

ADDENDUM "A"

S A F E T Y     R U L E S

AMERICAN LINE BUILDERS CHAPTER,  
NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION

and

LOCAL UNION NO. 876,  
INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS

(Agreement No. 6-876-A)

Publishing Safety Rules with this Agreement is done to  
acquaint all workers with fundamental safety precautions.

(Where a male pronoun is used herein it shall be deemed to include both male and  
female genders.)

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# S A F E T Y   R U L E S

## FOREWORD

These Rules have been drawn up by the Joint Committee for Safety. They contain the basic rules for general operation on overhead line and substation maintenance, construction and operation. Inquiries, criticism and suggestions for supplemental Rules are invited and should be addressed to the Joint Safety Committee, American Line Builders Chapter and Local Union No. 876, P. O. Box 487, Vandalia, OH 45377.

These Safety Rules shall be observed and failure to do so shall be cause for disciplinary action.

The prevention of accidents to himself, to fellow workers and to the public is a responsibility which every employee must accept as soon as he or she enters into the employment of any company.

These Rules have been made in the interest of the safety of all electrical workers and the public. By cooperating in the enforcement of and obedience to these Rules, employees and the public will be better protected and the operation of all companies made safe.

Each workman shall be provided with a copy of "Safety Rules". He shall carefully study and observe these Rules, especially those applying to his particular duties. These Rules will be strictly enforced and ignorance thereof will not be accepted as an excuse for their violation.

Suggestions for changes in the Rules to promote safety are invited from all electrical employees.

When working on the properties of the various customers who require all work to be performed according to their safety regulations, those regulations shall supersede these Rules except when these Rules are more strict. A copy of any specific rules of the customer to be enforced will be furnished to the workman. If the safety rules of the individual Employer are more stringent than the above requirement, then they shall be in effect.

Any employee willfully violating any safety rule shall be subject to disciplinary action up to and including discharge. Production goals shall not compromise these Safety Rules.

## ARTICLE XXII

### INTOXICATING BEVERAGES

Section 22.01 The use of intoxicating beverages or dangerous drugs by any employee while on duty on the Employer's premises is strictly prohibited. Any employee reporting for duty under the influence of liquor or dangerous drugs and any "supervisor" who knowingly permits an employee to go to work while under the influence of either will be subject to disciplinary action.

## ARTICLE XXIII

### REPORTING INJURIES

Section 23.01 Any injury, no matter how slight, which occurs on the job site shall be reported to the immediate Supervisor.

Section 23.02 The Employer will notify the Local Union by sending a copy of the accident report of all lost time injuries. The Employer will notify the Local Union by telephone, fax or email within 24 hours of a fatal accident or other serious injury occurs.

#### ARTICLE XXIV

##### REPORTING HAZARDS

Section 24.01 Each employee shall report to his immediate supervisor any dangerous or defective equipment and any hazardous situation and the supervisor shall immediately investigate the report. If the investigation reveals a hazardous or dangerous condition, he shall take the necessary corrective action.

#### ARTICLE XXV

##### SAFETY MEETINGS

Section 25.01 In order to promote and encourage safety, one hour per month will be devoted to conducting safety meetings. These meetings may be held during the reporting time period.

Section 25.02 As a part of the regular safety meeting, each crew shall practice some accepted form of artificial respiration at least once each sixty days.

Section 25.03 The Employer shall have available safety topics for discussion at such meetings.

#### ARTICLE XXVI

##### USE AND INSPECTION OF TOOLS

Section 26.01 All employees shall keep their tools, belts, spurs and straps in good condition. All personal tools and equipment shall be of standard acceptable design produced by a reliable manufacturer.

Section 26.02 Body belts shall have no exposed metal parts next to the body.

Section 26.03 Lineman's belts shall be used for no other purpose than that for which they are intended.

Section 26.04 Body and safety belts should be inspected periodically by the supervisor for condition of leather, leather near the holes, rivets, stitches, buckles, D rings and snaps.

Section 26.05 The use of pads is recommended on climbers.

Section 26.06 The gaffs of climbers shall be properly maintained. When climber gaffs are less than 1 1/8" in length, they shall be replaced. (The diameter of a half dollar is an acceptable gaff gauge.)

Section 26.07 When climbers are not in use, they should be stored in the proper place on the truck.

Section 26.08 Climbers shall not be worn when linemen are riding in trucks, are piking poles or while working on the ground.

Section 26.09 Defective or condemned tools and equipment shall not be carried on the truck or left on the job site.

## ARTICLE XXVII

### RUBBER PROTECTIVE EQUIPMENT & CLOTHING

Section 27.01 When not in use, rubber protective clothing and equipment shall be kept in a dry compartment where no other tools are stored.

Section 27.02 Rubber protective clothing and equipment shall not be painted or allowed to contact oil or grease.

Section 27.03 Do not use artificial heat to dry rubber protective clothing or equipment, except by factory approved methods.

Section 27.04 Rubber blankets shall not be folded for storage. They may be stored either rolled or flat.

Section 27.05 All rubber protective clothing and equipment shall be inspected for defects before each use. They shall be periodically tested electrically at the laboratory and, if found defective, shall also be rendered unfit for further electrical use. Maximum required electrical test periods shall be 120 days for gloves and sleeves and nine months for blankets. Hose and hoods shall be inspected visually and discarded when excessive damage is found. All rubber gloves and sleeves shall indicate the last test date on the gloves and sleeves. The Employer will make every reasonable effort to have proper size rubber gloves and sleeves for each lineman.

Section 27.06 When working on or near live conductors or other live apparatus operating at voltages above 300 volts, the use of rubber protective clothing and equipment shall be required.

Section 27.07 Mechanical jumpers shall be of such type that a positive connection shall be maintained at all times between points of attachment. The insulated protective covering on mechanical jumpers is not to be considered as adequate protection in lieu of proper rubber protective equipment. Such insulated protective covering shall be no less than an approved 5,000 volt type.

Section 27.08 In wet weather or at any other time, the use of rubber protective clothing and equipment on lower voltages shall be left to the discretion of the supervisor and/or the workman.

Section 27.09 Rubber gloves and sleeves must be kept in a canvas bag when not in use. Rubber gloves and sleeves shall not be patched. Rubber blankets may be patched by the test lab, but not more than three inches from the edges. Only vulcanize patches with plugs will be approved.

Section 27.10 All rubber gloves shall be the 20,000 volt or above class and shall be given a visual inspection and air test before being used and shall never be worn inside out.

Section 27.11 Leather protector gloves shall always be worn over rubber gloves and shall be maintained in good condition. Glove protectors shall be worn with rubber gloves only and at no time shall they be used for any other purpose.

Rubber Insulating Equipment Voltage Requirements

<u>Class of Equipment</u>	Maximum use	Retest Voltage (2)	
	voltage (1)	a - c - rms	d - c - avg
2	17,000	20,000	50,000
3	26,500	30,000	60,000
4	36,000	40,000	70,000

Section 27.12 The Employer shall furnish rubber glove liners for employees' use in cold weather.

