

S A F E T Y M A N U A L

AGREEMENT NO. 6-1393-A
AGREEMENT NO. 6-1393-D

AMERICAN LINE BUILDERS CHAPTER NECA

AND

INTERNATIONAL BROTHERHOOD OF

ELECTRICAL WORKERS

REVISED 10-2-08

These Safety Rules are published as a Manual to acquaint all workers with fundamental safety precautions. They do not contain the comprehensive language of the Occupational Safety and Health Act Standards and are not to be taken outside the context of OSHA requirements under which construction safety is based.

S A F E T Y R U L E S

FOREWORD

The prevention of accidents to himself, to his fellow workers and to the public is a responsibility which every man must accept as soon as he enters into the employment of any Employer.

These rules have been made in the interest of the safety of all electrical workers and the public. By co-operating in the enforcement of and obedience to these rules, employees and the public will be better protected and the operation of all Employers made safer.

Each employee shall be provided with a copy of "Safety Rules." He shall carefully study and observe these Rules. These rules shall 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 workers.

When working on the properties of the various customers who require all work to be performed according to their safety regulations, a copy of any specific rules of the customer or customers to be enforced will be furnished to the employee. Otherwise these Rules shall supplement the specific rules of the Employer.

ARTICLE XX

INTOXICATING BEVERAGES

Section 20.01 The use of intoxicating beverages by any employee while on duty on the Employer's premises, or in charge of Employer's property, is strictly prohibited. Any employee reporting for duty under the influence of liquor and any "foreman" who knowingly permits an employee to go to work while under the influence of liquor will be subject to discipline.

ARTICLE XXI

REPORTING HAZARDS

Section 21.01 Any and every employee shall report to his immediate superior any dangerous or defective equipment and any hazardous condition and/or practice and the superior shall immediately investigate the reported condition. If the investigation reveals a hazardous or dangerous condition, he shall take the necessary steps to correct such condition.

ARTICLE XXII

SAFETY MEETINGS

Section 22.01 The Employer shall arrange an appropriate schedule for safety meetings.

Section 22.02 It may be required that employees spend a part of the showup time for safety meetings.

Section 22.03 The Employer shall have available suggestive topics for discussion at such meetings.

Section 22.04 There shall be at least one certified CPR trained employee on each crew working under this agreement. This employee shall be tested on CPR on an annual basis.

ARTICLE XXIII

USE AND INSPECTION OF TOOLS

Section 23.01 All linemen's personal tools and equipment shall be of standard acceptable design produced by a reliable manufacturer and the Employer will require that all such tools and equipment be in good condition.

Section 23.02 Body belts shall have no exposed metal parts next to the body.

Section 23.03 Linemen's belts shall be used for no other purpose than that for which they are intended.

Section 23.04 Body and safety belts shall be inspected periodically for condition of leather, leather near the holes, rivets, stitches, buckles, D rings and snaps.

Section 23.05 Climber straps shall be inspected frequently and shall be maintained in good condition at all times. Straps which are defective shall be replaced.

Section 23.06 The use of pads is recommended.

Section 23.07 The gaffs of climbers shall be maintained sharp. When climber gaffs are less than 1 1/8" in length, they shall be replaced.

Section 23.08 When climbers are not in use, they shall be stored in the proper place on the truck.

Section 23.09 Climbers shall not be worn when linemen are traveling to and from the job, piking poles, or on the ground for a great length of time.

Section 23.10 Defective or condemned tools and equipment shall not be carried on the job or on the truck.

ARTICLE XXIV

PROTECTIVE EQUIPMENT

Section 24.01 Rubber protective equipment shall be kept in a dry compartment where no other tools are stored when not in use. Any patches used on such rubber protective equipment shall pass the same dielectric tests as the rubber protective equipment itself. Rubber gloves shall not be patched.

Section 24.02 Rubber protective equipment shall not be allowed to contact oil or grease.

Section 24.03 Do not use artificial heat to dry rubber protective equipment except by factory approved methods.

Section 24.04 Rubber blankets shall not be folded for storage. They may be stored either rolled or flat.

Section 24.05 All rubber protective equipment shall be inspected frequently for defects and periodically must be tested electrically at the laboratory and if found defective shall be rendered unfit for further use by the party making the laboratory test. Maximum required test periods shall be 90 days for gloves and sleeves and 6

months for blankets. Hose and hoods shall be inspected visually and discarded when excessive damage is found.

Section 24.06 When working on or near live conductors or other live apparatus operating at voltages above 300 volts, the use of rubber protective equipment for protection is positively required.

Section 24.07 Rubber protective equipment shall be used on lower voltages when it is deemed necessary.

