A.J. KIRKWOOD & ASSOCIATES, INC.

INJURY AND ILLNESS PREVENTION PROGRAM

4300 N. Harbor Blvd.
Fullerton, CA 92835
(714) 505-1977

Revised: 11/16/23

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SITE SPECIFIC
INJURY AND ILLNESS PREVENTION PROGRAM

Prepared by:
Steven Dietzel
Safety Manager
Steve.dietzel@ajk-a.com

A.J. Kirkwood & Associates, Inc.
4300 N. Harbor Blvd.
Fullerton, CA 92835

(714) 505-1977

Title:	***Name:***	***Phone #:***
Chief Operations Manager	**Leah Zappia**	**(714) 654-5324**
Safety Manager	**Steve Dietzel (Safety Dept.)**	**(714) 773-2669**

INJURY AND ILLNESS PREVENTION PROGRAM

A.J. Kirkwood & Associates, Inc.

RESPONSIBILITY

The Injury and Illness Prevention Program (IIPP) Safety Manager, Steven Dietzel ("Safety Department") has the authority and responsibility for implementing the provisions of this program for A.J. Kirkwood & Associates, Inc..

We recognize that the responsibility for safety and health is shared. A.J. Kirkwood & Associates, Inc. accepts the responsibility for leadership of the safety program and for its effectiveness and improvement, and for providing the safeguards required to ensure safe working conditions.

All managers, supervisors, and foremen are responsible for implementing and maintaining the IIPP in their work areas and for answering worker questions about the IIPP. A copy of this IIPP is available from each manager, supervisor and foreman or from the safety department in the corporate office at 4300 N. Harbor Blvd., Fullerton, CA 92835.

AJK employees – or their designated representatives - have the right to examine and receive a copy of our IIPP. This will be accomplished by the following.

-AJK employees may have unobstructed access to the IIPP through electronic means be scanning the **Safety & Education** QR code with their mobile phone and imputing password (4300). This QR code can be found on the inside of job site tool boxes, site foreman offices with job site required postings, and service truck cab interiors.

- A copy of this IIPP is also available from each manager, supervisor and foreman or from the safety department in the corporate office at 4300 N. Harbor Blvd., Fullerton, CA 92835

-AJK will communicate to each employee instructions on how to access the IIPP electronically during new hire orientations, and company announcements.

Any copy provided to an employee or their designated representative need not include any of the records of the steps taken to implement and maintain the written IIP Program.

Where we have distinctly different and separate operations with distinctly separate and different IIPPs, we may limit access to the IIPP applicable to the employee requesting it.

An employee must provide written authorization in order to make someone their "designated representative." A recognized or certified collective bargaining agent will be treated automatically as a designated representative for the purpose of access to the company IIPP. The written authorization must include the following information:

- The name and signature of the employee authorizing the designated representative.
- The date of the request.
- The name of the designated representative.
- The date upon which the written authorization will expire (if less than 1 year).

Foreman:

The Foreman is on the frontlines of safety in the field and will lead their crew by example.
The foremen will:

- Review the General Contractor's Site Specific Safety Plan and the AJK Site Specific IIPP with each new employee that reports to the job. ***Make sure they have reviewed and know General Contractor's jobsite safety expectations***.
- Ensure that his crew follows all company safety policies.

- Daily walk his job, looking for hazards that need to be corrected.
- Conduct weekly AJK safety tailgate meetings with crew and complete the "*Weekly Safety Meeting Report*."
- Complete the AJK "*Weekly Safety Checklist Form*."
- Enforce company safety policy and site safety policy, giving verbal and/or written infractions if necessary.
- Make any corrections to the jobsite safety as they are pointed out by the A.J. Kirkwood & Associates, Inc. safety department or other A.J. Kirkwood & Associates, Inc. supervisory management, or journeyman and apprentice team members.

Field Worker(s):

Your safety begins with you. Each employee is responsible for his/her own safety & well-being. This is accomplished by:

- Familiarizing yourself with A.J. Kirkwood's safety policy and performing your work within our guidelines.
- Following the General Contractor's safety guidelines for the project.
- Reporting any unsafe working condition to your foreman immediately.
- Always wear your PPE – hardhat, eye protection, gloves, and work-boots.

Project Engineer(s):

- The project engineer will coordinate with your **project manager, and foreman,** for any safety equipment that needs to be supplied to the jobsite.

COMPLIANCE

The Foreman is responsible for ensuring that all safety and health policies and procedures are clearly communicated and understood by all employees on the project. ***The foreman, Safety Department and Project Manager***, are expected to enforce the rules fairly and uniformly.

All employees are responsible for using safe work practices, for following all directives, policies, and procedures, and for assisting in maintaining a safe work environment.

We will ensure that all workers comply with the rules and maintain a safe work site by:

1. Conducting employee safety orientations
2. Informing workers of the provisions of our IIPP and the AJK Code of Safe Practices.
3. Evaluating the safety performance of all workers.
4. Re-training workers whose safety performance is deficient.
5. Providing training to workers when new tasks are given to them, or whose safety performance is deficient.
6. Disciplining workers for failure to comply with safe and healthful work practices.
7. Giving recognition to those employees with no-lost time records.

As a foreman for A.J. Kirkwood & Associates, Inc., ***The Foreman*** has taken the following "Foreman's Safety Pledge":

- I understand that the personal safety of my crew is of vital importance. I have a moral obligation to see that each one of my employees goes home without harm from injury.
- I will do my part as a company leader to support the safety policy, programs, and standards of AJK.
- I will take the necessary time to educate and equip my crew to accomplish their jobsite tasks with safety, quality, and efficiency to show that I care about their well-being, as well as the company's.
- I will plan ahead to ensure that I have the proper equipment and tools to do the job right, as not to cut corners in regards to my crew's safety just to get the job done.
- I will hold my crew accountable to safety, utilizing written infractions and jobsite suspensions if necessary.
- I understand that the company safety policy, management staff, Safety Department & the Safety Committee are resources to help my crew and me to do the job with safety, quality, and efficiency.

COMMUNICATION

We recognize that open, two-way communication between management and staff on health safety issues is essential to an injury-free, productive workplace. The following system of communication is designed to facilitate a continuous flow of safety and health information between management and staff in a form that is readily understandable.

- New worker orientation conducted by the Safety Department that includes a discussion of safety and health policies and procedures
- ***The Foreman*** will review our Site-Specific Injury Illness Prevention Program, and General Contractor's jobsite guidelines, with each new AJK employee on the job,
- Workplace safety and health training programs that include scheduled classes, electrician trainee programs or indentured apprenticeship programs, and journeyman upgrade courses.
- Weekly jobsite tailgate meetings.
- Effective communications of safety and health concerns between workers and supervisors, including translation where appropriate
- Required Postings on all jobsites and/or distributed safety information as needed
- Workers can anonymously mail, or leave anonymous safety suggestions with their foreman on site, to inform management about workplace hazards:
    - Safety Department
      A.J. Kirkwood & Associates, Inc.
      4300 N. Harbor Blvd.
      Fullerton, CA 92835
- Labor managers and management meet regularly and discuss jobsite safety and health concerns and observations.

- "Jobsite Inspections" are shared by Safety Department with the foreman and management of the company.

HAZARD ASSESSMENT

Periodic inspections to identify and evaluate workplace hazards shall be performed by the following competent observer(s) on jobsites:

- The jobsite foreman – will daily walk their job, taking note of any hazards.
- Once a week, an A.J. Kirkwood "Weekly Safety Checklist" will be filled out by ***the foreman.***
- Once a week, the jobsite foreman will conduct a safety tailgate meeting with his crew, fill out the "Weekly Safety Meeting Form," and have the crew sign it.
- Field employees will fill out a Pre-Task Plan form prior to starting their work for a specific job duty.
- The Safety Department, will conduct periodic safety visits. Observations and corrective actions that are needed will be shared with the foreman and abatement guidelines and target goals to be met for the job will be communicated.

Additionally, periodic inspections are performed:

- When new substances, processes, procedures or equipment which present potential new hazards are introduced into our workplace;
- When new, previously unidentified hazards are recognized;
- When occupational injuries and illnesses occur;
- When we hire and/or reassign permanent or intermittent workers to processes, operations, or tasks for which a hazard evaluation has not been previously conducted; and
- Whenever workplace conditions warrant an inspection.

Periodic inspections consist of identification and evaluation of workplace hazards utilizing "Weekly Safety Checklist," additional applicable OSHA standards and guidelines, and any other effective methods to identify and evaluate workplace hazards.

HAZARD CORRECTION

Unsafe or unhealthy work conditions, practices, or procedures shall be corrected in a timely manner based on the severity of the hazards. Hazards shall be corrected according to the following procedures:

- When observed or discovered;
- When an imminent hazard exists, which cannot be immediately abated without endangering employee(s) and/or property, we will remove all exposed workers from the area except those necessary to correct the existing condition. Workers necessary to correct the hazardous condition shall be provided with the necessary protection; and
- All such actions taken and dates they are completed shall be documented on the appropriate forms.

ACCIDENT / EXPOSURE INVESTIGATIONS

Unsafe or unhealthy work conditions, practices or procedures shall be corrected in a timely manner based on the severity of the hazards. Hazards shall be corrected according to the following procedures:

- When observed or discovered by ***the foreman*** on their daily job walk.
- When observed or discovered by Safety Department or any other management representative on site visitations.
- When an imminent hazard exists, which cannot be immediately abated without endangering employees and/or property, we will remove all exposed workers from the area except those necessary to correct the existing condition. Workers necessary to correct the hazardous condition shall be provided with the necessary protection to perform their tasks safely.
- All such actions taken and dates they are completed shall be documented on the appropriate forms.

Accident Reporting Procedures:

All injuries, no matter how slight, should be reported to ***the foreman*** *immediately.*

- Daily Log: make note of injury and actions taken
    - If an injury is minor and only requires a band-aid, cleaning wipe, etc., an accident investigation form is not needed, but should still be entered into your daily log.
- Anything beyond a common, minor every-day minor cut, or scrape should be formerly reported.
- Contact the Safety Department in the case of an injury.
    - Extreme emergencies may require calling “9-1-1” first.
- Safety Department will direct ***the foreman*** and the employee to the proper medical facility for treatment.
- Fill out the accident investigation paperwork immediately after the incident has occurred.
    - Injuries may require an on-site investigation from the Safety Department

Near Miss:

Near misses will be reported to the ***foreman, and Safety Department***, as soon as possible.

Serious Injuries:

Cal-OSHA shall be contacted within eight hours of any serious injury to an employee.

A serious injury is defined as:

- A fatality
- Any loss of a limb
- Hospitalization over night for anything other than observation

TRAINING AND INSTRUCTION

All workers, including managers and supervisors, shall have training and instruction on general and job-specific safety and health practices. Training and instruction shall be provided as follows:

- To all new workers to the job by the ***foreman,*** for initial site orientation.
- To all workers given new job assignments on site for which training has not previously provided.
    - Such training shall be documented in the foreman's daily log.
- Whenever new substances, processes, procedures or equipment are introduced to the workplace and represent a new hazard.
- Whenever A.J. Kirkwood & Associates, Inc. is made aware of a new or previously unrecognized hazard.
- To supervisors to familiarize them with the safety and health hazards to which workers under their immediate direction and control may be exposed.
- To all workers with respect to hazards specific to each employee's job assignment.

Workplace safety and health practices will include the following:

- Explanation of A.J. Kirkwood & Associates, Inc.'s IIPP, emergency action plan and fire prevention plan, and measures for reporting any unsafe conditions, work practices, injuries and when additional instruction is needed.
- Always wearing your PPE – hardhat, eye protection, and work-boots.
- Information about chemical hazards to which employees could be exposed and other hazard communication program information.
- Availability of toilet, handwashing and drinking water facilities.
- Provisions for medical services and first aid including emergency procedures.

In addition, we provide specific instructions to all workers regarding hazards unique to their job assignment, to the extent that such information was not already covered in other training.

RECORD KEEPING

Our establishment is on a designated high hazard industry list as we are an electrical construction contractor. We have taken the following steps to implement and maintain our IIPP:

1. Records of hazard assessment inspections, the Site Audit Pro Application, which includes the person(s) or persons conducting the inspection, the unsafe conditions and work practices that have been identified and the action taken to correct the identified unsafe conditions and work practices; and

2. Documentation of safety and health training for each worker, including the worker's name or other identifier, training dates, type(s) of training, and training providers are recorded on a worker training and instruction form and a master list of training is kept by the Safety Department.

A.J. KIRKWOOD & ASSOCIATES, INC. Hazard Communication Program:

Purpose

The purpose of the A.J. Kirkwood & Associates, Inc. hazard communication program is to ensure that the hazards of all chemicals produced or imported are classified, and that information concerning the classified hazards is transmitted to our employees. The provisions of our hazard communication program are consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS), Revision 3. The transmittal of information is to be accomplished by means of our comprehensive hazard communication program.

We shall develop, implement, and maintain a comprehensive written hazard communication program for our employees, which includes container labeling and other forms of warning, safety data sheets, and employee training.

Hazard communication applies to any hazardous substance which is known to be present in the workplace in such a manner that employees may be exposed under normal conditions of use or in a reasonably foreseeable emergency resulting from workplace operations.

A.J. Kirkwood & Associates, Inc. maintains an inventory of all known chemicals in use at our job site. A chemical inventory list; along with Safety Data Sheets are available from ***the foreman, or Safety Department.***

We will maintain a list of the chemicals on the job site known to be present using an identity that is referenced on the appropriate safety data sheet (SDS).

-AJK employees may have unobstructed access to the (SDS) through electronic means be scanning the **Safety & Education** QR code with their mobile phone and imputing password (4300). This QR code can be found on the inside of job site tool boxes, site foreman offices with job site required postings, and service truck cab interiors. Employees may also ask for a copy from their supervisor or the Safety Department.

A.J. Kirkwood & Associates, Inc. does not foresee the use of any hazardous chemicals for out job site.

As a matter of course, before a new product is purchased, we will review its SDS to determine the presence of carcinogenic or other extremely hazardous chemicals. Using this information from the SDS, we will be able to inform employees how they will be protected from carcinogens at the workplace. A copy of the new product SDS will be submitted to the general contractor.

Prior to performing a non-routine task, an employee will be given information by a competent person or supervisor concerning the hazardous chemicals to which he may be exposed. This information will include:

a. Specific chemical hazards
b. Protective/safety measures the employee is to use
c. Measures taken to lessen the hazards including ventilation, respirators, presence of another employee and emergency procedures.

In multi-employer workplaces, our written hazard communication program will include the methods we will use to inform any other employees sharing the same work area of the hazardous chemical to which their employees may be exposed while performing their work, and any suggestions for appropriate protective measures, including the following:

- The competent person on the jobsite will inform those with whom we work of any hazardous chemical products we are using and will provide them with the appropriate SDS for their review. SDS for all chemical products used on the jobsite will be readily available.

- Should we introduce a new chemical product to the jobsite that contains a physical or health safety hazard, the product's SDS will accompany that product and, before use, employees will be given instruction on the products hazards. This information will be shared with other contractors with whom we may be working. Employees are to be kept informed of the chemical products being used by other contractors if they pose a safety hazard.

Labels and Other Forms of Warning

The manufacturer, importer, or distributor shall ensure that each container of hazardous chemicals leaving the workplace is labeled, tagged, or marked. Where the manufacturer or importer is required to label, tag, or mark, the following information shall be provided:

1. Product identifier;
2. Signal word;
3. Hazard statement(s);
4. Pictogram(s);
5. Precautionary statement(s); and,
6. Name, address, and telephone number of the manufacturer, importer, or other responsible party.

The manufacturer or importer preparing the safety data sheet shall ensure that the information provided accurately reflects the scientific evidence used in making the hazard determination. If the manufacturer or importer becomes aware of any significant information regarding the hazards of a chemical, or ways to protect against the hazards, this new information shall be added to the safety data sheet within three months. If the chemical is not currently being produced or imported, the manufacturer or importer shall add the information to the safety data sheet before the chemical is introduced into the workplace again. We will replace safety data sheets with updated copies as they are received.

Product identifier and words, pictures, symbols, or combination thereof, which provide at least general information regarding the hazards of the chemicals, and which, in conjunction with the other information immediately available to employees under the hazard communication program, will provide employees with the specific information regarding the physical and health hazards of the hazardous chemical.

This is an example below of labeling found on SDS.

Danger
May cause fire or explosion; strong oxidizer Causes severe skin burns and eye damage

Keep away from heat. Keep away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles. Wear protective neoprene gloves, safety goggles and face shield with chin guard. Wear fire/flame resistant clothing. Wash arms, hands, and face thoroughly after handling. Store locked up. Dispose of contents and container in accordance with local, state, and federal regulations.

We may use signs, placards, process sheets, batch tickets, operating procedures, or other such written materials in lieu of affixing labels to individual stationary process containers, as long as the alternative method identifies the containers to which it is applicable and conveys the information required by the above to be on a label. The written materials shall be readily accessible to our employees in their work area throughout each work shift. We may use such written materials in lieu of affixing labels to individual containers as long as the alternative method identifies and accompanies the containers to which it is applicable and conveys the information required to be on a label.

We shall not remove or intentionally deface existing labels on incoming containers of hazardous chemicals unless the container is immediately marked with the required information.

We shall ensure that workplace labels or other forms of warning are legible, in English, and prominently displayed on the container, or readily available in the work area throughout each work shift.

Employee Information and Training

We shall provide employees with effective information and training on hazardous chemicals in their work area at the time of their initial assignment, and whenever a new chemical hazard is introduced into their work area. Information and training may relate to general classes of hazardous chemicals to the extent appropriate and related to reasonably foreseeable exposures of the job. Chemical-specific information must always be available through labels and safety data sheets.

Information and training shall consist of at least the following:

1. Employees shall be informed of the requirements of 29 CFR 1910.1200, Hazard Communication.
2. Employees shall be informed of any operations in their work area where hazardous chemicals are present.
3. Employees shall be informed of the location and availability of the written hazard communication program, including the list(s) of hazardous chemicals and safety data sheets required by this section.
4. Employees shall be trained in the methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area.
5. Our employees shall be trained in the details of our hazard communication program, including an explanation of the labels received on shipped containers and the safety data sheet, and how our employees can obtain and use the appropriate hazard information.

Employees will be informed of the right:

1. To personally receive information regarding chemicals to which they may be exposed, according to the provisions of this section;
2. For their physician to receive information regarding chemicals to which the employee may be exposed to provisions of this section;
3. Against discharge or other discrimination due to the employee's exercise of the rights afforded pursuant to the provisions of the Hazardous Substances Information and Training Act.

Whenever we receive a new or revised safety data sheet, such information shall be provided to employees on a timely basis if the new information indicates significantly increased risks to, or measures necessary to protect, employee health as compared to those stated on a safety data sheet previously provided.

Emergency Response

- Any incident of over exposure or spill of a chemical substance shall be reported to the foreman or project manager at once.
- The superintendent or project manager shall be responsible for ensuring that proper emergency response actions are taken in leak / spill situations.

HEAT ILLNESS PREVENTION PROVISIONS

A.J. KIRKWOOD & ASSOCIATES, INC.

Purpose
The purpose of the A.J. Kirkwood & Associates, Inc. Heat Injury Illness Program is to provide guidance and inform employees the potential risks protect and educate employees working in outdoor environments of the risks in regards to heat illnesses if they do not take the proper safety precautions. This program's intent is to give supervisors and employees awareness in regards to heat illness/injury prevention, heat illness/injury symptoms, and what to do if symptoms occur.

Any employee working on a job site, and foremen that supervise these employees, must follow the guidelines set forth in this program.

A.J. Kirkwood & Associates, Inc. strives to instill our guiding safety principal, **"Grounded In Safety!"**

This Heat Illness Prevention Plan (HIPP) applies to employees of A.J. Kirkwood & Associates, Inc., who work outdoors or on job tasks where the environmental risk factors for heat illness are present and are at risk for developing heat illnesses if they do not protect themselves appropriately.

Responsibility for Implementation of Jobsite HIPP:
It is the responsibility of the site foreman to implement and adhere to the provisions of the Heat Illness Prevention Program for their project. The Project Manager and Project Engineer may assist the foreman for compliance with the HIPP program.

Provision of Water:

☐ A.J. Kirkwood & Associates, Inc. will provide fresh, pure and suitable cool water, free of charge, as close as practicable to areas where employees are located. The foreman will visually examine the water to ensure purity. When conditions permit, delivery service and a cooler will be set up with our Arrowhead Water account for the jobsite. Otherwise, **the foreman** will work with their project team to ensure that 5-gallon water jugs or other water bottles are made available for the jobsite crew.

☐ Drinking water containers (of five to 10 gallons each) will be brought to the site, so that at least two quarts per employee are available at the start of the shift. All workers whether working individually or in smaller crews, will have access to drinking water.

☐ Bags of disposable cups and the necessary cup dispensers will be made available to workers and will be kept clean until uses.

☐ As part of Effective Replenishment Procedures, the water level of containers will be checked periodically (e.g. every hour, every 30 minutes), and more frequently when the temperature rises. Water containers will be refilled with cool water when water level within a container drops below 50 percent. Additional water containers (e.g. five gallon bottles) will be carried, to replace water as needed.

☐ Water will be fresh, pure, and suitably cool and provided to employees free of charge. The foreman or another designated employee will visually examine the water and pour some on their skin to ensure that the water is suitably cool. During hot weather, the water must be cooler than the ambient temperature, but not so cool as to cause discomfort.