Section 27.13 All rubber gloves will be at least the 16 inch glove and all rubber glove protectors shall have a 6 inch colored gauntlet (made of highly visible color; example, yellow, red, orange, etc.) Rubber gloves shall extend one inch past the protector for every 10,000 volts of the glove rating.

ARTICLE XXVIII

LIVE-LINE TOOLS

Section 28.01 The method of working live lines at voltages in excess of safe rubber protective goods range is to handle all live parts with live-line tools.

Section 28.02 "Hot Sticks" shall be inspected regularly, dried out and thoroughly refinished with acceptable materials at intervals, depending upon the extent of use and exposure. Hot sticks should be stored in a safe, dry compartment.

Section 28.03 Workmen must use extreme care at all times in transporting and using tools so as not to damage them.

ARTICLE XXIX

EXPLOSIVES

Section 29.01 Explosives and detonators should be kept apart until the last possible moment. Whenever feasible, they should be transported in separate containers or be carried by different men. If both must be transported in the same conveyance or carried by the same man, they should be placed in separate containers. The conveyance should be provided with separate wood insulated compartments with doors (or lids) opening in the opposite (or different) directions. When two or more trucks are being used or are driven to the working site, the truck conveying men shall not carry explosives.

Section 29.02 Trucks containing explosives shall never be left parked without first stopping the motor, securely setting the brakes, leaving in gear and, if on other than level ground, blocking the wheels.

Section 29.03 Trucks containing explosives shall never be taken into a garage or repair shop or parked in congested areas.

Section 29.04 When transporting explosives, the truck should come to a full stop before crossing any railroad track and should not attempt to cross the track until it is known that the way is clear and that a train or engine is not approaching.

Section 29.05 Unauthorized persons should never be permitted to ride on trucks transporting explosives. Authorized persons include any person on the payroll of the Employer.

Section 29.06 The handling and use of explosives shall be conducted as prescribed by the safety rules of the Institute of Explosive Makers and part 27 Michigan Department of Labor, Construction Safety Standards.

Section 29.07 A detonating fuse (e.g., Prima Cord or similar material) must be used when firing two or more bore holes simultaneously. A single shot hole may be fired directly by a cap.

Section 29.08 Electric blasting caps must not be carried in or on a vehicle having a mobile phone or a two-way radio.

### ARTICLE XXX

#### POLES

Section 30.01 Before climbing a pole, particularly an old pole, a thorough inspection of the physical condition of the pole must be made to determine if it is safe to climb.

Section 30.02 Before working on a pole in poor condition, it must be adequately guyed. Pike poles may be used to support the pole while it is being guyed. When pike poles are used, cant hooks shall be used to prevent the pole from turning.

Section 30.03 When an old pole is being replaced by a new pole, linemen should always work from the new pole, if possible. The pole tops and bottoms should be lashed together, if possible, before stripping the old pole or transferring wires. The top lashing should be at a point as near the top of the old pole as conditions permit.

Section 30.04 In setting poles in or near energized lines, rubber protective clothing and equipment shall be used by the workmen.

### ARTICLE XXXI

#### LADDERS

Section 31.01 When a ladder is to be used, the workman shall make certain it is sufficiently strong for the purpose intended.

Section 31.02 Never place or leave ladders standing in such a way that they might fall.

Section 31.03 Always face a ladder when climbing or descending.

Section 31.04 Don't attempt to carry tools or material up or down a ladder if it interferes with the free use of both hands.

Section 31.05 Whenever setting up ladders, proper precautions shall be taken to secure the ladder and protect the public.

Section 31.06 When working on a ladder, workmen shall, whenever possible, tie the top of the ladder to a substantial object to prevent falling.

Section 31.07 Metal ladders are prohibited for use on or near energized electrical work. Metal running strips may be used for grounding linemen to the structures and to avoid static shock.

Section 31.08 Ladders shall not be painted.

Section 31.09 Ladders shall be equipped with safety shoes, metal spikes or spurs. Hook ladders shall have safety chains on each hook of ladder.

## ARTICLE XXXII

### AERIAL BASKET AND LADDER EQUIPMENT

Section 32.01 The aerial basket is a piece of equipment which, when properly used, can eliminate or minimize many hazards that we have to cope with in our daily work. Like any other piece of equipment, however, it also has its inherent hazards. These hazards must be recognized and safe practices followed in order to accomplish our main goal--the prevention of accidents while using aerial basket equipment.

Section 32.02 The operating and maintenance instruction manuals issued by the manufacturer shall be followed whenever using aerial basket and ladder equipment.

Section 32.03 Load limits of the boom and basket shall not be exceeded.

Section 32.04 A warm up period and visual inspection of the hydraulic system is required prior to use of equipment.

Section 32.05 Drivers of trucks with mounted aerial equipment shall provide necessary traveling clearance by being constantly alert to the fact that the vehicle has exposed equipment above the elevation of the truck cab.

Section 32.06 The truck shall not be moved unless the boom is lowered and the basket or ladder is cradled.

Section 32.07 Riding in the basket of a truck can only be permitted for short moves at the work location, if the basket is returned to the cradled position prior to each move.

Section 32.08 Available footing for the truck wheels and outriggers shall be examined carefully to be assured of a stable setup. Hand brakes, chocks and/or cribbing when needed should also be used to insure stability. The truck should set approximately level when viewed from the rear.

Section 32.09 Before lowering stabilizers, outriggers or hydraulic jacks, the operator shall be certain there is no one in a position where he will be injured.

Section 32.10 When boom must be maneuvered over a street or highway, necessary precautions shall be taken to avoid accidents with traffic, pedestrians and personal property.

Section 32.11 All ropes or hand lines shall be coiled within the basket while it is being elevated.

Section 32.12 The operator of the aerial device shall always face in the direction in which the basket is moving and he shall see that the path of the boom or basket is clear when it is being moved.

Section 32.13 While the basket is in operation, a qualified employee shall be present to operate the ground boom controls if the need arises.

Section 32.14 Employees shall not stand or sit on top or edge of the basket. Employee's feet shall be on the floor of the basket the entire time that he is in it.

Section 32.15 Employees shall not belt to an adjacent pole or structure. Employees shall always belt to the basket or ladder. Belting to the basket equipment shall be done before it is moved.

Section 32.16 An employee shall not enter or leave the basket by walking the boom.

Section 32.17 Employees shall not transfer between the basket and a pole. On dual basket trucks, employees shall not transfer between the baskets.

Section 32.18 Climbers shall not be worn by employees in the basket.

Section 32.19 When two men are in the basket or baskets, one of them shall be designated to operate the controls. One employee shall give all signals, which shall be thoroughly understood by all persons concerned.

Section 32.20 Baskets should be located under or to the side of conductors or equipment being worked. Raising the basket directly above energized primary conductors or equipment should be kept at a minimum.