Section 24.08 Rubber gloves must be kept in a canvas glove bag when not in use.

Section 24.09 All gloves shall be given an air test before being used, and rubber gloves shall never be worn inside out.

Section 24.10 Leather protector gloves shall always be worn over rubber gloves.

Section 24.11 All employees must wear hard hats.

Section 24.12 Insulated platforms shall be treated and stored as protective equipment.

ARTICLE XXV

LIVE-LINE TOOLS

Section 25.01 The first 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 25.02 The second method, which may be used on borderline voltages, is a combination method whereby an insulated platform and rubber protective equipment both are used. In this method, the lineman does not use line tools but depends for this protection on rubber protective equipment including rubber gloves and sleeves within the voltage being used suitable for the voltage worked on and on insulated platforms.

Section 25.03 "Hot Sticks" shall be inspected regularly, cleaned when necessary and stored in a safe, dry compartment.

Section 25.04 Workmen must at all times use extreme care in transporting and using tools so as not to damage them.

ARTICLE XXVI

EXPLOSIVES

Section 26.01 In the event explosives are to be used all federal and state regulations shall be followed.

ARTICLE XXVII

WORKING OLD POLES

Section 27.01 Before climbing a pole, particularly an old pole, a thorough inspection of the physical condition of the pole must be made.

Section 27.02 Before working on a pole in bad condition, it must be adequately guyed.

Section 27.04 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 27.05 In setting or pulling poles in or near energized lines, rubber protective equipment shall be used by the workmen.

ARTICLE XXVIII

LADDERS

Section 28.01 When a ladder is to be used, the employee shall make sure it is sufficiently strong for the use intended.

Section 28.02 Never place, or leave standing, ladders in such a way that they might fall over.

Section 28.03 Always face a ladder when climbing or descending.

Section 28.04 Don't attempt to carry material up or down a ladder if it interferes with the free use of both hands.

Section 28.05 Ladders must not be set up in streets, alleys, sidewalks or in industrial plants and in other places where the public or workmen are apt to run into them, unless there is a man stationed at the foot to hold the ladder and guard traffic.

Section 28.06 When working on a ladder workmen shall, whenever possible, tie the top of the ladder to a substantial object to prevent falling.

Section 28.07 Metal ladders or ladders with vertical metal reinforcing are prohibited for use on energized electrical work, except when metal running strips are needed for grounding linemen to the structures and thus avoiding static shock on extremely high voltage live-line work.

Section 28.08 Ladders shall not be painted in such way as to hide defects.

ARTICLE XXIX

WORKING ON ENERGIZED CIRCUITS

Section 29.01 Only workmen so authorized shall work on energized wires or equipment, and work shall always be done with the full use of suitable protective devices and observance of the Safety Rules.

Section 29.02 When work to be performed on energized wires requires workmen to reach past other wires to reach the ones to be worked upon, all wires between themselves and the wires to be worked upon shall be covered with approved rubber protective equipment. The protective equipment shall not be removed until the work is completed.

Section 29.03 Linemen shall wear rubber gloves and rubber sleeves while applying and removing protective equipment.

Section 29.04 Rubber gloves and rubber sleeves shall be worn at all times when on or near energized equipment, except while using live-line tools. In the latter

condition rubber gloves and sleeves may be worn if this added protection is considered necessary.

Section 29.05 All wires, including neutrals and guy wires, in the vicinity of energized work must also be covered with protective equipment.

Section 29.06 When stringing wire where pedestrian and vehicles are endangered, proper watchmen must be provided.

Section 29.07 (a) Where it is necessary to string wire near live lines, dry hand lines or other suitable means shall be provided and used.

Section 29.08 (b) Rubber gloves and rubber sleeves and other necessary equipment should always be furnished the workmen involved in this operation and, when so provided, used by workmen.

Section 29.09 Reel tenders shall be provided adequate protection including rubber gloves.

Section 29.10 In all work involving the handling and moving of energized primary wires on a pole, two linemen, or one lineman and a qualified apprentice, always work together on the pole, except when tying in or doing similar work. One man is all that is required for hot operations work, such as fusing, switching, etc..

Section 29.11 In no case when working in pairs shall they work simultaneously on wires or parts of different phases.

Section 29.12 Workmen shall not stand on or otherwise be in contact with transformer cases while working on energized wires.

Section 29.13 Rubber shoes and shank guards shall be worn at all times when working on or near energized circuits.

ARTICLE XXX

UNDERGROUND DISTRIBUTION

INTRODUCTION

Section 30.01 UD, Underground Distribution, is a general term which covers the necessary facilities to furnish underground service generally to residential and commercial type customers.

Section 30.02 The safe practices, as outlined, are written on a "SHALL" or "should" basis and SHALL be observed in the same manner as the rules in the Safety Manual.