☐ Water containers will be located as close as practicable to the areas where employees are working (given the working conditions and layout of worksite), to encourage the frequent drinking of water. If field terrain prevents the water from being placed as close as possible to the workers, bottled water or personal water containers will be made available, so that workers can have drinking water readily accessible.

☐ Since water containers are smaller than shade structures, they can be placed closer to employees than shade structures. Placing water only in designated shade areas or where toilet facilities are located is not sufficient. When employees are working across large areas, water will be placed in multiple locations. For example, on a multi-story construction site, water should be placed in a safely accessible location on as many floors as possible where employees are working.

☐ All water containers will be kept in sanitary condition. Water from non-approved or non-tested water sources (e.g. untested wells) is not acceptable. If hoses or connections are used, they must be governmentally approved for potable drinking water systems, as shown on the manufactures label.

☐ Daily, workers will be reminded of the location of water coolers and of the importance of drinking water frequently. When the temperature exceeds or is expected to exceed 80 degrees Fahrenheit, brief 'tailgate' meetings will be held each morning to review with employees the importance of drinking water, the number and schedule of water and rest breaks and the signs and symptoms of heat illness.

☐ Use of employees' two-way radio will be used to remind employees to drink water.

☐ When the temperature equals or exceeds 95 degrees Fahrenheit or during a heat wave, pre-shift meetings before the commencement of work to encourage employees to drink plenty of water and remind employees of their right to take a cool-down rest when necessary, will be conducted. Additionally, the number of water breaks will be increased. Supervisors/foreman will lead by example and workers will be reminded throughout the work shift to drink water.

☐ Individual water containers or bottled water provided to workers will be adequately identified to eliminate the possibility of drinking from a co-worker's container or bottle.

ACCESS TO SHADE:

☐ Shade structures will be opened and placed as close to practical to the workers, when the temperature equals or exceeds 80 degrees Fahrenheit. When the temperature is below 80 degrees Fahrenheit, access to shade will be provided promptly, when requested by an employee.

Note: The interior of a vehicle may not be used to provide shade unless the vehicle is air-conditioned, and the air conditioner is on.

☐ Enough shade structures will be available at the site, to accommodate all of the employees who are on such a break at any point in time. During meal periods, there will be enough shade for all of the employees who choose to remain in the general area of work or in areas designated for recovery and rest periods. (At the

discretion of the foremen, they may rotate employees in and out of meal periods, as with recovery and rest periods.)

☐ Daily, workers will be informed of the location of the shade structures and will be encouraged to take a five-minute cool-down rest in the shade. An employee who takes a preventative cool-down rest break will be monitored and asked if he/she is experiencing symptoms of heat illness and in no case will the employee be ordered back to work until signs or symptoms of heat illness have abated.

☐ Shade structures will be relocated to follow along with the crew and they will be placed as close as practical to the employees, so that access to shade is provided at all times. All employees on a recovery, rest break or meal period will have full access to shade so they can sit in a normal posture without having to be in physical contact with each other.

☐ In situations where trees or other vegetation are used to provide shade (such as in orchards), the thickness and shape of the shaded area will be evaluated, before assuming that sufficient shadow is being cast to protect employees.

☐ In situations where it is not safe or feasible to provide access to shade (e.g., during high winds), a note will be made of these unsafe or unfeasible conditions in the foreman's daily log, and of the steps that will be taken to provide shade upon request.

☐ For non-agricultural employers, in situations where it is not feasible to provide shade (mobile equipment and vehicle hazards, high winds), a note will be made in the foreman's daily log of these unsafe or unfeasible conditions, and of the steps that will be taken to provide alternative cooling measures but with equivalent protection as shade.

MONITORING THE WEATHER:

☐ The foremen will check in advance the extended weather forecast. Weather forecasts can be checked with the aid of the internet (http://www.nws.noaa.gov/), or be calling the National Weather Service phone number (see below) or by checking the Weather Channel TV Network. The work schedule will be planned in advance, taking into consideration whether high temperatures or a heat wave is expected. This type of planning should take place all year long depending on weather conditions.

CALIFORNIA DIAL-A-FORECAST
Los Angeles: (805) 988-6610 (#1)
San Diego: (619) 297-2107 (#1)

☐ Prior to each workday, the forecasted temperature and humidity for the worksite will be reviewed and will be compared against the National Weather Service Heat Index to evaluate the risk level for heat illness. Determination will be made of whether or not workers will be exposed at a temperature and humidity characterized as ether "extreme caution" or "extreme danger" for heat illnesses. It is important to note that the temperature at which these warnings occur must be lowered as much as 15 degrees if the workers under consideration are in direct sunlight.

☐ Prior to each workday, the foreman will monitor the weather (using http://www.nws.noaa.gov/ or with the aid of a simple thermometer) at the worksite. This critical weather information will be taken into consideration, to determine, when it will be necessary to make modifications to the work schedule (such as stopping work early, rescheduling the job, working at night or during the cooler hours of the day, increasing the number of water and rest breaks.)

☐ A thermometer may be used at the jobsite to monitor for sudden increases in temperature, and to ensure that once the temperature exceeds 80 degrees Fahrenheit, shade structures will be opened and made available to the workers. Also, an applicable weather App on a smart phone that shows updated temperature conditions may be used. In addition, when the temperature equals or exceeds 95 degrees Fahrenheit, additional preventive measures such as the High Heat Procedures will be implemented.

PROCEDURES FOR HANDLING A HEAT WAVE:

For purposes of this section only, "heat wave" means any day in which the predicted high temperature for the day will be at least 80 degrees Fahrenheit and at least ten degrees Fahrenheit higher than the average high daily temperature in the preceding five days.

☐ During a heat wave or heat spike, certain work tasks may be reduced or rescheduled (example conducted at night or during cooler hours).

☐ During a heat wave or heat spike, and before starting work, tailgate meetings will be held, to review the company Heat Illness Prevention Procedures, the weather forecast and emergency response. In addition, if schedule modifications are not possible, workers will be provided with an increased number of water and rest breaks and will be observed closely for signs and symptoms of heat illness.

☐ Each employee should be vigilant in observing their co-workers for signs and symptoms of heat illness and to ensure that emergency procedures are initiated when someone displays possible signs or symptoms of heat illness.

HIGH HEAT PROCEDURES:

High Heat Procedures are additional preventative measures that A.J. Kirkwood & Associates, Inc. will use when the temperature equals or exceeds 95 degrees Fahrenheit.

☐ Effective communication by two-way radio, direct observation (applicable for work crews of 20 or fewer), and co-workers constantly looking out for one another, or other electronic means will be maintained so that employees at the worksite can contact a supervisor when necessary. If the supervisor is unable to be near the workers (to observe them or communicate with them), then an electronic device, such as a two-way radio, cell phone, or text messaging device, may be used for this purpose if reception in the area is reliable.

☐ Frequent communication will be maintained with employees working by themselves or in smaller groups (keep tabs on them via phone or two-way radio), to be on the lookout for possible symptoms of heat illness. The employee(s) will be contacted regularly and as frequently as possible throughout the day since an employee in distress may not be able to summon help on his or her own.

☐ Effective communication and direct observation for alertness and/or signs and symptoms of heat illness will be conducted frequently. When the supervisor is not available, a designated alternate responsible person must be assigned to look for signs and symptoms of heat illness. If a supervisor, designated observer, or any employee reports any signs or symptoms of heat illness in any employee, the supervisor or designated person will take immediate action commensurate with the severity of the illness.

☐ Employees will be reminded constantly throughout the work shift to drink plenty of water and take preventative cool-down rest break when needed.

PROCEDURES FOR ACCLIMATIZATION:

Acclimatization is the temporary and gradual physiological change in the body that occurs when the environmentally induced heat load to which the body is accustomed is significantly and suddenly exceeded by sudden environmental changes. In more common terms, the body needs time to adapt when temperatures rise suddenly, and an employee risks heat illness by not taking it easy when a heat wave strikes or when starting a new job that exposes the employee to heat to which the employee's body hasn't yet adjusted.

Inadequate acclimatization can be significantly more perilous in conditions of high heat and physical stress. Employers are responsible for the working conditions of their employees, and they must act effectively when conditions result in sudden exposure to heat their employees are not used to.

☐ The weather will be monitored daily. The foreman will be on the lookout for sudden heat wave(s) or increases in temperatures to which employees haven't been exposed for several weeks or longer.

☐ During a heat wave or heat spike, the workday will be cut short (example 12:00 PM), will be rescheduled (example conducted at night or during cooler hours) or if at all possible, cease for the day.

☐ New employees, or those employees who have been newly assigned to a high heat area, will be closely observed by the foreman or designee for the first 14 days. The intensity of the work will be lessened during a two-week break-in period (such as scheduling slower paced, less physically demanding work during the hot parts of the day and the heaviest work activities during the cooler parts of the day (early-morning or evening). Steps taken to lessen the intensity of the workload for new employees will be documented.

☐ The foreman, or the designee, will be extra-vigilant with new employees and stay alert to the presence of heat related symptoms.

☐ New employees will be monitored by existing crew members or other experienced coworkers to watch each other closely for discomfort or symptoms of heat illness.

☐ During a heat wave, all employees will be observed closely (or maintain frequent communication via two-way radio or phone), to be on the lookout for possible symptoms of heat illness.

☐ Employees and supervisors will be trained on the importance of acclimatization, how it is developed and how these company procedures address it.

PROCEDURES FOR EMERGENCY RESPONSE:

☐ Prior to assigning a crew to a particular worksite, workers and the foreman will be provided a map of the site from the GC, along with clear and precise directions (such as streets or road names, distinguishing features and distances to major roads), to avoid a delay of emergency medical services.

☐ Prior to assigning a crew to a particular worksite, efforts will be made to ensure that a qualified and appropriately trained and equipped person is available at the site to render first aid if necessary.

☐ All foremen and supervisors will carry cell phones and their two-way radio, to ensure that emergency medical services can be called. Checks will be made to ensure that these electronic devices are functional prior to each shift.

☐ When an employee is showing symptoms of possible heat illness, steps will be taken immediately to keep the stricken employee cool and comfortable once emergency service responders have been called (to reduce the

progression to more serious illness). ***Under no circumstances will the affected employee be left unattended.***

☐ At remote locations such as undeveloped areas, the supervisor will designate an employee or employees to physically go to the nearest road or highway where emergency responders can see them. If daylight is diminished, the designated employee(s) shall be given a reflective vest or flashlights in order to direct emergency personnel to the location of the worksite, which may not be visible from the road or highway.

☐ During a heat wave or hot temperatures, workers will be reminded and encouraged to immediately report to their supervisor any signs or symptoms they are experiencing.

PROCECURES FOR HANDLING A SICK EMPLOYEE:

☐ **When an employee displays possible signs or symptoms of heat illness, a trained first aid worker or supervisor will check the sick employee and determine whether resting in the shade and drinking cool water will suffice or if emergency service providers will need to be called.** A sick worker will not be left alone in the shade, as he or she can take a turn for the worse**!**

☐ When an employee displays possible signs or symptoms of heat illness and no trained first aid worker or supervisor is available at the site, emergency service providers will be called.

☐ **Emergency service providers will be called immediately if an employee displays signs or symptoms of heat illness (decreased level of consciousness, staggering, vomiting, disorientation, irrational behavior, incoherent speech, convulsions, red and hot face), does not look OK or does not get better after drinking cool water and resting in the shade. While the ambulance is in route, first aid will be initiated (cool the worker: place the worker in the shade, remove excess layers of clothing, place ice pack in the armpits and groin area and fan the victim).** Do not let a sick worker leave the site, as they can get lost or die before reaching a hospital!

☐ If an employee does not look OK and displays signs or symptoms of severe heat illness (decreased level of consciousness, staggering, vomiting, disorientation, irrational behavior, incoherent speech, convulsions, red and hot face), and the worksite is located more than 20 minutes away from a hospital, call emergency service providers, communicate the signs and symptoms of the victim and request Air Ambulance.

NOAA's National Weather Service

Heat Index

Temperature (°F)

Relative Humidity (%)	80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136
45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137	
50	81	83	85	88	91	95	99	103	108	113	118	124	131	137		
55	81	84	86	89	93	97	101	106	112	117	124	130	137			
60	82	84	88	91	95	100	105	110	116	123	129	137				
65	82	85	89	93	98	103	108	114	121	128	136					
70	83	86	90	95	100	105	112	119	126	134						
75	84	88	92	97	103	109	116	124	132							
80	84	89	94	100	106	113	121	129								
85	85	90	96	102	110	117	126	135								
90	86	91	98	105	113	122	131									
95	86	93	100	108	117	127										
100	87	95	103	112	121	132										

Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity

Caution | Extreme Caution | Danger | Extreme Danger

California employers are required to take these four steps to prevent heat illness

1. Training

Train all employees and supervisors about heat illness prevention.

2. Water

Provide enough fresh water so that each employee can drink at least 1 quart per hour, *and encourage them to do so.*

3. Shade

Provide access to shade and encourage employees to take a cool-down rest in the shade for at least 5 minutes. *They should not wait until they feel sick to cool down.*

4. Planning

Develop and implement written procedures for complying with the Cal/OSHA Heat Illness Prevention Standard.

Health effects of heat

Two types of heat illness:

Heat Exhaustion

Heat Stroke

Watch out for early symptoms. You may need medical help. People react differently — you may have just a few of these symptoms, or most of them.

1

Stay safe and healthy!

WATER. REST. SHADE. *The work can't get done without them.*

Drink water even if you aren't thirsty – every 15 minutes.

Rest in the shade.

Watch out for each other.

Wear hats and light-colored clothing.

"Easy does it" on your first days of work in the heat. You need to get used to it. Rest in the shade – at least 5 minutes as needed to cool down.

2

Be prepared for an emergency

Heat kills -- get help right away!

If someone in your crew has symptoms:

1) Tell the person who has a radio/phone and can call the supervisor – you need medical help.

2) Start providing first aid while you wait for the ambulance to arrive.

3) Move the person to cool off in the shade.

4) Little by little, give him water (as long as he is not vomiting).

5) Loosen his clothing.

6) Help cool him: fan him, put ice packs in groin and underarms, or soak his clothing with cool water.

When you call for help, you need to:

- Be prepared to describe the symptoms.
- Give specific and clear directions to your work site.

Workers do not pay for ambulances or medical care.

3

Heat illness can be prevented!

At our work site, we have:

Water

Shade to rest and cool down

We are extra careful when there is a heat wave or temperature goes up. Then we may change our work hours, and we all need more water and rest.

Training and emergency plan

4

Heat Kills

Heat illness includes heat cramps, fainting, heat exhaustion, and heatstroke.

Workers have died or suffered serious health problems from these conditions.

Heat illness can be prevented.

Know the symptoms of heat illness

Watch for symptoms in yourself and your coworkers. *If you feel any symptoms, tell your coworkers and supervisor immediately because you may need medical help. Know who to talk to and how to get help before you start each workday.*

Early symptoms

Fatigue
Heavy sweating
Headache
Cramps
Dizziness
High pulse rate
Nausea/vomiting

GET MEDICAL HELP

Life-threatening symptoms

High body temperature
Red, hot, dry skin
Confusion
Convulsions
Fainting

Preventing Heat Illness

Tell your supervisor if you are new to working in the heat or have had heat illness before.

Stay alert to the weather During a heat wave you are at greater risk of getting sick. You need to watch yourself and coworkers more closely, and may need to drink more water, take more breaks, and use other measures.

Drink enough cool, fresh water
Drink at least one 8-ounce cup (3 cones) every 15 minutes during your entire work shift. *Do not wait until you are thirsty to drink water.*

Do not drink alcohol.
Avoid coffee.
Choose water over soft drinks.

Take rest breaks in the shade to cool down.

Wear proper clothing Loose fitting, light-weight and light-colored cotton clothes, a wide-brimmed hat or cap, and a bandana.

Talk to your doctor if you have illnesses like diabetes, are taking medicines or are on a low salt diet.

TABLE OF CONTENTS

A.J. KIRKWOOD & ASSOCIATES, INC.
Code of Safe Practices

GENERAL SAFE PRACTICES

For the protection and safety of all employees, A.J. Kirkwood & Associates, Inc. has established the following rules. General safe operating rules and practices apply to all employees regardless of the nature of their duties. These rules are to be explained to each new hire during orientation and must be re-emphasized at weekly safety meetings and in daily contacts. Please read and study all of the safety rules listed in this handbook. If you have any questions regarding these rules, do not hesitate to ask your supervisor.
These are minimum requirements only and compliance with these rules is mandatory.

- Proper footwear and clothing shall be worn at all times.
- Personal protective equipment shall be worn as required.
- Gloves will be worn at all times.*
- Safety glasses will be worn at all times.*
- Helmets will be worn at all times.*
- Horseplay of any kind will not be tolerated.
- Report any unsafe act or working condition to your Foreman/Supervisor immediately.
- Keep alert around moving equipment. Be aware of delivery trucks, forklifts, graders, backhoes, cranes, etc., as they are not looking out for you. Stay out of their paths and wear safety vests when necessary. Never be under the load of a crane, forklift, bucket, or any other materials as they may shift, move, and injure you.
- Do not operate equipment or machines until properly trained to do so.
- Radios, ear buds or earphones shall not be used while working or in work areas.
- Employees shall not be permitted to work while under the influence of alcohol or drugs.
- If you do not understand instructions given to you, or have any questions concerning procedures or safety rules, ask your Foreman/Supervisor.
- All work-related injuries and accidents, no matter how minor, must be reported immediately to your Foreman/Supervisor.
- Failure to follow safety rules may result in disciplinary action or termination.

* *Damaged helmets, gloves and safety glasses will be replaced at no cost to the employee. The damaged items need to be turned in to the Safety Department for exchange. However, if it is considered by the Safety Committee that an individual is abusing their company issued safety items, disciplinary actions may be necessary.*

HAZARDOUS MATERIALS

- There are many hazardous materials on job sites, if you should have any questions, ask your foreman for a hazardous material sheet on any type of material. In case of an immediate emergency call the Safety Department. MSDS are located in your foreman's site binders.

HOUSEKEEPING

- Keep work areas free of trash and loose materials.
- Daily cleanup is required in all work areas. You should "clean as you go" as not to leave any materials behind that may cause a tripping or slipping hazard.
- Have appropriate trash receptacles or boxes to dispose of material. Do not leave it in a pile on the floor or overnight.
- Tools and equipment shall be returned to their proper storage place after use.

LIFTING

- Lift correctly, ask for help when an object, because of its weight, size, or shape is difficult to handle.
- Keep the load close to your body. Lift with your legs – not your back.
- Avoid bending and twisting at your waist.
- Do not hinder your line of sight with the load/materials you are carrying.

LADDERS

- Inspect ladders every day prior to use.

- Do not use a ladder with broken, split, or missing rungs, steps, side rails, feet, or bolts.
- Only non-conductive ladders shall be used for work around electrical equipment and wires.
- When climbing up and down a ladder, face the rungs and maintain three points of contact.
- Do not stand on the top two steps of the ladder.
- Stepladders (A-frame ladders) are not to be folded and leaned against walls.
- Extension ladders must extend 36" above next level and tied off.

TOOLS

- Inspect tools daily prior to use to ensure they are in good working order.
- Use the proper tools for the job and use in the manner intended.
- Maintain personal tools in good working order.
- Defective tools or equipment shall not be used.
- Safety devices on any power tools shall not be altered.
- Only certified, trained employees shall be allowed to operate powder actuated tools.
- Only grounded or double- insulated electrical tools shall be used.
- The stress release device must be present on chorded tools.

ELECTRICAL

- Working on energized conductors and /or equipment is not permitted. However, in the case of an emergency, only "Qualified" Journeymen Electricians will be allowed to work on energized conductors and/or equipment and will be required to be familiar with applicable OSHA standards.
- At least two Journeymen will be assigned to work on energized conductors or equipment.
- All equipment shall be **locked out** or **tagged out** to protect against accidental operation when such operation could cause injury to personnel.
- **DO NOT** attempt to operate any energy isolating device when it is locked or tagged out. Removing other employee's locks and/or tags is grounds for immediate disciplinary action, up to and including termination of employment.
- **Entry** into a confined space is **strictly prohibited** until the atmosphere has been tested, entry permit has been completed and proper personal protective equipment and procedures are in place.

II. FIELD SAFETY RULES

Specific

Specific safe operating rules and practices are related to methods, materials, protective devices, and personal conduct relative to a particular type of work or when using certain equipment. Where applicable, reference to a specific ANSI or OSHA standard will be provided.

HOUSEKEEPING

- A. J. Kirkwood and Associates, Inc. employees are responsible for their own housekeeping, daily.
- Essential elements of good housekeeping are:

  Orderly placement of loose materials, tools, and equipment.
  Prompt removal and disposal of trash and waste materials.
  Daily upkeep of all areas.

PERSONAL PROTECTIVE EQUIPMENT (OSHA 1926.100-107)

Helmets

Employees working in areas where there is a possible danger of head injury from impact, or from falling, or flying objects, or from electrical shock or burns, shall be protected by protective helmets.

Company Policy

- Only helmets supplied by the Company are permitted.
- Helmets supplied A.J. Kirkwood & Associates, Inc. shall be worn at all times.
- Properly adjust suspensions systems to maintain clearance between your head and the shell of the hat.