Section 32.21 Only approved attachments shall be allowed on baskets.

Section 32.22 The operator shall be certain that hoses or lines attached to tools cannot become entangled with the levers that operate the boom.

Section 32.23 Air operated tools shall be disconnected from air supply when not in use.

Section 32.24 In no case shall more than one energized conductor or phase be worked on at one time.

Section 32.25 When two employees are working from the basket, extreme care shall be taken so that one man will not contact poles, crossarms or other grounded or live equipment while the second employee is working on energized equipment.

Section 32.26 Bucket trucks that are used to work energized circuits shall be tested a minimum of once a year and whenever warranted by job conditions. Buckets and booms must test no more than 12 microamperes of leakage. Buckets and boom shall be washed whenever warranted by job conditions. A copy of the test results shall be kept with the truck.

Section 32.27 All aerial devices shall have an attachment for securing the employee's safety belt or lanyard and each employee shall have his safety belt or lanyard secured to the attachment, at all times, whenever working from an aerial device.

Section 32.28 Bucket trucks shall be equipped with a secondary lowering device which allows for immediate exit from the bucket due to electrical or hydraulic failure.



ARTICLE XXXIII

WORKING ON ENERGIZED PRIMARY CIRCUITS

Section 33.01 Only workmen in the proper classification and so authorized shall work on energized primary wires or equipment, and work shall always be done with the full use of suitable protective devices and observance of the Safety Rules.

Section 33.02 When work to be performed on energized primary wires requires workmen to reach past other wires to reach the ones to be worked upon, all wires in between themselves and the wires to be worked upon shall be covered with approved protective equipment. The protective equipment shall not be removed until the work is completed.

Section 33.03 Employees shall wear rubber gloves and sleeves while applying and removing protective equipment and also when using a switch stick for opening, removing or replacing fuses or fuse doors on cutouts.

Section 33.04 Rubber protective clothing (including rubber gloves, sleeves, hard hats, rubber overshoes), and equipment shall be worn at all times by all employees when working on or near energized primary equipment. (Rubber protective clothing need not be worn when using live line tools above distribution voltage.) In addition, rubber overshoes and rubber shank guards shall also be worn. Except employees working on the ground shall not have to wear shank guards. A shirt or jacket with full length sleeves rolled down will be worn when working on or near live-line equipment.

Section 33.05 All wires, including neutrals and guy wires, in the vicinity of energized primary work must also be covered with protective equipment, and where possible, they shall be covered first.

Section 33.06 When stringing wire where pedestrians and vehicles may be endangered, proper watchmen must be provided.

Section 33.07 Where it is necessary to string wires near energized lines and equipment, dry hand lines or other suitable means shall be provided and used. Rubber protective clothing and equipment and other necessary safety equipment shall be furnished the workmen involved in this operation and shall be used by the workmen.

Section 33.08 Reel tenders shall be provided with adequate protection, including rubber protective clothing equipment and blankets as outlined in Section 33.07.

Section 33.09 Journeymen shall not be permitted to work on energized circuits exceeding 500 volts, unless accompanied by another journeyman lineman or at least a 4th 6 months apprentice. The Employer shall provide and the workmen shall use adequate protective equipment while working on energized circuits or equipment. A compartment shall be available on all trucks to carry only approved safety clothing and equipment.

Section 33.10 Workmen shall not stand on or otherwise be in contact with transformer cases, telephone messenger cables, grounded guy wires or other metal brackets while working on energized conductors, unless these are properly covered with protective equipment.

Section 33.11 Hard hats with approved dielectric properties shall be worn at all times. The Employers shall furnish liners (head warmers) for hard hats for employee's use in cold weather and sweatbands for summer use. Hard hats shall be worn at all times when outside the confines of a vehicle. Hard hats shall not be painted, defaced or modified from the original issue condition.

Section 33.12 Non-conductive hoists or blocks shall be used by all crews working on overhead distribution.

Section 33.13 Hot hoists, whose primary purpose is pulling, dead ending or sagging energized conductors shall not be used for any other purpose.

Section 33.14 The only methods that shall be used while working on voltages of 7200, phase to ground, (12KV) up to and including 14,400 volts, phase to ground, (24KV) are; with hotsticks, or with rubber gloves and sleeves in conjunction with a factory made approved insulated platform that provides a method of belting off other than to the pole or structure, or with rubber gloves and sleeves out of insulated buckets.

Section 33.15 In no case shall more than one energized conductor or phase be worked on at one time.

Section 33.16 The Employer shall make available, load break tools to employees for de-energizing capacitor banks, all 14,400 and above KV transformer banks and loads that are in excess of 50 amperes.

Section 33.17 The Employer shall furnish approved eye protection to employees where the potential for electrical arc exists (this includes switching) and the eye protection shall be worn by the employees.

#### ARTICLE XXXIV

#### UNDERGROUND DISTRIBUTION

#### INTRODUCTION

Section 34.01 UD, Underground Distribution, is a general term which covers the necessary facilities to furnish underground service generally to residential and commercial type customers.

Section 34.02 The safe practices, as outlined here, are written on a "SHALL" or "should" basis and SHALL be observed in the same manner as in the safety rules.

Section 34.03 Care must be exercised to insure that all supervisors and employees are aware of the close clearances in the construction of URD equipment, and are instructed in the proper procedures.

#### DEFINITIONS

Section 34.04 Pad-Mount - Equipment or device - surface mounted - normally worked from ground level.

Section 34.05 Primary Compartment - A compartment containing voltages above 500 volts.

Section 34.06 Secondary Compartment - A compartment containing voltages below 500 volts.

Section 34.07 URD Concentric Cable - A conductor insulated and shielded, for operation above 500 volts -around which is wound neutral of equal capacity, with no over-all covering.

Section 34.08 Power Cable - A conductor insulated and normally shielded, around which is an outer jacket for operation above 500 volts.

Section 34.09 Secondary Cable - A conductor insulated for operation below 500 volts.

Section 34.10 Termination -- The ends of a concentric or power cable, such as:

1. Pothead - A termination, normally outdoor.
2. Stress Cone - A termination, normally indoor.
3. Elbow - A fully shielded (also submersible) termination; may be used indoor or outdoor.

Section 34.11 Exposed - A device or conductor is exposed unless it is properly insulated or covered with approved protective equipment.

NOTE: 5000 volt and above non-shielded insulated cable is exposed and SHALL be covered with approved protective equipment.

Section 34.12 Subsurface - Equipment or device below ground, normally worked from ground level.

Section 34.13 Subway - Equipment or device below ground, normally worked below ground level.

Section 34.14 Fault Closing Devices - A device capable of being closed into a faulted cable or transformer.

#### WORKING ON UD SYSTEMS

##### UD #1 - General Rules

Section 34.15 The employee in charge of the work SHALL review with crew members the location of all energized apparatus and cable terminals in the work area.

