass in a high-rise structure and to prevent incidences that may cause personal injury and property damage. These protocol procedures will be periodically reviewed and updated as needed.
- Each supervisor and employee will be assigned various levels of safety responsibilities and authority.
- All employees will be held accountable for full implementation of NAE's safety policy.
- Any safety activity or hazard will be acted upon immediately when recognized or observed.
- State, Federal and Local safety codes are to be considered minimal acceptable safety criteria.
- Each site will have a supervisor available to support the safety effort.
- An established system of communication and documentation will be implemented to ensure that the policy is being adhered to by NAE employees, subcontractors and outside vendors. Signed confirmation of the written plan must be obtained from each subcontractor prior to the subcontractor beginning work on the floor.

Pre-Job Safety Planning:

Site Inspection: NAE to inspect and document any existing damage to the perimeter of the floor prior to the commencement of work.

Protection: NAE to determine (if required) the best method for perimeter window protection and to have the proper material staged on-site prior to the commencement of work.

Material storage: NAE to pre-determine the designated storage areas. Any storage areas that are to be near the perimeter windows must be properly protected prior to the "stocking" of the project. No materials to be stored within 15' of the perimeter without the consent of NAE's on-site Supervisor.

Lighting: NAE to verify that all work areas that are to receive window protection will be properly illuminated after the protection has been installed. NAE to verify that adequate temporary lighting has been supplied prior to the commencement of work.

Personal Protective Equipment: NAE to verify that all required PPE and fall equipment is on-site prior to the commencement of work.

Safety Protocol: Signed perimeter safety protocol, demolition and glass replacement protocol documents to be signed and returned to NAE prior to the commencement of work.

Identification/Awareness:

NAE to provide a continuous painted line on the concrete slab at the 6' mark from the perimeter windows. Construction activity on an occupied floor, where hard construction will take place over existing floor finishes shall receive blue tape at the 6' mark. No tape will be applied at the 6' mark, over new floor finishes, after hard construction has been completed.

NAE will be responsible to alert employees and subcontractors that no material can be stored within 15' of the windows or work performed past the 6' mark without consulting NAE's on-site supervisor.

Layout and material placement, for installation in or above the area of placement, will not require window protection, however, NAE's on-site supervisor must be informed of all work to be performed within 8' of the exterior windows prior to commencement of work.

All employees and subcontractors shall be responsible for a "common sense" approach to construction at or near the perimeter glass and must contact NAE's on-site supervisor if any situation is unclear.

Required Responsibilities:

NAE management is required to:

- Provide the means to accomplish the policy as stated above.
- Enforce the policy and discharge any employees or subcontractors that willfully disregard the policy.
- Require all subcontractors to abide by this policy.
- Conduct periodic safety inspections and file reports.
- Establish and provide safety training for all personnel.

All on-site supervisors are required to: (NAE and Subcontractors)

- The on-site supervisor is responsible for the implementation of the policy at his/her project site.
- Instruct the foreman that safe practices are to be followed and safe conditions maintained throughout the site. Instruct the foreman that they are not permitted to allow their workers to "take chances," but rather insist that the proper protocol is followed.
- Inform all employees, subcontractors and vendors that they are to report all unsafe conditions with no fear of reprisal. Any safety issues or concerns should be given to NAE's on site superintendent in a written format.
- Encourage an open line of communication with all employees on-site. Ask to be informed any time work will be conducted at or near the perimeter windows.
- Make a minimum of one safety tour per day.
- Name a competent person to conduct additional safety tours of the project site.
- Conduct weekly tailgate safety meetings.

All on-site foremen are required to: (NAE and Subcontractors)

- See that the policy is carried out at the "work" level.
- Inform all employees, subcontractors and vendors that they are to report all unsafe conditions with no fear of reprisal. Any safety issues or concerns should be given to NAE's on site superintendent in a written format.
- Instruct the workers that safe practices are to be followed and to increase awareness throughout the project.
- Review the project site daily for any unsafe conditions or missing protection at the perimeter. Correct any unsafe condition immediately.
- Discuss safety at the perimeter windows on an individual basis with workers at every occasion.
- Make a minimum of one safety tour per day.

All on-site workers are required to: (NAE and Subcontractors)

- Work according to good safety practices and to participate in the protection of the perimeter glass.
- Use and maintain all safety devices provided for personal protection while working near the perimeter of the building.
- Maintain and properly use all tools while working at the perimeter of the building. Ask your supervisor for guidance if working within 8' of the building perimeter.
- Stop any unsafe or hazardous activity immediately. No employee will be reprimanded from stopping an unsafe act; however, an employee will be removed from the site immediately for allowing an unsafe act to continue. Report any unsafe act to NAE's on-site supervisor immediately.
- Provide fellow employees with assistance with safety requirements.

- Attend weekly tailgate safety meetings.
- Inform all employees, subcontractors and vendors that they are to report all unsafe conditions with no fear of reprisal. Any safety issues or concerns should be given to NAE's on site superintendent in a written format.
- In addition, Subcontractors are required to:
- Provide a signed copy of NAE's "general working guidelines for working near perimeter windows" prior to the commencement of work.
- Check in with NAE's supervisor before commencing work to confirm area of work and to discuss guidelines for working/staging near the perimeter of the building.
- Orientate new employees and communicate the hazards of working near the perimeter windows.

Safety inspections:

- Daily by on-site supervisor.
- Continuously by all on-site personnel.
- Random inspections by NAE management.

Employee education/awareness:

- Safety Meetings:
- Weekly tailgate meetings.
- Daily meetings during demolition.
- Orientation of new employees.
- Safety Rules and Procedures.
- Procedures for working near the perimeter glass.
- Building rules and regulations.
- Specific safety requirements such as requirements for the window washing rig.
- Signage…..As required by NAE Supervisor.

General Construction Guidelines for Working Near the Perimeter Windows:

Demolition Protocol:

All demolition work within 8'of the perimeter windows will be done only be designated crews. Safe work practices require hand work only, no sledge hammers or mechanical hammers are to be used. The designated crew will be selected on the understanding and ability to work safely around the perimeter glass walls.

Additional protection will be placed in front of the exterior perimeter window glass when working within 8' of the glass. Protection will extend 4' in either direction from the demolition activity. Plywood will be moved as work progresses and will be required to be in place prior to commencement of demolition activities.

Main duct work will be supported and lowered to the floor with a lift when removed. All branch duct removal will require the use of two crew members. Light fixtures and/or any other

equipment that may possibly come into contact with a perimeter window will be assessed by NAE's on site superintendent to determine the best method of removal.

The daily safety meeting will be held with NAE (and other subcontractors if applicable) prior to the commencement of the shift. The safety meeting is to include and stress the procedures for working near the windows. Every crew member will know who is designated to work near the windows and which work practices are required. The designated crew must be identified during this meeting and is required to sign in prior to the commencement of the shift.

In addition to the daily NAE safety meetings, the demolition contractor will be required to hold a separate safety meeting with their crew prior to the commencement of each shift. NAE is to be provided a copy of the meeting notes or agenda and sign-in sheet for each of these meetings. The subcontractor is required to identify who will be selected as the Safety Coordinator of each shift. The Safety Coordinator's role will be to monitor and enforce the guidelines outlined above, to ensure that the entire crew is working in a safe manner and to identify and communicate any and all hazards on the project site. The Safety Coordinator has the authority and responsibility to immediately halt all work if a hazardous situation is discovered.

14. HEAT ILLNESS PREVENTION PRACTICES

What you need to know about heat…

Heat illness results from the body's inability to cope with heat and cool itself. Heat illness results from a combination of factors including environmental temperature and humidity, direct radiant heat from the sun or other sources, air speed, and workload. Personal factors, such as age, weight, level of fitness, medical conditional, use of medications and alcohol, and acclimatization affect how well the body deal with excess heat.