- Do not cut holes for ventilation. Do not heat and bend.
- Do not put anything under it except your head or helmet liners. (No ball caps.)
- Do not wear it backwards.
- Stickers or signs of any kind are not permitted unless company issued.

The helmet is a useful piece of safety equipment. But like any other protective device, it must be properly adjusted and worn and kept in good condition to give you maximum protection.

HEARING PROTECTION (OSHA 1926.101)

- Whenever it is not feasible to reduce the noise level or duration of exposures, ear protective devices shall be provided and used.
- Only company issued ear protective devices are permitted.
- Ear protective devices inserted in the ear shall be fitted.
- Cotton is not acceptable.
- Hearing protection will be recommended and provided when conditions are at 85 DBA.
- Hearing protection will be mandatory and provided when conditions are at 90 DBA or greater.

A good rule to use in determining what a safe level is: If you have to shout above the general noise to be heard, you need ear protection.

EYE AND FACE PROTECTION (OHSA 1926.102)

General

Employees shall be provided with eye and face protection equipment when machines or operations present potential eye or face injury form physical, chemical or radiation agents.

- It is **company policy** that safety glasses be worn at all times.
- Each new employee is issued a pair of safety glasses at the time of hire.
- Goggles are also available on the job site for added protection.
- Should your safety lenses break, become scratched, etc., you may obtain a new pair by returning the damaged pair to your foreman.
- Individuals wearing prescription lenses/frames will be issued either goggles or safety glasses that will cover those lenses/frames.
- It is the employees' responsibility to keep their safety glasses in good condition.

GLOVE POLICY

All AJK employees working on or visiting a project shall be required to wear gloves at all times, with the very limited exception of the performance of specific tasks that cannot be performed with gloves on. **These tasks must be considered and covered in each day's hazard assessment in the employee's personal PTP book.**

Employees that cut the fingertips off of gloves for the specific performance of these tasks must carry an additional pair of company issued, non-modified gloves, which are to be worn following the completion of the specific task in question.

FOOT PROTECTION (ANSI 241.1)

The ANSI standard requires that footwear protect the toes of the wearer by use of a toe-box incorporated into the construction of the shoe and of a rigid stiffening material. It does not state that the material be steel.

Foot Protection

- Work boots shall have a toe-box incorporated into the construction of the shoe.
- This may be of a rigid stiffening material either several layers of stiffened leather, plastic, or steel.
- All work boots must have slip resistant soles.
- Tennis shoes, canvas and leather "hikers" or soft leather soles are not acceptable as work boots.
- Keep your work boots in good condition. Bad soles and heels can cause falls.
- Work boots shall give proper ankle protection.

Safety Harnesses

Safety harnesses must be worn and tied off when working on the following:

- Sloping roofs
- Flat roofs without handrails within six feet of the edge or roof opening.
- Any suspended platform or stage without proper guardrails.
- Any scaffold with incomplete handrail or decking.
- Ladders near the edge of roofs and floor openings.
- In the area of roof or floor openings.
- In areas exposed to protruding reinforcing steel.
- When assembling and disassembling scaffolding.

- Safety harnesses must be arranged so that the support point is in the rear.
- Inspect all fall protection equipment each time prior to use.

Safety harnesses must be arranged so that the support point is in the rear.

Clothing

Remember to dress properly for the job you are doing. Dress for work with safety in mind.

- Don't wear pants or overalls with cuffed or rolled up legs. Straight legs reduce self-tripping hazards.
- Shirt sleeves should be buttoned and not left hanging.
- Shirts shall have at least 4" off edge of shoulder.
- Tank tops are not allowed.
- No shorts or cutoffs are allowed.
- Cut off sleeves are not allowed.
- Don't wear jewelry, straps, keys on belt, etc., or any item that might hook on something and place you in a hazardous position electrically or otherwise. Exposed body piercings of any kind are not permitted.

Daily Huddle and Stretch & Flex

- After clocking in and prior to going to each employee's work area, all AJK employees will huddle together. This time serves to discuss safety related issues on the jobsite, events unique to that day, and to recognize those who have gone above and beyond in performance and for general company announcements.
- This time will also be used for stretching and mobility exercises to prepare employees for the demands of the day's tasks.

HORSEPLAY

- Horseplay will not be tolerated.

LIFTING AND HANDLING

- Wear good, tough gloves when handling anything rough, sharp, or splintery.
- When lifting, bend your knees and crouch down, keeping your back reasonably straight.
- Let your leg muscles bear the main strain, rather than the lower back muscles.
- Be sure you have a secure grip and solid footing.
- Keep load close to your body to minimize strain.
- Lift smoothly - don't jerk.
- Make sure fingers and toes are in the clear when lifting and handling.
- Don't twist your body when carrying a load, pivot with your feet not your back.
- When a load is too heavy or awkward - GET HELP.
- Plan your path; make sure it is free of debris and obstacles.
- Use dollies, carts, two-wheelers, hydraulic lifts to move loads when possible.

SLIPS AND FALLS

When working at heights:

- Proper guard rails must be used when exposure is over six feet.
- When necessary, a safety harness should be used.
- Use extreme caution when working on or around open rebar decks to avoid slipping and tripping.

Poor housekeeping:

- Trash, tools, and materials lying around in work or traffic areas pose a major hazard.
- Be alert and watch your step

Weather conditions increase the hazards on projects:

- When debris or hazards are covered by ice and snow and cannot be seen.
- When rain causes areas to be muddy and wet.

TOOLS

Hand Tools

A recent review of construction injuries reveals quite a number of minor accidents involving the use of hand tools. To counteract this trend, it would be wise to review the basic rules governing the use of hand tools.

- Use the right tool for the job.
- Use only tools in good condition.
- Inspect tool prior to use.

Power Tools

- All cords on power tools shall be of the three-prong type or double insulated and have a stress relief.
- All tools should be either GFCI protected or under the monthly Assured Grounding Program
- Guards or safety devices shall not be altered or removed.
- Defective tools shall be tagged for repair and reported to your supervisor.
- Inspect tools prior to use.

Powder Actuated Tools

- Whenever possible, utilize gas-actuated tools as opposed to powder-actuated tools.
- Employees must be trained and possess a current license specific to the manufacturer before they are allowed to operate a powder actuated tool.
- The tool must be tested before each use to see that safety devices are in proper working condition.
- Do not leave the tool loaded - load tool just prior to intended firing time.
- Do not point the tool at anyone - treat it with the same respect that you would any other gun.
- Do not use the tool without proper, personal, protective equipment.
- If in doubt, read the manufacturer's instruction for the proper use of this tool and attachments.
- Post visible warning signage when powder actuated tool is in use.

FIRST AID/MEDICAL

You, as an employee, are entitled to reasonable and necessary medical, surgical, and hospital treatment for your occupational injuries or diseases.
Please contact the office or job site foreman for information on your designated medical provider.

FIRST AID (OSHA 1926.50)

- First Aid kits shall include features required by the OSHA standard and shall be easily accessible.
- A. J. Kirkwood and Associates, Inc. shall provide approved First Aid kits on all job sites and post a list of required items on the inside cover.

- Size and number of kits shall be determined by the size of the project and the number of employees being serviced.
- Supplies for replenishing kits may be obtained through the Safety Department.

Minor Injuries

All injuries, no matter how minor, must be reported immediately to your supervisor. Proper First Aid should be given, and a "First Report of Injury" immediately filled out regarding who/when/where and treatment. All injuries must be investigated, the cause determined, and corrective action taken to prevent recurrence.

- Remember - Minor accidents can become major accidents!
- Basic First Aid and CPR training shall be offered to employees throughout the year by A. J. Kirkwood and Associates, Inc.
- Foremen are to educate employees periodically at weekly safety meeting on the basic procedures for handling injured personnel.

Major Injuries

The following are recommendations for handling severe injuries.

- Have someone call an ambulance. Emergency numbers must be posted on every job site.
- Do not move the person unless they are in danger of further injury.
- Do not leave the person alone. Someone should be with them at all times.
- Reassure the person they will be all right. A good mental attitude is important.
- Use proper First Aid for the injury if you are qualified.
- Good First Aid is not only knowing what to do, how to stop excessive bleeding, or to restore breathing; it is also knowing what not to do, not to move a seriously injured person unless absolutely necessary.

Serious Injuries:

Cal-OSHA shall be contacted within eight hours of any serious injury to an employee.

A serious injury is defined as:

- A fatality
- Any loss of a limb
- Hospitalization over night for anything other than observation

FALLING OBJECTS

Falling objects can be materials, tools, debris, or equipment.

- All materials should be piled on a sound base.

Piling material on scaffolds requires care:

- Do not overload.
- Allow ample workspace.
- Be sure toe-boards are in place to keep materials from falling.

To send materials or tools to higher elevations:

- Do not throw material, tools, or equipment.
- Use containers or buckets and hand lines.

Protect yourself by:

- Always wearing your personal protective equipment as required.
- Stay out from under cranes, suspended loads, and overhead work.
- Stand clear when you hear warning horns, bells, power trucks, and overhead equipment.
- Keep clear of barricaded areas.

LADDERS (OSHA 1926.450)

OSHA Requirements

- Ladders must be inspected for visible defects on a daily basis prior to each use.

For our purposes:

- All ladders should be inspected before being sent out to the job.
- All ladders should be inspected on the job, before each use, on a daily basis.
- Ladders with broken, split, or missing steps, side rails, feet, or nuts and bolts should not be used.
- Metal spreaders on all step ladders must be of the locking type to keep the ladder in the open position when being used.
- All defective ladders must be immediately tagged with “Do Not Use” and removed from use until repaired.
- Proper ladder selection is made through job pre-planning ensuring the right ladder for the job.
- Makeshift repairs are not to be done.
- Do not use defective ladders.
- Ladders shall not be placed in passageways, doorways, driveways, or any location where they may be displaced by activities being conducted on any other work unless protected by barricades or guards.
- Metal ladders shall not be used when working on electrical systems, equipment, etc..
- Straight ladders are to be placed at a pitch where the horizontal distance from the top support to the foot of the ladder is no more than four times the base.
- Straight ladders are to be tied off at the top, or both top and bottom where conditions warrant.
- Side rails shall extend no less than 36” above the landing. When this is not possible, grab rails, which provide a secure grip for an employee moving to or from the point of access, shall be installed.
- Portable ladder feet shall be placed on a substantial base and the area around the top and bottom of the ladder shall be kept clear.
- Self-supporting (A-frame) step ladders are not to be used as straight ladders.
- Clean mud or grease from your shoes before climbing.
- Always face ladder and use three points of contact when climbing up or down.
- Never use the top two steps of step ladders to perform work.
- Do not overextend your reach. Move your ladder accordingly.

SCAFFOLDING (OSHA 1926.451)

Manually Propelled Mobile Scaffolds

- Competent person(s) supervises erection, dismantling, altering of the scaffold.
- Scaffold components are inspected and are to be in safe conditions before being put to use. Regular inspections thereafter.
- Scaffolds and their components must be capable of supporting without failure at least four times intended maximum load.
- Scaffold height does not exceed four times the minimum base. Out riggers would be included as a minimum base - or the unit is securely tied off to prevent tipping.
- Scaffold is level/plumb at all times and used only on a level, smooth surface, free of major defects.
- Use of ladders or makeshift devices to increase the height of the scaffold on the working platform is prohibited.
- Casters with effective locking devices are provided and all casters are to be locked when unit is in use.
- The platform decking covers the full width of the unit and is secured against displacement.
- Scaffold bracing is not used to ascend or descend the units unless the bracing is specifically designed for climbing. An access ladder is provided and installed so as not to cause the unit to tip.
- Guard rails, mid-rails, and toe boards must be installed on all open sides and ends of the scaffold over ten feet in height.
- Where persons are required to work or pass under a scaffold, the unit is provided with a screen or equivalent protective device to prevent materials from falling.
- Workers are not allowed on scaffolds during storms/high winds or when the work platform is covered with ice, snow or other slippery conditions.

- Workers are prohibited from riding rolling scaffolds unless conditions meet all specifications:
  Floor is within three degrees of level.
  Floor is free of defects, holes, or obstructions.
  Minimum dimensions of the base is at least half the scaffold height.
  Tools and materials are removed, secured, wire meshed, or equivalent provided.

FLOOR OPENINGS (OSHA 1926.500)

Guarding of floor openings and floor holes.

Definitions:

Floor Hole - and opening measuring less than 2" dimension in any floor, roof or platform through which materials but no persons may fall

Floor Opening - an opening measuring 2" or more in its least dimension in any floor, roof or platform through which persons may fall.

- Floor openings shall be guarded by a standard railing and toe boards or cover, as specified in the above standard.
- Floor holes into which persons can accidentally walk, shall be guarded by either a standard railing with standard toe board on all exposed sides or a floor hole cover of standard strength and construction that is secured against accidental displacement.
- It should be marked with a danger warning, **"Hole – Do Not Remove."**
- Every employee on the job should be warned about it.
- Should you find yourself in an area without proper guard rails or cover, remove yourself from the area and report this to your Foreman.

TEMPORARY STAIR AND GUARD RAILS (OSHA subpart M 1926.50)

Temporary stair railings and guard rails are REQUIRED BY LAW ON ALL CONSTRUCTION PROJECTS to protect workers.

- A standard guard rail must be 42" high from floor to top of rail, its posts must not exceed 8' centers, it must have a mid-rail, and a 4" high toe board strong enough to stop tools, materials, etc. from sliding or rolling over the edge.
- If a 4" toe board is not sufficient to restrain adjacent materials, then paneling or screening should be used.
- All guard rails must be capable of withstanding a 200-pound load in any direction.
- The minimum requirements for wooden rails are 2" x 4" stock for posts and top rail, with a 1" x 6" mid-rail. The material should be selected to avoid defects and splinters.
- The construction of stair railing should be similar to that of the guard rails mentioned above, except that the top surface of the railing should be a distance of 30 to 34 inches as measured from the top, forward edge to the rend, (in line with the face of the riser below it), upward in a vertical line, to the top of the railing. Landings and platforms require standard guard rails.
- Should you find yourself in an area without proper guard rails, remove yourself from the area and report this to your Foreman.

TRENCHING AND SHORING (OSHA 1926.651)

Because of the various types of soil and their angle of repose, trenching without bracing, shoring or proper sloping is hazardous. Even in hard soil a cave-in can occur. If such a failure does occur, persons in the trench can be buried, usually resulting in serious injury or death. Improper or careless installation of bracing and shoring can cause similar tragedies.

It is essential in the excavation of trenches five feet or more in depth that the exposed faces of these trenches be supported and held firmly in place by adequate bracing. This requirement must be complied with for all trenching, except:

- Trenches that are in rock or hard shale that have been shown to be geologically self-supporting of an unsupported vertical face.
- Trenched with exposed faces sloped to the angle of repose for the type of soil in which the excavation is being made or properly benched to an equivalent of the angle of repose.
- Trenches in which trench shield or boxes are used.
- **REMEMBER:** Before entering any trench, a competent person shall inspect all shoring at least daily, after weather changes, or any other activity which might affect the shoring system.

- Under no conditions should bracing or shoring be omitted, regardless of the length of time that the trench will be open.
- To prevent placing an additional load on the trench face wall, excavated material must be placed no less than 2 feet from the edge of the trench.
- At no time should an individual be permitted to work within the area of operation of equipment that is excavating the trench.
- Employees should never ride the bucket to the bottom of the excavation. Ladders should be used at all times.
- In all bracing and shoring operations, management is responsible for the type of bracing, the material size and proper installation. You are responsible for the safe handling of the material and safe installation.
- Helmets are required in all trenches.
- A ladder for egress should be within 25 feet of all individuals working in open trenches at a depth of 4' or greater.

CONFINED SPACE POLICY (OSHA)

Requirements

- The safety Department, Foremen, or a designated competent person is responsible for implementing, training and enforcing the confined space entry program.
- A confined space is any vault, vessel or similar enclosed area that has a hazardous or potentially hazardous atmosphere, and/or a restricted means of entry and egress, that is entered by Company personnel. A hazardous atmosphere is any atmosphere containing a toxic substance above the OSHA or ACGIH (American Conference of Governmental Industrial Hygienist) recommended exposure levels, whichever regulations are most stringent. A hazardous atmosphere may also be a combustible gas or an oxygen deficient atmosphere.
- Confined space is further defined as any tank, vessel, silo, vault, pit, or open-topped space more than four feet deep (except open-topped spaces whose width is greater than the depth) or any other enclosed space that is not designated for routine employee occupancy, and has one or more of the following characteristics:
  Contains an actual or potential hazardous atmosphere (i.e., an accumulation of toxic or combustible agents, or an oxygen deficient or oxygen rich atmosphere).
- Ready escape is difficult (i.e., prevents egress in a normal walking position).
- Restricts entry for rescue purposes.
- Entry into any confined space is strictly prohibited until the atmosphere has been tested, a confined space Pre-entry checklist is completed, a safety meeting has been held, and the proper personal protective equipment and procedures are in place. Permits must have an expiration time. Permits will not be valid for shifts other than the one in which the work started.
- All employees engaged in confined space operations are required to receive training prior to entry.
- ***ONLY JOURNEY LEVEL AND ABOVE are permitted to enter "Permit Required" confined spaces.***
- For additional information call the Safety Department prior to entering a confined space.

Standby Person and Rescue

- In all cases of Permit Required confined space entry, an employee(s) shall be posted outside the entry/exit point in order to handle emergencies. Circumstances may require more than one person posted at different access/entry points.
- The standby person(s) shall be in constant communication by the most practical and effective means available with the individual(s) in the confined space. The standby person(s) will have the appropriate rescue equipment available at all times in the event of an emergency.
- The standby person will have no other job tasks assigned to him/her as not to distract from effectively monitoring the safety situation of the confined space work.

ELECTRICAL SAFETY

The following rules apply only to electrical installation used on the job site, both temporary and permanent:

- Extension cords used with portable electrical tools and appliances shall be of three-wire type. Grounds are never to be removed from the extension cords.
- Temporary lights shall be equipped with guards to prevent accidental contact with the bulb.
- Temporary lights shall not be suspended by their electric cords unless cords and lights are designed for this means of suspension.

- Runs of open conductors shall be located where the conductors will not be subject to physical damage, and the conductors shall be fastened at intervals not exceeding 10 feet.
- Extension cords or cables are not to be laid on floor, in walkways, etc., unless you are unable to do otherwise. They should be suspended or secured in such a way as not to block or hang in walkways, doorways, or work areas.
- Non-conductive materials should be used in the suspension of temporary lighting or cords.
- Panel boxes shall have a cover on them at all times, except when being serviced. When a temporary panel cover is in place it should be marked "HOT" to denote live current, along with a "High Voltage" danger sign.
- Employees should be informed as to which ground fault system is being used, either GROUND FAULT CIRCUIT INTERRUPTERS or ASSURED EQUIPMENT GROUNDING CONDUCTOR PROGRAM.

"HOT WORK" Policy

Our standard practice is "**No Hot Work**."

However, in the instances where we cannot engineer away from the hazards of hot work, the following procedures must be followed:

Employee procedures for working on energized conductors, 600 volts or less:
It is very possible that electricians at one time or another will become involved in working around energized conductors. It is our Company Policy to avoid such work whenever possible. In most cases, when fully investigated and the dangers are explained to all parties involved, this situation can be avoided. Only after all of the possibilities have been explored should "hot work" even be considered. When interruption of the power system is not possible and "hot work" must be performed, the following guidelines must be followed:

- A step-by-step plan of action should be set up and discussed with Project Managers, Foremen, and all parties involved to address any problems that may occur during "hot work".
- Electrical equipment and lines should be considered energized until determined to be de-energized by test or other appropriate methods or means.
- Warning signs will be posted as close as practical to the site where the "hot work" is to be performed.
- Supervisory employees will warn workers of the locations of such areas, the hazards involved, and the protective measures to be taken.
- When it is necessary to work on energized lines and equipment, rubber gloves and other protective equipment approved for such work shall be used.
- At least two journeymen shall be assigned to work on energized conductors or apparatus. One person trained to recognize the electrical hazards shall be delegated to watch the movements of the other personnel doing the work so he/she can warn them if they get close to live conductors or perform other unsafe acts. The lookout person can also be on hand to assist in case of an accident.
- Only "Qualified" Journeymen Electricians will be allowed to work on energized conductors and/or equipment.

LOCKOUT/TAGOUT PROCEDURE (OSHA 1926.417)

General

- Lockout is the preferred method of isolating machines or utilization circuits. This procedure may be used where there is limited number of machines or circuits, or where there is a single power source. All equipment shall be locked out and tagged out to protect against accidental or inadvertent operation when such operation could cause injury to personnel.
- **DO NOT** attempt to operate any energy isolated device when it is locked out or tagged out.
- **DO *NOT*** *remove someone else's tag. Doing so is dangerous and is grounds for immediate disciplinary action, up to and including termination of e*mployment.

Responsibility

- Foremen/Leadsmen shall instruct appropriate employees in the safety significance of the lockout/tagout procedure. Each new or transferred employee, including employees of other crafts who may be working in the same area shall be instructed in the purpose and use of the lockout/tagout procedure.
- Additional information is available from your foreman or from the Safety Department.

ASSURED GROUNDING (OSHA 1926.404)

- Tests performed as required shall be recorded and made available on the job sites for inspection by OSHA inspectors or any affected employee.
- The assured grounding program shall be handled on a job-by-job basis.
- Each Project Foreman will be responsible for the implementation of the program including all record keeping and testing.