Section 34.16 Rubber gloves, sleeves and hot boots SHALL be worn when opening any pad-mounted enclosures.

Section 34.17 Rubber gloves, sleeves, hot boots and approved hot line tools SHALL be used when operative and underground device normally energized above 500 volts and is exposed, including fuses, elbows and any disconnecting devices.

Section 34.18 Rubber gloves, sleeves and hot boots SHALL be worn and approved hot line tools SHALL be used to perform discharging and grounding operations.

Section 34.19 When work is to be performed on a de-energized cable in a primary compartment, all exposed energized equipment in that compartment SHALL be covered with approved protective equipment.

Section 34.20 Never under any circumstances should the system neutral conductor be opened.

##### UD #2 - Working Within Pad-Mounted Enclosures

Section 34.21 Rubber gloves, sleeves and hot boots SHALL be worn when working in pad-mounted enclosures on energized equipment and secondary pedestals.

Section 34.22 Approved protective equipment SHALL be used on all exposed terminals energized at 500 volts or less, when working on adjacent terminals energized at 500 volts or less.

Section 34.23 Before performing work on a de-energized secondary terminal of a pad-mounted transformer, the terminals SHALL be tested and grounded.

Section 34.24 All doors to pad-mounted enclosures SHALL be removed or firmly secured while work is being performed.

Section 34.25 The oil compartment cover plate on transformers SHALL NOT be removed.

#### UD #3 - Working on Primary Cables and Grounding

Section 34.26 Before any work is performed on a high voltage cable requiring that the cable be disconnected, but ungrounded, it SHALL be properly drained of all static charge, as follows:

- A. Properly clear cable from all possible sources of electrical supply.
- B. Check the terminals for normal voltage with the use of an approved potential detector device.
- C. Ground the cable, by approved hot line methods, to a solid ground for not less than two minutes, then remove ground and proceed with work.
- D. Work involving the testing by AC or DC above normal service voltage, retention of charge may be longer than two minutes and may be re-established after being grounded. Therefore, cable SHALL be checked as in "B" and "C" above, until it is determined that no charge is re-established.

Section 34.27 All cables SHALL be considered as energized until each has been properly tested to be de-energized and discharged and properly grounded.

Section 34.28 Before beginning work on a cable which is de-energized, the cable SHALL be grounded at the cable terminations on both sides and as close as possible where the work is to be performed.

Section 34.29 The grounding device SHALL be connected to ground before being connected to the cable. When removing the grounding devices, they SHALL be disconnected from the cable before the ground connections are removed.

#### UD # 4 - Operating UD Switches and Fuses

Section 34.30 Due to loop characteristics of UD circuits, disconnect blades or fuses SHALL be considered energized when in the open position until tested and grounded.

Section 34.31 Cable faults SHALL be sectionalized only by use of a pole-mounted switch, a pole-mounted fused cutout or an approved fault closing device.

Section 34.32 When energizing a section of cable, a pole-mounted switch or a pole-mounted fuse cutout or an approved fault closing device SHALL be used.

Section 34.33 Switches and fuses in pad-mounted equipment SHALL NOT be used to pick-up load unless they are rated as load make devices.

Section 34.34 Switches and fuses used in pad-mounted equipment to interrupt load SHALL be rated as load break devices.

#### UD #5 - Protecting the Public

Section 34.35 Accessible, energized compartment of UD installations SHALL be closed and locked at all times, except when opened for inspection, maintenance use or other authorized purposes.

Section 34.36 If it should be necessary to leave an energized compartment unattended for even a short period, the compartment SHALL be closed and locked.

Section 34.37 An employee SHALL keep unauthorized persons away from the work area by company attendant(s), approved barricades, safety markers or a combination of these.

#### UD #6 - Confined Spaces

Section 34.38 All employees who must work in confined spaces such as vaults or manholes shall verify the space is safe for entry. Employees entering a confined space shall, at a minimum, comply with the requirements of the OSHA Confined Space Standard, 1910.146, and shall be trained on these requirements prior to entry of any confined space.

Section 34.39 Atmospheric conditions of all confined spaces shall be tested prior to entry with a calibrated direct reading instrument for the following conditions in the order given:

1. Oxygen content (between 19.5 & 23.5% is acceptable)
2. Flammable gases and vapors (less than 10% of it's (LFL) Lower Flammability Limit)
3. Any potential toxic air contaminates (ex: Carbon monoxide, hydrogen sulfide or any other contaminate the could produce an IDLH (Immediately Dangerous to Life & Health) atmosphere).

Atmospheric testing shall be conducted continuously while work is being done in the confined space, even if forced in ventilation is being used. If an unsatisfactory condition is detected during entry all employees shall immediately leave the space. The space shall be tested again if the work crew leaves the space and then re-enters at a later time during the shift (example: lunch break).

All "hotwork" using flames or spark producing equipment requires a permit to be issued by the entry supervisor.

- A. Before opening a manhole, test through the holes in the cover if possible; otherwise, pry up the edge of the cover to permit passage of the sampling tube.
- B. If a confined space is found to contain a hazardous atmosphere the entry supervisor shall record the readings on the permit.
- C. No entry is permitted if the space is found to have a hazardous atmosphere until forced ventilation and subsequent testing verifies the space is safe to enter. Continued forced ventilation from a clean source shall be maintained as long as work is in progress.
- D. Whenever entering a confined space it must be controlled by forced ventilation or other hazards exist that cannot be controlled by feasible engineering and work practice controls, the employer shall ensure all necessary communication and rescue equipment, personal protective equipment, lighting and any other equipment necessary for safe entry and rescue from a permit space is available.

Section 34.40 An employee (attendant) shall be stationed at the surface of an open manhole or vault while work is being performed in that space. The aforesaid employee shall not leave the location unattended unless the entrants exit the space.

Section 34.41 Materials and equipment shall be placed away from the opening of the space so not to create a hazard of falling or spilling onto the employees or impeding any necessary rescue measures that may be undertaken.

Section 34.42 When working in manholes, a guard of sufficient height must be placed completely around the entrance, to prevent anyone from falling into the manhole.

Section 34.43 When doing trenching and shoring, when doing any underground work the employee shall follow all OSHA standards.

#### ARTICLE XXXV

##### SCAFFOLDS

Section 35.01 Scaffolds shall be constructed to conform to the General Safety Standards covering scaffold construction or as recommended by the National Safety Council and MIOSHA.

#### ARTICLE XXXVI

##### GROUNDING

Section 36.01 Protective grounds shall be applied to de-energized lines for protection against static, lightning, crosses with foreign current, as well as for accidental energizing from normal sources of power.