Recognize the hazard…

There is no absolute cut-off below which work in heat is not a risk. With heavy work at high relative humidity or if workers are wearing protective clothing, even work at 70º can present a risk. In the relative humidity levels often found in hot areas of California, when temperatures are over 80º actions to reduce heat illness should be taken. At temps above 90 º, especially with heavy work, heat risk reduction needs to be a major concern. **IT IS ESPECIALLY IMPORTANT TO BE VIGILANT DURING PERIODS OF ABNORMALLY HIGH HEAT.**

Water

Employees working in the heat need to drink (4) 8oz glasses of water per hour to replace the water lost to sweat. Foremen should estimate at least 2 gallons of water per day, per employee for the jobsite. Remember that you can be dehydrated and not feel it. Encourage yourself and coworkers to continue drinking water every hour (Cal/OSHA, 2006). Remember, drinking alcohol

the night before or drinking caffeine during the day will increase your risk of heat illness; drink more water to rehydrate.

Shade and Rest Breaks

The direct heat of the sun can add as much as 15 º to the heat index. Rest breaks in the shade are important to provide time for cooling and provide an opportunity to drink water. Take at least a 5 minute break in the shade. Wide brimmed hats can also reduce the impact of direct heat.

Acclimatization

Acclimatization (adjusting to the heat) is particularly important when an employee returns to work after a prolonged absence or recent illness, moving from a cool to a warm climate, or working during the beginning stages of a heat wave. For heavy work under extremely hot conditions, a period of 4 to 10 days of progressively increasing work time starting with about 2 hours work per day is recommended by Cal/OSHA, 2006. For less severe conditions, a least the first 2 or 3 days of work in the heat should be limited to 2 to 4 hours according to Cal/OSHA. Monitor coworkers and yourself for signs and symptoms of heat illness, particularly during heat waves or when an employee has not been working in the heat for the last few days.

Medical Attention

Recognizing the symptoms of heat illness and providing an effective response requires acting fast on early warning signs. Common early symptoms and signs of heat illness include headache, muscle cramps, and unusual fatigue. This can be things like: loss of concentration and difficulty focusing on a task, increased irritability, and little or no desire to drink, fatigue and headache (results from loss of fluids). Progression to more serious symptoms require immediate (and possible medical) attention like: unusual behavior, nausea/vomiting, weakness, rapid pulse, rising body temp, excessive sweating or hot dry skin, seizures, and fainting or loss of consciousness. These symptoms can cause death. Call 911 or take employee to nearest urgent care/emergency room facility if you or a coworker shows an abnormal response to heat and they do not respond to preventive measures (water, shade, rest) or have shown the progressed symptoms. Regardless of the worker's protest, no employee with any of the progressed symptoms of serious heat illness should be sent home or left unattended.

Heat illness is preventable with the steps outlined:

1. Never work alone outside in the heat.
2. Use the "buddy system" to keep an eye on your co-workers.
3. Drink at least 1 quart of water each hour when working outdoors (4 (8oz) glasses).
4. Take a break of at least 5 minutes in the shade for rest from the sun.

5. Tell supervisor immediately if you have muscle cramps, get a headache, or feel nauseous, fatigued or giddy or develop a heat rash and get to shade, sit down, and drink some water.
6. Get employee to urgent care or call 911 immediately if any of the following occurs: no sweating, no desire to drink, serious fatigue, they feel mental confusion, delirium, loss of consciousness, convulsions, or coma, body temp over 106º, or hot dry skin which is red, mottled, or bluish.

Best Practices

Recognizing the symptoms of heat illness and providing an effective response requires acting fast. Check the weather; if you anticipate heat waves you can be prepared. Remember to drink water instead of drinks with caffeine and sugar as these can dehydrate you even more. Add ice to water when possible and increase the number of water and rest breaks when working in high heat. If there is no building or tree shade available, call your supervisor to provide an “easy-up” for portable shade on the jobsite. Use the buddy system to watch each other for symptoms of heat illness. Water, water, water!! You may not feel thirsty, but be sure to drink LOTS of water in the heat – it is your best defense against heat illness by preventing dehydration.

USE the following chart of heat illness symptoms and solutions.

USE the following chart of heat illness symptoms and solutions.

SOME SYMPTOMS OF HEAT STRESS...	WHAT TO DO....
HEAT STROKE The most serious health problem for workers in a hot environment is caused by the body's failure to regulate its core temperature. Sweating stops and the body can no longer release the excess heat. Victims of heat stroke usually die unless treated promptly. Signs include: • Mental confusion, delirium, los of consciousness, convulsions, or coma • Body temp of 106 degrees or higher • Hot, dry skin that may be red, mottled, or bluish	Immediately call for medical assistance. Prompt first aid and medical treatment can prevent permanent injury to the brain and other vital organs. While awaiting medical help, the victim should be moved to the coolest, shadiest spot available, fanned vigorously and the victim's skin and clothing should be gradually soaked with cool water.
HEAT EXHAUSTION Results from loss of fluid through sweating and from not drinking enough replacement fluids. The employee still sweats, but experiences extreme weakness or fatigue, giddiness, nausea, or headache. The skin is clammy and moist, while the body temperatures are normal or slightly elevated.	The victim should rest in a cool place and drink water or an electrolyte solution (such as Gatorade) to restore potassium and salt. Severe cases, in which the victim vomits or loses consciousness, may require longer treatment under medical supervision.
HEAT CRAMPS Painful spasms of the muscles are caused by the body's los of salt.	As in the case of heat exhaustion, a victim of heat cramps should drink an electrolyte solution (such as Gatorade) to restore potassium and salt. Seek medical attention in the case of severe cramping, vomiting, or loss of consciousness.
FAINTING Fainting can occur when a worker is not acclimatized to a hot environment	At first, allow the victim to lie down on his or her back. When consciousness has been regained, the victim should recover after a brief period of walking around slowly. Immediate return to work in the heat is not advisable as heat stress may recur.
HEAT RASH Heat rash or prickly heat can be extensive and can be complicated by infection. Heat rash can be so uncomfortable that sleep is disrupted. It can impede an employee's performance and even result in a temporary total disability.	Place the victim in a cool place and allow the skin to dry.

15. FALL PROTECTION

Falls are the leading cause of fatal injuries in the construction industry. NAE has the following requirements for fall protection at all of our jobsites and work areas.

When Fall Protection is Required

Fall protection is required when working where there is a hazard of falling more than 7 ½ feet from the perimeter of a structure, unprotected sides and edges, leading edges, through shaft ways and

openings, sloped roof surfaces steeper than 7:12, or other sloped surfaces steeper than 40 degrees not otherwise adequately protected. Fall protection is also required when working in boom lifts.