VEHICLE SAFETY: SERVICE TRUCK/DELIVERY

General

- All vehicles shall be operated as governed by laws of the state.
- Drivers are responsible for the safety of all passengers and the stability of all materials being hauled.
- Employees shall not consume alcoholic beverages or use any intoxicating substance prior to or during work.
- Seat belts shall be worn at all times.
- Employees shall not exceed the speed limit.
- Employees shall practice defensive driving.
- Employees shall park in legal spaces and not obstruct traffic.
- Vehicles should be locked when unattended to avoid criminal misconduct.
- A hand cart shall be used for heavy loads.
- When chemicals are being transported by employees, proper MSDS will be in the vehicle.

OFFICE SAFETY

Offices are relatively safe places to work, but accidents do happen.

General

- Watch out for telephone and electrical cords, etc., and other hazards underfoot that may cause you to trip.
- Keep file cabinet, desk, and locker drawers closed when not in use. Open only one at a time to avoid tipping.
- Use proper lifting and reaching techniques.
- Make sure you are aware of the “Emergency Action Plan” for your office to avoid accident or injury at a time of crisis.

Fire Procedures

- Notify office staff.
- Remove personnel from building.
- Close all doors in fire area, only if this can be done safely.
- Notify the fire department (number should be posted).
- Re-entry onto the property will not be permitted until it is declared safe to do so by someone in Executive authority or by the fire/law enforcement.

Tornado

In the event of a tornado, the following procedures shall be followed:

- Seek inside shelter, a steel framed or concrete reinforced building. Stand in an interior hallway on a lower level.
- Stay away from windows.
- Leave job site trailers or vehicles.
- If shelter cannot be found, lie flat in the nearest ditch, ravine or culvert and shield your head with your hands.
- Assess damage and injuries.

- Give first aid as needed.
- Call fire department only in case of fire.
- Evacuate as necessary.
- Have all areas of building inspected for damage before allowing personnel to return to the building.
- **Remember** - a ***tornado watch*** means tornadoes are expected to develop, a ***tornado warning*** means a tornado has actually been sighted.

Earthquake

In the event of an earthquake, the following procedures shall be followed:

- If you are inside, take cover under a sturdy desk or table and remain there until shaking has ceased.
- Pick a spot away from windows, bookcases, etc., that might fall on you.
- If you are outside, find a clear spot away from buildings, trees and power lines.
- Assess damage and injuries.
- Give first aid as needed. Remember after an earthquake, utilities, police, and fire agencies may not be readily available. Do not attempt to telephone unless essential.
- Call fire department only in case of fire.
- Evacuate as necessary. Supervisors are responsible for seeing that employees are evacuated to a safe area outside the building and clear of overhead electrical lines, utility posts, block walls, etc., which might fall during aftershocks.
- Have all areas of building inspected for damage before allowing personnel to return to the building.

III. INSPECTIONS

Inspections should be viewed as a fact-finding process, not fault-finding. Emphasis is on locating potential hazards that can affect the safety and health of our workers and to correct them before an accident happens.

Policy

All inspections shall be accompanied by a representative of A. J. Kirkwood and Associates, Inc., unless the job site Superintendent/Foreman determines otherwise (i.e., Project Manager, Safety Department, etc.).

Company

A. J. Kirkwood and Associates' Safety Department will periodically conduct safety inspections. The intent will be to verify all federal, state, and local safety regulations as well as our own are being met.

Insurance

Occasionally, our insurance carrier may request to inspect a job site. All such inspections are permitted.

Job Site Inspections will be conducted by:

- Foremen shall conduct weekly job site walk-through filling out the "Field Safety Checklist" as they go, noting any hazards and corrective action to be taken. A copy of the inspection, with listed hazards, shall be submitted to the site superintendent or foreman.
- This information is to be reviewed with employees immediately and again at the weekly job site safety meetings.
- Foreman and Project Managers are responsible for corrective actions of a hazard created by A. J. Kirkwood and Associates, Inc.
- A hazard that would put an employee in immediate danger or harm should be corrected immediately.
- If the hazard cannot be corrected immediately, employees shall be removed from and kept from that area until the hazard has been corrected.

SAFETY MEETING REPORT

Project Name:	Project #:	Date of Meeting:

Discussion:

(*The first three items must be discussed at every meeting*.)

1. Accident & injury history at this worksite/facility for the period prior to this meeting.
2. Comparison of accident & injuries among other trades as well for the period prior & other A.J. Kirkwood job sites.
3. New equipment & safety procedures discussed when necessary.
4. Paragraph description of safety subject discussed:
5. List suggestions, comments, & other concerns:

Attendees:

Print Name:	Signature:

Foreman:

Print Name:	Signature:

Fill out and email back to AJK Safety Department no later than Friday of reported week.
Email to: steve.dietzel@ajk-a.com

SAFETY MEETING REPORT

Project Name:	Project #:	Date of Meeting:

Attendees:

Print Name:	Signature:

Fill out and email back to AJK Safety Department no later than Friday of reported week.
Email to: steve.dietzel@ajk-a.com

WEEKLY FIELD SAFETY CHECKLIST

Project Name:	Project #:	Date of Inspection:

Foreman:

Print Name:	Signature:

Personnel:	***Personal Protective Equipment:***
☐ Employees properly trained on equipment used	☐ Safety glasses worn at all times, in good condition
☐ Employees understand assigned tasks	☐ Company helmets worn at all times, no alterations
☐ Employees follow company safety rules	☐ Helmets worn properly
☐ Horseplay not tolerated - offenders reported	☐ Fitted ear protective devices worn when necessary
Ladders:	☐ ANSI standard foot gear worn
☐ Only non-conductive ladders used	☐ Proper work site attire worn
☐ No broken, split, or missing rungs, steps, side rails, bolts	***Job Site:***
☐ Employees follow proper safety, not using top two steps	☐ Work areas free of trash & loose materials
Tools:	☐ Tools & equipment returned to proper storage after use
☐ Proper tools used for tasks	☐ Materials piled on sound base, not over-loaded
☐ Only tools in good condition used	☐ Container's w/ hand lines used when sending tools to a
☐ Cords: only three-pronged w/ ground or double insulated	higher elevation - not thrown to location
☐ Guards or safety devices not altered or removed	☐ Ample workspace provided for employees
☐ Defective tools tagged for repair and reported	☐ Proper scaffold procedures followed
Powder Actuated Tools:	☐ Guard rails provided where required
☐ Only licensed employees operating tools	☐ Floor openings either covered or guarded properly
☐ Tool tested before each use, proper devices working	☐ Trenches adequately braced where required by OSHA
☐ Tool loaded only prior to use & unloaded when finished	☐ Trenches inspected daily or after weather changes
☐ Proper PPE used when operating	☐ Excavated material proper distance from trench
☐ Tool never aimed at anyone - treated like any other gun	☐ Confined space workers properly trained and
☐ "Powder Actuated Tools in Use" sign posted	procedures followed
First Aid & Postings:	☐ Extension cords suspended or secured
☐ OSHA standard 1st Aid kits easily accessible	☐ Panel Boxes covered at all times, except when serviced
☐ List of required 1st Aid items posted on inside cover	☐ Temporary panel covers marked "Hot" & "High Voltage"
☐ 1st Aid Kit: Proper size for number of crew members	☐ No "Hot Work" rule followed: only done in emergencies
☐ IIPP & HIPP in Conspicuous Location	☐ Drinking water & sanitary hand wipes on site
☐ Required Postings in Conspicuous Location	☐ Foreman's Lockout/Tagout Kit present & complete
☐ Emergency Contact Info in Conspicuous Location	☐ Lockout/Tagout procedures adhered to
Safety hazards found:	
Corrective measures taken:	

Fill out and email back to AJK Safety Department than Friday of reported week.
Email to: steve.dietzel@ajk-a.com

PRE-TASK PLAN

Project Name:	Project #	Date:

☐Yes☐No – Clear Instructions Given for Task
☐Yes☐No – Proper PPE for Task
☐Yes☐No – Fall Protection Needed
☐Yes☐No – Proper Tools Available
☐Yes☐No – Proper Size and Type Ladder
☐Yes☐No – Work Area Clear of clutter/debris
☐Yes☐No – Lockout/Tag-out needed
☐Yes☐No – Excavation Work
☐Yes☐No – Confined Space Work
☐Yes☐No – Scaffold or Lifts
☐Yes☐No – Sharp or Protruding Objects
☐Yes☐No – Excessive Noise
☐Yes☐No – Heat stress
☐Yes☐No – Respiratory hazard
☐Yes☐No – Material Handling
☐Yes☐No – Signs, Tape, or Barricades Needed
☐Yes☐No – Fire Hazard
☐Yes☐No – Safety Data Sheets Needed
☐Yes☐No – Lifting greater than 50-lbs
☐Yes☐No – Working alone (communication)
☐Yes☐No – Tools, equipment, & PPE inspected before use
☐Employee has the right to stop work if unsafe conditions exist.

GROUNDED IN SAFETY

NO HOT WORK

Tasks to Do Work:	**Potential Hazards:**	**Ways to eliminate or control hazards:**

Print Name:	***Signature:***	***Print Name:***	***Signature:***

Foreman's Name:	***Foreman's Signature:***

EMPLOYEE INFRACTION NOTICE

Project Name:	Project #:	Date:

Infraction Comments:

Corrective Measure Taken:

Employee:

Print Name:	Signature:

Supervisor / Inspector:

Print Name:	Signature:

HAZARD ASSESSMENT & CORRECTION RECORD

Project Name:	Project #:	Date:

Unsafe Condition or Work Practice:

Corrective Action Taken:

Supervisor / Inspector:

Print Name:	Signature:

ACCIDENT/EXPOSURE INVESTIGATION REPORT

Project Name:	Project #:	Date:
Date & Time of Accident:		
Location:		
Accident Description:		
Employees Involved:		
Preventive Action Recommendations:		
Corrective Actions Taken:		

Foreman/Manager Responsible:

Print Name:	Signature:

***In accordance with OSHA's Safety and Health Regulations Part 29 CFR* 1926 Subpart K (Partial)**

1926.404 Wiring design and protection

(b) Branch circuits –(1) Ground-fault protection –

(i) General. The employer shall use either ground fault circuit interrupters as specified in paragraph (b)(1)(ii) of this section or an assured equipment grounding conductor program as specified in paragraph (b)(1)(iii) of this section to protect employees on construction sites. These requirements are in addition to any other requirements for equipment grounding conductors.

(ii) Ground-fault circuit interrupters. All 120-volt, single-phase 15- and 20-ampere receptacle outlets on construction sites, which are not a part of the permanent wiring of the building or structure, and which are in use by employees, shall have approved ground-fault circuit interrupters for personnel protection. Receptacles on a two-wire, single-phase portable or vehicle-mounted generator rated not more than 5kW, where the circuit conductors of the generator are insulated from the generator frame and all other grounded surfaces, need not be protected with ground-fault circuit interrupters.

(iii) Assured equipment grounding conductor program.

The employer shall establish and implement an assured equipment grounding conductor program on construction sites covering all cord sets, receptacles which are not a part of the building or structure, and equipment connected by cord and plug which are available for use or used by employees.

…A.J. KIRKWOOD & ASSOCIATES, INC. has adopted this Procedure for Assured Equipment Grounding Conductor Program:

1. RESPONSIBILITY: The Project Foreman will be responsible for seeing that the Assured Equipment Grounding Conductor Program is implemented. This will include the designation by the Foreman of a competent person to implement and administer the Assured Equipment Grounding Conductor Program. These individuals will have the authority to tag out-of-service any electrical item that does not pass the test or inspection and return to the shop for repairs. (*The Foreman may designate himself/herself as the competent person.*)

2. PURPOSE: The purpose of this program is to ensure the proper connection, maintenance, and use of equipment grounding conductors on construction sites in order to minimize injuries resulting from electrical ground faults.

3. GROUND FAULT PROTECTION ASSURED EQUIPMENT GROUNDING CONDUCTOR METHOD: The Program shall consist of establishing and maintaining an assured equipment grounding conductor system on construction sites covering all cord sets, receptacles not part of the permanent building wiring, and equipment connected by cord and plug which is used by employees.

4. PROGRAM REQUIREMENTS: Equipment grounding conductors shall be installed and maintained in accordance with this procedure.

A. Installation - Equipment grounding conductors shall be installed as follows:

1. All 120-volt, single phase, 15- and 20- ampere receptacles shall be of the grounding type and their contacts shall be grounded by connection to the equipment grounding conductor of the circuit supply the receptacle in accordance with the applicable requirements of the National Electrical Code.
2. All 120-volt cord sets (extension cords) shall have an equipment grounding conductor which shall be connected to the grounding contacts of the connector(s) on each end of the cord.

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

B. Visual Inspection

Employees shall be instructed to visually inspect receptacle, flexible cord sets (extension cords), except those that are fixed and not exposed to damage, and equipment connected by cord and plug before each day's use for external defects such as deformed or missing pins or insulation damage and for indication of possible internal damage. Where there is evidence of damage, the damaged item shall be taken out of service and tagged until tested and any required repairs have been made.

5. TESTS: The following tests shall be performed on all cord sets, receptacles which are not part of the permanent wiring of the building or structure, and cord and plug-connected equipment required to be grounded.

a. Continuity Test: Ensures that the equipment grounding conductor is electrically continuous. Perform this test on all cord sets, receptacles that are not part of a building or structure's permanent wiring, and cord-and plug-connected equipment required to be grounded. Use a simple continuity tester, such as a lamp and battery, bell and battery, an ohmmeter, or a receptacle tester.

b. Terminal Connection Test: The terminal connection test ensures that the equipment grounding conductor is connected to its proper terminal. Perform this test with the same equipment used in the first test.

c. Each receptacle, attachment cap and plug, and receptacle of cord sets shall be tested for correct attachment of the equipment grounding conductor. The equipment grounding conductor shall be connected to its proper terminal.

d. All required tests shall be performed:

(1) Before first use.

(2) Before equipment is returned to service following any repairs.

(3) Before equipment is used after any incident which can be reasonably suspected to have caused damage (for example, when a cord set is run over).

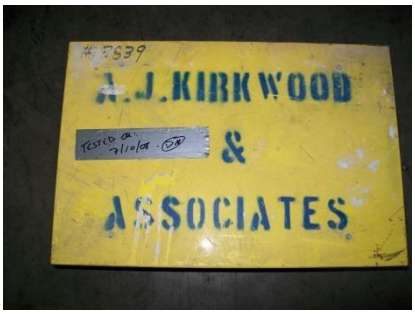
(4) At intervals not to exceed 3 months, except that cord sets and receptacles which are fixed and not exposed to damage shall be tested at intervals not exceeding 6 months. Do not make available or permit the use by employees of any equipment which has not passed the required tests.

1. COLOR CODING SYSTEM: A color coding system will be used to ensure that the test system is current and up-to-date and that all receptacles, portable cords and tools have been inspected and tested as required. A color-coding system of four colored tapes shall be used as follows:

Orange	Blue	Red	Yellow
January	April	July	October
February	May	August	November
March	June	September	December

All receptacles, cords, and spider boxes shall be marked with the tape used to designate the month in which the inspections and tests were conducted.

←**Cord & Cord Cap:** Color Code tape.



← **Spider Boxes and Temporary Transformers:** Duct tape, date, initial, mark "Tested OK".

SPIDER BOXES & TEMPORARY TRANSFORMERS WITH RECEPTACLES ARE TO BE INSPECTED MONTHLY AND RECORDED ON THE PROPER FORM.

7. SHOP PROCEDURE: In addition to the Assured Equipment Grounding Conductor Program, the Shop Manager will see that all electrical tools, extension cords, etc. have been inspected and tested before they are shipped from the warehouse.

ASSURED EQUIPMENT GROUNDING CONDUCTOR PROGRAM

Project: JOB NUMBER: #

Employee Name (print): _____

ID OF EQUIP TESTED	DATE TESTED	ACTION, IF ANY	REASON- A-B-C-D	TESTED BY (SIGNATURE)

*REASON FOR TEST:
A. BEFORE FIRST USE.
B. BEFORE EQUIPMENT IS RETURNED TO SERVICE FOLLOWING ANY REPAIRS
C. BEFORE EQUIPMENT IS USED AFTER ANY INCIDENT WHICH CAN REASONABLE BE SUSPECTED TO HAVE CAUSED DAMAGE.
D. AT INTERVALS NOT TO EXCEED 3 MONTHS, EXCEPT THAT CORD SETS AND RECEPTACLES WHICH ARE FIXED AND NOT EXPOSED TO DAMAGE SHALL BE TESTED AT INTERVALS NOT EXCEEDING 6 MONTHS.

GFCI TEST REPORT: Date: _____/____/____ Job # Name:

SPIDER BOXES ARE TO BE INSPECTED MONTHLY AND RECORDED BELOW.
RECEPTACLES WHICH ARE FIXED AND NOT EXPOSED TO DAMAGE SHALL BE TESTED AT INTERVALS NOT EXCEEDING 6 MONTHS.

Date						
Box #	Location	Condition	Tested OK	Repaired	Taken out of service	

Tested by _____ ***For: Spider Boxes***

LOCKOUT TAGOUT PROGRAM

AJK JOB #:

PROJECT NAME:

LOCATION:

Program Objective

The purpose of this policy is to ensure that before any employee performs any servicing or maintenance on circuit(s), machinery or equipment where the unexpected energizing, start up or release of any type of energy could occur and cause injury, the circuit(s) machinery or equipment will be rendered safe to work on by being locked and tagged out.

Purpose and Scope

Effective hazardous energy control procedures will protect all workers potentially exposed to unexpected energization or release of stored energy which could cause injury to employees during the servicing or maintenance of circuit(s), machines, equipment, or systems, as well as while working on or near exposed de-energized electrical conductors and parts of electrical equipment.

This procedure meets or exceeds the requirements specified by the Occupational Safety and Health Administration (OSHA) 29 CFR 1910.147, Control of Hazardous Energy (LOTO); 29 CFR 1910.333, Lockout/Tagout Electrical Safe Work Practices; and 1926.417, Lockout and Tagging of Circuits, as they relate to the control of hazardous energy sources.

This program does not apply to the work on cord and plug connected electrical equipment for which exposure to the hazards of unexpected energization or startup of equipment which is controlled by the unplugging of the equipment from the energy source or by a disconnect being under the exclusive control of the employee performing the servicing or maintenance.

This procedure applies to A.J. Kirkwood & Associates, Inc. employees.

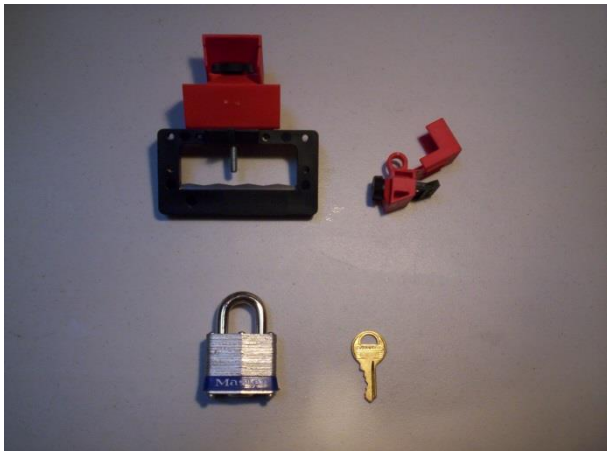
Definitions

Affected Employee-
An employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under Lockout/Tagout or whose job requires him or her to work in an area in which such servicing or maintenance is being performed. An affected worker cannot perform work under a Lockout/Tagout permit.

Authorized Employee-
A person who either applies the locks and tags on circuits or equipment and systems or works under the protection of Lockout/Tagout in order to perform servicing or maintenance on that machine or equipment. Only an Authorized Employee installs and removes his or her own lock(s) and tag(s) as required by this program.

Authorized Locks and Tags-

These are locks and tags that are used to ensure the safety of the Authorized Employees performing servicing and maintenance of circuits or equipment or systems. Servicing or maintenance may not begin until these devices are applied to the Energy Isolation Device(s). These locks and tags shall not be used for any other purpose. The locks shall be singularly keyed, and the Authorized employees shall retain the keys to individual locks. The print and format of tags shall be standardized and will warn against hazardous conditions if the circuit(s), machine, or equipment is energized. Tags must be legible and understandable by all employees and must contain warnings against energizing the circuit(s), machine, or equipment, such as DO NOT START, DO NOT OPEN, DO NOT CLOSE, DO NOT ENERGIZE, or DO NOT OPERATE. Tags must be in plain view, at the same location as the energy isolation devices and must be securely attached to prevent accidental removal.



Tags will be completed by and identify the Authorized Employee applying the devices. Only an Authorized Employee may perform service or maintenance work on the circuit(s) or equipment.

Energy Source-
Any source of hazardous energy or materials. Energy sources include, but are not limited to, electrical and thermal energies, as well as various forms of potential energy.

Energy Isolation Device-
A device that prevents the transmission or release of hazardous energy or hazardous materials. Examples include but are not limited to; electrical circuit breakers and disconnect switches. For lockout/tagout purposes, isolating devices that provide visible indication of the device's position are desirable.

Lockout Device-
A device that utilizes a positive means such as a lock, either keyed or combination type, to hold an energy isolating device in a safe position to prevent the energization of circuit(s) or equipment.