Section 36.02 After a clearance has been secured on a circuit or apparatus, the workman in charge shall see that the line is properly tested to insure that it is de-energized, before placing proper grounding cables for the protection of his men. The grounding cables or sets shall be of such type that a positive connection will, under all conditions, be maintained between the ground and all phase wires. In a case of emergency, or where grounds are required for an indefinite period, a positive connection may be made with wire, "bare or insulated", with approved connectors or clamps. These grounding cables should be placed on either side of the point of work and at other points where it is deemed advisable. Such grounding devices should always be placed by the use of live-line tools. The grounds shall be connected at the ground connection first, and secondly, on the phase or apparatus to be grounded. The workmen in charge of crews working on transmission circuits or apparatus must not depend upon station switches for protection, but must always provide proper protective grounds.

Section 36.03 When using grounds to normally live parts, the grounds must always be removed from the normally live part before breaking the ground connections. Such grounding devices should always be removed by the use of live-line tools.

Section 36.04 Upon completion of his work and after assuring himself that all men under his supervision are clear, the foreman or workman in charge shall direct the removal of all protective grounds placed by him and report to the person from whom he received the clearance.

ARTICLE XXXVII

VEHICLES

Section 37.01 No operator of an employer's vehicle while on duty, shall consume or be under the influence of any drugs or alcoholic beverage.

Section 37.02 Employees shall familiarize themselves with and obey the motor vehicle laws of the city, county and state. They will be held PERSONALLY RESPONSIBLE for all traffic law violations.

Section 37.03 No employee shall move or operate any employer's vehicle unless it is his specific duty to do so.

Section 37.04 Before driving an employer's vehicle, the driver shall make a test of brakes, steering gear, lights and horn. If it is in defective condition, it shall be reported to the supervisor in charge in order that the necessary repairs can be made. The employer shall make every effort to keep all equipment in good repair.

Section 37.05 Operators of employer's vehicles should be courteous under all circumstances. Insistence upon the right of way, road hogging or refusing to allow room for another vehicle to pass are actions of discourtesy and reflect discredit upon both the employer and the operator. Under no circumstances should the operator argue with pedestrians or operators of other vehicles. Such actions offset all efforts to retain the goodwill of the public.

Section 37.06 No motor vehicle owned by the employer shall be driven in a careless or reckless manner so as to endanger life, limb, property or cause damage to the vehicle.

Section 37.07 The privilege of operating employer-owned vehicles may be withdrawn if the operator continues to abuse such privilege by careless or unlawful practices.

Section 37.08 No employees are permitted to pick-up hitch-hikers while driving an employer's vehicle.

Section 37.09 Workmen shall be seated within the body walls of a moving vehicle. Riding with feet hanging over the rear or side of an open vehicle and boarding or dismounting from a moving vehicle are prohibited.

Section 37.10 When winches on truck or tractors are being used to raise poles, material, pull in wires, pull slack or any other operation, the operator shall not leave the controls without first stopping the machinery.

Section 37.11 Prearranged signals shall be used in all cases. Truck operators shall not use the winch without a signal man in plain view and without a fully understood signal.

Section 37.12 Foremen shall insure that "men working" signs are placed at a proper distance at the front and rear of the vehicle or work areas located along any roadway or whenever necessary.

## ARTICLE XXXVIII

### PRECAUTIONS

Section 38.01 If workmen are not familiar with the voltage and position of circuits to be worked on, they shall get proper information from the foreman before starting to work. The foreman in charge of the job shall assure himself that the workman fully understands the nature of the work to be done.

Section 38.02 When workmen are working overhead, employees working on the ground shall not engage in work directly beneath where they are exposed to danger of falling objects.

Section 38.03 Tools and material must not be thrown from the ground to a workman aloft. Workmen must never drop tools and material from aloft to the ground. When not in use, tools and material shall be kept in their proper place.

Section 38.04 Every employee assigned to work must remember that while on duty he is engaged in work which is perfectly safe when all precautions are taken, but which becomes dangerous through carelessness, chance-taking and "horse-play". "Horse-play" shall never be allowed.

Section 38.05 Employees must wear suitable clothing (minimum requirements; T-shirt, long leg pants and gloves) for their work. Ragged sleeves, loose ties and other parts of clothing or other items that can be caught in machinery, shall not be worn. All workmen shall wear sturdy work shoes. (Safety shoes are recommended).

Section 38.06 Employees are cautioned against the dangerous practice of wearing finger rings, watch chains, metal bracelets and necklaces while at work.

Section 38.07 Good housekeeping in the workshop, whether it be a garage, storeroom, line truck, plant or yard, is essential to safe and efficient work. Where materials are not carefully arranged or there is accumulated rubbish, stumbling and falling accidents are bound to occur. Properly arranged tools help prevent loss.

Section 38.08 When workmen are working at night, adequate lighting shall be provided to permit them to do their work with the least practical degree of danger.

Section 38.09 When jobs present unusual hazards not covered by these rules or the rules of the employer, the foreman and workmen shall discuss the problem and arrive at a method which in their judgement will provide the greatest degree of safety. The foreman's decision shall prevail in such cases.

Section 38.10 When it is necessary for workmen to ride spans, the only chairs to be used are those of an accepted design made by a reputable manufacturer.

Section 38.11 A lineman shall always use his climbers when descending from a pole. He shall not drop, jump or coast.

Section 38.12 A body belt with safety belt, safety rope or lanyard shall be worn by an employee working at an elevated location, such as a pole, tower, or other structure. Their use is not required while climbing or changing work locations.

Section 38.13 Use of personal cell phones shall be limited to breaks and lunch periods only. Cell phones shall be stored in vehicles during working hours, unless directed otherwise by the employer. Employer is defined as classifications as Foreman and above.



ARTICLE XXXIX

FIRST AID

Section 39.01 First Aid is the immediate temporary treatment given in case of injury or sudden illness before the services of a physician can be secured.

Section 39.02 The duty of the "first aider" ends where the physician's begins, and there should be no clash of interest between the physician and the first aider.

Section 39.03 All first aid treatment should be in accordance with instructions set forth in the Red Cross First Aid Manual.

Section 39.04 First Aid Kits in a weatherproof container with individual sealed package for each item with first aid instructions or Red Cross First Aid Manuals shall be furnished on all trucks and at show-ups and such kits shall be kept adequately stocked.

Section 39.05 Some accepted forms of artificial respiration are: mouth to mouth, arm lift-back pressure, Schaeffer prone pressure, pole top, etc.

Section 39.06 Telephone numbers of Med Centers, Hospitals or Ambulances shall be posted on all truck dashboards and job sites in a conspicuous place.

Section 39.07 There shall be one person on each crew, and when possible two employees on jobsite who is available for the treatment of injured employees, who have a valid certificate in first-aid training from the U.S.A. Bureau of Mines, the American Red Cross or equivalent training that can be verified by documentary evidence.