Fall Protection Types

- One of the following four types of fall protection systems will be used when our employees are exposed to fall hazards in excess of 7 ½ feet:
- Standard guardrails, cables or floor hole covers
- Personal fall arrest system
- Positioning devices
- Fall restraint systems

Standard Guardrails, Safety Cables, or Covers

These are the easiest and most cost-effective methods of providing fall protection and have a very high success rate. Standard guardrails, safety cables, floor hole and sky light covers are our preferred means of fall protection on jobsites. The following rules will be followed when using them:

1. Railings shall be constructed of wood, or in an equally substantial manner from other materials, and shall consist of a top rail not less than 42 inches or more than 45 inches in height measured from the upper surface of the top rail to the floor, platform, runway or ramp level and a mid-rail. The mid rail shall be halfway between the top rail and the floor, platform, runway or ramp. "Selected lumber" free from damage that affects its strength, shall be used.
2. Wooden posts shall be not less than 2 inches by 4 inches in cross section, spaced at 8- foot or closer intervals.
3. Wooden top railings shall be smooth and of 2-inch by 4-inch or larger material. Double, 1-inch by 4-inch members may be used for this purpose, provided that one member is fastened in a flat position on top of the posts and the other fastened in an edge-up position to the inside of the posts and the side of the top member. Mid rails shall be of at least 1-inch by 6-inch material.
4. The rails shall be placed on the side of the post which will afford the greatest support and protection.
5. All guardrails, including their connections and anchorage, shall be capable of withstanding a load of 13 pounds per linear foot applied either horizontally or vertically downward at the top rail.
6. Railings receiving heavy stresses from employees trucking or handling materials shall be provided additional strength by the use of heavier stock, closer spacing of posts, bracing, or by other means.
7. Floor, roof and skylight openings shall be guarded by a standard railing and toe boards or cover. Covering shall be capable of safely supporting the greater of the weight of a 200-pound person or the weight of worker(s) and material(s) placed thereon.

8. Coverings shall be secured in place to prevent accidental removal or displacement, and shall bear a pressure sensitized, painted, or stenciled sign with legible letters not less than one inch high, stating: "Opening--Do Not Remove." Markings of chalk or keel shall not be used.
9. Ladderway floor openings or platforms shall be guarded by standard railings with standard toe boards on all exposed sides, except at the entrance to the opening, with the passage through the railing either provided with a swinging gate or so offset that a person cannot walk directly into the opening.
10. Floor holes, into which persons can accidentally walk, shall be guarded by either a standard railing with standard toe boards on all exposed sides, or a floor hole cover of standard strength and construction that is secured against accidental displacement. While the cover is not in place, the floor hole shall be protected by standard railings.
11. Wall openings, from which there is a drop of more than 4 feet, and the bottom of the opening is less than 3 feet above the working surface, shall be guarded with either a standard rail or intermediate rail or both.
12. An extension platform outside a wall opening onto which materials can be hoisted for handling shall have side rails or equivalent guards of standard specifications. One side of an extension platform may have removable railings in order to facilitate handling materials.
13. Wall opening protection barriers shall be of such construction and mounting that, when in place at the opening, the barrier is capable of withstanding a load of at least 200 pounds applied in any direction (except upward).
14. All elevator shafts in which cages are not installed and which are not enclosed with solid partitions and doors shall be guarded on all open sides by standard railings and toe boards.
15. A full body harness and lanyard are required when using boom lifts.

Personal Fall Arrest Systems

1. Personal fall arrest systems consist of a full body harness and a shock absorbing lanyard attached to suitable anchorage. They are also an effective means of preventing fall accidents. The system does not actually stop you from falling, but catches you and safely stops you from hitting the level below. Fall arrest systems will be our preferred means of protection
2. when standard guardrails, safety cables, or covers are not practical. The following rules, in addition to the manufacturer's requirements and OSHA regulations, will be observed:
3. Ropes and straps (webbing) used in lanyards, lifelines, and strength components of body harnesses shall be made from synthetic fibers except when they are used in conjunction with hot work where the lanyard may be exposed to damage from heat or flame.
4. Anchors used for attachment of personal fall arrest equipment shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 pounds per employee attached, or shall be designed, installed, and used as part of a complete personal fall arrest system which maintains a safety factor of at least two; and under the supervision of a qualified person.

5. The attachment point of the body belt shall be located in the center of the wearer's back. The attachment point of the body harness shall be located in the center of the wearer's back near shoulder level, or above the wearer's head.
6. Where practical, the anchor end of the lanyard shall be secured at a level not lower than the employee's waist, limiting the fall distance to a maximum of 4 feet.
7. Harnesses, lanyards, and other components shall be used only for employee protection as part of a personal fall arrest system and not to hoist materials.
8. Personal fall arrest systems and components subjected to impact loading shall be immediately removed from service and shall not be used again for employee protection until inspected and determined by a competent person to be undamaged and suitable for reuse.
9. NAE shall provide for prompt rescue of employees in the event of a fall or shall assure that employees are able to rescue themselves.
10. Personal fall arrest systems shall be inspected prior to each use for wear, damage and other deterioration, and defective components shall be removed from service.
11. Any lanyard, safety harness, or drop fine subjected to in-service loading, as distinguished from static load testing, shall be immediately removed from service and shall not be used again for employee safeguarding.
12. Personal fall arrest systems shall not be attached to guardrails, unless the guardrail is capable of safely supporting the load.
13. Each personal fall arrest system shall be inspected not less than twice annually by a competent person in accordance with the manufacturer's recommendations. The date of each inspection shall be documented.
14. Personal fall arrest systems will be rigged such that an employee can neither free fall more than 4 feet, nor contact any lower level.
15. Personal fall arrest systems will bring an employee to a complete stop. They will also limit maximum deceleration distance an employee travels to three-and-a-half feet and have sufficient strength to withstand twice the potential impact energy of an employee free falling a distance of six feet, or the free fall distance permitted by the system, whichever is less.

Positioning Device Systems

1. Positioning device systems are designed to allow employees to work with both hands free at elevated locations. By their very nature, they provide some level of fall protection. They are not as effective as railings or fall arrest systems. Positioning device systems may be used together with a fall arrest system for greater safety. Their use shall conform to the following provisions:
2. Positioning devices shall be rigged such that an employee cannot free fall more than two feet.
3. Positioning device systems shall be inspected prior to each use for wear, damage, and other deterioration, and defective components shall be removed from service.

4. Body belts, harnesses, and components shall be used only for employee protection (as part of a personal fall arrest system or positioning device system) and not to hoist materials.
5. The use of non-locking snap hooks is prohibited.
6. Anchorage points for positioning device systems shall be capable of supporting two times the intended load or 3,000 pounds, whichever is greater.

Personal Fall Restraint

Fall restraint systems are designed to prevent the wearer from reaching the edge or danger area and thus prevent them from falling. Body belts or harnesses may be used for personal fall restraint.

Body belts shall be at least one and five-eighths ($1\ ^{5}/_{8}$) inches wide.

Anchorage points used for fall restraint shall be capable of supporting four times the intended load.

Restraint protection shall be rigged to allow the movement of employees only as far as the sides of the working level or working area.

Note: All safety belts, harnesses and lanyards placed in service or purchased on or before February 1, 1997, shall be labeled as meeting the requirements contained in ANSI A10.14- 1975, Requirements for Safety Belts, Harnesses, Lanyards, Lifelines and Drop Lines for Construction and Industrial Use.

All personal fall arrest, personal fall restraint and positioning device systems purchased or placed in service after February 1. 1997, shall be labeled as meeting the requirements contained in ANSI A10.14-1991 American National Standard for Construction and Demolition Use, or ANSI Z359.11992 American National Standard Safety Requirements for Personal Fall Arrest Systems, Subsystems and Components.

16: ELECTRICAL SAFETY & LOCK-OUT / TAG-OUT PROGRAM

Contact with electricity is the second leading cause of fatalities in the construction industry. NAE has developed the following procedures to protect our employees and reduce the risk of accidents. We will also conduct a periodic review of electrical safety, energy control procedures, and lock-out / tag-out, at least annually, to ensure that the procedure and the requirements of this section are being followed.

This procedure is binding upon all employees. All employees will be instructed in the significance of electrical safety, energy control procedures, and lock-out / tag-out. Each new employee shall be instructed by their foreman in the purpose and use of these procedures.

All Equipment and Installations

Only trained, qualified, and authorized employees will be allowed to make electrical repairs or work on electrical equipment or installations.

All electrical equipment and systems shall be treated as energized until tested or otherwise proven to be de-energized.