Lockout/Tagout (LOTO) –
Installation of lock(s) and tag(s) on the Energy Isolation Devices to ensure that work can be performed safely. The lock(s) and tag(s) ensure that the Energy Isolating Device(s) and the circuit(s), machine or equipment they isolate and/or control, cannot be operated until the lock(s) and tag(s) are removed.

Other Employees-
Employees whose work operations are or may be in an area where energy control procedures are utilized.

Safe Condition Check (Verification of De-energization) –
The inspection or test of a system or component performed by the Authorized Employee to ensure that the hazardous energy or materials are controlled to prevent injury or accident. **Note: This is an essential element of all energy control programs and procedures, which ensures the safety of all potentially exposed personnel.**

Maintenance and/or Construction-
Workplace activities such as maintenance inspections, construction, installing, setting up, modifying, adjusting, and maintaining and or servicing machines, equipment, or systems. This applies to all personnel regardless of job title; (i.e., operator, maintenance, electrician, etc.).

Tag-
The print and format of tags shall be standardized and will warn against hazardous conditions if the circuit(s), machine, or equipment is energized. Tags are essentially warning devices affixed to energy isolating devices and do not provide the physical restraint of a lock.

Supervisor –
The job's Foreman, who has the responsibility of overseeing lockout tagout activities.

Responsibilities

Supervision-
Supervisors are responsible for initiating and controlling the lockout/tagout procedure. They ensure that the proper procedures for isolating all electrical energy sources have been controlled.

Authorized Employee-
An employee who is responsible for isolating all electrical energy sources to circuit(s), machinery or equipment and reassuring equipment is in a safe condition before work is performed. Conducts a walk down of the circuit(s), machinery or equipment to ensure that all energy has been isolated, and the circuit(s) or equipment is safe to work on.

LOCKOUT/TAGOUT (LOTO) PRINCIPLES

This procedure establishes the requirements for the lockout/tagout of energy isolating devices.

It is mandatory that all personnel comply with the restrictions and limitations of this lockout/tagout program and related procedures.

No individual shall attempt to start, energize, use or operate a circuit(s) that has been locked out and tagged out after the safe condition check has been completed.

No individual other than the Authorized Employee who placed the device and tag shall attempt to remove it, except as noted below.

All locks and keys to be used will be stored in a designated area with the exception of each Authorized Employees personal lock, which will be controlled by him/her.

The personal lockout/tagout tag signifies that there is an Authorized Employee working on a circuit(s) or equipment and it was installed by that task's Authorized Employee prior to starting work and will be removed by that Authorized Employee when their work is completed.

The Authorized Employee lockout/tagout tag is reserved for the exclusive use of the authorized worker identified on that tag. The identifying markings shall be made in permanent form.

No one shall authorize another person to ignore or violate this program and its procedures.

No person shall remove a Lockout Device when an unsafe condition exists until they have corrected the condition, or another person has installed a Lockout Device.

No Authorized Employee shall install a lockout/tagout on a circuit(s) or equipment without notifying his/her Supervisor. This is to ensure that required personnel know the status of its circuit(s) or equipment.

Whenever an outside firm is sub-contracted to perform work, A.J. KIRKWOOD & ASSOCIATES, INC. will inform the management of the outside sub-contractor of the contents and requirements of this program. This is to ensure the safety of all employees. The contents of the outside sub-contractors' LOTO program will be reviewed by management to ensure that the

program does not violate the requirements of A.J. Kirkwood & Associates, Inc's. LOTO program and for the purpose of ensuring that employees are not exposed to any potential hazards that may be created by the outside firm's LOTO program.

When electrical system grounds need to be applied, they shall be the last devices applied and the first devices removed in application of LOTO. Qualified electrical personnel shall only apply grounding devices.

All employees shall receive the appropriate level of training based upon their LOTO duties (i.e., Authorized, Affected, or Other).

Any employee who observes any apparent violation of this program or related procedures shall immediately notify their supervisor.

Lockout/Tagout Procedure

A specific written procedure for all circuit(s) or equipment is developed and will be followed before beginning any servicing or maintenance work. The steps outlined below will serve as a guide in accomplishing this requirement.

Detailed Lockout/Tagout Procedure

Implementation of the Lockout or Tagout shall be performed only by Authorized Employees.

An A.J. Kirkwood foreman will be the Qualified Person on our jobs. Additionally, he may assign another qualified electrician to over-see electrical issues in his absence.

Affected personnel (other trades, etc.) shall be notified by our foreman, in conjunction with A.J. Kirkwood qualified individuals, of the application and removal of lockout or tagout devices. Notification shall be given before the controls are applied, and after they are removed from the circuit(s) or equipment.

The established procedure for the application of energy control shall cover the following elements and actions shall be done in the following sequence:

1. **Preparation for shutdown/isolation**: The following shall take place before shutdown or isolation:

    a. A Pre-Shutdown/Isolation meeting shall take place between A.J. KIRKWOOD & ASSOCIATES, INC. and Key Personnel to discuss and plan out what is to be shutdown/isolated, when it will occur and the approximate duration of the shutdown/isolation, and who should be notified of the shutdown/isolation.

    b. Before a qualified electrician turns off a circuit(s) or equipment, they shall have knowledge of the type and magnitude of the energy, the hazards of the energy to be controlled, and the method or means to control the energy.

2. **Circuit(s) shutdown/isolation**: An orderly shutdown/isolation must be utilized to avoid any additional or increased hazard(s) to personnel as a result of the de-energization.

    a. **Panels and Sub-Panels**: All panels and sub-panels related to the LOTO circuit(s) shall have the main circuit breaker switched to the "OFF" position. If there is not a "main" circuit breaker, all individual circuit breakers shall be switched to the "OFF" position.

    b. **Machinery and Equipment**: All machinery and equipment that are connected to the related LOTO circuit(s) shall be turned off and/or unplugged where possible.

3. **Circuit(s) isolation**: All energy-isolating devices that are needed to control the energy to the circuit(s) shall be physically located and operated in such a manner as to isolate the circuit(s) from the energy source(s).

4. **Lockout or tagout device application:** Lockout or tagout devices shall be affixed to each energy-isolating device by Authorized Employees. Lockout devices, where used, shall be affixed in a manner that will hold the energy in a "safe" or "off" position. Tagout devices, where used, shall be affixed in such a manner as will clearly indicate that the operation or movement of energy- isolating devices from the "safe" or "off" position is prohibited.

   Where tagout devices are used with energy- isolating devices designed with the capability of being locked, the tag shall be fastened at the same point at which the lock would have been attached.

   Where a tag cannot be affixed directly to the energy-isolating device, the tag shall be located as close as safely possible to the device, in a position that will be immediately obvious to anyone attempting to operate the device.

   Be it noted: it is always preferred that locks be utilized with tags whenever conditions permit.

5. **Stored Energy**: following the application of LOTO devices to energy-isolating devices, all potentially hazardous stored energy shall be rendered safe. If there is a possibility of re-accumulation of stored energy to a hazardous level, verification of isolation shall be continued until the servicing or maintenance is completed, or until the possibility of such accumulation no longer exists.

6. **Verification of Shutdown/Isolation**: Prior to starting work on circuit(s), machinery or equipment that have been locked out or tagged out, the qualified electrician shall verify that shutdown/isolation and de-energization of the circuit(s), machinery or equipment has been accomplished.

7. **Release from Lockout or Tagout**: Before lockout or tagout devices are removed and energy is restored to the circuit(s), machinery or equipment, procedures shall be followed, and actions taken by the Authorized Employee to ensure the following:

   a. **The Circuit(s)**: The work area shall be inspected to ensure that nonessential items have been removed and that the circuit(s) components are operationally intact.

   b. **Panels and Sub-Panels**: All panels and sub-panels related to the LOTO circuit(s) shall have the main circuit breaker switched to the “OFF” position. If there is not a “main” circuit breaker, all individual circuit breakers shall be switched to the “OFF” position.

   c. **Machinery and Equipment**: All machinery and equipment that are connected to the related LOTO circuit(s) shall be turned off and/or unplugged where possible.

   d. **Inform Personnel**: The qualified electrician shall inform Key Personnel that the removal of LOTO devices and the re-energizing of circuit(s), machinery or equipment is about to occur. The work area(s) shall be checked to ensure that all personnel have been safely positioned or removed.

   e. **Re-Energizing**: The re-energizing of circuit(s), panels, sub-panels, and equipment shall be done in an orderly fashion to reduce the initial “startup” loading of the circuit(s).

8. **Lockout or Tagout Device Removal**: Each lockout or tagout device shall be removed from each energy isolating device by the qualified electrician who applied the device. Note exception stated below.

Energy Isolation Devices Not Capable of Accepting a Lock

If an energy isolation device is physically incapable of accepting a lock, a tagout system shall be used which will offer full employee protection similar to that of a lockout system.
The tagout system includes all of the steps of this lockout program except the actual use of a lockout device on that particular energy isolation device. Additional means to be considered as a part of the demonstration of full employee protection shall include the implementation of additional safety measures such as the removal of an isolating circuit element, blocking of a controlling switch or opening of an extra disconnecting device.

Removal of Authorized Employee Locks and Tags When Off-site

There may be times when the LOTO needs to be closed out to put equipment back into service when an Authorized Employee still on the LOTO is off-site and cannot be located. Removal of an Authorized Employee lock and tag without the Authorized Employee's signature will require a review by the Authorized Employee's direct Supervisor.

The Authorized Employee's Supervisor will attempt to reach the Authorized Employee to determine if the LOTO may be closed. If the Authorized Employee indicates that the LOTO may be closed, the Authorized Employee must return to the site to follow the normal LOTO removal procedure.

If the Authorized Employee cannot be contacted or cannot return to the facility, the Authorized Employee's Supervisor may authorize removal of the Authorized Employee from the LOTO.

If the Supervisor authorizes the removal of the Authorized Employee's lock(s) and tag(s) all potentially affected employees shall be notified.

The Authorized Employee will be contacted by his/her Supervisor immediately upon their return to work, to notify them that they have been removed from the LOTO.

Sub-Contractors

Outside contractors that will be performing work on site must follow, at a minimum, A.J. KIRKWOOD & ASSOCIATES, INC. LOTO procedures.

A.J. KIRKWOOD & ASSOCIATES, INC. and the outside Sub-Contractor firm must inform each other of their respective Lockout/Tagout procedures. The responsibility to training outside sub-contractor employees lies with their employer. For the protection of A.J. KIRKWOOD & ASSOCIATES, INC. employees, the Sub-Contractor LOTO program must be reviewed in detail by the Supervisor in charge of the work to ensure that A.J. KIRKWOOD & ASSOCIATES, INC. employees could not be injured as a result of allowing the Sub-Contractor's LOTO program and procedures to be implemented at the job site. If there are any discrepancies, it is the responsibility of A.J. KIRKWOOD & ASSOCIATES, INC. to ensure that A.J. KIRKWOOD & ASSOCIATES, INC. employees understand and comply with any restrictions and prohibitions of the outside sub-contractor's LOTO program.

There are several LOTO conditions that must be met by the outside sub-contractors before they begin work at the facility.

- The sub-contractor shall establish and have available for review a LOTO program that meets 29 CFR 1910.147, Control of Hazardous Energy (LOTO); 29 CFR 1910.333, Lockout/Tagout Electrical Safe Work practices; and 1926.417, locking and tagging of circuits, as they relate to the control of hazardous energy sources.

- Prior to the Sub-Contractor performing work, a designated point of contact will be made within the Sub-Contractor's organization for the purpose of interfacing and coordinating the Lockout/Tagout procedures.

References

29 CFR 1910.147, The Control of Hazardous Energy (Lockout/Tagout).

29 CFR 1910.333, Lockout/Tagout Electrical Safe Work practices.

29 CFR 1926.417, Lockout and Tagging Circuits.

A.J. KIRKWOOD & ASSOCIATES, INC.
LOCKOUT/TAGOUT PROCEDURE FORM

Project: **JOB #**:

JOB ADDRESS:

A.J. KIRKWOOD EMPLOYEES: (print names)

Project Manager:

Qualified Electrical Foreman:

Authorized Employee: Safety Department

OTHER KEY PERSONNEL: (print names)

Name:	Position:
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

PRE-SHUT DOWN/ISOLATION MEETING:

Areas Affected (buildings, floors, circuits, panels, sub-panels, machinery, equipment, etc.):

Circuit(s) or Equipment Shut Down/Isolation (order of shutdown/isolation and steps to take):

Equipment:

Equipment Name: _____

Location: _____

Circuit(s) Affected: _____
(bldg/floor/pnl/
Subpnl/etc) _____

Equipment Name: _____

Location: _____

Circuit(s) Affected: _____
(bldg/floor/pnl/
Subpnl/etc) _____

Equipment Name: _____

Location: _____

Circuit(s) Affected: _____
(bldg/floor/pnl/
Subpnl/etc) _____

SHUT DOWN/ISOLATION DATE AND TIME:

Start Date/Time:

Authorized Employee Name: _____
(print)

_____
(signature)

Start Date/Time: _____

Completed Date/Time:

Authorized Employee Name: _____
(print)

_____
(signature)

Completed Date/Time: _____

Lockout/Tagout (LOTO) Devices

The following steps need to be performed to safely place, remove and transfer LOTO devices:

1. Notify all affected personnel (other trades, etc.)
2. Identify and Isolate energy sources.
3. Lock and Tag.
4. Test and ensure that required circuit(s) and equipment is de-energized.
5. Perform required work.
6. Remove Locks and Tags.

Re-Energizing Circuit(s) or Equipment

Before start-up of circuit(s), machinery or equipment after service/maintenance, complete the following steps:

1. Make sure the circuit(s) or equipment is in good working order.
2. Notify all affected personnel (other trades, etc.) that LOTO devices are being removed from the circuit(s) or equipment and all personnel are safely positioned away from the circuit(s) or equipment.
3. Check for and retrieve all loose tools, equipment, parts, etc. Reinstall all removed covers, plates, guards, etc.
4. Remove all LOTO devices.
5. Operate the energy isolating devices (circuit breakers, switches, etc.) to restore energy to all circuit(s) and equipment.

A. J. KIRKWOOD & ASSOCIATES, INC.
4300 N. Harbor Blvd., Fullerton, CA 92835
Tel: 714 505-1977 Fax 714 505-7030 www.ajk-a.com

Pre-Energize Check List

The Pre-Energize Check List is required for all distribution equipment, switch boards, panels, disconnects, and transformers.

Job name:
Job #:
Electrical room:
Pnl. / Section / trans. ID:
Volts:
Amps:

By signing below, I acknowledge that all listed inspections were completed and the equipment is safe to energize.

Lead Equipment Installer:
Sign:
Date:

Foreman:
Sign:
Date:
CA Certification #:

Labor Manager:
Sign:
Date:
CA Certification #:

****LM must sign copies and email to the PM and Director of Safety prior to energizing equipment.***

Inspection Items:	YES	NO	N/A	Comments
Breaker Amps, Volts, AIC Per plans & submittals				
Physical damage to equipment				
Equipment bolted down				
Buss sections in proper position				
Buss bolts & Bindle washers properly in place				
Buss bolts tight, torqued and marked				
Buss insulators in proper position				
Bushings in place				
Conductors phased correctly				
Conductors in proper lugs location				
Conductors stripped back and fully inserted				
Conductors torques to specification				
Grounding system complete				
Physical damage to conductor insulation				
Excessive pressure on conductors				
Conductor meggering complete				
Conductors too big for lugs				
Lug attachment to buss is to specification				
Any stripped lugs				
Main Ground GFCI certification				
Any left behind hand tools				
Any open KO's				
Any metal shavings				
Covers on				
Interior clean				
Exterior clean				
All screws in place				
All rooms secured and lockable				
Needed Lockout/Tagout devices in place				
Panel schedules accurate				
Panel schedules typed & in place				
Panel section ID plate in place				
Continuity check for disconnects				
Proper size fuses used				
Fuse rating label facing out and visible				
Verify proper NEMA rating				
Verify Line and Load are correct				
Disconnect arc shield in place if DC rated				
Breakers/Disconnect handles in open position				

Additional Comments:

A.J. KIRKWOOD & ASSOCIATES, INC. Fire Prevention Program:

- Smoking shall be prohibited except in approved areas.
- Waste disposal:
  - Combustible debris shall not be accumulated within buildings.
  - Combustible debris, rubbish and waste material shall be removed from buildings at the end of each shift of work.
- Cutting, welding, grinding and other such heat-producing operations shall be done in accordance with hot work policy guidelines.
- Materials susceptible to spontaneous ignition, such as oily rags, shall be stored in a listed disposal container.

Portable Fire Extinguishers
At least one portable fire extinguisher sized for not less than ordinary hazard shall be provided as follows:

- In every storage bin or jobsite trailer.
- Additional extinguishers shall be placed where special hazards exist, such as flammable and combustible storage and use areas.

Flammable and Combustible Liquids
- Flammable and combustible liquids at construction sites shall be stored in only approved metal containers in accordance with DOT regulations.
- Ventilation shall be provided for operations involving the application of materials containing flammable solvents.
- Flammable and combustible liquid storage areas shall be maintained clear of combustible materials.
- Sources of ignition and smoking are prohibited in flammable and combustible liquid storage areas. Appropriate 'No Smoking' signs shall be posted.

Motorized Equipment
Internal-combustion-powered construction equipment shall be used in accordance with all of the following conditions:

- Equipment shall be located so that exhausts do not discharge against combustible material.
- Exhausts shall be piped to the outside of the building.
- Equipment shall not be refueled during operation.
- Fuel for equipment shall be stored in an approved area outside of the building.

Temporary Heating Equipment
Temporary heating devices such as salamanders pose a fire safety risk due to their portability and the presence of combustible building products and waste in their vicinity.

Special care shall be taken when using such devices.
- Temporary heating devices shall be listed and shall be operated in accordance with their listing.
- Precautions for LP-gas heaters and LP cylinders:
- Heaters for temporary heating shall be located at least 6 feet from any cylinder (except for integral heater-cylinder units).
- Blower-type and radiant-type units shall not be directed at any cylinder within 20 feet.
- Equipment using liquid fuel shall be allowed to cool down before refueling.
- Clearance to combustibles from temporary heating devices shall be maintained in accordance with the labeled equipment. Frequent checks shall be conducted to ensure proper clearance from combustibles.
- Stability: Heaters, when in use, shall be set horizontally level, unless otherwise permitted by the manufacturer's markings.
- *Solid fuel salamanders are prohibited in buildings and on scaffolds*.

FALL PROTECTION PROGRAM:

A.J. KIRKWOOD & ASSOCIATES, INC.

OBJECTIVE: To establish minimum requirements for practices and procedures to protect employees from hazards of falls when working in elevated work areas such as rooftops, platforms and aerial lifts.

AUTHORITY: OSHA 29CFR 1926 Subpart M, OSHA 29CFR 1910.23, OSHA 29CFR 1910.66, OSHA 29CFR 1910.132, OSHA 29CFR 1910.269.

POLICY: All employees and sub-contractors working under direct A.J. Kirkwood supervision shall comply with all elements of the A.J. Kirkwood Fall Protection Program (see Procedures Section).

RESPONSIBILITIES: Develop, maintain, distribute, and provide oversight in accordance with all applicable federal and state regulations, and best industry practices. A.J. Kirkwood's management, Safety Department, labor managers, and foremen have the responsibility and authority to halt any unsafe practices not in accordance with this policy. The Safety Department and project managers have the responsibility for assisting departments in developing appropriate fall protection plans, providing technical guidance and assisting with employee training.

Each Employee – Comply with all policy and program elements.

PROCEDURES: All work performed in elevated areas such as aerial lifts, roofs, elevated platforms, on top of industrial equipment, building ledges, etc. shall be in accordance with this policy and the referenced fall protection program.

A.J. KIRKWOOD & ASSOCIATES, INC. Fall Protection Program

General

Each year over 100,000 injuries and deaths are attributable to work-related falls. The Bureau of Labor Statistics show falls as one of the leading causes of occupational death. An OSHA study involving 99 fall-related fatalities suggests that all of the deaths could have been prevented by the use of fall protection. Fall protection can be in the form of guardrails, personal fall arrest systems, or under specific conditions, warning line systems.

An employee must be protected from falling when working on a surface that has an unprotected side or edge, which is 6 feet or more above an adjacent lower level, or when working from bucket trucks or other personnel lifts with articulating booms.

In each of these cases, the fall hazards must be evaluated to determine the preferable method to protect the employee.

Responsibilities

Supervisors have the primary responsibility for the implementation of the Fall Protection Program in their work area. The supervisor should be a competent person, as defined by OSHA, or ensure that responsibility for the competent person is assigned to a qualified individual within the work group. OSHA defines a competent person as:

1) A person who is capable of identifying existing and predictable hazards in the surroundings or identifying working conditions which are hazardous or dangerous to employees and

2) Who has authorization to take prompt corrective measures to eliminate them.

Supervisors must assure that only trained individuals are assigned work that requires use of fall protection systems (other than guardrails).

Employees have the primary responsibility for proper care, use and inspection of their assigned fall protection equipment.

Management has the primary responsibility for providing fall protection systems and appropriate training.

The Safety Department and project managers have the responsibility for assisting departments in developing appropriate fall protection plans, providing technical guidance and assisting with employee training.

Training

Each employee who may be exposed to fall hazards will be trained to recognize the hazards and the procedures to follow to minimize the hazards. A competent person will provide the training.