Section 30.03 Due to the close clearances and the construction of UD equipment, care must be exercised to insure that all supervisors and their employees are instructed in the proper procedures.

DEFINITIONS

Section 30.04 Pad-Mount - Equipment or device - surface mounted - normally worked from ground level.

Section 30.05 Primary Compartment - A compartment containing voltages above 500 volts.

Section 30.06 Secondary Compartment - A compartment containing voltage below 500 volts.

Section 30.07 URD Concentric Cable - A conductor insulated and shielded for operation above 500 volts - around which is wound a neutral of equal capacity, with no over-all covering.

Section 30.08 Power Cable - A conductor insulated and normally shielded, around which is an outer jacket, for operation above 500 volts.

Section 30.09 Secondary Cable - A conductor insulated for operation below 500 volts.

Section 30.10 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 30.11 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 30.12 Subsurface - Equipment or device below ground, normally worked from ground level.

Section 30.13 Subway - Equipment or device below ground, normally worked below ground level.

Section 30.14 Fault Closing Devices - A device capable of being closed into a faulted cable or transformer. The device SHALL meet the requirements of the client.

WORKING ON UD SYSTEMS

UD #1 General Rules

Section 30.15 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 30.16 Rubber gloves and sleeves SHALL be worn when opening any pad-mounted enclosures.

Section 30.17 Rubber gloves, sleeves and approved hot line tools SHALL be used when operating any underground device normally energized above 500 volts and is exposed, including fuses, elbows and any disconnecting devices.

Section 30.18 Rubber gloves and sleeves SHALL be worn and approved hot line tools SHALL be used to perform discharging and grounding operations.

Section 30.19 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 30.20 Never under any circumstances should the system neutral conductor be opened.

UD #2 - Working Within Pad-Mounted Enclosures

Section 30.21 Rubber gloves and sleeves SHALL be worn when working in pad-mounted enclosures on energized equipment and secondary pedestals.

Section 30.22 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 30.23 Before performing work on a de-energized secondary terminal of a pad-mounted transformer, the terminals SHALL be tested and grounded.

Section 30.24 All doors to pad-mounted enclosures SHALL be removed or firmly secured while work is being performed.

Section 30.25 The oil compartment cover plate on transformers SHALL NOT be removed.

UD #3 - Working on Primary Cables and Grounding

Section 30.26 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 by use of an approved potential detector device.

C. Ground the cable, by approved hot line methods, to a solid ground for not less than 2 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 30.27 All cables SHALL be considered as energized until each has been properly tested to be de-energized and discharged and properly grounded.

Section 30.28 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 30.29 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 30.30 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 30.31 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 30.32 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 30.33 Switches and fuses in pad-mounted equipment SHALL NOT be used to pick up load unless they are rated as load make devices.

Section 30.34 Switches and fuses used in pad-mounted equipment to interrupt load SHALL be rated as load break devices.

UD #5 - Protecting The Public

Section 30.35 Accessible, energized compartments of UD installations SHALL be closed and locked at all times except when opened for inspection, maintenance use, or other authorized purpose.

Section 30.36 If it should be necessary to leave an energized compartment unattended, for even a short period, the compartment SHALL be closed and locked.

Section 30.37 An employee SHALL keep un-authorized persons away from the work area; by Company attendant(s), approved barricades, safety markers, or a combination of these.

UD #6 - Manholes and Vaults

Section 30.38 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 30.39 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 periodically during the entry at a minimum of every two hours. 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 a space contains hazards that 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 30.40 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 30.41 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.

ARTICLE XXXI

SCAFFOLDS

Section 31.01 Scaffolds shall be constructed to conform to the OSHA Standards covering scaffold construction.

ARTICLE XXXII

GROUNDING

Section 32.01 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 32.02 After clearance has been secured on a circuit or piece of apparatus, the workmen in charge shall test line and place proper grounding cables for protection. The grounding cables or sets shall be of such type that a positive connection will 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. The grounding cables should be placed on either side of the point of work and at other points where it is deemed advisable. The grounds shall be connected at the ground connection first and secondly on the phase or apparatus to be grounded. the workman 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 32.03 When using grounds to normally live parts, the grounds must always be removed from the normally live parts before breaking the ground connections. Such grounding devices should always be placed by the use of rubber gloves or live-line tools, depending on the normal voltage.

Section 32.04 The foreman or workman in charge, upon completion of his work, after assuring himself that all men under his supervision are clear, shall remove all protective grounds placed by him and report to the person from whom he received the clearance.

ARTICLE XXXIII

VEHICLES

Section 33.01 No operator of an Employer's vehicle shall use or be under the influence of any alcoholic beverage while on duty.