All energized equipment and installations will be de-energized prior to the commencement of any work. If the equipment or installation must be energized for test or other purposes, special precautions will be taken to protect against the hazards of electric shock.

All equipment shall be locked out to protect against accidental or inadvertent operation when such operation could cause injury to personnel. Do not attempt to operate any switch, valve, or other energy isolating device bearing a lock.

Safety grounds shall always be used where there is a danger of shock from back feeding or other hazards.

Polyester clothing or other flammable types of clothing shall not be worn near electrical circuits. Cotton clothing is much less likely to ignite from arc blast. Employees working on live circuits shall be provided Nomex or equivalent fire resistant clothing.

Suitable eye protection must be worn at all times while working on electrical equipment.

Always exercise caution when energizing electrical equipment or installations. Take steps to protect employees from arc blast and exploding equipment in the event of a fault.

All power tools will be grounded or double insulated. Tools with defective cords or wiring shall not be used.

Suitable temporary barriers or barricades shall be installed when access to open enclosures containing exposed energized equipment is not under the control of an authorized person.

Ground Fault Protection

To protect employees on construction sites from electric shock, NAE will use ground-fault circuit interrupters on all 120-volt, AC, single-phase, 15- and 20-ampere receptacle outlets, which are not a part of the permanent wiring of the building or structure. Receptacles on a two-wire, single-phase portable or vehicle-mounted generator rated not more than 5 kW, where the circuit conductors of the generator are insulated from the generator frame and all their grounded surfaces, need not be protected with ground-fault circuit interrupters.

Feeders supplying 15- and 20-ampere receptacle branch circuits shall be permitted to be protected by a ground-fault circuit interrupter approved for the purpose in lieu of the above provisions.

Energized Equipment or Systems

Work shall not be performed on exposed energized parts of equipment or systems until the following conditions are met:

Responsible supervision has determined that the work is to be performed while the equipment or systems are energized.

Involved personnel have received instructions on the work techniques and hazards involved in working on energized equipment and appropriate equipment to perform the job has been provided.

Suitable personal protective equipment has been provided and is used. Suitable insulated gloves shall be worn for voltages in excess of 300 volts, nominal.

Suitable eye protection, including face shield and safety glasses or goggles, has been provided and is used.

Fire resistant clothing such as Nomex suits are worn.

Where required, suitable barriers, barricades, tags, or signs are in place for personnel protection.

After the required work on an energized system or equipment has been completed, an authorized person shall be responsible for:

Removing from the work area any personnel and protective equipment.

Reinstalling all permanent barriers or covers.

De-energized Equipment or Systems

A qualified person shall be responsible for completing the following **before** working on de-energized electrical equipment or systems, unless the equipment is physically removed from the wiring system:

Notifying all involved personnel.

Locking the disconnecting means in the "open" position with the use of lockable devices, such as padlocks, combination locks or disconnecting of the conductor(s) or other positive methods or procedures which will effectively prevent unexpected or inadvertent energizing of a designated circuit, equipment or appliance.

Tagging the disconnecting means with suitable accident prevention tags.

Effectively blocking the operation or dissipating the energy of all stored energy devices which present a hazard, such as capacitors or pneumatic, spring-loaded and like mechanisms. This may require the installation of safety grounds.

Testing the equipment to ensure it is de-energized.

Energizing (or Re-energizing) Equipment or Systems

A qualified and authorized person shall be responsible for completing the following before energizing equipment or systems, which have been de-energized:

Determine that all persons are clear from hazards which might result from the equipment or systems being energized including arc blast or explosions caused by unexpected faults.

Remove locking devices and tags. Locking devices and tags may be removed only by the employee who placed them. Locking devices and tags shall be removed upon completion of the work and after the installation of the protective guards and/or safety interlock systems.

Accident Prevention Tags

Suitable accident prevention tags shall be used to control a specific hazard. Such tags shall provide the following minimum information:

Reason for placing tag.

- Name of person placing the tag and how that person may be contacted.
- Date tag was placed.

Lock-out / Tag-out

Machinery or equipment capable of **movement** shall be stopped and the power source de-energized or disengaged, and locked out. If necessary, the moveable parts shall be mechanically blocked or secured to prevent inadvertent movement during cleaning, servicing or adjusting operations unless the machinery or equipment must be capable of movement during this period in order to perform the specific task. If so, the hazard of movement shall be minimized.

Equipment or power-driven machines equipped with lockable controls, or readily adaptable to lockable controls, shall be locked out or positively sealed in the "off" position during repair work and setting-up operations. In all cases, accident prevention signs and/or tags shall be placed on the controls of the equipment or machines during repair work.

NAE will provide a sufficient number of accident prevention signs or tags and padlocks, seals or other similarly effective means, which may be required by any reasonably foreseeable repair.

Sequence of Lockout Procedure

1. Notify all affected employees that a lockout is required and the reason therefore.
2. If the equipment is operating, shut it down by the normal stopping procedure (such as: depress stop button, open toggle switch).
3. Operate the switch, valve, or other energy isolating devices so that the energy source(s) (electrical, mechanical, hydraulic, etc.) is disconnected or isolated from the equipment.

4. Stored energy, such as that in capacitors, springs, elevated machine members, rotating fly wheels, hydraulic systems, and air, gas, steam or water pressure, must also be dissipated or restrained by methods such as grounding, repositioning, blocking, bleeding down.
5. Lockout energy isolating devices with an assigned individual lock.
6. After ensuring that no personnel are exposed and as a check on having disconnected the energy sources, operate the push button or other normal operating controls to make certain the equipment will not operate. **Caution:** Return operating controls to neutral position after the test.

Procedure Involving More Than One Person

If more than one individual is required to lock out equipment, each shall place his/her own personal lock on the energy isolating device(s). One designated individual of a work crew or a supervisor, with the knowledge of the crew, may lock out equipment for the whole crew. In such cases, it may be the responsibility of the individual to carry out all steps of the lockout procedure and inform the crew when it is safe to work on the equipment. Additionally, the designated individual shall not remove a crew lock until it has been verified that all individuals are clear.

Testing Equipment during Lockout

In many maintenance and repair operations, machinery may need to be tested, and for that purpose energized, before additional maintenance work can be performed. This procedure must be followed:

Clear all personnel to safety.

Clear away tools and materials from equipment.

Remove lockout devices and re-energize systems, following the established safe procedure.

Proceed with tryout or test.

Neutralize all energy sources once again, purge all systems, and lockout prior to continuing work.

Equipment design and performance limitations may dictate that effective alternative worker protection be provided when the established lockout procedure is not feasible.

Restoring Equipment to Service

After the work is completed and the equipment is ready to be returned to normal operation, this procedure must be followed:

Remove all non-essential items.

See that all equipment components are operationally intact, including guards and safety devices. Repair or replace defective guards before removing lockouts.

Remove each lockout device using the correct removal sequence.

Make a visual check before restoring energy to ensure that everyone is physically clear of the equipment.

17: FLEET & DRIVING SAFETY

Motor vehicle accidents are the third leading cause of fatalities in the construction industry. NAE has established the following guidelines and procedures for our drivers and vehicles to protect the safety of individuals operating any motor vehicle on company business.

Protecting our employee drivers, their passengers, and the public is of the highest priority. The commitment of management and employees is critical to the success of this program. Clear communication of, and strict adherence to, the program's guidelines and procedures are essential.

Our primary goal is to maintain a high level of safety awareness and foster responsible driving behavior. Driver safety awareness and responsible driving behavior will significantly decrease the frequency of motor vehicle accidents and reduce the severity of personal injuries and property damage.