The competent person must train employees in the following areas:

- Fall hazards in the work area
- Correct procedures for erecting, maintaining, disassembling and inspecting the fall protection systems used
- Use and operation of the fall protection systems used
- Role of employees in fall protection plans
- What rescue procedures to follow in case of a fall
- Overview of the OSHA fall protection standards

A training record will be maintained for each employee and kept on file with the Safety Department at the company office. The record will contain the name of the employee trained, date of training and the signature of the person who conducted the training. Retraining should be done if there is a change in the fall protection system being used or if an employee's actions demonstrate that the employee has not retained the understanding or skills important to fall protection.

Fall Protection Systems

One of the following systems should be in place whenever an employee is exposed to a fall of greater than six feet.

Guardrail systems

Guardrails are needed at the edge of work areas 6 feet or more in height to protect employees from falling.
Guardrail systems need to meet the following criteria:

- Top-rail is 42 inches, +3/-1 inches above the walking/working level
- Mid-rail is located midway between the top rail and the walking/working level
  * It is important to remember that the working level is that level where the work is being done. Someone working on a stepladder next to an edge may raise his/her working surface well above the walking surface.

- Both top and mid-rails should be constructed of materials at least one-quarter inch in thickness or diameter. If wire rope is used for top-rails, it needs to be flagged with a high-visibility material at least every 6 feet and can have no more than 3" of deflection
- The top-rail needs to withstand a force of 200 pounds when applied in any downward or outward direction.
- The mid-rail needs to withstand a force of 150 pounds applied in any downward or outward direction
- The system should be smooth to prevent punctures, lacerations or snagging of clothing
- The ends of the top rail should not overhang the terminal posts, except when such overhang does not present a projection hazard
- When a hoisting area is needed, a chain, gate or removable guardrail section must be placed across the access opening when hoisting operations are not taking place.

Personal Fall Arrest Systems

Personnel requiring the use of personal fall protection equipment shall employ the "Buddy System" or have an observer to render assistance when and if required.

There are three main components to the personal fall arrest system. This includes the personal protective equipment the employee wears, the connecting devices and the anchorage point. Prior to tying off to perform the work a means of rescue in the event of a fall must be immediately available. The system needs to meet the following criteria for each component:

Personal Protective Equipment

- **Full body harnesses are required.** The use of body belts is prohibited.
- The attachment point of the body harness is the center D-ring on the back.
- Employees must **always** tie off at or above the D ring of the harness except when using lanyards 3 feet or less in length.
- Harnesses or lanyards that have been subjected to an impact load shall be destroyed.
- Load testing shall not be performed on fall protection equipment.

Connecting devices

This device can be a rope or web lanyard, rope grab or retractable lifeline.

- Only locking snap-hooks may be used.
- Horizontal lifelines will be designed by a qualified person and installed in accordance with the design requirements.
- Lanyards and vertical lifelines need a minimum breaking strength of 5,000 pounds.
- Lanyards may not be clipped back to itself (e.g. around an anchor point) unless specifically designed to do so.
- If vertical lifelines are used, each employee will be attached to a separate lifeline.
- Lifelines need to be protected against being cut or abraded

Anchorage

Secure anchor points are the most critical component when employees must use fall arrest equipment. Buildings may have existing structures (e.g., steel beams that may meet the criteria for a secure anchor point). Other work locations and assignments may require the installation of a temporary or permanent anchor. As a minimum, the following criteria must be considered for each type of anchor point:

- Structure must be sound and capable of withstanding a 5000 lb. static load/person attached.
- Structure/anchor must be easily accessible to avoid fall hazards during hook up.
- Direct tying off around sharp edged structures can reduce breaking strength by 70% therefore; chafing pads or abrasion resistant straps must be used around sharp edged structures to prevent cutting action against safety lanyards or lifelines.
- Structures used as anchor points must be at the worker's shoulder level or higher to limit free fall to 6 feet or less and prevent contact with any lower level (exception – when self-retracting lifelines and or 3 foot lanyards are used)
- Choose structures for anchor points that will prevent swing fall hazards. Potentially dangerous "pendulum" like swing falls can result when a worker moves horizontally away from a fixed anchor point and falls. The arc of the swing produces as much energy as a vertical free fall and the hazard of swinging into an obstruction becomes a major factor. Raising the height of the anchor point can reduce the angle of the arc and the force of the swing. Horizontal lifelines can help maintain the attachment point overhead and limit the fall vertically. A qualified person must design a horizontal lifeline.

Permanent Anchor Requirements

In addition to all the criteria listed above, the following points must be considered:

- Environmental factors and dissimilarity of materials can degrade exposed anchors.
- Compatibility of permanent anchors with employee's fall arrest equipment.
- Inclusion of permanent anchors into a Preventive Maintenance Program with scheduled annual re-certification.
- Visibly label permanent anchors.
- Anchors must be immediately removed from service and re-certified if subjected to fall arrest forces.

Reusable Temporary Anchors:

- Reusable temporary roof anchors must be installed and used following the manufacturer's installation guidelines.

- Roof anchors must be compatible with employee's fall arrest equipment.
- Roof anchors must be removed from service at the completion of the job and inspected prior to reuse following the manufacturer's inspection guidelines.
- Roof anchors must be immediately removed from service and disposed of if subjected to fall arrest forces.

Complete system

- If a fall occurs, the employee should not be able to free fall more than 6 feet nor contact a lower level. To ensure this, add the height of the worker, the lanyard length and an elongation length of 3.5 feet. Using this formula, a six-foot worker with a six-foot lanyard would require a tie-off point at least 15.5 feet above the next lower level.
- A personal fall arrest system that was subjected to an impact needs to be removed from service immediately.
- Personal fall arrest systems need to be inspected prior to each use and damaged or deteriorated components removed from service.
- Personal fall arrest systems should not be attached to guardrails nor hoists.

Work from Aerial Lifts and Self Powered Work Platforms

Body harnesses must be worn with a shock-absorbing lanyard (preferably not to exceed 3 feet in length) and must be worn when working from an elevated work platform (exception: scissor lifts and telescoping lifts that can move only vertically do not require the use of a harness and lanyard as long as the work platform is protected by a guardrail system). The point of attachment must be the lift's boom or work platform. Personnel cannot attach lanyards to adjacent poles, structures or equipment while they are working from the aerial lift. Personnel cannot move an aerial lift while the boom is in an elevated working position and the operator is inside of the lift platform.

Inspection

The employee will inspect the entire personal fall arrest system prior to every use. The competent person will inspect the entire system in use at the initial installation and weekly thereafter. The visual inspection of a personal fall arrest system periodically will follow the manufacturer's recommendations. An example of a complete inspection is in Appendix A.

Warning Line Systems and Controlled Access Zones

Warning line systems and work in controlled access zones must be developed in accordance with OSHA regulation 1926.502 and must be approved by EH&S or their designee before employees are exposed to fall hazards.

Monitoring System

OSHA emphasizes that safety-monitoring systems are a last resort and may only be used when other systems are infeasible or present a greater hazard. Monitoring systems must be developed in accordance with OSHA regulation 1926.502 and must be approved by EH&S or their designee before employees are exposed to fall hazards.

Appendix A
Personal Fall Arrest System Inspection

All fall protection equipment shall be inspected before each use in accordance with the manufacturers instructions. The following is general guidance for the inspection of this equipment.

Harness Inspection Webbing

- Inspect the entire surface of webbing for damage. Beginning at one end, bend the webbing in an inverted "U". Holding the body side of the belt toward you, grasp the belt with your hands six to eight inches apart. This surface tension makes the damaged fibers or cuts easier to see. Watch for frayed edges, broken fibers, pulled stitches, cuts, burns, and chemical damage.

"D" Rings/Back Pads

- Check "D" rings for distortion, cracks, breaks, and rough or sharp edges. The "D" ring should pivot freely. "D" ring back pads should also be inspected for damage.

Attachment of Buckles

- Note any unusual wear, frayed or cut fiber, or distortion of the buckles.

Tongue/Grommet

- The tongue receives heavy wear from repeated buckling and unbuckling. Inspect for loose, distorted or broken grommets. The webbing should not have any additional punched holes.

Tongue Buckle

- Buckle tongues should be free of distortion in shape and motion. They should overlap the buckle frame and move freely back and forth in their socket. The roller should turn freely on the frame. Check for distortion or sharp edges.

Friction and Mating Buckles

- Inspect the buckle for distortion. The outer bars and center bars must be straight. Pay special attention to corners and attachment points of the center bar.

Lanyard Inspection Hardware

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

- **Thimbles:** The thimble must be firmly seated in the eye of the splice, and splice should have no loose or cut strands. The edges of the thimble must be free of sharp edges, distortion, or cracks.

Web Lanyard

- While bending the webbing over a curved surface such as a pipe, observe each side of the webbed lanyard. This will reveal any cuts or breaks. Examine the webbing for swelling, discoloration, cracks, or burns. Observe closely for any breaks in the stitching.

Rope Lanyard

Rotation of the rope lanyard while inspecting from end to end will bring to light any fuzzy, worn, broken or cut fibers. Weakened areas from extreme loads will appear as a noticeable change from the original diameter. The rope diameter should be uniform throughout, following a short break-in period. Make sure the rope has no knots tied in it. Knots can reduce the strength of the rope by up to 60%.

Shock-absorbing Lanyard

Shock-absorbing lanyards should be examined as a web lanyard. However, also look for signs of deployment. If the lanyard shows signs of having been put under load (e.g. torn out stitching), remove it from service.

Appendix B Definitions

Fall Protection System - Fall Protection Systems are designed to protect personnel from the risk of falls when working at elevated heights. Recognized systems include:

Fall Prevention - a structural design to limit a fall to the same level (e.g., guardrails, positioning/restraint systems).

Fall Arrest System - an approved full body harness, shock absorbing lanyard or self-retractable lifeline, locking snap hooks and anchor points approved for a static load of 5000 pounds or engineered to meet a two to one safety factor.

Aerial Lift - Vehicle mounted elevating work platform (e.g. Boom Lifts, Articulating Telescoping Boom Lifts).

Competent Person - A person who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are hazardous to personnel and who has authorization to quickly correct the situation.

Qualified Person - A person with a recognized degree or professional certificate, (e.g. civil or mechanical engineering profession or Certified Safety Professional) and extensive knowledge and experience in this area, capable of doing design, analysis, evaluation and specifications.

Certification - ANSI (American National Standards Institute) defines certification as documentation that determines criteria meets the requirements of the standard through testing or proven analytical method (e.g. engineering calculations) or both, carried out under the supervision of a Qualified Person.

A.J. KIRKWOOD & ASSOCIATES, INC. Silica Exposure Control Plan:

Purpose
Under the Occupational Safety and Health Administration's (OSHA) Silica standard (29 CFR 1910.1053) [2], AJK is required to have a Silica Exposure Control Plan (SECP). The SECP describes the hazards associated with silica dust, outlines the steps to ensure employees who work with or around silica are not exposed to hazardous levels of silica dust, and provides procedures to minimize exposures for common silica related work duties.

Scope
This plan covers A.J. Kirkwood & Associates, Inc. employees who work with silica, establishes the minimum requirements for working with silica, and applies to employees who are exposed over the action level.

The OSHA Respirable Crystalline Silica Construction Standard applies to all occupational exposures to Respirable Crystalline Silica in construction work, except where employee exposure will remain below 25 micrograms of Respirable Crystalline Silica per cubic meter (25 µg/m^3) of air as an 8 hour time weighted average under any foreseeable condition.

Roles and Responsibilities
AJK Executive Management is responsible for:
- Establishing expectations to meet regulatory requirements
- Provide resources so as to meet and conform to the required regulations

AJK Safety Department is responsible for:
- Developing training related to silica
- Assisting and evaluating health and safety concerns
- Ongoing monitoring and random spot checks to ensure that policies are being enforced

Project Managers and Foreman are responsible for:
- Ensuring that all crew members are aware of the SECP
- Providing crew members with potential exposure to Respirable Crystalline Silica with equipment and methods of control (e.g. engineering controls, work practice controls and respirators).
- Contacting the Safety Department to request technical assistance, and to evaluate health and safety concerns. If needs are not met, please contact Executive Management.

Employees are responsible for:
- Complying with the Specified Exposure Control Methods of this plan and any further safety requirements set by supervisors.
- Contacting Foreman, Project Manager, or Safety Department to request technical assistance, and to evaluate health and safety concerns within the jobsite.

Specified Exposure Control Methods
For each employee working with materials containing Respirable Crystalline Silica and engaged in a task using the equipment and machines listed in the OSHA Construction Standard Table 1. [Appendix 1]

Equipment and Machines Requirements:
- All equipment shall be used within the specified manufacturer's guidelines for reducing Respirable Crystalline Silica exposure.
- All employees shall follow the manufacturer's directions in regard to the equipment limits and when compartments need to be emptied, dust extractor nozzles replaced due to worn bristles, and filters need to be cleaned and/or replaced.
- Silica Dust Extractor HEPA Filtered Vacuums are not permitted for use with any other task other than the removal of Respirable Crystalline Silica exposure.
- No employee-owned personal tools shall be used when performing tasks that involve Respirable Crystalline Silica (i.e. drilling, jack hammering, or grinding into concrete or concrete based material)

- ***Exception:** Employee-owned personal handheld rotary hammers may be used if the following are met:
    - The rotary hammer must be equipped with a silica dust collecting vacuum box system.
    - Operate and maintain the tool in accordance with manufacturer's instructions to minimize dust emissions.
    - Dust collector must provide air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter cleaning mechanism.

Respiratory Protection

If needed, AJK will provide an employee with an appropriate respirator that complies with the requirements of the company's Respiratory Protection Program and the OSHA Respiratory Protection Standard (29 CFR 1910.134). Situations requiring respiratory protection include:

- During tasks for which an employer has implemented all feasible engineering and work practice controls and such controls are not sufficient to reduce exposures to or below the PEL.
- Where exposures exceed the PEL
    - during periods necessary to install or implement feasible engineering and work practice controls
    - during tasks, such as certain maintenance and repair tasks, for which engineering and work practice controls are not feasible

Housekeeping & Disposal

- Dry sweeping or brushing is not permitted where such activity could contribute to employee exposure to Respirable Crystalline Silica.
    - Employees shall use wet sweeping methods
    - Employees shall use HEPA-Filtered Vacuuming methods
- Compressed air is not permitted to be used to clean clothing or surfaces where such activity could contribute to employee exposure to Respirable Crystalline Silica.
- Employees shall not use equipment or machines without dust box and HEPA filter in place.
- ACTIVE Tool Filters must be replaced approximately every 2 months
- HAMMERVAC Dust Box Disposal (must be emptied after 200 holes or if tool loses suction)
    - Remove dust box after tool has been turned off
    - Remove Battery pack
    - Press in the dust box buttons and pull the dust box away from the Hammervac
    - Empty dust from the box into a plastic bag and seal for disposal into the dumpster
    - If necessary, pull HEPA filter away from the dust box and tap clean. (DO NOT clean with water or compressed air.
    - Filter must be replaced after approximately 1,500 holes.
    - Replace dust extractor nozzles when bristles are worn.
- HEPA Filter Vacuum Dust Disposal
    - Unlatch and remove head
    - Remove old bag, seal, and discard according to regulations (dispose in dumpster)
    - Filter will be replaced yearly by shop personnel only

Appendix 1

1926.1153(c)(1)

For each employee engaged in a task identified on Table 1, the employer shall fully and properly implement the engineering controls, work practices, and respiratory protection specified for the task on Table 1.

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection		AJK Procedure
			≤ 4 hours/shift	>4 hours/shift	
1	Stationary masonry saws	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade.	None	None	This task is not typical of AJK scope of work. The foreman must notify the Safety Department and

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection		AJK Procedure
			≤ 4 hours/shift	>4 hours/shift	
		• Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.			Project Management Team 2 weeks prior to work being performed.
2a	Handheld power saws (any blade diameter) when used outdoors	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	N95 (or Greater Efficiency) Filtering Face piece or Half Mask	This task is not typical of AJK scope of work. The foreman must notify the Safety Department and Project Management Team 2 weeks prior to work being performed.
2b	Handheld power saws (any blade diameter) when used indoors or in an enclosed area	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	N95 (or Greater Efficiency) Filtering Face piece or Half Mask	N95 (or Greater Efficiency) Filtering Face piece or Half Mask	This task is not typical of AJK scope of work. The foreman must notify the Safety Department and Project Management Team 2 weeks prior to work being performed.
3	Handheld power saws for cutting fiber-cement board (with blade diameter of 8 inches or less) for tasks performed outdoors only	• Use saw equipped with commercially available dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency.	None	None	This task is not typical of AJK scope of work. The foreman must notify the Safety Department and Project Management Team 2 weeks prior to work being performed.
4a	Walk-behind saws when used outdoors	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None	This task is not typical of AJK scope of work. The foreman must notify the Safety Department and Project Management Team 2 weeks prior to work being performed.
4b	Walk-behind saws when used indoors or in an enclosed area	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	N95 (or Greater Efficiency) Filtering Face piece or Half Mask	N95 (or Greater Efficiency) Filtering Face piece or Half Mask	This task is not typical of AJK scope of work. The foreman must notify the Safety Department and Project Management Team 2 weeks prior to work being performed.
5	Drivable saws for tasks performed outdoors only	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade.	None	None	This task is not typical of AJK scope of work. The foreman must notify the

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection		AJK Procedure
			≤ 4 hours/shift	>4 hours/shift	
		• Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.			Safety Department and Project Management Team 2 weeks prior to work being performed.
6	**AJK Provided** Rig-mounted core saws or drills	• Use tool **equipped with integrated water delivery system** that supplies water to cutting surface. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None	Utilize the AJK provided tool to remain compliant
7	**AJK Provided** Handheld and stand-mounted drills (including impact and rotary hammer drills)	• Use drill **equipped with commercially available shroud** or cowling with dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. • Use a HEPA-filtered vacuum when cleaning holes.	None	None	Utilize the AJK provided tool to remain compliant
8	Dowel drilling rigs for concrete for tasks performed outdoors only	• Use shroud around drill bit with a dust collection system. • Dust collector must have a filter with 99% or greater efficiency and a filter cleaning mechanism. • Use a HEPA-filtered vacuum when cleaning holes.	N95 (or Greater Efficiency) Filtering Face piece or Half Mask	N95 (or Greater Efficiency) Filtering Face piece or Half Mask	This task is not typical of AJK scope of work. The foreman must notify the Safety Department and Project Management Team 2 weeks prior to work being performed.
9a	Vehicle-mounted drilling rigs for rock and concrete	• Use dust collection system with close capture hood or shroud around drill bit with a low-flow water spray to wet the dust at the discharge point from the dust collector.	None	None	This task is not typical of AJK scope of work. The foreman must notify the Safety Department and Project Management Team 2 weeks prior to work being performed.
9b	Vehicle-mounted drilling rigs for rock and concrete	• Operate from within an enclosed cab and use water for dust suppression on drill bit.	None	None	This task is not typical of AJK scope of work. The foreman must notify the Safety Department and Project Management Team 2 weeks prior to work being performed.
10a	**AJK Provided** Jackhammers and handheld powered	• Use tool with **water delivery system** that supplies a continuous stream or spray of water at the point of impact.	None	N95 (or Greater Efficiency)	Any task under 4 hrs would be allocated to 1 employee.

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection		AJK Procedure
			≤ 4 hours/shift	>4 hours/shift	
	chipping tools when **used outdoors**			Filtering Face piece or Half Mask	Any task over 4 hrs would be split between 2 employees within an 8 hr day.
10b	**AJK Provided** Jackhammers and handheld powered chipping tools when **used indoors or in an enclosed area**	• Use tool with **water delivery system** that supplies a continuous stream or spray of water at the point of impact.	N95 (or Greater Efficiency) Filtering Face piece or Half Mask	N95 (or Greater Efficiency) Filtering Face piece or Half Mask	Foreman must notify Safety Department 2 weeks prior to work being performed. The employee performing the work must be fit tested for a respiratory devise.
10c	**AJK Provided** Jackhammers and handheld powered chipping tools when **used outdoors**	• Use **tool equipped with commercially available shroud and dust collection system.** • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism.	None	N95 (or Greater Efficiency) Filtering Face piece or Half Mask	Any task under 4 hrs would be allocated to 1 employee. Any task over 4 hrs would be split between 2 employees within an 8 hr day.
10d	**AJK Provided** Jackhammers and handheld powered chipping tools when **used indoors or in an enclosed area**	• Use **tool equipped with commercially available shroud and dust collection system.** • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism.	N95 (or Greater Efficiency) Filtering Face piece or Half Mask	N95 (or Greater Efficiency) Filtering Face piece or Half Mask	Foreman must notify Safety Department 2 weeks prior to work being performed. The employee performing the work must be fit tested for a respiratory devise.
11	**AJK Provided** Handheld grinders for mortar removal (i.e., tuckpointing)	• Use grinder **equipped with commercially available shroud** and dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater	N95 (or Greater Efficiency) Filtering Face piece or Half Mask	Powered Air-Purifying Respirator (PAPR) with P100 Filters	Foreman must notify Safety Department 2 weeks prior to work being performed. The employee performing the work must be fit tested for a respiratory devise.