Section 33.02 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 33.03 No employee shall move or operate any Employer's vehicle unless it is his specific duty to do so or unless he has permission from the person in charge of the vehicle.

Section 33.04 Before driving an Employer's vehicle, the driver shall make a test of brakes, steering gear, lights and horn. If the machine is in defective condition, report it at once to the foreman in charge so that the necessary repair can be made. The Employer shall make every effort to keep all equipment in good repair.

Section 33.05 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 the efforts of the Employer to retain the good will of the public.

Section 33.06 No motor vehicle owned by the Employer shall be driven in a careless or reckless manner or so as to endanger life, limb, property or cause damage to the vehicle.

Section 33.07 The privilege of operating Employer-owned vehicles may be withdrawn if the operator continues to abuse such privileges by careless or unlawful practices.

Section 33.08 No employees are permitted to pick up "hitch- hikers" while driving an Employer-owned vehicle.

Section 33.09 The practice of employees riding on fenders or running boards of vehicles is positively prohibited. Also prohibited is the practice of riding with feet hanging over the rear or side of truck bed and boarding or dismounting from a moving vehicle. The foreman will be held accountable for accidents resulting therefrom.

Section 33.10 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 stopping the machinery.

Section 33.11 Pre-arranged signals shall be used in all cases. Truck operators shall not use winch without a signal man in plain view and a fully understood signal.

ARTICLE XXXIV

GENERAL

Section 34.01 Linemen, before starting to work, if not familiar with the voltages and positions of the circuits to be worked on, shall get proper information from the foreman. The foreman in charge of the job shall satisfy himself that the workmen fully understands the nature of the work to be done.

Section 34.02 When linemen are working on poles, groundman working directly beneath them as helpers shall not dig or do any other work that exposes them to the danger of falling objects, due to their attention being drawn away from the work going on overhead.

Section 34.03 Tools and material must not be thrown from the ground to a lineman working aloft. Linemen 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 34.04 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 not be allowed while employees are going to or from work or while engaged in work.

Section 34.05 Employees must wear suitable clothing for their work. Ragged sleeves, loose ties and other parts of clothing that can be caught in machinery shall not be worn. Shoes without good soles shall never be worn. A shirt or jumper with full length sleeves, rolled down, shall be worn when working on poles, structures or energized lines or equipment.

Section 34.06 Employees are cautioned against the dangerous practice of wearing finger rings and watch chains while at work.

Section 34.07 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. Tools properly arranged on trucks help prevent the loss of equipment.

Section 34.08 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 when it is possible to do so.

Section 34.09 When jobs are to be done which present unusual hazards not covered by these Rules or the rules of the Employer, the foreman and workman shall discuss the problem and arrive at a method which in their judgment will provide the greatest degree of safety. The foreman's decision shall prevail in such cases.

Section 34.10 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 34.11 In coming down a pole, a lineman shall always use his climbers. He shall not "drop", "jump" or "coast."

Section 34.12 Whenever practical wire rope slings should be used in place of chain slings for catching off conductors, snatch blocks, etc.

Section 34.13 Lineman will be belted in at all times when working from a bucket.

Section 34.14 All cell phone use shall not be conducted while aloft.

ARTICLE XXXV

FIRST AID

Section 35.01 First aid is the immediate temporary treatment given in cases of injury or sudden illness before the services of a physician can be secured.

Section 35.02 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 35.03 All first aid treatment should be in accordance with the instructions set forth in the Red Cross First Aid Manual.

Section 35.04 First aid kits with first aid instructions or Red Cross First Aid Manual shall be furnished on all trucks and such kits will be kept adequately stocked.

Section 35.05 There shall be at least one certified First-Aid trained employee on each crew working under this agreement.

ARTICLE XXXVI

OPERATION AND USE OF AERIAL BASKET AND LADDER EQUIPMENT

INTRODUCTION

Section 36.01 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 during the use of aerial basket equipment.

PERSONNEL

Section 36.02 There shall be minimum of two men trained in the use of this equipment. One man shall be completely familiar with the operation of the hydraulic controls and capable of controlling the unit from the work basket. The other man shall be capable of controlling the boom and basket from the lower stationary controls and shall always remain accessible to operate the ground controls if the need arises.

TRAVEL PROCEDURE

Section 36.03 (a) Drivers of an aerial basket truck shall be constantly alert to the fact that the vehicle has exposed equipment above the elevation of the truck cab and provide necessary traveling clearance.

(b) Any backing of the truck shall be done slowly and under the guidance of one man on the ground who has an unobstructed view of the intended path of the vehicle and its driver.