ARTICLE XXXX

BARE HAND WORK

GENERAL WORK RULES

Section 40.1

1. One barehanded certified lineman shall be in charge.
2. The Minimum barehand crew shall consist of three barehand qualified linemen, one of which shall be the designated safety watch.
3. a. Written procedures (approved by a barehand certified foreman or supervisor) must be provided to the crew prior to initiation of work for each different type of barehand procedure or situation.  
b. Written procedures should not be changed while the work is in progress. If due to unforeseen circumstances a minor change is required in procedures, the job shall be halted, and only through consultation of the whole crew, insuring that everyone fully understands the required change, work may proceed. If a substantial change is contemplated, the supervisor or foreman must be consulted, and approve of such change.

## WORKING CLEARANCES

Section 40.2 When working from an aerial lift, there shall be two men in the bucket. Figures 1 thru 4 show an aerial device as the insulated component to put the men at the conductor. The same clearances are required when using other means such as ladders, helicopters or rope to gain access to the conductor.

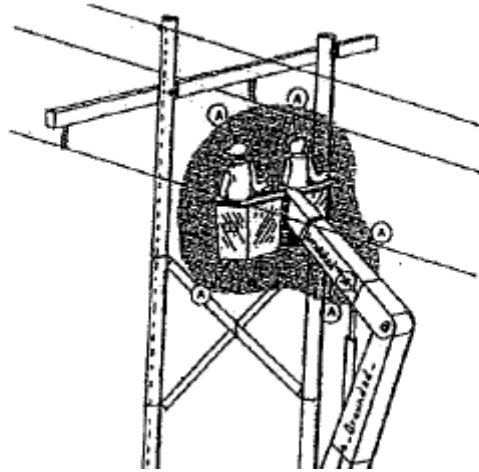


Fig. 1 A-is the minimum phase to ground clearance

- a. No portion of the grounded section of the aerial lift equipment is permitted to be less than phase-to-ground clearance to an energized conductor.

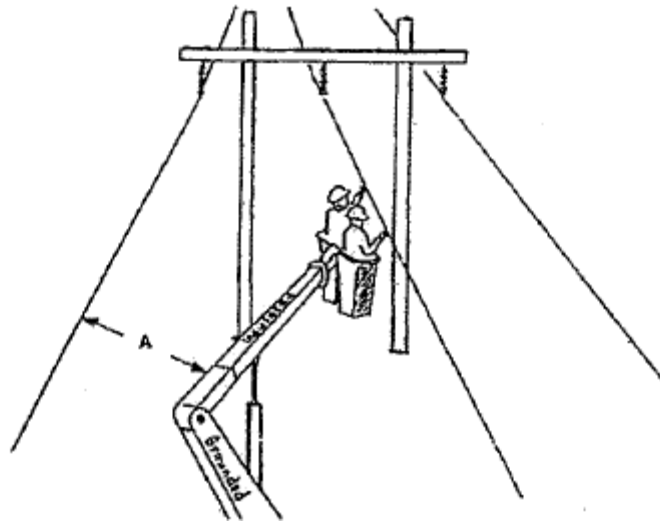


Fig. 2 A-is the minimum phase to ground clearance

- b. No portion of the insulated section of the aerial-lift equipment is permitted to be less than the phase-to-ground clearance from an external grounded part, or from any grounded parts such as the lower arm sections or portions of the vehicle.

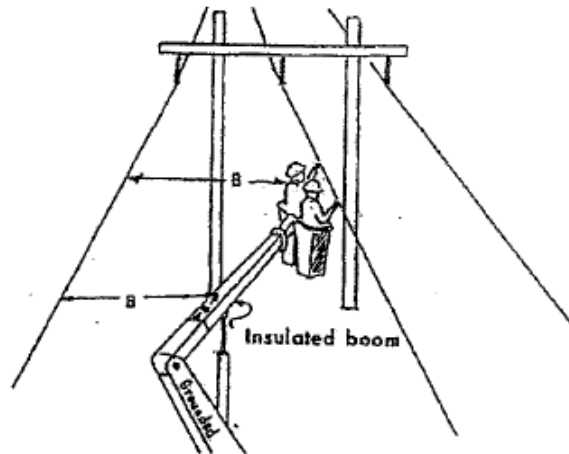


Fig. 3 B-is the minimum phase to phase clearance

- c. No portion of a workman, material, tools aerial platform, or insulated section of the aerial lift equipment is permitted to be less than phase-to-phase clearance to another energized conductor.
- d. When positioning the bucket alongside an energized insulator string, a minimum phase-to-ground clearance requirement shall be maintained between all parts of the bucket, the insulator string, and ground. When working the energized end of the insulator string, the bucket must be positioned so that the bucket or worker shunts no portion of the insulator string.
- e. When positioning buckets over an energized circuit, clearances must take into account the length of the bonding and wanding clamps should the inadvertently hang free. (The wand and clamps cannot hang more than 20" from the bottom of the bucket).

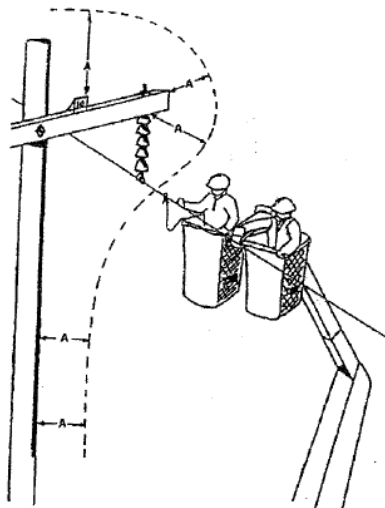


Fig. 4 A-is the minimum phase to ground clearance

During barehand contact with live electrical lines and/or apparatus the limits of approach of all persons, tools, equipment and material they may be handling with respect to objects at ground potential or phase-to-phase potential shall be as specified in the following chart; **but in no case less than 3 feet**. This includes poles, towers, crossarms, or conductors other than the one on which they are working.

Limit of Approach to Live Conductors				
Voltage Range	Distance (FT-IN)		Above 3000' Altitude	
	Phase to Ground	Phase to Phase	Phase to Ground	Phase to Phase
1.1 to 15.0	2-1	2-2	2-6	2-7
15.1 to 36.0	2-4	2-7	2-10	3-1
36.1 to 46.0	2-7	2-10	3-1	3-5
46.1 to 72.5	3-0	3-6	3-7	4-2
72.6 to 121	3-2	4-3	3-10	5-1
138 to 145	3-7	4-11	4-4	5-11
161 to 169	4-0	5-8	4-10	6-10
230 to 242	5-3	7-6	6-4	9-0
345 to 362	8-6	12-6	10-2	15-0
500 to 550	11-3	18-1	13-6	21-7
765 to 800	14-11	26-0	17-11	31-2

Note: Information drawn from OSHA Table R-6 with applicable switching surges included.

Note 1: These distances take into consideration the highest switching surge an employee will be exposed to on any system with air as the insulating medium and maximum voltages shown.

Note 2: The clear live-line tool distance shall equal or exceed the values for the indicated voltage ranges.

Note 3: The above chart takes into account the correction factor of 1.20 applied to OSHA's minimum approach distances. This requirement at elevations greater than 3,000 ft. but not more than 10,000 ft. above mean sea level.