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection		AJK Procedure
			≤ 4 hours/shift	>4 hours/shift	
		efficiency and a cyclonic pre-separator or filter-cleaning mechanism.			
12a	**AJK Provided** Handheld grinders for uses other than mortar removal for tasks performed outdoors only	• Use grinder **equipped with integrated water delivery system** that continuously feeds water to the grinding surface. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None	Utilize the AJK provided tool to remain compliant
12b	**AJK Provided** Handheld grinders for uses other than mortar removal when **used outdoors**	• Use grinder **equipped with commercially available shroud** and dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.	None	None	Utilize the AJK provided tool to remain compliant
12c	**AJK Provided** Handheld grinders for uses other than mortar removal when **used indoors or in an enclosed area**	• Use grinder **equipped with commercially available shroud** and dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.	None	N95 (or Greater Efficiency) Filtering Face piece or Half Mask	Any task under 4 hrs would be allocated to 1 employee. Any task over 4 hrs would be split between 2 employees within an 8 hr day.
13a	Walk-behind milling machines and floor grinders	• Use machine equipped with integrated water delivery system that continuously feeds water to the cutting surface. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None	This task is not typical of AJK scope of work. The foreman must notify the Safety Department and Project Management Team 2 weeks prior to work being performed.

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection		AJK Procedure
			≤ 4 hours/shift	>4 hours/shift	
13b	Walk-behind milling machines and floor grinders	• Use machine equipped with dust collection system recommended by the manufacturer. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide the air flow recommended by the manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. • When used indoors or in an enclosed area, use a HEPA-filtered vacuum to remove loose dust in between passes.	None	None	This task is not typical of AJK scope of work. The foreman must notify the Safety Department and Project Management Team 2 weeks prior to work being performed.
14	Small drivable milling machines (less than half-lane)	• Use a machine equipped with supplemental water sprays designed to suppress dust. • Water must be combined with a surfactant. • Operate and maintain machine to minimize dust emissions.	None	None	This task is not typical of AJK scope of work. The foreman must notify the Safety Department and Project Management Team 2 weeks prior to work being performed.
15a	Large drivable milling machines (half-lane and larger) for cuts of any depth on asphalt only	• Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. • Operate and maintain machine to minimize dust emissions.	None	None	This task is not typical of AJK scope of work. The foreman must notify the Safety Department and Project Management Team 2 weeks prior to work being performed.
15b	Large drivable milling machines (half-lane and larger) for cuts of four inches in depth or less on any substrate	• Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. • Operate and maintain machine to minimize dust emissions.	None	None	This task is not typical of AJK scope of work. The foreman must notify the Safety Department and Project Management Team 2 weeks prior to work being performed.
15c	Large drivable milling machines (half-lane and larger) for cuts of four inches in depth or less on any substrate	• Use a machine equipped with supplemental water spray designed to suppress dust. • Water must be combined with a surfactant. • Operate and maintain machine to minimize dust emissions.	None	None	This task is not typical of AJK scope of work. The foreman must notify the Safety Department and Project Management Team 2 weeks prior to work being performed.

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection		AJK Procedure
			≤ 4 hours/shift	>4 hours/shift	
16	Crushing machines	• Use equipment designed to deliver water spray or mist for dust suppression at crusher and other points where dust is generated (e.g., hoppers, conveyers, sieves/sizing or vibrating components, and discharge points). • Operate and maintain machine in accordance with manufacturer's instructions to minimize dust emissions. • Use a ventilated booth that provides fresh, climate-controlled air to the operator, or a remote control station.	None	None	This task is not typical of AJK scope of work. The foreman must notify the Safety Department and Project Management Team 2 weeks prior to work being performed.
17a	Heavy equipment and utility vehicles used to abrade or fracture silica-containing materials (e.g., hoe-ramming, rock ripping) or used during demolition activities involving silica-containing materials	• Operate equipment from within an enclosed cab.	None	None	This task is not typical of AJK scope of work. The foreman must notify the Safety Department and Project Management Team 2 weeks prior to work being performed.
17b	Heavy equipment and utility vehicles used to abrade or fracture silica-containing materials (e.g., hoe-ramming, rock ripping) or used during demolition activities involving silica-containing materials	• When employees outside of the cab are engaged in the task, apply water and/or dust suppressants as necessary to minimize dust emissions.	None	None	This task is not typical of AJK scope of work. The foreman must notify the Safety Department and Project Management Team 2 weeks prior to work being performed.
18a	Heavy equipment and utility vehicles for tasks such as grading and excavating but not including demolishing, abrading, or fracturing silica-	• Apply water and/or dust suppressants as necessary to minimize dust emissions.	None	None	This task is not typical of AJK scope of work. The foreman must notify the Safety Department and Project Management Team 2 weeks prior to work.

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection		AJK Procedure
			≤ 4 hours/shift	>4 hours/shift	
	containing materials				
18b	Heavy equipment and utility vehicles for tasks such as grading and excavating but not including demolishing, abrading, or fracturing silica-containing materials	• When the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab.	None	None	This task is not typical of AJK scope of work. The foreman must notify the Safety Department and Project Management Team 2 weeks prior to work.

Revised - November 16, 2023

CONFINED SPACE WORK PROCEDURES

JOB:
Address:

Crew to be involved with work:
Job Foreman:
Entry Supervisor:
Attendant:
Authorized Entrants:

1) Determine if work to be done is in a confined space.

Is it a confined space?
A confined space is a space that has all three of the following characteristics:
- Is large enough and configured such that an employee can bodily enter and perform work; and
- Has limited openings for entry and exit; and
- Is not designed for continuous employee occupancy.

- YES / NO: Does the job meet the definitions of a confined space?
  No: Consult other applicable OSHA Standards
  Yes: Proceed with Pre-Entry Checklist

2) Perform Pre-Entry Checklist

This checklist will determine if the work to be done will be Non-Permit Confined Space (NPCS) or Permit Required Confined Space (PRCS).

- ***Employee to perform checklist***:

A multi-gas meter will be used to perform the Hazardous Atmosphere test.

Hazardous Atmosphere:
A hazardous atmosphere is any atmosphere that may incapacitate, injure, or impair an employee's self-rescue or lead to acute illness or death to workers and rescuers who enter confined spaces.

The following are examples of hazardous atmospheres:
- Flammable or explosive gas, vapor, or mist in a concentration greater than 10 percent of its lower flammable limit (LFL) or lower explosive limit (LEL).
- Combustible dust suspended in air, which obscures vision at a distance of five feet or less.
- Atmospheric oxygen concentration levels below 19.5 percent or above 23.5 percent at sea level.
- Atmospheric concentration of any substance with an acutely toxic effect above its PEL, and any other atmospheric condition that is IDLH.

This does not include atmospheric concentrations of substances that are not capable of causing death, incapacitation, impairment of ability to self-rescue, injury, or acute illness.

Test for hazardous atmosphere in this order:

1) Oxygen is tested first because most combustible gas and toxic atmosphere meters are oxygen-dependent and will not provide reliable readings when used in oxygen-deficient atmospheres. In addition, both oxygen-deficient and oxygen-enriched atmospheres are *extremely hazardous to workers' health and safety.*

2) Combustible gases and vapors are tested next because the threat of fire and explosion is both more immediate and more life-threatening, in most cases, than exposure to toxic gases and vapors.
3) Toxic atmospheres are tested last.
Toxic Atmospheres:

- ***Carbon monoxide*** (CO) results from incomplete combustion processes in equipment such as gasoline engines. CO is a colorless and odorless gas that displaces oxygen in the blood and can cause headaches, dizziness, unconsciousness, asphyxiation, and death.
- ***Hydrogen sulfide*** (H2S) is encountered in sewers, sewage treatment plants, and other locations where organic material (dead animals, leaves, etc.) decomposes. It has a distinct odor of rotten eggs at low concentrations but can cause olfactory fatigue (a deadened sense of smell) at high levels. H2S can block respiration, causing rapid loss of consciousness, and possible death.
- ***Methane*** (CH4) is a natural gas produced from the decay of organic matter. It is a flammable, explosive, colorless, and odorless gas. It can displace oxygen to the point of oxygen deficiency in a confined space, causing dizziness, unconsciousness, and asphyxiation.

- YES / NO: Has a hazardous atmosphere been detected?
  Yes: Proceed to Step 4: Permit Required Confined Space
  No: Proceed with Step 3: Non-Permit Confined Space. Consult other OSHA Standards

3) Inform crew that work will be in a confined space.

- YES / NO: Through atmospheric monitoring and other observed work conditions, is there a need to change the status of the confined space?
  Yes: Proceed to Step 4: Permit Required Confined Space
  No: Continue working safely in Non-Permit Confined Space.

4) Inform crew that work will now be in a Permit Required Confined Space

- Entry Supervisor will obtain “Confined Space Entry Permit”
- Inform Supervisor of the need for the PRCS
- Fill out information on Entry Permit
- Entry Supervisor and Authorized Entrant will:
  - Set up isolate access zone
  - Set up Emergency Escape Retrieval Equipment
  - Entrant will don five-point-harness attached to the retrieval tripod
  - Establish which communication methods will be used by Attendant and Authorized
- Forced air ventilation will be placed in opening of confined space and turned on for a minimum of ten minutes
- Entry Supervisor will apply monitor to confined space to verify that acceptable entry conditions have been met and record those test results on Entry Permit.

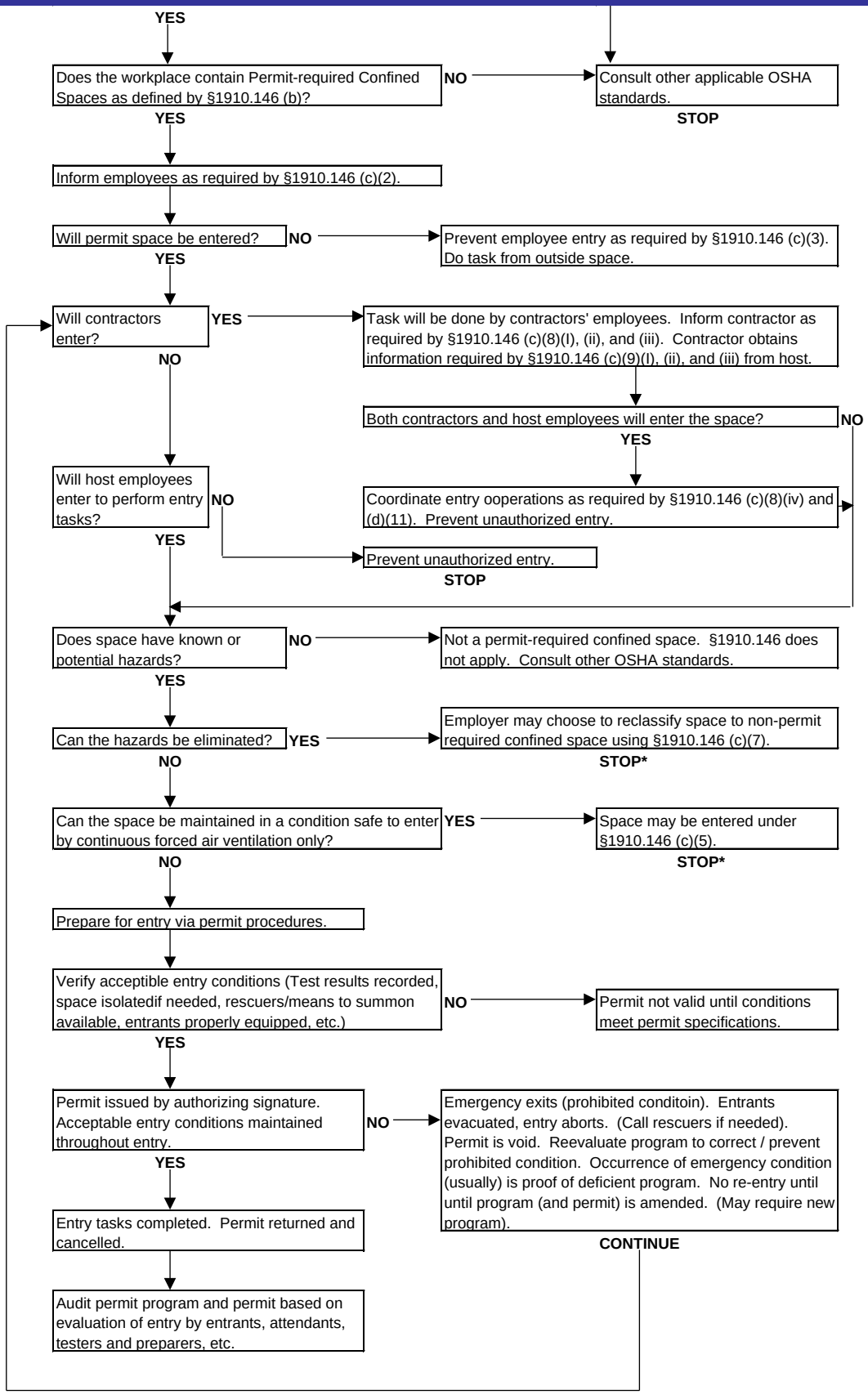
- YES / NO: Are conditions acceptable?
  Yes: Permit issued by authorizing signature. Entrant will complete work tasks and acceptable entry conditions maintained throughout the entry. Report to Job Foreman when work is complete. Permit is returned and cancelled.

  No: Entry Aborts. Entrant evacuated. **Rescue 911 called if needed**. Permit is void.

*****ONLY JOURNEY LEVEL AND ABOVE are permitted to enter permit required confined spaces.***

EMERGENCY: DIAL 9-1-1

CONFINED SPACE DETERMINATION FLOWCHART



*****ONLY JOURNEY LEVEL AND ABOVE are permitted to enter permit required confined spaces.***

CONFINED SPACE PRE-ENTRY CHECKLIST

Job Number and Location:

Entry Supervisor: _____ Signature: _____

Date: _____ Time: _____

This checklist must be used prior to entering any confined space to determine whether a confined space permit is required.

	Yes	No
• Did your survey of this surrounding area indicate hazards such as drifting vapors from tanks, vehicles, motors, piping, sewers, combustible materials/debris, etc.?	( )	( )
• Did this confined space contents, (for example – industrial or other discharges, mechanical or electrical systems) indicate this area may contain dangerous air contaminants and other hazards while occupied?	( )	( )
• Does this confined space contain inwardly converging walls or a floor that slopes downward and tapers to a smaller cross-section where an entrant could be trapped or asphyxiated?	( )	( )
• Does this space contain any other recognized serious safety or health hazard (e.g., unsafe temperature, electrical shock, corrosive chemicals)	( )	( )
• Will work being performed in this confined space create a hazardous atmosphere or condition?	( )	( )

Atmospheric Monitoring

Record Initial and Continuous Monitoring Results every Hour

Gas Monitor Make: Gas Monitor Model: Gas Monitor Serial No.:

Time								
Oxygen (Acceptable 19.5% thru 23.5%)								
LEL (Acceptable <10%)								
CO (Acceptable <35ppm)								
H_2S (Acceptable <10ppm)								

If you answered "Yes" to any one of the above statements, you must complete the bottom portion of this checklist and obtain a confined space permit, and inform your supervisor before proceeding. "No" responses to all statements indicates this is a "Non-Permit Required Confined Space" and you may proceed with entry.

	Yes	No
• Have you been trained in the operation of the gas monitor to be used?	( )	( )
• Is the calibration of the multi-gas meter current prior to use for this job?	( )	( )
• Did you test the atmosphere of the confined space prior to entry?	( )	( )
• Did the atmosphere check as acceptable (no monitor alarms)?	( )	( )
• Will the atmosphere be continually monitored while the space is occupied?	( )	( )

If you answered "No" to any one of the statements above, DO NOT ENTER. Contact your supervisor for further instruction.
If you answered "Yes" to all the statements above, proceed to completing the "Confined Space Entry Permit."

Confined Space Entry Permit

Only state certified journeymen are authorized to enter permit required confined spaces.
Permit Valid for Issued Work Shift only. This permit shall remain on site until job is completed.

Date & Time Permit Issued: _____ Date & Time Permit Expires: _____

Job Location: _____

Supervisor(s) in charge of crew: _____ Phone Number: _____

Entry Supervisor: _____

Attendant: _____

Authorized Entrant(s): _____

_____

Equipment to be worked on: _____

Communication Procedures: _____

Rescue Procedures: DIAL 911

After 911, use Escape Retrieval Equipment to hoist the entrant out of the space to safety.

Entry Checklist to be Completed and Reviewed Prior to Entry

Requirements Completed	Yes	No	Item does not Apply (N/A)
Lock Out/De-energize/Try-Out	( )	( )	( )
Line(s) Broken-Capped-Blank (utility pipes)	( )	( )	( )
Cleaning, Purging, Flushing or Ventilation (special ventilation procedure if needed)	( )	( )	( )
Ventilation (forced air ventilation)	( )	( )	( )
Secure Area (mark off area from non-authorized entrants)	( )	( )	( )
Respirator(s) (Air Purifying)	( )	( )	( )
Standby Safety Personnel	( )	( )	( )
Full Body Harness with "D" ring	( )	( )	( )
Emergency Escape Retrieval Equipment	( )	( )	( )
Lifelines (cable, rope, ect.)	( )	( )	( )
Protective Clothing	( )	( )	( )
Burning and Welding Permit (Hot Work Permit)	( )	( )	( )
Direct Reading Gas Monitor (Calibrated)	( )	( )	( )

Atmospheric Monitoring

Record Initial and Continuous Monitoring Results every Hour

Gas Monitor Make: Gas Monitor Model: Gas Monitor Serial No.:

Time								
Oxygen (Acceptable 19.5% thru 23.5%)								
LEL (Acceptable <10%)								
CO (Acceptable < 35ppm)								
H_2S (Acceptable <10ppm)								

Entry Supervisor (Print & Sign Name) _____ _____

Attendant (Print & Sign Name) _____ _____

A.J. KIRKWOOD & ASSOCIATES, INC.
Electrical Safety Program

Revision History

Revision – July, 2018

Purpose and Scope

A.J. Kirkwood & Associates, Inc. is committed to providing a safe and healthy work environment and to protecting employees from injury or death caused by uncontrolled electrical hazards in the workplace. The purpose of AJK's Electrical Safety Program is to establish work policies, practices and procedures to train employees in basic electrical hazard recognition and safe work practices. This program applies to qualified and non-qualified employees who are exposed to electricity as part of their job.

Program Responsibilities

Management.
Along with providing financial and leadership support, the management of AJK will assist the Program Administrator, Safety Department, supervisors and employees with complying with this policy.

Safety Department: The Safety Department is responsible for:

- Identifying work tasks that need to be performed by a qualified employee
- Conducting electrical safety inspections
- Correcting electrical safety hazards as soon as possible
- Ensuring all new electrical equipment and components comply with this program
- Reviewing this program annually and revising if necessary
- Maintaining a list of all qualified employees
- Coordinating employee training

Supervisors, Labor Managers, & Foremen: Supervisors, labor managers, and foremen are responsible for:

- Taking measures to eliminate or mitigate any potential hazards
- Conducting periodic work inspections
- Ensuring employees are provided with and use the appropriate PPE
- Ensuring employees comply with all aspects of the Electrical Safety Program
- Notifying the Safety Department or other Safety Management personnel of any and all potential hazards

Employees: An employee will only work on electrical equipment if he/she is a qualified worker, meaning he/she has been trained and authorized to perform work on de-energized electrical equipment and components. Employees are responsible for:

- Wearing the appropriate PPE when working with or around electrical equipment
- Reporting electrical safety hazards to their supervisor and/or the Safety Department
- Following the safe work practices outlined in this program
- Visually inspecting electrical equipment, tools and cords before each use
- Completing all required training

Work Practices

All electrical equipment will have the manufacturer's name, trademark or other descriptive marking which identifies the organization responsible for the product. The equipment will also have its operating voltage, current, wattage or other arc fault/flash sticker rating clearly marked on it.

Qualified employees will use lockout/tagout procedures on all electrical equipment while completing maintenance work to adhere to our "No Hot Work" company policy. Lockout/tagout procedures are found in AJK's Lockout/Tag-out Program. If the equipment cannot be de-energized because it would introduce an additional or increased hazard, or it is infeasible due to the design or its operational limitations (i.e. emergency alarm systems), AJK will hire a qualified electrical contractor to perform the work according to NFPA 70E Standards. No work will be performed on energized equipment by AJK employees.

Extension Cords and Power Strips

Employees must be aware of the hazards associated with the misuse of extension cords and cord connectors. Office power strips must be UL listed and used according to the manufacturer's guidelines. They may not be used in general construction areas, as they are not duty rated for this application.

Choosing an Appropriate Extension Cord: A.J. Kirkwood & Associates, Inc. has a variety of extension cords available for employee use. Employees will select an extension cord that can handle the electricity requirement for any connected tools or equipment. All employees will adhere to the following guidelines when choosing an appropriate extension cord.

- **All cords to be rated for heavy duty construction use with a minimum of 12-gauge wire.**

* All extension cords used for construction or outdoor maintenance work will be equipped with, or connected to, a ground fault circuit interrupter (GFCI).

If an employee is unsure which size of extension cord, he/she should use, contact a supervisor or the Safety Department.

Safe Work Practices for Extension Cords and Cord Connectors:

The following safe work practices will be followed at all times by all employees when using an extension cord or cord connector.

- No employee will plug in or unplug a cord connector or extension cord with wet hands.
- Power strips will only be used in office settings. They are not duty rated for general site construction.
- Grounding prongs will never be removed from the end of any extension cord, connector, or power strip.