(c) The truck shall not be moved unless the boom is lowered and the basket is cradled.

(d) Riding in the basket while truck is traveling between locations shall not be permitted. Men will be permitted to ride in the basket for short moves, at the work location, if the basket is returned to the rest position for each move.

SETTING UP AND KNOCKING DOWN AT THE JOB SITE

Section 36.04 (a) Warning devices shall be set up in accordance with OSHA requirements.

(b) A warm-up period is needed at the beginning of each day's work. This time may vary with different makes and models, also due to temperature range in various locations. When the weather is below freezing at a job location, operate the hydraulic pump five to ten minutes before operating the boom.

(c) Careful consideration shall be given to the location of overhead conductors and surrounding conditions before the truck is moved into the work position.

(d) Every attempt should be made to place the truck so that all work areas at that location may be reached by the boom without additional movement of the truck.

(e) Available footing for the truck wheels and outriggers shall be examined carefully to be assured of a stable setup, and extra caution shall be exercised if there is snow, ice, wind, soft ground or other unusual conditions such as tanks, culverts, manholes, wells, etc.

(f) Elbow truck chassis shall be grounded or barricaded and considered as energized equipment, or the aerial lift truck shall be insulated for the work being performed.

(g) Before lowering stabilizers, outriggers, or hydraulic jacks, the operator shall be certain there is no one in a position where he will be injured, and radio antenna must be tied down.

(h) When working on an inclined road or street, the operator shall use extra caution and check each outrigger or jack to make sure a stable setup has been arranged. Chocks or substantial cribbing may be needed to insure stability. The truck should sit approximately level when it is viewed from the rear.

(i) When lowering the boom to the cradled position, employees SHALL stand clear of the path of the basket and the boom.

(j) All personnel should stay clear of pressurized oil or air which is escaping from a ruptured line or fitting. No attempt SHALL BE made by an employee to stop or slow such a leak by using his hands, feet or other parts of his body. The pump, compressor or engine should be stopped as soon as a leak is detected.

(k) Outriggers or jacks shall be retracted. Flares, flags and barricades shall be removed and stored in the place provided for them. The truck shall not be moved before outriggers are checked to see that they are in the "up" position.

OPERATING AT THE JOB SITE

Section 36.05 (a) Operation of the boom shall be done in accordance with the manufacturer's and the operating manual instructions. Such a manual shall be on this equipment at all times.

(b) Entering the basket should be done with the basket resting firmly on the ground or in the traveling position. Employees must immediately belt to the basket and remain so belted while performing work and until basket is returned to ground.

(c) When the boom must be maneuvered over a street or highway, necessary precautions SHALL be taken to avoid accidents with traffic or pedestrians. A flagman shall be used if necessary.

RAISING THE BASKET

Section 36.06 (a) The operator 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.

(b) Before reaching any area containing obstructions, the operator should operate controls of boom and basket to insure himself that they are in proper working order.

(c) Raising the basket directly above energized conductors should be kept to a minimum.

WORKING ALOFT

Section 36.07 (a) The basket should be located under conductors and equipment to be worked on and should not contact any conductors or equipment.

(b) Employees shall not stand or sit on top or edge of the basket or on planks placed on top of the basket or on ladders placed in the basket while performing work. Employee's feet shall be on the floor of the basket while doing work or when the basket is moving.

(c) Employees shall not belt to an adjacent pole or structure while performing work from the basket.

(d) An employee shall not enter or leave the basket by walking the boom.

(e) Employees shall not transfer between the basket and a pole.

(f) No climbers shall be worn by employees in the basket.

(g) Adequate clearance SHALL be maintained so that protruding tools will not come in contact with conductors, limbs or other obstructions.

(h) The employee SHALL be sure that the hydraulic hose to cutters or other tools cannot become entangled with the levers that operate the boom.

(i) The employee SHALL disconnect hydraulic operated tools from the hydraulic supply when they are not in use.

(j) Disconnect hydraulic hose from power operated tool when inserting or changing dies.

(k) When working aloft, all tools should be secured when not in use.

WORKING ALOFT ON ENERGIZED CIRCUITS

Section 36.08 Employees shall comply with ARTICLE XXIX while working from aerial baskets and ladders.