**No barehand work procedure can violate these work rules.**

#### SAFE WORKING LOAD OF BUCKETS

Section 40.3 The buckets and upper insulated boom shall not be used to lift or support weights in excess of its rated capacity. To protect the fiberglass parts, none of the bucket parts or upper arm shall be used as a fulcrum for prying or lifting.

#### CONDUCTIVE CLOTHING

#### Section 40.4

- a. When working on any live line bare handed work, and working on any insulated aerial device, the lineman shall wear a complete conductive clothing kit as a minimum requirement.

- b. When working from an insulated ladder, helicopter or rope support system the lineman shall wear the complete conductive clothing kit.
- c. Linemen involved in barehand procedures, though not bonded to the line but performing work on the structure may wear conductive clothing to eliminate discomforting current discharges.
- d. Leather protective gloves, as part of the kit, shall be worn over conductive gloves.
- e. Conductive clothing shall be worn on the outside of personal clothing, except for in Item d.

#### ADVERSE WEATHER CONDITIONS

Section 40.5 Live line maintenance should not be performed during adverse weather conditions.

#### NONCONDUCTIVE ROPE

##### Section 40.6

- a. Only nonconductive rope that has been tested electrically to ensure its integrity shall be used for barehand work.
- b. Nonconductive rope used as hot rope in barehand work shall be stored in approved, appropriately marked containers.
- c. Nonconductive rope used in barehand work shall be tested daily, or when ever there is any question as to its dielectric quality.
- d. Nonconductive rope used in barehand work shall not be permitted to contact the ground in order to prevent the accumulation of dirt and moisture between the fibers. Approved storage containers and tarps are utilized in the prevention of this occurrence.

#### SUPPORTING CONDUCTOR WITH AERIAL DEVICE (TANGENT STRUCTURES ONLY)

Section 40.7 Calculate the conductor weight prior to supporting the conductor in the jib. Ensure that the boom capacity is not exceeded when handling a conductor with the jib. When moving a conductor to a different location, prior to attaching jib to the conductor, move boom to the extreme location you wish to move the conductor to, and check the load chart at that location. Make sure the capacity of the boom will not be exceeded at any point.

#### BOND PROCEDURE

##### Section 40.8 Install Bonding to the Circuit

- a. Approach the conductor to within a safe limit. The distance must be far enough away so that inadvertent contact will not be made, yet close enough that the lineman "bonding on" can easily reach out with the bonding wand, with a positive movement, and install it onto the conductor. The lineman who is not operating the aerial device (rider) uses the wand to make the initial bond to the circuit.

**Caution: THINK OUTLOUD. Tell your fellow workman what you are going to do and wait for his acknowledgement before you act.**

- b. The operator installs his bonding clamp when in the working position, and insures that the bonding clamp remains connected to the circuit by grasping it with his hand.
- c. The second bonding clamp is then installed.
- d. Remove the wand and store inside the bucket.
- e. Then work may proceed.

Section 40.9 Moving Bonding Clamps

When moving a short distance and the bonding clamps have to be moved one lineman shall always retain his bonding clamp to the circuit by grasping it with his hand while the other lineman moves his bonding clamp to the new position.

Section 40.10 Remove Bonding from the Circuit

- a. The operator of the aerial device retains his bonding clamp to the circuit by grasping it with his hand.
- b. The rider lineman installs the wand and removes his bonding clamp.
- c. The operator's bonding clamp is removed.
- d. Back the aerial device away from the work area and remove the wand from the circuit.

In the event of the horn sounding, standard removal procedures need not be followed: E.g. Back the buckets away pulling the bonds off, or disconnecting the bonds by hand without the use of wands.

Lineman bonding on to or off of energized circuit shall notify any linemen on adjacent wood structures of their intentions before doing so. They in turn will remain clear of any grounds or metallic objects to eliminate the hazards from shocks.

MAXIMUM ALLOWABLE LEAKAGE CURRENTS

Section 40.11 Industry standard recommend maximum allowable leakage currents of 1 microampere per kV of Phase to Ground voltage for a 3-minute test.

Phase to Phase Voltage	Phase to Ground Voltage	Max. Allowed Leakage Current
69kV	40kV	40 microamps
115kV	67kV	67 microamps
138kV	80kV	80 microamps
161kV	94kV	94 microamps
230kV	133kV	133 microamps
345kV	200kV	200 microamps
500kV	289kV	289 microamps

ARTICLE XXXXI

LIVE LINE TOOLS

Section 41.1 Working by Live Line Tool Method:

- a. Workers shall not go, or take any conducting objects without the aid of live line tools, within the distances specified in Table 1.01.

**Table 1.01**

Nominal System kV (Phase-to-Phase)	Minimum Approach Distance	
	Phase-to-Ground	Phase-to-Phase
0.05-1.0	Avoid Contact	Avoid Contact
1.1-15	2-1	2-2
151-36	2-4	2-7
36.1-46	2-7	2-10
46.1-72.5	3-0	3-6
72.6-121	3-2	4-3
138-145	3-7	4-11
161-169	4-0	5-8
230-242	5-3	7-6
345-362	8-6	12-6
500-550	11-3	18-1
765-800	14-11	26-0

- b. When working with live line tools on lines or equipment energized at 345 kV or above, all relevant circuit breakers shall be set on manual operation.

**Table 1.02**

Nominal System kV	Minimum Insulation	
	Feet	Inches
46KV and Below	3	0
72.5kV	3	6
138RV	4	0
345kV	9	4
500kV	12	4
765kV	17	0

- c. Conductor support tools such as link sticks, strain carriers and insulator cradles may be used, provided that the clear insulation is at least as long as the insulator string or the minimum distance specified in Table 1.02 for the operating voltage. Guards or markers conforming to the clearances given in Table 1.02 shall be placed on live line tools except conductor support tools such as link sticks, strain carriers and insulator cradles. For voltages of less than 69 kV, the guard or marker clearances may be reduced to, but in no case less than, the distances specified in Table 1.01.
- d. Live line tools, insulating working supports and electrical guards shall be wiped clean and visually inspected for defects before use each day. If a defect or contamination that could adversely affect the insulation qualities of the tool is found, the tool shall be removed from service until cleaned and waxed; or repaired, refinished and electrically tested before use as required.
- e. Live line tools shall have their surfaces kept sealed or other steps shall be taken to ensure that the tools remain dry.

- f. Live line tools used for primary employee protection shall be removed from service every two (2) years. A complete visual inspection, cleaning, and waxing of the tool shall be performed. The biennial inspection of hollow fiberglass reinforced plastic (FRP) live line tools shall include electrical testing.
- g. When working with live line tools and clearances required by Table 1.01 cannot be maintained to energized equipment not being worked on, barriers providing the clearances specified in Table 1.03.