Drivers must follow the requirements outlined in this program. Violations of this program may result in disciplinary action up to, and including, suspension of driving privileges or dismissal. Our program consists of the following elements:

1. Driver selection
2. Driver training
3. Vehicle use policy
4. Vehicle inspection & preventive maintenance
5. Accident investigation

Driver Selection

Only company authorized and assigned employees are allowed to drive company vehicles at any time. Prior to being authorized and assigned, NAE will check the following items. Drivers must have:

A valid unrestricted driver's license.

A current MVR driving record with no more than 2 points and no serious or major violations.

NAE will also check driving records of all employees authorized to drive on company business on an annual basis.

Employees that do not meet these requirements are not authorized or allowed to drive company vehicles or drive their own vehicle on company business.

Driver Training

All employees driving company vehicles, and personal vehicles on company business, will be given a copy of the Driving Safety Rules and Company Vehicle Use Policy and required to read and sign for them. Safe driving will also be periodically covered at company safety meetings.

Company Vehicle Use Policy

- NAE has established the following policies pertaining to company vehicles:
- Personal and off duty use of NAE vehicles is prohibited.
- Only authorized employees may drive NAE vehicles. No other family members may drive company vehicles.
- Non-employee passengers are not permitted in NAE vehicles at any time, unless they are business related.
- Seat belts must be worn in NAE vehicles at all times.
- No distracted driving such as cell phones or food.
- No employee is permitted to drive NAE vehicles while impaired by alcohol, illegal or prescription drugs, or over the counter medications.
- **All accidents involving NAE vehicles must be reported to the office immediately**.
- Employees with two or more preventable accidents in a three-year period, or that obtain three points on their driving record, will be subject to a loss of their driving privileges or have their driving privileges restricted.

Vehicle Inspection & Preventive Maintenance

All NAE vehicles must be inspected by the driver prior to each use. Mechanical defects will be repaired immediately. The Safety Coordinator will periodically spot check company vehicles to determine their condition. Vehicle inspections will include:

- Lights
- Turn signals
- Emergency flashers
- Tires
- Horn
- Brakes
- Fluids
- Windshield condition and wiper condition
- Mirrors

All vehicles will also be maintained in accordance with the manufacturers' recommendations. It is the responsibility of the individual assigned the vehicle to ensure proper maintenance and repairs are performed. If your vehicle is not safe, do not drive.

Accident Investigation

All accidents in NAE vehicles will be investigated by the superintendent and or the Safety Coordinator. Where possible, witness's statements will be obtained and photos used to document the scene of the accident and the damage. Police reports will also be obtained whenever possible. The following guidelines will be used to help determine preventability.

Auto Accident Preventability Guide

This guide will assist in determining whether our driver could have prevented the accident. An accident is preventable if the driver could have done something to avoid it. Drivers are expected to drive defensively. Which driver was primarily at fault, who received a traffic citation, or whether a claim was paid has no bearing on preventability. If there was anything our driver could have done to avoid the collision, then the accident was preventable.

An accident was non-preventable when the vehicle was legally and properly parked, or when properly stopped because of a highway patrol officer, a signal, stop sign, or traffic condition. When judging accident preventability, here are some general questions to consider:

- Does the investigation indicate that the driver considers the rights of others, or is there evidence of poor driving habits, which need to be changed?
- Does the investigation indicate driver awareness? Such phrases as "I did not see," "I didn't think," "I didn't expect," or "I thought" are signals indicating there probably was a lack of awareness, and the accident was preventable. An aware driver should think, expect, and see hazardous situations in time to avoid collisions.
- Was the driver under any physical stresses, which could have been contributory? Did the accident happen near the end of a long day or long drive? Did overeating contribute to fatigue? Did the driver get prior sufficient sleep? Is the driver's vision faulty? Was the driver feeling ill?
- Was the vehicle defective without the driver's knowledge? Was a pre-trip inspection done, and would it have discovered the defect? A car which pulls to the left or right when the driver applies the brakes, faulty windshield wipers, and similar items are excuses, and a driver using them is trying to evade responsibility. Sudden brake failure, loss of steering, or a blowout might be defects beyond the driver's ability to predict. However, pre-trip inspections and regularly scheduled maintenance should prevent most of these problems. If either of these are the cause of the accident, then the accident was probably preventable by the driver.
- Could the driver have exercised better judgment by taking an alternate route through less congested areas to reduce the hazardous situations encountered?
- Could the driver have done anything to avoid the accident?
- Was the driver's speed safe for conditions?
- Did the driver obey all traffic signals?
- Was the driver's vehicle under control?

Intersection Collisions

Failure of our driver to yield the right-of-way, regardless of who has the right of way, as indicated by stop signs or lights, is preventable. The only exception to this is when the driver is properly proceeding through an intersection protected by lights or stop signs and the driver's vehicle is struck in the extreme rear side of the vehicle. Regardless of stop signs, stop lights, or right-of-way, a defensive driver recognizes that the right-of-way belongs to anyone who assumes it and should yield accordingly.

Questions to consider:

- Did the driver approach the intersection at a speed safe for conditions?
- Was the driver prepared to stop before entering the intersection?
- At a blind comer, did the driver pull out slowly, ready to apply the brakes?
- Did the driver look both ways before proceeding through the intersection?

Sideswipes

Sideswipes are often preventable. Defensive drivers do not get into a position where they can be forced into another vehicle or another vehicle can be forced into them. Defensive drivers continuously check for escape routes to avoid sideswipes. For two lane roads, this means a driver should pass another vehicle only when absolutely certain that he or she can safely complete the pass. A driver should also be ready to slow down and let a passing vehicle that has failed to judge safe passing distance back into the lane. A driver should make no sudden moves that may force another vehicle to swerve. If a driver sideswipes a stationary object while taking evasive action to avoid striking another car or a pedestrian, such an accident may not be preventable. However, you should consider what the driver could have done or failed to do immediately preceding the evasive action to be in the position of no other options.

A driver is also expected to anticipate the actions of an oncoming vehicle. Sideswiping an oncoming vehicle is often preventable. Again, evasive action, including leaving the roadway, may be necessary if an oncoming vehicle crosses into the driver's lane. Drivers are expected to allow merging vehicles to merge smoothly with them, and to merge smoothly on controlled access highways. Drivers are expected to be able to gauge distances properly when leaving a parking place and enter traffic smoothly.

Questions to consider:

- Did the driver look to front and rear for approaching and overtaking traffic immediately before starting to pull away from the curb?
- Did the driver signal before pulling away from the curb?
- Did the driver look back rather than depend only upon rear-view mirrors?
- Did the driver start into traffic only when this action would not require traffic to change its speed or direction in order to avoid his or her vehicle?

Head-on Collisions

A head-on collision with a vehicle traveling in the wrong lane may be preventable if the driver could have pulled off the road or taken other evasive action to prevent a collision. However, the driver should never drive into the other lane to avoid the oncoming vehicle. If the driver swerved off the road to avoid a head-on collision, the accident is non preventable. The driver in this case made a good defensive driving decision, taking the lesser of two evils.

Many skidding conditions are caused by **rain,** freezing rain, fog, and snow, which all increase the hazard of travel. Oily road film, which builds up during a period of good weather, causes an especially treacherous condition during the first minutes of a rainfall. Loss of traction can be anticipated, and these accidents usually are preventable. Driving too fast for conditions is the most common reason why these types of accidents are preventable.

Questions to consider:

- Was the driver operating at a safe speed considering weather and road conditions?
- During inclement weather, was the driver keeping at least twice the safe following distance used for dry pavement?
- Were all actions gradual?
- Was the driver anticipating ice on bridges, in gutter, ruts, and near the curb?
- Was the driver alert for water, ice or snow in shaded areas, loose gravel, sand, ruts, etc.
- If a driver goes off the road or strikes another vehicle because of skidding, the accident is preventable.