INSPECTION AND MAINTENANCE

Section 36.09 Aerial basket equipment SHALL be inspected daily, before operating, by assigned operator according to the inspections called for in the instruction manual issued by the manufacturer. Special attention should be given to the following:

A. Inspect hydraulic hoses and remote controls for twisting, chafing and proper adjustment.

B. With oil lines under pressure, inspect all hydraulic fittings, pump and cylinders for evidence of leakage.

C. Check oil level of hydraulic and remote control reservoirs. Oil should be added if required.

D. Check unit for proper operating speed and rate of drift. Drifting or improper speed should be reported immediately.

E. Check operation of all controls through their maximum working range.

F. Check maximum allowable load operation through all positions periodically.

G. Check boom and leveling wire rope cables for frayed strands, security of terminals and correct adjustments.

H. Check booms for cracked welds or distorted members.

ARTICLE XXXVII

Section 37.01 In the event of an electrical burn accident or a fatality or other accident of a very serious nature a joint investigation shall be conducted by the Local Union and the Employer. This shall not prevent the Employer from making an independent investigation.

ARTICLE XXXVIII

GLOVING 34.5 kV

Section 38.01 This section contains procedures which apply to work performed on circuits between 15 kV and 34.5 kV phase to phase, and 8.7 kV and 19.9 kV phase to ground, using class 4 gloves and sleeves. All insulating protective equipment shall be rated at class 4 and/or above.

These safe work procedures are to be used in conjunction with good common sense and the experience gained from gloving lower voltages.

Individual contractor's Safety Rules remain the final authority regarding safety. Nothing in this section shall be construed to relieve any responsibility for compliance with the Safety Rules. Before starting the 34.5 kV Gloving Program, the relevant electrical sections of the Safety Rules shall be reviewed.

From time to time, questions will arise that cannot be suitably answered by these procedures. These questions should be discussed with a supervisor experienced in 34.5 gloving procedures.

These procedures are subject to revision to accommodate new development changes in methods, technology or omissions. For Clarification of terms used refer to Local 1393 Safety Rules.

WORK PROCEDURES

Section 38.02

1. During the Job Briefing relevant sections of the 1393 Safety Rules and this 34.5 kV Gloving Program insert shall be discussed by each crew member.
2. Close control of gloves and sleeves shall be maintained at all times to insure that employees have only class 4 gloves and sleeves in their possession. (40 kV gloves shall be marked on the protector cuff in Bold Indelible Pen reading **34.5 kV**).
3. Clean, dry, non-conductive hand lines and associated tackle shall be used with 34.5 kV work.
4. It is recommended that all Class 4 gloves and sleeves shall be washed with cool water and dried at the end of each day of use, or more often if necessary, to clean off contamination, collected perspiration or for other reasons. Drying racks shall be provided for over night drying. All Class 4 gloves shall be tested and dated every 60 days. Testing shall be done by approved ASTM dielectric testing methods.
5. Rubber gloves protectors shall be kept clean and dry and shall conform to ASTM (American Society Testing and Materials Guidelines).
6. Worker(s) shall remove all hand and wrist jewelry (rings, watches, bracelets) to prevent corona cutting and physical damage to gloves.

7. This work shall be preformed only from an approved aerial lift device or insulated platform.
8. Attention shall be paid to weather conditions when plans are made to schedule/start work with class 4 gloves and sleeves. This type of work shall not be performed or started in damp or foggy weather. If the job is in progress and rain begins, the best possible judgment should be exercised in accordance with the circumstances of the job. This could include leaving the job as is, making the job temporarily safe with live line tools or other acceptable tools or methods.
9. Guidelines for cover-up and minimum clearance.

Except for the part(s) on which the glove work is being performed, other parts, conductors, hardware, etc. shall be covered or the workers shall maintain proper clearance. The minimum approach distance per OSHA rule 3.04 for nominal system voltage of 34.5 kV is 2 feet, 10 inches or within the reach or extended reach of the person working on the energized lines.

Some of the helpful guidelines are as follows:

- a. All guys, static wires, neutrals and ground wires should be removed from the work area, if possible. Insulating line guards, pole guards, and other approved insulation material (rated 40 kV or above) that will protect the worker(s) shall be used if these are not removed.
 - b. A live line tool shall be used to operate cutouts, grounding switches, reclosers, or other sectionalizing devices.
 - c. A properly rated loadbreak tool shall be used when opening fused cutouts, solid blade cutouts and grounding switches.
 - d. When working on 3 phase wye/delta transformer bank the grounding switch shall be closed.
 - e. Remove capacitors from service before working on conductors or associated equipment at capacitor banks.
 - f. Temporary conductor supports shall have an insulator between support and wire holder. Temporary jumper holding supports, and link sticks excluded.
 - g. In many cases, it may be advisable to move conductor in the clear or use temporary mechanical jumpers to get adequate working clearance. It is very important to insulate and isolate. There may be times when the work cannot be isolate. This will make it imperative to do a good cover-up job.
 - h. The intent is to completely cover pole, crossarm(s), braces and all associated hardware and conductors in the work area, exposing only the part(s) to be worked on. Any pole, conductors, equipment, crossarm(s), braces, or other pole line hardware that is or will be within 2 feet 10 inches of the worker shall be completely covered.
10. When performing this type of work, protective devices shall be set to "one shot" (placed in the "manual" or "off" positions) to prevent reclosure.
 11. Crew make-up and procedures shall be in accordance with the following:
 - a. Before any work is undertaken on or near energized equipment and lines, the nominal operating voltage of the equipment and lines shall be determined and workers shall be qualified by training or experience to perform work by the

prescribed method for the voltage involved and shall be familiar with minimum working clearances stated in this section.