**Table 1.03**

Nominal System Voltage	Phase-to-Ground Inches	Phase-to-Phase Inches
15kV and below	1	2
15.1 to 36kV	4	7
36.1 to 46 KV	7	10
46.1 to 72.5kV	12	18

- h. When working from ladders at system voltages of 138 kV and above, workers may require shielding.

ARTICLE XXXXII

OSHA BARE HANDED STANDARDS

Section 42.1

**1910.269 (q) (3)**

"Live-line bare-hand work." In addition to other applicable provisions contained in this section, the following requirements apply to live-line bare-hand work:

**1910.269 (q) (3) (i)**

Before using or supervising the use of the live-line bare-hand technique on energized circuits, employees shall be trained in the technique and in the safety requirements of paragraph (q) (3) of this section. Employees shall receive refresher training as required by paragraph (a) (2) of this section.

**1910.269 (q) (3) (ii)**

Before any employee uses the live-line bare-hand technique on energized high-voltage conductors or parts, the following information shall be ascertained:

**1910.269 (q) (3) (ii) (A)**

The nominal voltage rating of the circuit on which the work is to be performed,

**1910.269 (q) (3) (ii) (B)**

The minimum approach distances to ground of lines and other energized parts on which work is to be performed, and

**1910.269 (q) (3) (ii) (C)**

The voltage limitations of equipment to be used.

**1910.269 (q) (3) (iii)**

The insulated equipment, insulated tools, and aerial devices and platforms used shall be designed, tested, and intended for live-line bare-hand work. Tools and equipment shall be kept clean and dry while they are in use.

**1910.269 (q) (3) (iv)**

The automatic-reclosing feature of circuit-interrupting devices protecting the lines shall be made inoperative, if the design of the devices permits.



**1910.269 (q) (3) (v)**

Work may not be performed when adverse weather conditions would make the work hazardous even after the work practices required by this section are employed. Additionally, work may not be performed when winds reduce the phase-to-phase or phase-to-ground minimum approach distances at the work location below that specified in paragraph (q) (3) (xiii) of this section, unless the grounded objects and other lines and equipment are covered by insulating guards.

Note: Thunderstorms in the immediate vicinity, high winds, snow storms, and ice storms are examples of adverse weather conditions that are presumed to make live-line bare-hand work too hazardous to perform safely.

**1910.269 (q) (3) (vi)**

A conductive bucket liner or other conductive device shall be provided for bonding the insulated aerial device to the energized line or equipment.

**1910.269 (q) (3) (vi) (A)**

The employee shall be connected to the bucket liner or other conductive device by the use of conductive shoes, leg clips, or other means.

**1910.269 (q) (3) (vi) (B)**

Where differences in potentials at the worksite pose a hazard to employees, electrostatic shielding designed for the voltage being worked shall be provided.

**1910.269 (q) (3) (vii)**

Before the employee contacts the energized part, the conductive bucket liner or other conductive device shall be bonded to the energized conductor by means of a positive connection. This connection shall remain attached to the energized conductor until the work on the energized circuit is completed.

**1910.269 (q) (3) (viii)**

Aerial lifts to be used for live-line bare-hand work shall have dual controls (lower and upper) as follows:

**1910.269 (q) (3) (viii) (A)**

The upper controls shall be within easy reach of the employee in the bucket. On a two-bucket-type lift, access to the controls shall be within easy reach from either bucket.

**1910.269 (q) (3) (viii) (B)**

The lower set of controls shall be located near the base of the boom, and they shall be so designed that they can override operation of the equipment at any time.

**1910.269 (q) (3) (ix)**

Lower (ground-level) lift controls may not be operated with an employee in the lift, except in case of emergency.

**1910.269 (q) (3) (x)**

Before employees are elevated into the work position, all controls (ground level and bucket) shall be checked to determine that they are in proper working condition.

**1910.269 (q) (3) (xi)**

Before the boom of an aerial lift is elevated, the body of the truck shall be grounded, or the body of the truck shall be barricaded and treated as energized.

**1910.269 (q) (3) (xii)**

A boom-current test shall be made before work is started each day, each time during the day when higher voltage is encountered, and when changed conditions indicate a need for an additional test. This test shall consist of placing the bucket in contact with an energized source equal to the voltage to be encountered for a minimum of 3

minutes. The leakage current may not exceed 1 microampere per kilovolt of nominal phase-to-ground voltage. Work from the aerial lift shall be immediately suspended upon indication of a malfunction in the equipment.

**1910.269 (q) (3) (xiii)**

The minimum approach distances specified in Table R-6 through Table R-10 shall be maintained from all grounded objects and from lines and equipment at a potential different from that to which the live-line bare-hand equipment is bonded, unless such grounded objects and other lines and equipment are covered by insulating guards.

**1910.269 (q) (3) (xiv)**

While an employee is approaching, leaving, or bonding to an energized circuit, the minimum approach distances in Table R-6 through Table R-10 shall be maintained between the employee and any grounded parts, including the lower boom and portions of the truck.

**1910.269 (q) (3) (xv)**

While the bucket is positioned alongside an energized bushing or insulator string, the phase-to-ground minimum approach distances of Table R-6 through Table R-10 shall be maintained between all parts of the bucket and the grounded end of the bushing or insulator string or any other grounded surface.

**1910.269 (q) (3) (xvi)**

Hand lines may not be used between the bucket and the boom or between the bucket and the ground. However, non-conductive-type hand lines may be used from conductor to ground if not supported from the bucket. Ropes used for live-line bare-hand work may not be used for other purposes.

**1910.269 (q) (3) (xvii)**

Uninsulated equipment or material may not be passed between a pole or structure and an aerial lift while an employee working from the bucket is bonded to an energized part.

**1910.269 (q) (3) (xviii)**

A minimum approach distance table reflecting the minimum approach distances listed in Table R-6 through Table R-10 shall be printed on a plate of durable non-conductive material. This table shall be mounted so as to be visible to the operator of the boom.

**1910.269 (q) (3) (xix)**

A non-conductive measuring device shall be readily accessible to assist employees in maintaining the required minimum approach distance.

**1910.269 (q) (4)**

"Towers and structures." The following requirements apply to work performed on towers or other structures which support overhead lines.

**1910.269 (q) (4) (i)**

The employer shall ensure that no employee is under a tower or structure while work is in progress, except where the employer can demonstrate that such a working position is necessary to assist employees working above.

**1910.269 (q) (4) (ii)**

Tag lines or other similar devices shall be used to maintain control of tower sections being raised or positioned, unless the employer can demonstrate that the use of such devices would create a greater hazard.

**1910.269(q) (4) (iii)**

The loadline may not be detached from a member or section until the load is safely secured.

**1910.269(q) (4) (iv)**

Except during emergency restoration procedures, work shall be discontinued when adverse weather conditions would make the work hazardous in spite of the work practices required by this section.

Note: Thunderstorms in the immediate vicinity, high winds, snow storms, and ice storms are examples of adverse weather conditions that are presumed to make this work too hazardous to perform, except under emergency conditions.