Pedestrian Accidents

All types of pedestrian accidents, including collisions with pedestrians coming from between parked cars, are usually considered preventable. There are few instances where the action of pedestrians is so unreasonable that the operator could not be expected to anticipate such an occurrence.

Questions to consider:

- Did the driver go through congested areas expecting that pedestrians would step in front of the vehicle?
- Was the driver prepared to stop?
- Did the driver keep as much clearance between his or her vehicle and parked vehicles, as safety permitted?
- Did the driver stop when other vehicles had stopped to allow pedestrians to cross?
- Did the driver wait for the green light or stop for the caution light?
- Was the driver aware of children and prepared to stop if one ran into the street?
- Did the driver give all pedestrians the right-of-way?
- Did the driver stop for a school bus, which was stopped, and properly signaling that passengers were loading or unloading?

Backing Accidents

Backing a vehicle into another vehicle, an overhead obstruction, or a stationary object is normally preventable. The fact that someone was directing the driver in backing does not relieve the driver of the responsibility to back safely.

Questions to consider:

- Was it necessary to back up?
- Did the driver plan ahead so that he or she could have pulled forward out of the parking space instead of backing?
- Was it necessary to drive into the narrow street, dead-end alley, or driveway from which he or she backed?
- If the driver could not see where he or she was backing: Did the driver try to get someone to guide him or her?
- Did the driver look all around the vehicle before backing? Did the driver back immediately after looking?
- Did the driver use the horn while backing? Were the back-up lights working?
- Did the driver look to the rear without relying totally on the rear-view mirror?
- If the distance was long, did the driver stop, get out, and look around occasionally?
- Did the driver back slowly?
- Did the driver judge clearances accurately?

Parking Accidents

Doors on our driver's parked vehicle that are damaged when opened on the traffic side are considered preventable accidents. The driver is responsible to see that the traffic side is clear of traffic, before any doors on that side are opened.

In most cases, if our driver, while driving, strikes a parked vehicle's opening door it is considered preventable. Usually our driver can see from a sufficient distance that the parked vehicle is occupied, and should therefore, be prepared to stop, should move closer to the center line or change lanes.

It is a driver's responsibility to park the vehicle so that it will remain stationary. A runaway type accident is preventable and blaming such a collision on defective parking brakes or other holding devices are inadequate excuses. A good pre-trip inspection and maintenance program will eliminate most opportunities for this type of accident being the result of mechanical failure.

Accidents occurring when vehicles are properly and legally parked are considered non- preventable. Accidents occurring while the vehicle was double-parked or in a "No Parking" zone are preventable.

Questions to consider:

- Was the vehicle parked on the proper side of the road?
- Was it necessary to park there or was there a safer, only slightly less convenient place nearby?
- Did the driver have to park on the traveled part of the highway, on the curve, or on the hill?
- When required, did the driver warn traffic by emergency warning devices?
- Did the driver park parallel to the curb?
- Was it necessary to park so close to an alley or directly across from a driveway?

Collision with Obstructions

Obstructions can be avoided if the driver knows the height and width of the vehicle, pays attention to posted clearances, and takes the time to properly judge clearances.

Cargo Accidents

The accident should be considered preventable if the investigation shows a mechanical defect of which the driver was aware, a defect the driver should have found by inspecting the vehicle, or the driver caused the accident by rough and abusive handling. It is a driver's responsibility to secure cargo properly to prevent shifting, loss, or damage. Cargo should be safely stowed to prevent flying objects that can strike or distract the driver.

18. TRENCHING AND EXCAVATION

Our construction activities occasionally require our employees to work in trenches and excavations. Each year in California, four construction workers die in trench cave-ins. To prevent this from occurring, the following precautions are mandatory when NAE employees work in trenches or excavations that are 5 feet deep or greater. They are also required in trenches less than 5 feet deep if the soil appears unstable. These precautions apply even if we did not dig the trench.

General Precautions

- All trenching and excavation activities will be conducted in accordance with OSHA regulations.
- All trenching and excavation work or entry will be supervised by a competent person with the skills, training, and experience to recognize hazards and implement corrective action.
- All trenches and excavations 5 feet deep or greater will be protected from cave-ins by sloping, shoring, or benching.
- No employee is permitted to work in any trench or excavation that is not safe. Work will stop until the hazard is corrected.
- All trenches and excavations will be inspected prior to the start of work and at least daily by the competent person.
- Suitable access and egress will be maintained at all times

Prior to Digging

- A trenching and excavation permit will be obtained from OSHA.
- The estimated location of utility installations, such as sewer, telephone, fuel, electric, water lines, or any other underground installations that reasonably may be expected to be encountered during excavation work, shall be determined prior to opening an excavation.
- All Regional Notification Centers in the area involved and all known owners of underground facilities in the area who are not members of a Notification Center shall be advised of the proposed work at least two working days prior to the start of any digging or excavation work. **Exception:** Emergency repair work to underground facilities.

While Digging

- When excavation operations approach the estimated location of underground installations, the exact location of the installations shall be determined by safe and acceptable means.
- Contact with live electrical lines and gas mains can cause death or serious injury. Extra care should be taken in these areas. If you are unsure, ask your foreman, superintendent, or contact NAE.
- While the excavation is open, underground installations shall be protected, supported, or removed as necessary to safeguard employees.
- All surface encumbrances that are located so as to create a hazard to employees shall be removed or supported, as necessary, to safeguard employees.
- Where the stability of adjoining buildings, walls, or other structures is endangered by excavation operations, support systems such as shoring, bracing, or underpinning shall be provided to ensure the stability of such structures for the protection of employees.
- Sidewalks, pavements and appurtenant structures shall not be undermined unless a support system or another method of protection is provided to protect employees from the possible collapse of such structures.
- No employee shall be permitted underneath loads handled by lifting or digging equipment. Employees shall be required to stand away from any vehicle being loaded or unloaded to avoid being struck by any spillage or falling materials.
- Adequate barriers or physical protection shall be provided at all remotely located excavations. All wells, pits, shafts, etc. shall be barricaded or covered. Upon completion of exploration and other similar operations, temporary wells, pits, shafts, etc., shall be back filled.

Open Trenches and Excavations

- Daily inspections of excavations, the adjacent areas, and protective systems shall be made by a competent person for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions. An inspection shall be conducted by the competent person prior to the start of work and as needed throughout the shift. Inspections shall also be made after every

rainstorm or other hazard-increasing occurrence. These inspections are only required when employee exposure can be reasonably anticipated.

- Where the competent person finds evidence of a situation that could result in a possible cave-in, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions, exposed employees shall be removed from the hazardous area until the necessary precautions have been taken to ensure their safety.
- A stairway, ladder, ramp or other safe means of egress shall be located in trench excavations that are 4 feet or more in depth so as to require no more than 25 feet of lateral travel for employees.
- Where employees or equipment are required or permitted to cross over excavations over 6 feet and wider than 30 inches, walkways or bridges with standard guardrails shall be provided.
- When mobile equipment is operated adjacent to an excavation, or when such equipment is required to approach the edge of an excavation, and the operator does not have a clear and direct view of the edge of the excavation, a warning system shall be utilized such as barricades, hand or mechanical signals, or stop logs. If possible, the grade should be away from the excavation.
- Adequate protection shall be provided to protect employees from loose rock or soil that could pose a hazard by falling or rolling from an excavation face. Such protection shall consist of scaling to remove loose material; installation of protective barricades at intervals as necessary on the face to stop and contain falling material; or other means that provide equivalent protection.
- Employees shall be protected from excavated or other materials or equipment that could pose a hazard by falling or rolling into excavations. Protection shall be provided by placing and keeping such materials or equipment at least 2 feet from the edge of excavations, or by the use of retaining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations, or by a combination of both if necessary.
- Where oxygen deficiency (atmospheres containing less than 19.5 percent oxygen) or a hazardous atmosphere exists or could reasonably be expected to exist, such as in excavations in landfill areas or excavations in areas where hazardous substances are stored nearby, the atmosphere in the excavation shall be tested before employees enter excavations greater than 4 feet in depth.
- Adequate precautions shall be taken to prevent employee exposure to atmospheres containing less than 19.5 percent oxygen and other hazardous atmospheres. These precautions include providing proper respiratory protection or ventilation.
- Adequate precautions shall be taken, such as providing ventilation, to prevent employee exposure to an atmosphere containing a concentration of a flammable gas in excess of 20 percent of the lower flammable limit of the gas.
- When controls are used that are intended to reduce the level of atmospheric contaminants to acceptable levels, testing shall be conducted as often as necessary to ensure that the atmosphere remains safe.