b. On all jobs, a sufficient number of qualified workers shall be present to do the work safely.

c. On any job, which in the opinion of the person in charge requires an observer, the person in charge or a person appointed by the person in charge shall act as observer. The observer shall not engage in any activity that the person in charge considers will interfere with his/her duty as observer.

12. As employees become experienced in this type of work, crew members should be rotated with other qualified line mechanics so that additional employees may gain experience permitting this work to be expanded.

13. Apprentices shall follow guidelines set by the Apprenticeship Committee. These guidelines were established to help in the training and over all safety of the Apprentice and the workers around him.

ARTICLE XXXIX

BEST PRACTICES

ADMINISTRATIVE CONTROLS

Section 39.01 (Added 10/2/08)

PRACTICE STATEMENT: Injuries to personnel from improper job planning and risk assessment.

PRACTICE DESCRIPTION: Identify type and quantity of Insulate and Isolate components

- A. Pre-planning to begin at the pre-bid meeting.
- B. Preliminary job site analysis.
- C. Contractor shall request information from the Host Employer so that the Contractor may be able to conduct adequate risk assessments prior to beginning operations.
- D. Line work on conductors or equipment shall be performed when they are de-energized or a portion is de-energized and grounded when possible.

BENEFITS:

- Eliminate injuries resulting from improper planning by ensuring key job hazards are identified and controlled and provide support to contractors in obtaining needed information for effective risk assessments.

REFERENCES:

National Electric Safety Code (NESC, ANSI C2 - Part 4)

JOB BRIEFINGS

Section 39.02 (Added 10/2/08)

PRACTICE STATEMENT: Provides a uniform methodology and outlines key components of job briefings.

PRACTICE DESCRIPTION: Document job sequence, hazards to be encountered, and steps taken to control/eliminate hazards by doing the following:

- A. Define task.
- B. Identify roles & responsibilities.
- C. Identify hazards.
- D. Determine risk mitigation.
- E. Documentation shall include I & I to be used.
- F. Personal Protective Equipment to be used.
- G. Emergency response information.
- H. Number of briefings to be held.

NOTE: Job briefings need to be conduct when work changes significantly.

All crewmembers shall participate in a documented job briefing. Job briefings are to be held at the start of the work shift, as work tasks or hazards differ from original briefing, and as additional personnel arrive at the job site. These job briefings shall include the components of a Hazard Analysis or use your company specific hazard analysis program associated with the work steps, hazards associated with the work step, and ways to eliminate or control the hazards. The job briefing form shall have a provision for each employee to sign to verify they have participated in the job briefing. Each ET&D Partnership company's management shall establish a review process to ensure that the documented job briefing process is effective.

BENEFITS:

- Provides for essential job safety planning guidelines and lists key elements.
- Enhances compliance with OSHA regulatory requirements.
- Incorporates use of a specific hazards identification process in the job planning process that will provide for enhanced controls for risks.
- Proper pre-planning reduces the risk of injury.
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- The process and required documentation enhances inclusion and participation of job team members in the safety planning processes associated with the job.

REFERENCES: National Electric Safety Code (NESC, ANSI C2 - Part 4)

PRE-USE INSPECTION OF RUBBER PROTECTIVE EQUIPMENT

Section 39.03 (Added 10/2/08)

PRACTICE STATEMENT: Protocols related to the effective inspection of insulating protective equipment.

PRACTICE DESCRIPTION:

All rubber protective equipment shall be inspected prior to each use. All rubber/plastic insulating equipment shall be inspected for any damage, wear or contamination that would compromise its ability to insulate or isolate the linemen from different potentials. Applicable service dates shall be observed. If upon inspection insulating protective equipment is found to be defective the equipment shall be identified and removed from service.

NOTE: Rigging and hoisting equipment shall also be inspected prior to use.