- All extension cords and connectors will be inspected before use. If any defects are found, the cord or connector will be removed from service.
- If and when extension cords or connectors are used, they will not be:
    - Run through holes in walls, ceilings or floors
    - Run through doorways or windows without appropriate protection
    - Used in areas where vehicles, forklifts or other equipment could drive over the cord
    - Fastened with staples, hung with wire or tie-wire, hung on a nail or screw, nor hung in a way that could damage the insulation
- No flat extension cords shall be used on construction sites
- Two-pronged cords may be used only if they are marked double insulated

If it is necessary to run an extension cord through a doorway (for example, work completed outdoors with no outlet), the cord will be protected using high contrast tape or coverings.

Repairing and Replacing Electrical Cords

If a cord is damaged, the following guidelines will be followed:

- All repairs will be completed by trained individuals.
- Electrical shrink wrap will be used to repair the cord. One shrink wrap repair can be used per cord. The cord will be replaced if a second repair is needed.
- The electrical shrink wrap will cover no more than 12 inches of the cord.
- After the repair, the cord must retain its original flexibility and integrity.
- If the inner insulation is damaged, the cord must be replaced.
- Damaged cords used in wet areas shall be immediately replaced.

Tools

The following requirements shall be adhered to at all times:

- All electrical tools will be stored in a clean, dry place when not in use and put away properly.
- Employees will not carry electrical tools by the cord or yank cords from the wall.
- If a tool is unintentionally de-energized due to a circuit breaker or GFCI, it must be removed from service until the cause of de-energization is discovered.
- Unless it is a two prong tool marked “double insulated,” all tools will have grounding prongs. Any tool without a grounding prong will be removed from service.
- All electrical tools will be inspected before use. If any defects are found, the tool will be removed from service until it can be repaired or replaced.

Only fiberglass ladders will be used when working around or on electrical equipment or wires.

Guarding

All electrical systems must be guarded to prevent contact with live conductors. The following requirements will be adhered to at all times:

- All electrical distribution panels, breakers, disconnects, switches and junction boxes will be completely enclosed.
- Live parts to electrical equipment operating at 50 volts or more must be guarded to prevent contact and prevent damage.
- All electrical receptacles and cover plates will be kept intact and in good condition.
- All electrical panels will be easily accessible at all times and a minimum of three feet of clearance shall be maintained in front of panels.

High Voltage Electrical Rooms and Closets

The following requirements for electrical rooms and closets shall be adhered to at all times:

- High voltage rooms and closets must be locked at all times.
- Only qualified employees are allowed into high voltage rooms and closets.
- No AJK employee will open or remove covers or access panels of high voltage electrical distribution panels or transformers when energized.
- Nothing will be stored in rooms or closets designated for electrical equipment.
- Safety signs which warn employees about any electrical hazards shall be displayed prominently on the door of the room or closet.

Ground Fault Circuit Interrupters

Ground fault circuit interrupters (GFCIs) protect AJK's employees who use electrically-powered tools and equipment from electrical shocks, especially when working in wet environments. GFCIs are required for electrically-powered equipment.

Working near Power Lines

Both overhead and underground power lines present electrical hazards. The following procedures shall be adhered to when working near power lines.

- Remain at least 10 feet away from overhead power lines.
- If the voltage is greater than 50,000 volts, add 4 more inches of safe distance for each 10,000 volts beyond 50,000.
- When working around high voltage lines, ground all equipment that may become energized.
- Call California's One Call Center, dial "8-1-1" 48 hours before any digging. Once underground power lines have been identified, add an additional 18 inch clearance on either side of the marking or flag. Do not dig in this clearance area. If it is required to dig, AJK will use an outside contractor to perform the work.

Additional Safety Precautions

The following additional safety precautions shall be adhered to at all times.

- If a circuit breaker trips or blows a fuse more than once, it shall be investigated and corrected by a qualified employee or contractor before being cleared for continued use.
- All areas with electrical equipment shall be properly illuminated.
- Housekeeping duties will not be performed in an area if there is a possibility of contact with an electrical hazard unless there are protective shields, barriers or if insulated materials are used to protect the employee.
- Safety signs that warn employees about any electrical hazards shall be displayed prominently when a hazard is present.

Personal Protective Equipment (PPE)

Employees working in areas where electrical hazards are present will be provided with and shall use PPE that is designed for the specific part of the body to be protected and for the work being performed. Employees are required to adhere to the following procedures for PPE use:

- All PPE must be inspected prior to each day's use and immediately following any incident.
- Reflective vests, safety glasses, and helmets will be worn at all times, in addition to proper gloves required for tasks when using cutting tools and handling materials.
- Non-conductive head protection will be worn if there is danger of electrical burns or shock from contact with electricity.
- When working on electrical equipment or wiring, employees will:
    - Adhere to AJK "No Hot Work Policy."
    - Not wear conductive articles of clothing or jewelry

Foreman's Responsibility

Per the "Pre-Energized Checklist," the foreman is responsible for over-seeing and verifying the proper installation and terminations of a qualified individual's work, with all distribution equipment, switch boards, panels, disconnects, and transformers.

Periodic Program Review

The Safety Department will review the Electrical Safety Program and procedures periodically.

DRUG AND ALCOHOL ABUSE POLICY

AJK is concerned about the use of alcohol, marijuana (regardless of prescription), illegal drugs, or controlled substances as it affects the workplace. Use of these substances, whether on or off the job, can detract from an employee's work performance, efficiency, safety, and health and therefore seriously impair the employee's value to AJK. In addition, the use or possession of these substances on the job constitutes a potential danger to the welfare and safety of other employees and exposes AJK to the risks of property loss or damage, or injury to other persons.

Furthermore, the use of prescription drugs and/or over-the-counter drugs also may affect an employee's job performance and may seriously impair the employee's value to AJK.

The following rules and standards of conduct apply to all employees either on AJK property or all job sites, including temporary field offices during the workday (including meals and rest periods). Behavior that violates AJK. policy includes:

- Possession or use of an illegal or controlled substance, or being under the influence of an illegal or controlled substance while on the job;
- Driving an AJK vehicle while under the influence of alcohol, marijuana or any illegal or controlled substance; and
- Distribution, sale, or purchase of an illegal or controlled substance, including alcohol or marijuana while on the job.

Violation of these rules and standards of conduct will not be tolerated and may result in discipline up to and including termination. AJK also may bring the matter to the attention of appropriate law enforcement authorities.

An employee's conviction on a charge of illegal sale or possession of any controlled substance while off AJK property will not be tolerated because such conduct, even though off duty, reflects adversely on AJK. In addition, AJK must keep people who sell or possess controlled substances off AJK premises in order to keep the controlled substances themselves off the premises.

AJK will encourage and reasonably accommodate employees with alcohol, marijuana, or drug dependencies to seek treatment and/or rehabilitation. Employees desiring such assistance should request a treatment or rehabilitation leave. AJK is not obligated, however, to continue to employ any person who cannot perform essential job duties with or without reasonable accommodation because of drug, alcohol, or marijuana use. This policy on treatment and rehabilitation is not intended to affect AJK's treatment of employees who violate the regulations described previously.

This policy has been formulated for the safety and well-being of all employees. Your assistance and cooperation for the achievement of this goal is vitally important and required as a condition of your continued employment. AJK reserves the right to change the provisions of this policy and testing program at any time.

What is the "workplace"?

The workplace includes all job sites, including temporary field offices. This policy also extends to employees when operating AJK owned or leased vehicles and when on AJK business away from the normal workplace while the employee is on duty. Management will have sole discretion as to whether it will be safe for those employees to remain on duty.

Definitions

- **"Drug"** means any controlled substance or dangerous drug, including inhalants as defined by state and federal laws and regulations.

- **"Reasonable Suspicion"** means a suspicion that would be held by an ordinary and prudent person. This may include, but is not limited to, suspected impairment on the job, altered job performance, habitual tardiness, or absenteeism.

- **"Under the Influence"** means having a level of alcohol or drugs in the body to the extent that it impairs employee performance or jeopardizes the safety of employees or other persons.

- **"Test Positive for Drugs"** means that a controlled substance, as defined by law, has been detected by a laboratory test.

- **"Test Positive for Alcohol"** means that alcohol has been detected in an amount over the legal limit as defined by law.

Pre-Employment Drug Screening

Post-Offer, pre-employment drug and/or alcohol testing will be performed on all candidates as a condition of employment.

Post-Accident Screening

Employees involved in work-related recordable accidents will be tested as allowed by law. Management reserves the right to have post-accident screening for non-recordable work-related accidents. Injury or accident-based testing does not apply where the incident or accident is unlikely to have occurred as a result of drug or alcohol use, or where the cause of the incident or injury is known or clear (e.g., back sprains from lifting a heavy object, bug bites that require treatment, etc.).

Reasonable Suspicion Testing

When there is reasonable suspicion that an employee is under the influence of drugs and/or alcohol, management reserves the right to require testing. Employment may be suspended (with pay) until the test results are received. The employee's refusal to submit to testing may result in disciplinary action up to and including termination of employment.

Random or General Testing

Employees may be tested on a random or periodic basis to the extent permitted by applicable state and federal laws. The refusal of the employee to submit to testing may result in the termination of employment.

Use of Qualified Laboratory

All testing is done by a qualified, licensed laboratory designated by AJK. All collection sites and laboratories will administer and analyze the tests pursuant to approved guidelines and certified laboratory procedures in order to provide stringent and thorough quality control measures.

Confidentiality

All employee records are kept in the strictest of confidence and results are given only on a "need to know" basis.

A.J. Kirkwood & Associates, Inc. – COVID-19 Prevention Program

Revised: 2/13/23

IV. **Project Name:** **Project:**

Supervisor:

In order to protect the health and safety of A.J. Kirkwood & Associates, Inc. employees from the SARS- CoV-2 Coronavirus Disease 2019 (COVID-19) virus, A.J. Kirkwood & Associates has implemented the following Written COVID-19 Prevention Program (WCPP). Implementation of our COVID-19 Infection Prevention Program is consistent with our existing IIPP and is available for review by any employee.

What is COVID-19?

On February 11, 2020, the World Health Organization announced an official name for the disease that is causing the 2019 novel coronavirus outbreak first identified in Wuhan, China. The new name of this disease is "Coronavirus Disease 2019," abbreviated as COVID-19. In COVID-19, 'CO' stands for 'corona,' 'VI' for 'virus,' and 'D' for disease. Formerly, this disease was referred to as "2019 novel coronavirus" or "2019-nCoV".

There are many types of human coronaviruses including some that commonly cause mild upper- respiratory tract illnesses. COVID-19 is a new disease caused by a new coronavirus that has not previously been seen in humans. Coronaviruses are a large family of viruses that are known to cause illness ranging from the common cold to more severe diseases such as Severe Acute Respiratory syndrome (SARS) and Middle East Respiratory Syndrome (MERS). Recently, some vaccines and vaccine boosters have become available to help prevent COVID-19 that are either FDA approved or have Emergency Use Authorizations (EUAs). You can sign up to get the COVID-19 vaccine at **no cost** at https://myturn.ca.gov/. To learn more, visit benefits of getting vaccinated.

Authority and Responsibility:

The Safety Department has authority and responsibility for implementing the WCPP. Additionally, all Project Managers, Foremen, and other supervisors will assist in the execution of these provisions. All employees are responsible for following the guidelines of the WCPP and assist with maintaining a safe workplace.

Identification and Evaluation of COVID-19 Hazards:

Supervisors will work with the AJK Safety Department, our General Contractors & Clients, and employees in identifying and evaluating possible job-site hazards in regard to COVID-19 exposure. Employees are to self-monitor for the following illness symptoms each day prior to reporting for work:

Illness:

- If you are sick or feel sick, stay home. Do not come to work. ***Each employee must assess their health daily before signing into work:***
    - CDC Signs & Symptoms of infection:
        - Dry Cough
        - Shortness of breath or difficulty breathing
        - Fever (100.4 F degrees or higher)
        - Chills
        - Repeated shaking with chills
        - Muscle pain
        - Headache
        - Sore throat
        - New loss of taste or smell
        - Runny nose
        - Congestion
        - Fatigue
        - Nausea
        - Vomiting
        - Diarrhea
    - When to seek emergency medical attention:
        - Trouble breathing
        - Persistent pain or pressure in the chest
        - New confusion
        - Inability to wake or stay awake
        - Bluish lips or face
            - **CALL 911 or call ahead to your local emergency facility:** Notify the operator that you are seeking care for someone who has or may have COVID-19.

- If you or someone in your household has tested positive for the coronavirus or was tested and awaiting results, keep the entire household at home. Do not go to work and contact the **Safety Department**.
- Inform the ***Safety Department*** if you have a sick family member at home with COVID-19.
- Foremen and supervisors must email manpower@ajk-a.com for ***all*** employee absences.
- If an employee is in isolation or quarantine, the ***Safety Department*** will communicate with the individual and obtain a COVID-19 Health Questionnaire to assure CDC, CDPH & Agency guidelines are met prior to returning to work.
- Field employees are not permitted to return to work without the authorization of The **Safety Department** and **Carlos Bello**.
- Office employees are not permitted to return to work without authorization of the **Safety Department** and **Direct Supervisor**.

Correction of COVID-19 Hazards:

Management, supervisors, and employees will communicate with each other regarding COVID-19 possible hazards and work in conjunction with our General Contractors and Clients in abating any potential hazards and risks of the virus.

Control of COVID-19 Hazards:

The following steps must be taken by all AJK employees to help control exposure to the COVID- 19 virus:

Practice good hygiene:

- Frequently wash your hands thoroughly for at least 20-seconds with soap and water.
- When you arrive and before you leave work – wash your hands.
- Before and after eating or using the restroom – wash your hands.
- Wash your hands, especially after touching any frequently used item or surface.
- After close interaction with other persons – wash your hands.
- Avoid touching your face and eyes.
- Sneeze or cough into a tissue, or the inside of your elbow.
- Use hand sanitizer as a last resort when you cannot feasibly get to a sink or hand-washing station. (*Note: Hand sanitizers must have at least 60% ethyl alcohol. They are less effective than handwashing in preventing the spread of COVID-19 but can be used as an interim measure if a hand- washing station is not immediately available.*)

Face Coverings:

Face coverings will be provided to employees at no cost; however, employees may use their own acquired face covering providing the face covering meets the requirements for protection as outlined in this policy and or the recommendations set forth by the CDC, CDPH, or local ordinance. Face coverings should be worn/used pursuant to any local municipalities' & General Contractor's requirements and guidelines.

- Face-coverings ***must*** cover your nose ***and*** mouth snuggly and not have gaps at all times.
- Face coverings must be made of two or more layers of breathable material and have ties, ear loops, or elastic bands for securing.
- Gaiter style face coverings are not permitted.
- Face masks with ports are not permitted.
- Regularly clean and wash your personal cloth face covering following recommended methods set by the CDC or CDPH.
- Face coverings will not be offensive in nature (example: letters, insignias, inappropriate images, etc.)
- Request a replacement face covering when it becomes damaged, no longer serviceable, or effective.

Respirators:

A respirator may be requested and voluntarily worn provided the employee has received training in the following.

- *How to properly wear the respirator provided.*
- *How to perform a seal check according to the manufacturer's instructions each time a respirator is worn, and the fact that facial hair interferes with the seal.*

Minimize contact with other workers:

- ***SOCIAL DISTANCING: Maintain a 6-foot distance from co-workers.***
- Do not congregate in areas for safety tail-gate meetings, morning huddles, rest periods and meal breaks.

- Weekly Tail-Gate Safety meetings may be conducted over the AJK 2-Way radios when 6 foot spacing is not available.
- Take the stairs and avoid the man-lift whenever possible.
- Avoid “choke points” and “high-risk areas” where workers are forced to stand together, such as hallways and elevators.
- Minimize interactions with others when picking up or delivering equipment or materials.
- CDC suggests to avoid carpooling with anyone who does not live in your home.

Investigating and Responding to COVID-19 Cases:

Any reported COVID-19 illness and exposure is taken seriously by AJK. Employees that believe they have potential symptoms, illness or exposure to COVID-19 illness personally or may be a close-contact with another infected individual, must contact the **Safety Department** immediately.

In conjunction with AJK management, the Safety Department, and our General Contractors & Clients, proper exposure investigations will take place according to agency guidelines.

System of Communicating:

Employees are to report COVID-19 symptoms and possible hazards to the **Safety Department.**

AJK will utilize emails to potentially exposed employees when there is a COVID-19 safety issue.

Employees can report any COVID-19 concerns, issues, or exposures to the **Safety Department** without fear of reprisal. Each employee’s personal medical situation will be kept confidential per HIPAA and other guidelines.

AJK will communicate and coordinate exposures with the proper health officials and other agencies.

AJK may also personally call our employees who have COVID-19 symptoms to help them through the proper protocols outlined in this WCPP to ensure their health and safety.

Training and Instruction:

AJK employees will be trained on the elements of this WCPP.

Training will take place on jobsites, work areas, new-hire orientations, and periodic tail-gate meetings conducted by jobsite foremen.

Training records will be maintained by the Safety Department at the AJK office.

Exclusion of COVID-19 Cases:

Where we have a COVID-19 case in our workplace, we will limit transmission by:

- Ensuring that COVID-19 cases are excluded from the workplace until our return-to-work requirements are met.
- Excluding employees with COVID-19 exposure from the workplace for the required number of days after the last known COVID-19 exposure to a COVID-19 case.
- Continuing and maintaining an employee’s earnings, seniority, and all other employee rights and benefits whenever we’ve demonstrated that the COVID-19 exposure is work related.

- ***Human Resources*** will work with employees to coordinate submission of proper paperwork to receive any COVID-19 compensation.
- Any employee's possible exposure should be reported to the **Safety Department**.

Information regarding required benefits and/or COVID-19 compensation you may be entitled to under applicable federal, state, or local laws can be provided by* ***Human Resources.

Reporting, Recordkeeping, and Access:

It is our policy to:

- Report information about COVID-19 cases at our workplace to the local health department whenever required by law, and provide any related information requested by the local health department.
- Report immediately to Cal/OSHA any COVID-19-related serious illnesses or death, as defined under CCR Title 8 section 330(h), of an employee occurring in our place of employment or in connection with any employment.
- Maintain records of the steps taken to implement our written COVID-19 Prevention Program in accordance with CCR Title 8 section3203(b).
- Report workplace COVID-19 exposure cases to our Workers' Compensation carrier.
- Make our written COVID-19 Prevention Program available at the workplace to employees, authorized employee representatives, and to representatives of Cal/OSHA immediately upon request.

Return-to-Work Criteria:

- COVID-19 cases with COVID-19 symptoms will not return to work until all the following have occurred:
  - At least 24 hours have passed since a fever of 100.4 or higher has resolved without the use of fever-reducing medications.
  - COVID-19 symptoms have improved.
  - The employee has met the required COVID-19 isolation or quarantine protocols to return to work. https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/Guidance-on-Isolation- and-Quarantine-for-COVID-19-Contact-Tracing.aspx
- If an order to isolate or quarantine an employee is issued by a local or state health official, the employee will not return to work until the period of isolation or quarantine is completed or the order is lifted.

The **Safety Department** will coordinate with affected COVID-19 employees to return the AJK required Questionnaire to be eligible to return to work, ensuring that the proper protocols have been met. Then, ***Carlos Bello*** will communicate return dispatch to the field employees. Office employees will be contacted by their **Office Supervisor**.

How COVID-19 Spreads:

(From CDC: https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html)

COVID-19 is thought to spread mainly through close contact from person to person, including between people who are physically near each other (within about 6 feet). People who are infected but do not show symptoms can also spread the virus to others. Cases of reinfection with COVID-19 have been reported but are rare. The CDC is still learning about how the virus spreads and the severity of illness it causes.

COVID-19 Most Commonly Spreads During Close Contact:

- People who are physically near (within 6 feet) a person with COVID-19 or have direct contact with that person are at greatest risk of infection.
- When people with COVID-19 cough, sneeze, sing, talk, or breathe they produce **respiratory droplets**. These

droplets can range in size from larger droplets (some of which are visible) to smaller droplets. Small droplets can also form particles when they dry very quickly in the airstream.

- Infections occur mainly through exposure to respiratory droplets when a person is in close contact with someone who has COVID-19.
- Respiratory droplets cause infection when they are inhaled or deposited on mucous membranes, such as those that line the inside of the nose and mouth**.**

Travel Guidelines:

Traveling within or outside of the United States increases your chances of spreading and getting COVID-19. If you must travel, it is important to follow the CDC guidelines and recommendations for vaccinated and unvaccinated individuals. Travel to areas where COVID-19 infection rates are high is ***strongly discouraged*** and you must contact the **Safety Department** in advance prior to travel.

AJK Supervisors must:

****Maintain a daily attendance log of all workers and visitors.***

*****Post CDC Hand Washing instruction.***

******Post Cal-OSHA Face Covering Document***

*******Post AJK Hygiene instructions.***

Let us know if something is not right. Contact the **Safety Department** if you want to report any potential violation of this policy so that we can work together for your safety and health.

A.J. Kirkwood & Associates, Inc. Contact Information:

Safety Department:

Steven Dietzel (Safety Manager)
(714) 773-2669
Steve.dietzel@ajk-a.com

Human Resources:

Coral Nash (HR Manager)
(714) 363-1058
Coral.nash@ajk-a.com