- Emergency rescue equipment, such as breathing apparatus, a safety harness and line, or a basket stretcher, shall be readily available where hazardous atmospheric conditions exist or may reasonably be expected to develop during work in an excavation. This equipment shall be attended when in use.
- Employees shall not work in excavations in which there is accumulated water, or in excavations in which water is accumulating, unless adequate precautions have been taken to protect employees against the hazards posed by water accumulation. The precautions necessary to protect employees adequately vary with each situation, but could include special support or shield systems to protect from cave-ins, water removal to control the level of accumulating water, or use of a safety harness and lifeline.
- If water is controlled or prevented from accumulating by the use of water removal equipment, the water removal equipment and operations shall be monitored by a competent person to ensure proper operation.
- If excavation work interrupts the natural drainage of surface water (such as streams), diversion ditches, dikes, or other suitable means shall be used to prevent surface water from entering the excavation and to provide adequate drainage of the area adjacent to the
- excavation. Excavations subject to runoff from heavy rains will require an inspection by a competent person.

19. CONFINED SPACE OPERATIONS

Occasionally in our work, we may encounter confined spaces. This is particularly true of our service department. Confined space work requires special safety precautions to ensure that employees are not overcome by dangerous air contaminants or oxygen deficiency. In some cases, there may be fire or explosion hazards in confined spaces that do not exist in open areas. Many workers have been killed or seriously injured in confined spaces. To avoid this, NAE employees must adhere to the following rules. This section prescribes **minimum** standards for preventing employee exposure to dangerous air contamination and/or oxygen deficiency in confined spaces. In some cases, extra precautions may be necessary. As always, if you are unsure, ask for assistance.

Definitions

A **confined space** has the following properties:

- Existing ventilation is insufficient to remove dangerous air contamination and/or oxygen deficiency, which may exist or develop.
- Ready access or egress for the removal of a suddenly disabled employee is difficult due to the location and/or size of the opening(s).
- The area is not designed for continuous human occupancy.

Dangerous air contamination means an atmosphere presenting a threat of causing death, injury, acute illness, or disablement due to the presence of flammable and/or explosive, toxic, or otherwise injurious or incapacitating substances.

- Dangerous air contamination due to the **flammability** of a gas or vapor is defined as an atmosphere containing the gas or vapor at a concentration greater than 20 percent of its lower explosive (lower flammable) limit.
- Dangerous air contamination due to a **combustible particulate** is defined as a concentration greater than 20 percent of the minimum explosive concentration of the particulate.
- Dangerous air contamination due to the **toxicity** of a substance is defined as the atmospheric concentration immediately hazardous to life or health. This definition of dangerous air contamination due to the toxicity of a substance does not preclude the requirement to control harmful exposures to toxic substances at concentrations less than those immediately hazardous to life or health.

Oxygen Deficiency. An atmosphere containing oxygen at a concentration of less than 19.5 percent by volume.

Oxygen Rich. An atmosphere containing oxygen at a concentration of more than 22 percent by volume. This creates additional fire hazards.

Typical Confined Spaces

- Vaults
- Pits
- Tubs
- Vats
- Ducts
- Boilers
- Silos
- Sewers
- Compartments

Prior to Confined Space Entry:

Written, understandable operating and rescue procedures shall be developed and shall be provided to affected employees. The operating procedures shall include provision for the surveillance of the surrounding area to avoid hazards such as drifting vapors from tanks, piping and sewers.

All employees, including standby persons if needed, will be trained in the operating and rescue procedures, including instructions as to the hazards they may encounter.

Any lines, pipes or hoses which may convey flammable, injurious, or incapacitating substances into the space shall be disconnected, blinded, or blocked off by other positive means to prevent the development of dangerous air contamination and/or oxygen deficiency within the space. The disconnection or blind shall be so located or done in such a manner that inadvertent reconnection of the line or removal of the blind are effectively prevented.

The space shall be emptied, flushed, or otherwise purged of flammable, injurious or incapacitating substances to the extent feasible.

The air shall be tested with an appropriate device or method to determine whether dangerous air contamination and/or an oxygen deficiency exists and a written record of such testing results shall be made and kept at the work site for the duration of the work. Affected employees and/or their representative shall be afforded an opportunity to review and record the testing results.

Where interconnected spaces are blinded off as a unit, each space shall be tested and the results recorded. The most hazardous condition found shall govern the entry procedures to be followed.

Confined Space Entry if Tests Show No Hazard

If dangerous air contamination and/or oxygen deficiency does not exist within the space, as demonstrated by tests performed in accordance with the pre-entry procedures, entry into and work within the space may proceed subject to the following provisions:

Air testing, in accordance with the pre-entry procedures, shall be conducted with sufficient frequency to ensure that the development of dangerous air contamination and/or oxygen deficiency does not occur during the performance of any operation.

Work stops, employees exit, and additional precautions are taken if dangerous air contamination and/or oxygen deficiency does develop.

Confined Space Entry if Tests Show Hazards are Present or are Likely to Develop Where the existence of dangerous air contamination and/or oxygen deficiency is demonstrated by tests performed in accordance with the pre-entry procedures or if the development of dangerous air contamination and/or an oxygen deficiency is imminent, the following requirements shall also apply:

Existing ventilation shall be augmented by appropriate means.

When additional ventilation has removed dangerous air contamination and/or oxygen deficiency as demonstrated by additional testing conducted (and recorded), entry into and work within the space may proceed.

No source of ignition shall be introduced until the implementation of appropriate provisions of this section have ensured that dangerous air contamination due to flammable and/or explosive substances does not exist.

Whenever oxygen-consuming equipment such as salamanders, plumbers' torches or furnaces, and the like, is to be used, measures shall be taken to ensure adequate combustion air and exhaust gas venting.

To the extent feasible, provision shall be made to permit ready entry and exit.

Where it is not feasible to provide for ready exit from spaces equipped with automatic fire suppression systems employing harmful design concentrations of toxic or oxygen- displacing gases, or total foam flooding, such systems shall be deactivated. Where it is not practical or safe to deactivate such systems, the use of respiratory protective equipment, such as SCBA, shall apply during entry into and work within such spaces.

Confined Spaces Where Dangerous Air Contamination Cannot be Removed by Ventilation

It is the policy of NAE to only work in a confined space if it can be made safe by the means listed above. We will not work in confined spaces where there is an ongoing hazard of air contamination or oxygen deficiency. These operations require extra measures and precautions beyond our immediate ability to perform. If such work does become necessary, a separate program will be developed.

20. RESPIRATORY PROTECTION

Occasionally our work may necessitate the use of respirators to protect against air contaminants. Due to the limitations of respirators and their uncomfortable nature, NAE will make every effort to provide other means of protection, such as local exhaust ventilation, prior to requiring employees to wear them.