BENEFITS:

- Provides for uniform inspection guidelines that can be applied industry wide

REFERENCES:

ASTM F478 - 1999 Standard Specification for In-Service Care of Insulating Line Hose and Covers
ASTM F479 - 2001 Standard Specification for In-Service Care of Insulating Blankets
ASTM F496 - 2002 Standard Specification for In-Service Care of Insulating Gloves and Sleeves
ASTM F1236 - 2001 Standard Guide for Visual Inspection of Electrical Protective Rubber Products
National Electric Safety Code (NESC, ANSI C2 - Part 4)

QUALIFIED OBSERVER

Section 39.04 (Added 10/2/08)

PRACTICE STATEMENT: Identify and utilize qualified observer for critical tasks.

PRACTICE DESCRIPTION: A member of the crew shall be identified to act as an observer to ensure clearances are maintained, PPE, and effective cover-up is installed. The observer shall be capable of the identifying nominal voltages, energized components, minimum approach distances, and proper safe work practices while crewmembers are working on energized lines.

NOTE: This section is not intended to mandate staffing requirements.

A. The term "effective cover up" is used to describe the installation of phase-to-phase rated insulating protective cover on energized conductors and/or equipment of different potentials when the lineman is within reaching distance or in areas extended by handling conductive objects.

B. The term "extended reach" is used to describe being within five feet of energized conductors and/or equipment or having a conductive object within five feet of energized conductors and/or equipment.

BENEFITS:

- Eliminate injuries from unrecognized hazards or changes in conditions.
- Clarify duties and provides guidance as to when observers are beneficial.

Provides guidance on observer qualifications.

INSULATE & ISOLATE SAFETY PERFORMANCE CHECK

Section 39.05 (Added 10/2/08)

PRACTICE STATEMENT: Review of qualification, and/or performance criteria to ensure compliance with Isolate and Insulate procedures.

PRACTICE DESCRIPTION: A safety review process shall be in place that will be performed by a competent person. Included in the review process will be assurances that the company safety rules and proper cover up procedures are being followed. Additionally, documentation such as Job Briefing forms and Job Safety Analysis forms shall be reviewed.

BENEFITS:

- Routine auditing provides for performance and regulatory assurance for critical control techniques
- Effective auditing will enable enhanced and consistent performance

CRADLE-TO-CRADLE USE OF INSULATING RUBBER GLOVES AND SLEEVES

Section 39.06 (Added 10/2/08)

PRACTICE STATEMENT: Protocols related to effective use of insulating rubber gloves and sleeves.

PRACTICE DESCRIPTION:

1. When employees are working on energized circuits or equipment using the rubber glove method, rubber protective-insulating gloves and sleeves rated for the exposure of the highest nominal voltage shall be worn cradle-to-cradle when working from an aerial platform.
 - a. Rubber protective insulating sleeves are not required when employees are working circuits with a potential of 600 volts or less if there is no upper arm exposure and the worker will not encroach the 5-foot primary zone.
 - b. The term "effective cover up" is used to describe the installation of phase-to-phase rated insulating protective cover on energized conductors and/or equipment of different potentials when the lineman is within reaching distance or in areas extended by handling conductive objects.
 - c. The term "extended reach" is used to describe being within five feet of energized conductors and/or equipment or having a conductive object within five feet of energized conductors and/or equipment.
2. Electrical class rating of the insulating rubber sleeves shall meet or exceed the electrical class rating of the insulating rubber gloves when working on primary conductors.

BENEFITS:

- Provides specific use requirements that are proven methods for reducing electrical contact injuries and fatalities.
- Provides for uniform use guidelines that can be applied industry wide.

LOCK-TO-LOCK USE OF INSULATING RUBBER GLOVES AND SLEEVES

Section 39.07 (Added 10/2/08)

PRACTICE STATEMENT: Protocols related to effective use of insulating rubber gloves and sleeves.

PRACTICE DESCRIPTION:

1. When employees are working on energized circuits or equipment using the rubber glove method, rubber protective-insulating gloves and sleeves rated for the exposure of the highest nominal voltage shall be worn "lock to lock" when employees are working energized URD equipment.

The term "Lock-to-Lock" is used to describe the utilization of rubber gloves and sleeves, when required, prior to the time the pad mounted equipment is unlocked until work is complete and the pad mounted equipment is relocked. Additionally, rubber gloves and sleeves shall be worn when working on or within the extended reach of the conductor or piece of equipment. The term "extended reach" is used to

describe being within five feet of energized conductors and/or equipment or having a conductive object within five feet of energized conductors and/or equipment.

2. Electrical class rating of the insulating rubber sleeves shall meet or exceed the electrical class rating of the insulating rubber gloves.
3. When the above conditions cannot be met, alternative work methods ensuring worker safety shall be identified, communicated to all affected workers, implemented and documented as part of the Job Briefing process.

BENEFITS:

- Provides specific use requirements that are proven methods for reducing electrical contact injuries and fatalities.
- Provides for uniform use guidelines that can be applied industry wide.

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