When it is clearly impracticable to remove harmful dusts, fumes, mists, vapors, or gases at their source, or where emergency protection against occasional and/or relatively brief exposure is needed, NAE will provide, and the employee exposed to such hazard shall use, approved respiratory equipment.

Whenever respirators are required to be used to control harmful exposures, only respiratory equipment approved for that purpose shall be used and such equipment shall be approved by U.S. Bureau of Mines, Department of Interior, the Mine Safety and Health Administration, or the National Institute for Occupational Safety and Health. Only parts approved for the specific respirator system shall be used for replacement.

Respirator Selection

The proper respirator for the job and hazard shall be selected. This selection will be made in accordance with OSHA or ANSI Z88.2-1980 standards. The correct respirator shall be specified for each job. The individual issuing them shall be adequately instructed to ensure that the correct respirator is used.

The manufacturers' recommendations and literature will also be reviewed to determine if the respirator provides protection against the expected contaminants. For instance, dust masks do not provide protection against gasses or vapors.

Respirator Use, Care and Training

The following guidelines will be followed when respirators are issued to our employees:

Employees shall not be assigned to tasks requiring the use of respirators unless it has been determined that they are physically able to perform the work while using the required respiratory equipment. A licensed physician shall determine what health and physical conditions are pertinent. The medical status of persons assigned use of respiratory equipment shall be reviewed periodically.

Employees will be instructed and trained in the need, use, sanitary care, and limitations of such respiratory equipment.

Respirators shall be inspected before each use and shall not be worn when conditions prevent a good gas-tight face seal.

Every respirator wearer shall be instructed in how to properly fit and test respiratory equipment and how to check the face piece fit and shall be provided the opportunity to wear respiratory equipment in normal air for an adequate familiarity period, and to wear it in a test atmosphere (such as generated by smoke tubes or isoamyl acetate).

NAE will provide, repair, or replace respiratory protective equipment as may be required due to wear and deterioration, and maintain respirators in effective and sanitary condition.

Routinely used respiratory equipment shall be regularly cleaned, inspected, and sanitized by a qualified person. We will provide means for cleaning all respiratory protective equipment.

Respiratory equipment shall not be passed on from one person to another until it has been cleaned and sanitized. Respirators individually assigned should be marked to indicate to whom it was assigned. This mark shall not affect the respirator performance in any way. The date of issuance should be recorded.

When not in use, respirators shall be stored to protect against dust, sunlight, extreme temperatures, excessive moisture, or damaging chemicals. Plastic zip lock bags are suitable for storage.

In atmospheres immediately hazardous to life or health, at least two persons equipped with approved respiratory equipment shall be on the job. Communications shall be maintained between both or all individuals present. Standby persons, at least one of which shall be in a location which will not be affected by any likely incidents, shall be present with suitable rescue equipment, including self-contained breathing apparatus.

Each canister shall have a label warning that gas masks should be used only in atmospheres containing sufficient oxygen to support life. Canisters having a special high-efficiency filter for protection against highly toxic particulates shall be labeled with a statement of the type and degree of protection afforded by the filter.

21. FIRE PREVENTION AND EMERGENCY ACTION PLAN

Fire Prevention at Construction Sites

The following procedures will be used to prevent fires on construction sites:

1. All accumulated combustible trash and debris will be removed as soon as practical.
2. Flammable liquids will only be stored and dispensed from UL approved safety containers designed for that purpose.

3. All rags soaked with flammable or combustible liquids will be properly stored in closed metal containers.
4. Appropriate precautions will be taken to prevent fires when torch cutting, welding or soldering.
5. Compressed gas cylinders containing flammable or explosive gasses will be properly stored in the upright position with their caps on and protected from heat or puncture. Fuel gas and oxygen shall be separated at least 20 feet when stored.
6. Smoking or open lights are prohibited within 50 feet of flammable liquid or gas storage and dispensing areas.
7. Flammable solvents will not be used for cleaning purposes.
8. A fire extinguisher, rated not less than 2A, shall be provided for each 3,000 square feet of the floor area or fraction thereof. Where the floor area is less than 3,000 square feet, at least one extinguisher shall be provided.
9. Travel distance from any point of the protected area to the nearest fire extinguisher shall not exceed 75 feet.
10. At least one fire extinguisher, rated not less than 2A, shall be provided on each floor. In multistory buildings, at least one fire extinguisher shall be located adjacent to the stairway at each floor level.
11. A fire extinguisher, rated not less than 10B, shall be provided within 50 feet of wherever more than 5 gallons of flammable or combustible liquids or 5 pounds of flammable gas are being used on the jobsite. This requirement does not apply to the integral fuel tanks of motor vehicles.
12. Portable fire extinguishers shall be inspected monthly, or at more frequent intervals by the employer, and serviced at least annually by a person licensed or registered by the State Fire Marshal. Note: Inspection is a "quick check" that an extinguisher is available and will operate. It is intended to give reasonable assurance that the extinguisher is fully charged and operable. This is done by seeing that it is in its designated place, that it has not been actuated or tampered with, and that there is no obvious or physical damage or condition to prevent operation.
13. Suitable fire control devices, such as portable fire extinguishers, shall be available at locations where flammable or combustible liquids are stored.
14. At least one portable fire extinguisher, having a rating of not less than 20-B units, shall be located outside of, but not more than 10 feet from, the door opening into any room used for flammable liquid storage.
15. At least one portable fire extinguisher, having a rating of not less than 20-B units, shall be located not less than 25 feet, nor more than 75 feet, from any flammable liquid storage area located outside.

22. COVID 19 PROTECTION AND PROCEEDURES

COVID 19

These COVID-19 job site safety practices are required as long as the "Stay Home, Stay Healthy"

Native American Electric, Inc. is committed to the health and safety of our workers and follows the following WA L&I COVID19 requirements:

1. Educate workers in the language they understand best about coronavirus and how to prevent transmission and the employer's COVID-19 policies.
2. Ensure frequent and adequate hand washing with adequate maintenance of supplies. Use disposable gloves where safe and applicable to prevent transmission on tools or other items that are shared.
3. Encourage employees to stay home if they are feeling sick.
4. Appropriate eye protection for all hazards must be worn at all times by every employee while on the worksite.
5. Gloves must be worn at all times by every employee while on worksite. The type of glove worn should be appropriate to the task. If gloves are not typically required for the task, then any type of glove is acceptable, including disposable (e.g. nitrile, latex) gloves.
6. Hand-washing stations, with soap, running water, and disposable drying towels, shall be abundantly provided on all job sites for frequent handwashing. When running water is not available, portable washing stations, with soap and disposable drying towels, are required.
7. Workers should be encouraged to leave their workstations to wash their hands regularly in addition to: before and after going to the bathroom, before and after eating, and after coughing, sneezing or blowing their nose.
8. Alcohol-based hand sanitizers with greater than 60% ethanol or 70% isopropanol can also be used but are not a replacement for the soap and water hand-washing requirement.
9. Make disinfectants available to workers throughout the worksite and ensure cleaning supplies are frequently replenished.

10. Encourage workers to stay home or leave the worksite when feeling sick or when they have been in close contact with a confirmed positive case. If they develop symptoms of acute respiratory illness, they must seek medical attention and inform their employer. Have employees inform their supervisors if they have sick family member at home with COVID-19. If an employee has a family member sick with COVID-19, that employee must follow the isolation/quarantine requirements as established by the State Department of Health.
11. Instruct workers to report to their supervisor if they develop symptoms of COVID-19 (e.g., fever, cough, shortness of breath, fatigue, muscle aches, or new loss of taste or smell). If symptoms develop during a shift, the worker should be immediately sent home. If symptoms develop while the worker is not working, the worker should not return to work until they have been evaluated by a healthcare provider.